FRS
Product
Catalogue

Dräger　Technology for Life
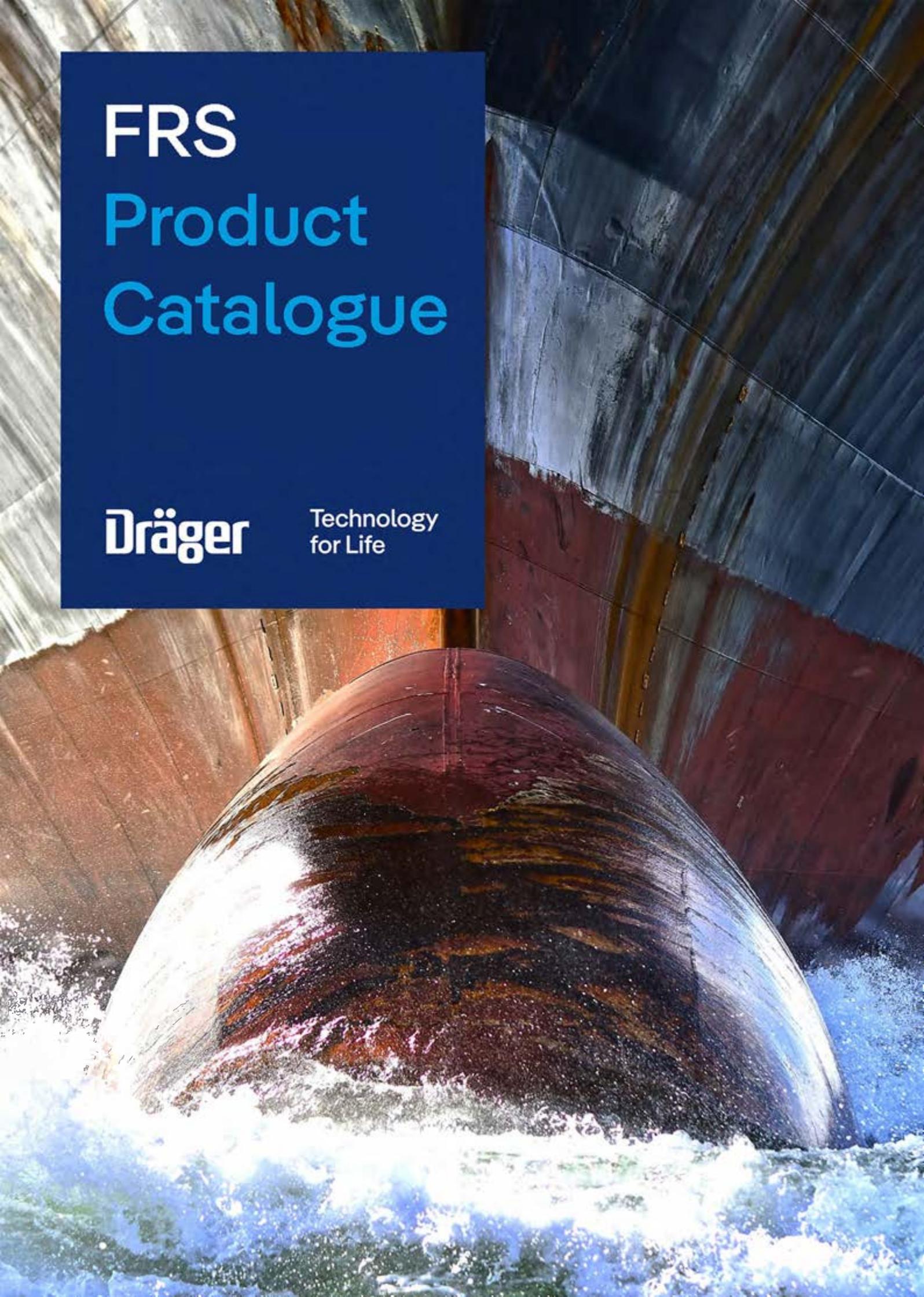
Safety on board

Dräger Marine & Offshore has a long history of providing dedicated support to their customers, by supplying a wide range of quality products and services to a global audien-ce for marine and offshore. This approach facilitates a Firefighting, Rescue and Safety (FRS) equipment and service capability from a single source. The Dräger Marine & Offshore organization is built around a proven total care FRS concept.

Wherever people or assets are subject to danger, those who are responsible for their safety rely on the firefighting, rescue and safety equipment from Dräger. Dräger Marine & Offshore has always recognized its responsibility as a supplier of safety systems and will continue to do everything we can to meet the needs of our customers, and keep Dräger customers safe.

One partner for all FRS solutions

Dräger Marine & Offshore offers a complete portfolio of firefighting, rescue and safety equipment, including service and maintenance.

Dräger realizes that products that are used to protect and save lives and minimise damage must function 100 percent.

We provide solutions for the Offshore, Sea Shipping, Barge and Inland shipping.

Dedicated to the Marine & Offshore world

Years of experience and highly trained and certified technicians make Dräger an authority on firefighting, rescue and safety projects for the marine and offshore. Our organization has a strong global presence and meets all of the requirements of high safety and quality standards.

Dräger Marine & Offshore is located at the center of the Port of Rotterdam and at major North Sea Oil & Gas ports which guarantees fast delivery of the FRS equip-ment and services. Dräger is available 24 hours a day, seven days a week and 365 days a year.

Meeting our customers needs is the cornerstone of our organization. We clearly understand that longlasting relationships are built upon mutual trust and proven reliability.

Technology for Life

Meeting your needs

Dräger Marine & Offshore specializes on sales and service in the field of firefighting, rescue and safety equipment. As part of the well known Dräger organisation we offer our customers first class products and support.

We feel responsible for all firefighting, rescue and safety equipment on board of your vessels and offshore installati-ons. Our service portfolio consists of supply, installation and maintenance of FRS equipment.

Dräger Marine & Offshore offers you

- one contact point for all firefighting, rescue and safety service
- a service organization and structure dedicated to the marine and offshore world
- service and support for both Dräger and non-Dräger equipment
- clear pricing structure for all services
- one invoice for all FRS services
- 90 days warranty on all services and repairs
- exchange equipment available during service to secure safety on board
- issuing of certificates on the services as a standard

24/7 availability 365 days a year

Our highly skilled service technicians are always there! We have a continuous working schedule. Whenever you visit our ports, our organization is standing by to support you.

Issuing of certificates

When we service FRS equipment we ensure that the equipment is tested according to the manufacturer's requirements and appropriate regulations.

Rental equipment

Via a rental pool Dräger makes all the safety-relevant equipment required (during shutdown) available to you, from communications technology or gas detection devices to personal protection equipment.

On board service

Our field service engineers are fully equipped to help you on site. Trained, skilled and ready to service all portable firefighting equipment, fixed fire suppression, smoke detection and gas detection systems. These services will be carried out onboard wherever possible. If equipment requires repair, refilling, hydrostatic pressure testing or if computerized diagnostic equip-ment is required we will transport the equipment to our workshop. Of course we will provide adequate exchange equipment wherever possible to ensure the safety onboard during the service period.

FRS workshops

Our workshop technicians use modern technology to test, refill and repair your FRS equipment. Modern diagnostic equipment ensures rapid and reliable elimination of all malfunctions in safety equipment. Certified calibration and test gases make the service on your gas detection equipment both traceable and auditable.

Spare parts

We stock a wide range of parts for the FRS products most commonly used onboard of global, commercial marine vessels. We service for both Dräger and non-Dräger equipment; from fire extinguishers to self contained breathing apparatus; from portable gas detectors to life jackets.

Class surveyor

We are in close contact with all major classification organisations. If our service requires a Class witness we will contact the relevant Class surveyor and invite them to attend and verify the inspection.

Qualified maintenance

Our Total Care Offshore and Marine Service is a service strategy with a vision. The basis of this vision lies in the quality of our people and organization. To be able to offer high quality service from a single source we invest in qualified technicians, modern workshops together with our back office and logistics teams.

Basic inspection

The basic inspection forms the heart of our services. The basic inspection contains all activities you should expect from quality maintenance.

The price for the basic inspection will cover the inspection and testing of the equipment according to the applicable test procedures. It will cover the administrative activities like registration, service labels and anti-tamper tags. And finally it will cover for the certification and the issuing of the paperwork. If the equipment is in serviceable condition and no mandatory replacements are required then the basic inspection is all you pay for.

Refilling

In a number of situations refilling is part of the mandatory maintenance schedule.

To provide quality maintenance you must have the right equipment and service providers to fulfill this vital task. Our workshops are fully equipped to refill the following equipment:

- Breathing air cylinders according to EN12021
- Medical Oxygen cylinders up to 200 or 300 bar filling pressure
- Nitrogen bottles up to 200 bar
- Dry powder extinguishers; ABC or AB powder
- Fixed dry powder installation
- CO2 extinguishers and CO2 bottles from the CO2 installation
- Foam extinguishers; AFFF or AB fillings
- Fixed foam installations
- Fire suppression systems FM200, foam, water etc.

Hydrostatic pressure testing

Hydraulic pressure testing is a mandatory requirement for fire extinguishers, CO2 installations and breathing air or Oxygen cylinders. Performing a correct hydrostatic test requires the right equipment and the technicians who are skilled in performing its use. Our technicians and equipment live up to these expectations. We are able to hydrostatically test all equipment promptly in combination with our refilling capacity without causing delay in your normal port schedule.

Repairs

A key component of providing quality maintenance is the ability to affect repairs. Our technicians are trained to fulfill this challenge. To support our customers our personnel are qualified fire technicians, trained breathing protection and gas detection experts and educated in the service on lifesaving products. In combination with our large spare part stock and the ability to supply replacement products from our warehouse; we ensure that we repair your fire fighting, rescue and safety equipment promptly and on a level you should expect from a quality maintenance provider.

Warranty

As evidence of our high quality we offer a unique warranty on service. On all of our service and repairs we provide warranty of 90 days subject to terms and conditions. On new products we will provide a limited warranty of 12 months.

Flexible service agreements

Total Care means that we feel ourselves responsible for all firefighting, rescue and safety equipment on board of your vessels and offshore installation. Our service portfolio consists of supply, installation and maintenance of FRS equipment.

Drägers product and service portfolio meets our customers needs by extensive support by representa-ti-ves and service experts who are dedicated to the marine and offshore world.

Total care services

Firefighting

- Inspection of all types fire extinguishers
- Inspection fixed fire suppression systems CO2 / DP / Foam / FM200 / FS49C2
- Repair / Refill / hydro testing
- Spares for extinguishers & systems on stock
- Foam sample analyses

Rescue

- Inspection of all brands and types of life rafts
- Inspection of rescue boats & davits
- Inspection of lifejackets & immersion suits
- Inspection of hospital rescusitation
- Refill / hydro testing of oxygen bottles

Safety

- Inspection of breathing protection & EEBD's
- Calibration of gas detectors & fixed system
- Refill / hydro testing of air cylinders
- Inspection / repair of air compressors
- Inspection of gas tight chemical suits
- Inspection of temperature & pressure equipment
- Inspection of UTI & MMC

Facts and figures

- 25 cars for service transport
- 2x mobile inspection stations for extinguishers
- 1x mobile inspection station for BA sets
- > 1.000 inspections of fire extinguishers
- > 6.000 calibrations of gas detectors
- > 3.500 inspections of BA and escape sets
- > 250 testing of gastight suits
- > 7.000 cleaning / disinfecting of face masks
- > 2.000 inspections on inflatable life jackets
- > 2.500.00 liters of air refill

Quality, safety and liability

Quality

We guarantee that the offered services are performed to the very highest standards. The quality of our work and our organization is safeguarded by certified Quality Manage-ment Systems ISO 9001:2000, ISO14001 and OHSAS18001.

During a contract period Dräger always commits itself to keep the Quality Management System certified and valid. In addition, we welcome an audit by your quality manager at any time.

Safety

Safety on board is a key consideration for all professional operators. It is therefore reassuring that our service technicians are all in possession of a basic safety certifica-te. They understand the possible risks on board and they know what is expected from them to ensure the safety for themselves, your crew and your assets.

Our safety management system ensures that our procedu-res and our behavior are regularly monitored and adjusted where required. Of course it is possible to audit our safety system. Please ask your safety manager to contact us at any time to make an appointment.

Liablity insurance

As part of the world wide operating Dräger group (www.draeger.com) our organization is in possession of a liability insurance which cover our activities. On request we can sent you a copy of the insurance policy.

Customer satisfaction

We are your Fire fighting, Rescue and Safety partner who will provide solutions to meet your needs. We clearly understand that longlasting relationships are built upon mutual trust and proven reliability. Therefore customer satisfaction is a key performance indicator for us.

We constantly monitor our customer satisfaction level and strive to improve our performance, our procedures and general behavior based on your feedback. We have a procedure in place which offers you the opportunity to share your suggestions and/ or concerns.

Skilled technicians

Employees are trained and skilled, our services will meet the required standards and regulations of all major class societies such as:

- Lloyds
- DNV
- BV
- GL
- ABS
- RINA
- RMRS

Offshore teams are trained according to NOGEPA (NL) / OPITO (UK) / OLF (NO).

Memberships

Dräger Marine & Offshore is a FPAL certified supplier and registered on Shipserv.

Your safety is our passion.

SAFETY

BORN

TO SAVE

H2S · CH4 · H2S

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Dräger Powder Extinguisher Composite 2 kgs ABC (stored pressure)

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Powder extinguishers cover type A, B and C fires.

Dräger powder extinguisher composite 2 kgs ABC
Stored pressure

General description
The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

ABC Powder
ABC-powder is suitable for fire extinguishing of substances in fire class A (containing carbons), fire class B (flammable liquids) and fire class C (flammable gases). An additional feature is that the powder is not conductive to electricity. The powder can be used to a maximum voltage of 1000V and at a distance of at least 1 meter.

Applications
These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

Features
- 10 year manufacturer guarantee
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50-P2
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	2 kgs
Fire class / Rating	13A/55B/C
Propellant gas	Nitrogen
Discharge time	22 seconds
Throw length	3 meters
Working pressure	12 bar at 20ºC
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-20ºC to +60ºC
Weight	2.74 kgs
Approx unit dimension	125 x 410 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2589/01

Dräger Powder Extinguisher Composite 2 kgs ABC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher composite 2 kg ABC(E) c/w bracket and strap	1	SG00161

Dräger Powder Extinguisher Composite 6 kgs ABC (stored pressure)

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Powder extinguishers cover type A, B and C fires.

Dräger powder extinguisher composite 6 kgs ABC
Stored pressure

General description
The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

ABC Powder
ABC-powder is suitable for fire extinguishing of substances in fire class A (containing carbons), fire class B (flammable liquids) and fire class C (flammable gases). An additional feature is that the powder is not conductive to electricity. The powder can be used to a maximum voltage of 1000V and at a distance of at least 1 meter.

Applications
These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

Features
- 10 year manufacturer guarantee
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50PM
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	6 kgs
Fire class / Rating	34A/183B
Propellant gas	Nitrogen
Discharge time	20 seconds
Throw length	5 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-20ºC to +60ºC
Approx gross weight	8.5 kgs
Approx dispatch weight	9 kgs
Approx unit dimension	178 x 570 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2211

Dräger Powder Extinguisher Composite 6 kgs ABC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher composite 6 kgs ABC (stored pressure)	1	SG00163

Dräger Powder Extinguisher Composite 9 kgs ABC (stored pressure)

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Powder extinguishers cover type A, B and C fires.

Dräger powder extinguisher composite 9 kgs ABC
Stored pressure

General description
The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

ABC Powder
ABC-powder is suitable for fire extinguishing of substances in fire class A (containing carbons), fire class B (flammable liquids) and fire class C (flammable gases). An additional feature is that the powder is not conductive to electricity. The powder can be used to a maximum voltage of 1000V and at a distance of at least 1 meter.

Applications
These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

Features
- 10 year manufacturer guarantee
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50-9P
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	9 kgs
Fire class / Rating	43A/233B
Propellant gas	Nitrogen
Discharge time	25 seconds
Throw length	5 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-20ºC to +60ºC
Approx gross weight	11.7 kgs
Approx dispatch weight	12.7 kgs
Approx unit dimension	200 x 640 mm (D x H)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2211/01

Dräger Powder Extinguisher Composite 9 kgs ABC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher composite 9 kgs ABC (stored pressure)	1	SG00164

Dräger Powder Extinguisher 6 kgs ABC (cartridge)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.

Dräger powder extinguisher 6 kgs ABC
Internal cartridge operated

Applications for marine, inland shipping and offshore market
- open air and deck areas
- engine rooms
- accommodation rooms

Features
- high extinguishing efficiency
- allows intermittent and repeated operation
- large neck ring enables servicing and refilling to be conducted with ease
- diecast zinc colour coded headcap
- quality assured for long service life

- standardized operation and spare parts for all extinguishers of the Britannia line
- equipped with a rechargeable internal pressure cartridge zinc coated
- high quality zinc coated treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 m strike button armature in combination with dosing extinguishing pistol for assured immediately operation

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BA6MED
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Internal cartridge operated
Capacity	6 kgs
Fire class / Rating	ABC / 27A / 183B
Propellant gas	Internal co_2 cartridge
Discharge time	20 seconds
Throw length	5 meters
Working pressure	12 bar at 20° C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC dry powder
Temperature range	-20ºC to +60ºC
Approx gross weight	11.3 kgs
Approx dispatch weight	12.3 kgs
Approx unit dimension	165 x 525 mm (w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED, MER, BS EN 3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 6 kgs ABC (cartridge)	1	SG00152

Dräger Powder Extinguisher 9 kgs ABC (cartridge)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.

Dräger powder extinguisher 9 kgs ABC
Internal cartridge operated

Applications for marine, inland shipping and offshore market
- open air and deck areas
- engine rooms
- accommodation rooms

Features
- high extinguishing efficiency
- allows intermittent and repeated operation
- large neck ring enables servicing and refilling to be conducted with ease
- diecast zinc colour coded headcap
- Quality assured for long service life

- standardized operation and spare parts for all extinguishers of the Britannia line
- equipped with a rechargeable internal pressure cartridge zinc coated
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 m strike button armature in combination with dosing extinguishing pistol for assured immediately operation

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / BA9MED
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Internal cartridge operated
Capacity	9 kgs
Fire class / Rating	ABC / 34A 233B
Propellant gas	Internal CO_2 cartridge
Discharge time	26 seconds
Throw length	7 meters
Working pressure	12 bar at 20ºC
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC dry powder
Temperature range	-20ºC to +60ºC
Approx gross weight	15.4 kgs
Approx dispatch weight	16.4 kgs
Approx unit dimension	190 x 570 mm (w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED, BS EN 3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 9 kgs ABC (cartridge)	1	SG00153

Dräger Powder Extinguisher 12 kgs ABC (cartridge)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.

Applications for marine, inland shipping and offshore market
- open air and deck areas
- engine rooms
- accommodation rooms

Features
- temperature: -30°C - + 60°C
- effective extinguishing rating
- designed with a special engineerded polymer head

- operated with a high pressure reinforced rubber EPDM-hose and pistol for high maneuverability and control
- high quality surface treatment and 100% red polyester coating
- allows intermittent and repeated operation
- quality assured for long service life
- supplied with a special hanging wall bracket
- affords the highest extinguishing rating due to its multipurpose dry chemical powder
- suitable for electrical equipment up to 1000 V, at minimum distance 1 m
-

Dräger powder extinguisher 12 kgs ABC
Internal cartridge operated

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / Colt P12
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Internal cartridge operated
Capacity	12 kgs
Fire class / Rating	ABC / 55A 233B C
Propellant gas	CO_2
Discharge time	22 seconds
Throw length	7 meters
Working pressure	12 bar at 20°C
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC Dry powder
Temperature range	-30°C to +60°C
Approx gross weight	21.5 kgs
Approx dispatch weight	20.5 kgs
Approx unit dimension	260 x 185 x 640 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED, BS EN 3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 12 kgs ABC (cartridge)	1	SG00155

Dräger Powder Extinguisher 2 kgs ABC (stored pressure)

This powder extinguisher is very effective in fuel fires, making these powder extinguishers extremely suitable for the car. The extinguishers can be used universally for burning solids, burning fluid and burning gas. Both high and low temperature applications are possible. Also extinguishing operating electrical equipment does not pose any danger.

Dräger powder extinguisher 2 kgs ABC
Stored pressure

ABC Powder
ABC-powder is suitable for fire extinguishing of substances in fire class A (containing carbons), fire class B (flammable liquids) and fire class C (flammable gases). An additional feature is that the powder is not conductive to electricity. The powder can be used to a maximum voltage of 1000V and at a distance of at least 1 meter.

Applications
These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

Features
- high rating
- squeeze grip design for enhanced discharge control
- safety relief valve
- impact resistant plastic foot ring
- full epoxy polyester coated steel shell for high corrosion protection
- ergonomic design of discharge nozzle
- includes a robust transport bracket
- pressure gauge, impact resistant
- large diameter neck ring for easy inspection
- tested for safe use on electrical equipment up to 1000V at a distance of 1 meter

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Moyne Roberts / MP2
Extinguisher	Portable powder fire extinguisher
Type	Stored pressure operated
Capacity	2 kgs
Fire class / Rating	13A/70B/C
Propellant gas	Nitrogen
Discharge time	10 seconds
Throw length	4 to 5 meters
Working pressure	13.5 bar at 20ºC
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC powder
Temperature range	-30ºC to +60ºC
Weight	3.8 kgs
Approx unit dimension	124 x 380 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 1818

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 2 kgs ABC (stored pressure)	1	SG00102

Dräger Powder Extinguisher 6 kgs ABC (stored pressure)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.

Dräger powder extinguisher 6 kgs ABC
Stored pressure

Applications for marine, inland shipping and offshore market
- manifolds
- open air and deck areas
- engine rooms
- accommodation rooms

Features
- high extinguishing efficiency
- allows intermittent and repeated operation
- brass valve and internal parts for longer serviceability

- equipped with a hose and plastic nozzle for high maneuverability
- pressure gauge for instant pressure indication available
- pressure check valve equipped
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 meter

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / VOLE-X-P 6
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Stored pressure operated
Capacity	6 kgs
Fire class / Rating	ABC / 34A 183B C
Propellant gas	Nitrogen
Discharge time	15 seconds
Throw length	6 meters
Working pressure	15 bar at 20 ℃
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Ammonia Bicarbonate
Temperature range	-30℃ to +60℃
Approx gross weight	9.6 kgs
Approx dispatch weight	10.2 kgs
Approx unit dimension	240 x 155 x 520 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036 MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 6 kgs ABC (stored pressure)	1	SG00103

Dräger Powder Extinguisher 12 kgs ABC (stored pressure)

The Dräger powder extinguisher is an all-purpose fire extinguisher and is especially suited for flammable liquids and fires involving flammable gases such as methane, propane, hydrogen, natural gas and many others. Dry powder fire extinguishers are recommended for mixed fire environments because they cover type A, B and C fires.

Applications for marine, inland shipping and offshore market
- manifolds
- open air and deck areas
- engine rooms
- accommodation rooms

Features
- high extinguishing efficiency
- allows intermittent and repeated operation
- brass valve and internal parts for longer serviceability

- equipped with a hose and plastic nozzle for high maneuverability
- pressure gauge for instant pressure indication available
- pressure check valve equipped
- high quality surface treatment and red polyester coating for excellent protection against corrosion
- to be used with a special marine wall bracket (not included)
- suitable for electrical equipment up to 1000 V, at minimum distance 1 meter

Dräger powder extinguisher 12 kgs ABC
Stored pressure

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / VOLE X-P 12
Extinguisher	Portable dry chemical powder fire extinguisher
Type	Stored pressure operated
Capacity	12 kgs
Fire class / Rating	ABC / 55A 233B C
Propellant gas	Nitrogen
Discharge time	21 seconds
Throw length	6 - 7 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	ABC-Powder BAVEX
Temperature range	-30ºC to +60ºC
Approx gross weight	16.8 kgs
Approx dispatch weight	17.6 kgs
Approx unit dimension	240 x 190 x 595 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036
	Rijkskeurmerk
	MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger powder extinguisher 12 kgs ABC (stored pressure)	1	SG00105

Dräger CO2 Extinguisher 2 kg B

The CO2 extinguisher is effective in fighting flammable liquids and electric fires. Carbon dioxide extinguisher works by suffocating the fire. Carbon dioxide displaces oxygen in the air. The extinguishing agent leaves no residue behind when used. CO2 extinguishers cover type B fires.

Dräger CO$_2$ extinguisher, 2 kgs
In fighting flammable liquids and electric fires

Applications for the marine, inland shipping and offshore market
- electrical switch boards
- bridge
- welding areas

Features
- carbon dioxide is a clean agent that leaves no traces, thus ideal for fighting fires involving electronic & hi-tech equipment

- allows intermittent and repeated operation
- equipped with a brass valve head complete with an overpressure safety valve
- equipped with a squeeze-type valve, conical snow horn, and carrying handle
- high quality surface treatment and red polyester coating
- a flat wall mounting bracket is included

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / Col X-K 2
Extinguisher	Portable CO2 Fire Extinguisher
Type	Stored pressure operated
Capacity	2 kgs
Fire class / Rating	34B
Propellant gas	CO$_2$
Discharge time	approx. 8 seconds
Throw length	3 - 4 meters
Working pressure	65 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	CO$_2$
Temperature range	-30ºC to +60ºC
Approx gross weight	7.1 kgs
Approx dispatch weight	8.1 kgs
Approx unit dimension	250 x 110 x 550 mm (l x w x h)
Color	Red, 100% polyester coating
Approvals	DIN/EN3 MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CO2 extinguisher 2 kg B, including a flat wall mounting bracket	1	SG00141
Spray and hose: 2 kgs CO$_2$	1	SG00382

Dräger CO2 Extinguisher 5 kgs B

The CO2 extinguisher is effective in fighting flammable liquids and electric fires. Carbon dioxide extinguisher works by suffocating the fire. Carbon dioxide displaces oxygen in the air. The extinguishing agent leaves no residue behind when used. CO2 extinguishers cover type B fires.

Applications for the marine, inland shipping and offshore market
- electrical switch boards
- bridge
- welding areas

Features
- carbon dioxide is a clean agent that leaves no traces, thus ideal for fighting fires involving electronic & hi-tech equipment

- allows intermittent and repeated operation
- equipped with a brass valve head complete with an overpressure safety valve
- equipped with a squeeze-type valve, conical snow horn, and carrying handle
- high quality surface treatment and red polyester coating
- to be used with a special marine wall bracket (not included)

Dräger CO$_2$ extinguisher 5 kgs B
Designed for marine use

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / COL X-K
Extinguisher	Portable CO$_2$ Fire Extinguisher
Type	Stored pressure operated
Capacity	5 kgs
Fire class / Rating	89B
Propellant gas	CO$_2$
Discharge time	15 seconds
Throw length	4 meters
Working pressure	65 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	CO$_2$
Temperature range	-30°C to +60°C
Approx gross weight	14.2 kgs
Approx dispatch weight	14.7 kgs
Approx unit dimension	260 x 140 x 690 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036
	MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CO2 extinguisher 5 kgs B	1	SG00142
Spray + hose: 5 kgs CO2	1	SG00383

Dräger Foam Extinguisher PFAS free, frost resistant, 9 liter AB (stored pressure)

The foam extinguisher is a (PFAS) fluorine-free foam extinguisher, frost resistant. It is a multipurpose fire extinguisher for liquid and solid fires.

Dräger Foam Extinguisher PFAS free, frost resistant 9 liter AB (stored pressure)
PFAS free and frost resistant

Features
- fluorine free foam
- frost resistant
- affords high extinguishing rating and effciency due to special foam
- allows interruption and repeated operation
- supplied with a special hanging wall bracket
- designed with a brass valve with pressure lever
- high quality surface treatment and red polyester coating
- internally coated with a special protective polymer lining, affording full protection against corrosion
- high quality EPDM-hose with fabric insert
- suitable for electrical systems up to 1.000 V, minimum distance 1 m

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / Fash PureNature S 9 Mano
Extinguisher	Fluorine-free foam
Type	Stored pressure
Capacity	9 liter
Fire class / Rating	34A - 183B
Propellant gas	Nitrogen
Discharge time	73 seconds
Throw length	6 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Fluorine free foam
Temperature range	-25ºC to +60ºC
Approx gross weight	15.4 kgs
Approx unit dimension	270 x 190 x 610 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3, MED, SP 143/21

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Foam Extinguisher PFAS free 9 liter AB (stored pressure) - frost resistant - MED	1	SG00111
Refill - can of 9 liter	1	SG01842

Dräger Foam Extinguisher PFAS free 6 liter AB (stored pressure)

The foam extinguisher is a (PFAS) fluorine-free foam extinguisher and is a multipurpose fire extinguisher for liquid and solid fires.

Features
- fluorine-free foam extinguisher
- high extinguishing efficiency
- push-type extinguishing possible
- chromed brass valve and internal parts
- pressure gauge
- equipped with pressure test valve

- internally coated with a special protective polymer lining for full
- corrosion protection
- high-quality surface treatment and red coating for excellent corrosion protection
- supplied with flat wall mounting bracket
- suitable for electrical installations up to 1000 V, from a distance of at least 1 meter

Dräger 6 liter AB Foam Extinguisher
PFAS free

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / Fash PureNature S 6 Mano
Extinguisher	Fluorine-free foam
Type	Stored pressure operated
Capacity	6 liter
Fire class / Rating	27A - 144B
Propellant gas	Nitrogen
Discharge time	27,5 seconds
Throw length	5 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	6 l BAVAL pure 10
Temperature range	5°C to +60°C
Approx gross weight	11.2 kgs
Approx unit dimension	240 x 155 x 595 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Foam Extinguisher PFAS free 6 liter AB (stored pressure)	1	01121010

Dräger Foam Extinguisher PFAS free 9 liter AB (stored pressure)

The foam extinguisher is a (PFAS) fluorine-free foam extinguisher and is a multipurpose fire extinguisher for liquid and solid fires.

Features
- fluorine-free foam extinguisher
- high extinguishing efficiency
- push-type extinguishing possible
- chromed brass valve and internal parts
- pressure gauge
- equipped with pressure test valve

- internally coated with a special protective polymer lining for full
- corrosion protection
- high-quality surface treatment and red coating for excellent corrosion protection
- supplied with flat wall mounting bracket
- suitable for electrical installations up to 1000 V, from a distance of at least 1 meter

Dräger 9 liter AB Foam Extinguisher
PFAS free

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Bavaria / Fash PureNature S 9 Mano
Extinguisher	Fluorine-free foam
Type	Stored pressure operated
Capacity	9 liter
Fire class / Rating	34A - 183B
Propellant gas	Nitrogen
Discharge time	37,5 seconds
Throw length	5 meters
Working pressure	15 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	9 l BAVAL pure 10
Temperature range	+5°C to +60°C
Approx gross weight	15.4 kgs
Approx unit dimension	270 x 190 x 610 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3 & CE 0036, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Foam Extinguisher PFAS free 9 liter AB (stored pressure)	1	SG00108
Transfer: Foam Ext. 9ltr.AB (E) PFAS Free stored pressure for SG00108	1	16185063
Refill foam - can	1	SG01841

Dräger Foam Extinguisher PFAS free 9 liter AB (cartridge)

The foam extinguisher is a (PFAS) fluorine-free foam extinguisher and is a multipurpose fire extinguisher for liquid and solid fires.

Features
- fluorine free foam
- high extinguishing performance
- push button valve with brass body and safety valve
- ergonomic handle
- with foam cartridge for high performance and long durability
- cylinder with polyester resin coating
- turnable pistol
- foot ring with hose adapter to protect the bottom of the cylinder

Dräger 9 liter AB Foam Extinguisher (cartridge)
PFAS free

TECHNICAL SPECIFICATIONS

Manufacturer / Model	DOKA
Extinguisher	Fluorine-free foam
Type	Cartridge
Capacity	9 liter
Fire class / Rating	43A - 183B
Discharge time	67 seconds
Throw length	4-6 meters
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Fluorine free foam
Temperature range	0ºC to +60ºC
Approx gross weight	15.5 kgs
Approx unit dimension	195 x 270 x 620 mm (l x w x h)
Color	Red (RAL3000)
Approvals	DIN EN3, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Foam Extinguisher PFAS free 9 liter AB (cartiridge)	1	SG00158

Dräger Foam Extinguisher Composite 6 liter AB (stored pressure)

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Another unique feature: the extinguishing medium in these units needs to be replaced every 10 years as per manufacturer specification. Foam extinguishers cover type A and B fires.

Dräger foam extinguisher composite 6 liter AB
Stored pressure

General description
The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

AB foam
AB foam is suitable for fire extinguishing of substances in fire class A (containing carbons) and fire class B (flammable liquids). An additional feature is that the foam is not conductive to electricity. The foam can be used to a maximum voltage of 1000 V and at a distance of at least 1 meter.

Applications
These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

Features
- 10 year manufacturer guarantee
- replacement of foam once every 10 years
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50FM
Extinguisher	Portable foam fire extinguisher
Type	Stored pressure operated
Capacity	6 liter
Fire class / Rating	27A/183B
Propellant gas	Nitrogen
Discharge time	40 seconds
Throw length	4 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Foam
Temperature range	+5℃ to +60℃
Approx gross weight	8.5 kgs
Approx dispatch weight	9 kgs
Approx unit dimension	178 x 570 mm (d x h)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2212

Dräger Foam Extinguisher Composite 6 liter AB

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher composite 6 liter AB (stored pressure)	1	SG00167

Dräger Foam Extinguisher Composite 6 liter AB

Dräger Foam Extinguisher Composite 9 liter AB (stored pressure)

The revolution in portable fire extinguishers: composite extinguishers are the latest development in the quest for durable corrosion resistant and low maintenance extinguishers. The extinguishers have EN3, CE and MED certification and a lifetime of 20 years. Another unique feature: the extinguishing medium in these units needs to be replaced every 10 years as per manufacturer specification. Foam extinguishers cover type A and B fires.

Dräger foam extinguisher composite 9 liter AB
Stored pressure

General description
The red outer HDPE mantle houses a pressure vessel which is manufactured out of HDPE. The valve is supplied in nickel plated brass. Hose clips, squeeze for action handle and carrying handle are supplied in stainless steel. Due to these material and construction choices replacement of the extinguisher caused by corrosion, scratches and dents belong to the past. Resulting into lower lifetime costs. In addition the extinguisher will remain in good condition, offering greater reliability for the user when being deployed in firefighting tasks. These extinguishers are recyclable, reducing waste output at the end of its service life.

AB foam
AB foam is suitable for fire extinguishing of substances in fire class A (containing carbons) and fire class B (flammable liquids). An additional feature is that the foam is not conductive to electricity. The foam can be used to a maximum voltage of 1000 V and at a distance of at least 1 meter.

Applications
These extinguishers are extremely suitable for harsh (outdoor, saline) conditions as found on offshore installations, marine application and moist (production) spaces.

Features
- 10 year manufacturer guarantee
- replacement of foam once every 10 years
- durable and corrosion resistant
- reliable and ultra-strong composite material
- 100% UV resistant
- ± 15% lighter than conventional extinguishers
- cost reducing
- better overview of cost control
- environmentally friendly
- recyclable product

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia / P50-9F
Extinguisher	Portable foam fire extinguisher
Type	Stored pressure operated
Capacity	9 liter
Fire class / Rating	34A/183B
Propellant gas	Nitrogen
Discharge time	49 seconds
Throw length	7 meters
Working pressure	12 bar
Suitable for electrical equipment	Up to 1000 Volt
Extinguishing agent	Foam
Temperature range	+5ºC to +60ºC
Approx gross weight	11.7 kgs
Approx dispatch weight	12.7 kgs
Approx unit dimension	640 x 210 mm (H x D)
Color	Red (RAL3000)
Approvals	EN3, MED, CE, Rijkskeurmerk 2212/01

Dräger Foam Extinguisher Composite 9 liter AB

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger foam extinguisher composite 9 liter AB (stored pressure)	1	SG00168

Dräger Foam Extinguisher Composite 9 liter AB

Lithium-Ex AVD fire extinguisher 9 liter D (stored pressure)

A lithium battery fire extinguisher is specially designed for extinguishing lithium batteries. Our AVD fire extinguisher is ideally suited for this purpose. It contains the substance lithex-AVD and has a special extinguishing power. One of the best extinguishers for extinguishing and controlling burning lithium batteries.

Lithium-Ex AVD fire extinguisher 9 liter D (stored pressure)
To control intense, lithium fires

Features
- suitable for any fire with a lithium battery
- operation by encapsulation and long-term cooling to prevent re-ignition
- lithium falls under fire class D: flammable metals
- environmentally friendly: natural mineral extinguishing agent and PFAS free
- including wall bracket
- fast and effective fire fighting
- MED approved

How does AVD work
A lithium fire extinguisher uses a special extinguishing agent called Aqueous Vermiculite Dispersion (AVD). When you use AVD, tiny vermiculite particles adhere to the burning substance. These particles form a protective layer over the fire. This layer dries quickly and blocks oxygen, isolating the fuel from the air. This helps to cool the fire. As the water in the AVD evaporates, the vermiculite particles accumulate and the fire is slowly brought under control.

Ideal for intense fires
Did you know that a burning lithium battery can reach temperatures of more than 1,000 degrees Celsius? The extinguishing agent works even better the more intense the fire becomes. This means that at higher temperatures and more intense fires, the AVD extinguishing agent more effectively extinguishes the flames and keeps the fire under control. It absorbs the heat and forms a protective layer, suffocating the fire and preventing further spread.

TECHNICAL SPECIFICATIONS

Manufacturer / Model	20LS09
Extinguisher	Lithium fire extinguisher
Type	Stored pressure operated
Capacity	9 liter
Fire class / Rating	13A
Discharge time	2 min. 57 sec
Throw length	average 2 meter
Working pressure	15 bar
Extinguishing agent	Aqueous Vermiculite Dispersion (AVD)
Temperature range	+5℃ to +60℃
Approx gross weight	15 kgs
Approx unit dimension	height: 672 mm diameter: 170 mm handle: 48 cm / pvc green
Color	Red (RAL3000),with base in green PVC
Approvals	CE, EN3-7, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Lithium-Ex AVD fire extinguisher 9 liter D (stored pressure)	1	SG00199

Powder Wheeled Extinguisher 25 kgs ABC (cartridge)

Wheeled fire extinguishers are being used to extinguish large fires and during situations in which portable fire extinguishers are not sufficient for a fire to extinguish. Its sturdy construction and versatility make the mobile extinguisher rapidly deployed and operated by one person. The body of the fire extinghuiser has been made of RVS.

Applications for the marine, inland shipping and offshore market

- engine rooms
- deck rooms
- heli decks
- car decks

Features

- suitable placing of supporting handle, axis and supporting roll guarantees an optimal center of gravity of the apparatus as well as a good mobility

- quality stoved-enamel lacquer
- easy-running, solid tyred steel wheels
- quick readiness for use and space-saving by placing the hose around the powder container
- 5 meter high pressure hose with textile insert
- interruptible extinguishing pistol enables a dosed fire fighting
- painted inside

Powder Wheeled Extinguisher 25 kgs ABC
External cartridge operated

TECHNICAL SPECIFICATIONS

Manufacturer / Model	14134
Extinguisher	Dry Chemical Powder
Type	Internal cartridge operated
Body	Stainless Steel
Capacity	25 kgs
Fire class / Rating	A B C
Propellant gas	CO_2, 1.3 kgs
Discharge time	25 seconds
Throw length	11 meters
Working pressure	14 bar at 20ºC
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder MAP ABC 30
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	-30ºC to +60ºC
Approx gross weight	25 kgs
Approx dispatch weight	60 kgs
Approx unit dimension	535 x 430 x 1020 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Powder Wheeled Extinguisher 25 kgs ABC (cartridge) MED	1	SG00261
Spare CO_2 cylinder for Powder Wheeled Extinguisher 25 kgs ABC	1	SG00439

Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

This wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.

Applications for the marine, inland shipping and offshore market
- engine rooms
- deck rooms
- heli decks
- car decks

Features
- suitable placing of supporting handle, axis and supporting roll guarantees an optimal center of gravity of the apparatus as well as a good mobility

- easy-running, solid tyres steel wheels
- quick readiness for use and space-saving by placing the hose around the powder container
- 5 meter high pressure hose with textile insert
- interruptible extinguishing pistol enables a dosed fire fighting
- with the mark "GS"= tested security
- can be used at low temperatures (-30ºC)
- very mobile and easy to operate
- painted inside

Powder Wheeled Extinguisher 50 kgs ABC
External cartridge operated

TECHNICAL SPECIFICATIONS

Manufacturer / Model	14163
Extinguisher	Dry Chemical Powder
Type	External Cartridge
Capacity	50 kgs
Fire class / Rating	ABC
Propellant gas	CO_2, 2 kgs
Discharge time	41 seconds
Throw length	11 meters
Working pressure	14 bar at 20ºC
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder MAP ABC 30
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	-30ºC to +60ºC
Approx gross weight	50 kgs
Approx dispatch weight	85 kgs
Approx unit dimension	550 x 450 x 1050 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Powder Wheeled Extinguisher 50 kgs ABC (cartridge) MED	1	SG00262
Spare CO_2 cylinder for Powder Wheeled Extinguisher 50 kgs ABC	1	SG00432

Norfolk Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

Wheeled fire extinguishers are being used to extinguish large fires and during situations in which portable fire extinguishers are not sufficient for a fire to extinguish. Its sturdy construction and versatility make the mobile extinguisher rapidly deployed and operated by one person.

Dry Powder Wheeled Extinguisher 50 kgs ABC
External cartridge operated

General
The wheeled extinguisher is filled with 50 kg ABC powder, and fitted with a 5 meter hose and ergonomic pistol fire. These features combined with the high pitch length make the extinguisher flexible and offers the user an efficient and reliable extinguishing agent.

ABC powder
ABC powder is suitable for fighting class A fires (carbonaceous), class B fires (flammable liquids) and class C fires (flammable gases). Powder is non-conductive and can be used in the presence of electricity up to 1000 volts at a distance of at least 1 meter. It shuts off the oxygen of the furnace which prevents re-ignition.

Applications for marine, inland shipping and offshore market
- machine rooms
- deck
- helideck
- car deck (roro area)

Features
- great fire power
- large casting length
- ergonomic extinguishing gun
- 5 meters long extinguishing hose
- easily maneuverable
- balanced and stable
- proven reliability
- suitable for harsh conditions

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia NRA50
Extinguisher	Dry Powder
Type	Internal Cartridge
Capacity	50 kgs
Fire class / Rating	IIB
Propellant gas	CO_2, 1.35 kgs
Discharge time	35 seconds
Throw length	14 meters
Working pressure	11.5 bar at 20ºC
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder ABC
Length discharge hose	5 meters
Diameter wheels	400 mm
Material wheels	Hard rubber
Temperature range	-30ºC to +60ºC
Approx gross weight	94 kgs
Approx dispatch weight	85 kgs
Approx unit dimension	510 x 610 x 980 mm (w x d x h)
Color	Red (RAL3000)
Approvals	EN 1866 / CE, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Norfolk Powder Wheeled Extinguisher 50 kgs ABC (cartridge)	1	SG00252
CO2 Cartridge 1,35 kgs for Norfolk NRA50	1	SG00438

ABS CO2 Wheeled Extinguisher 10 kgs B (MED)

Wheeled extinguishers are designed for professional use under severe circumstances, resulting in a high level of quality and ease of use.

ABS CO$_2$ wheeled extinguisher 10 kgs B
Suitable for fires in electrical equipment in fire class B

Applications for marine, inland shipping and offshore market
- engine rooms (electrical appliances such as switch boards etc)
- welding areas

Features
- very mobile and easy to operate
- excellent quality, therefore a long operational lifetime
- good ergonomy, easy to drive
- can be used at low temperatures (-30ºC)

- easy to service
- first in Europe in accordance with the new EN 1866 standards with CE approval
- extremely high ratings on B class fire (liquid fuels)
- ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation
- high performance discharge horn
- highly flexible hose with an excellent resistance

TECHNICAL SPECIFICATIONS

Manufacturer / Model	ABS
Extinguisher	CO$_2$
Capacity	10 kgs
Fire class	144B
Propellant gas	CO$_2$
Discharge time	17 seconds
Throw length	4 meter
Working pressure	60 bar at 20ºC
Suitable for electrical equipment	??
Extinguishing agent	CO$_2$
Length discharge hose	4 meters
Diameter of wheels	300 mm
Material wheels	Felly: Polypropylene Wheels: Polypropylene
Temperature range	-30ºC to +60ºC
Approx gross weight	38 kgs
Approx dispatch weight	65.3 kgs
Approx unit dimension	980 x 370 x 1060 mm
Color	Cylinder: Red Frame: Yellow, optional black or red
Approvals	Directive 96/98/EC MED, EN 1866 and with CE-mark

ORDER INFORMATION

Description	Unit Sales	Articlenr
ABS CO2 Wheeled Extinguisher 10 kgs B	1	SG00271

ABS CO2 Wheeled Extinguisher 20 kgs B (MED)

Wheeled extinguishers are designed for professional use under severe circumstances, resulting in a high level of quality and ease of use.

Applications for marine, inland shipping and offshore market
- engine rooms (electrical appliances such as switch boards etc)
- welding areas

Features
- very mobile and easy to operate
- excellent quality, therefore a long operational lifetime
- good ergonomy, easy to drive
- can be used at low temperatures (-30ºC)

- easy to service
- first in Europe in accordance with the new EN 1866 standards with CE approval
- extremely high ratings on B class fire (liquid fuels)
- ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation
- high performance discharge horn
- highly flexible hose with an excellent resistance

ABS CO$_2$ wheeled extinguisher 20 kgs B
Suitable for fires in electrical equipment in fire class B

TECHNICAL SPECIFICATIONS

Manufacturer / Model	ABS
Extinguisher	CO$_2$
Capacity	20 kgs
Fire class	233B
Propellant gas	CO$_2$
Discharge time	32 seconds
Throw length	4 meter
Working pressure	60 bar at 20ºC
Suitable for electrical equipment	To 1000V
Extinguishing agent	CO$_2$
Length discharge hose	4 meters
Diameter of wheels	300 mm
Material wheels	Felly: Polypropylene
	Wheels: Polypropylene
Temperature range	-30ºC to +60ºC
Approx gross weight	70 kgs
Approx dispatch weight	65.3 kgs
Approx unit dimension	970 x 400 x 600 mm
Color	Cylinder: Red
	Frame: Yellow, optional black or red
Approvals	Directive 96/98/EC MED, EN 1866 and with CE-mark

ORDER INFORMATION

Description	Unit Sales	Articlenr
ABS CO2 Wheeled Extinguisher 20 kgs B	1	SG00272

Foam Wheeled Extinguisher 50 liters AB (cartridge)

Wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.

Foam wheeled extinguisher 50 liters AB
External cartridge

Applications for marine, inland shipping and offshore market
- engine rooms
- car decks
- heli decks

Features
- suitable placing of handle and 400 mm wheels + turning little wheel in order to guarantee and optimal stability and easiness of use, as well as a good mobility of the device
- diameter cylinder 315 +0 -15 mm, material AISI 304
- easy running diam. 300 wheels + additional turning wheel for an easy movement
- 5 meters length hose with foam making nozzle and ball valve for the best possible use and effectiveness on the fire by the operator
- ¾ ball valve at the end of the hose for a dosed projection of the extinguishing agent
- on request available antifreeze -20ºC or -30ºC
- painted inside

TECHNICAL SPECIFICATIONS

Manufacturer / Model	14260 3
Extinguisher	AFFF foam
Capacity	50 liter
Fire class / Rating	A B
Propellant gas	CO_2, 1.3 kgs
Discharge time	47 seconds
Throw length	8 meters
Working pressure	14 bar at 20ºC
Suitable for electrical equipment	Not tested
Extinguishing agent	AFFF foam
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	+0ºC to +60ºC
Approx gross weight	50 liter
Approx dispatch weight	85.0 kgs
Approx unit dimension	550 x 455 x 1145 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Foam wheeled extinguisher 50 liters AB (cartridge) MED	1	SG00266
Spare CO_2 cylinder for foam wheeled extinguisher 50 liters AB	1	SG00431
Refill 50 liter foam wagon	1	SG00434

Foam Wheeled Extinguisher 150 liters AB (cartridge)

Wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.

Foam wheeled wxtinguisher 150 liters AB
External cartridge

Applications for marine, inland shipping and offshore market
- engine rooms
- car decks
- heli decks

Features
- suitable placing of handle and 400mm. wheels + turning little wheel in order to guarantee and optimal stability and easiness of use, as well as a good mobility of the device

- cylinder diameter 450 mm, material AISI 304
- easy running diam. 400 wheels + additional turning wheel for an easy movement
- 5 meters length hose with foam making nozzle and ball valve for the best possible use and effectiveness on the fire by the operator
- ¾ ball valve at the end of the hose for a dosed projection of the extinguishing agent
- on request available antifreeze -20ºC or -30ºC
- painted inside

TECHNICAL SPECIFICATIONS

Manufacturer / Model	14284 4
Extinguisher	AFFF Foam, Sealfire
Capacity	150 liter
Fire class / Rating	A IVB
Propellant gas	CO_2, 3.2 kg
Discharge time	150 seconds
Throw length	8 meters
Working pressure	13 bar at 20ºC
Suitable for electrical equipment	Not tested
Extinguishing agent	AFFF Foam
Length discharge hose	5 meters
Diameter wheels	400 mm
Material wheels	Hard rubber / PVC
Temperature range	+0ºC to +60ºC
Approx gross weight	150 liter
Approx dispatch weight	235 kgs
Approx unit dimension	900 x 700 x 1380 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	En 1866 / CE, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Foam wheeled extinguisher 150 liters AB (cartridge) MED	1	SG00268
Spare CO_2 cylinder for foam wheeled extinguisher 150 liters AB	1	SG00433
Refill 150 liter foam wagon	1	SG00435

Norfolk Foam Wheeled Extinguisher 45 liter AB (cartridge)

Wheeled fire extinguishers are being used to extinguish large fires and during situations in which portable fire extinguishers are not sufficient for a fire to extinguish. Its sturdy construction and versatility make the mobile extinguisher rapidly deployed and operated by one person.

Norfolk foam wheeled extinguisher 45 liters AB
External cartridge

General
The wheeled extinguisher is filled with 45 liters AB foam and fitted with a 5 meter long hose and ergonomic pistol fire. These features combined with the high pitch length make the extinguisher flexible and offers the user an efficient and reliable extinguishing agent.

AB foam
AB fire fighting foams are suitable for fighting class A fires (carbonaceous) and class B fires (flammable liquids). The foam can be used in the presence of electricity up to 1000 volts at a distance of at least 1 meter.

Applications for marine, inland shipping and offshore market
- machine rooms
- accommodation spaces

Features
- great fire power
- large casting length
- ergonomic extinguishing gun
- 5 meters long extinguishing hose
- easily maneuverable
- balanced and stable
- proven reliability
- suitable for harsh conditions

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Britannia Norfolk / NRAF45
Extinguisher	AFFF Foam
Capacity	45 liters
Fire class / Rating	IIB
Propellant gas	CO_2 0.8 kgs
Discharge time	60 seconds
Throw length	14 meters
Working pressure	11.5 bar at 20ºC
Extinguishing agent	AFFF Foam
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	+5ºC to +60ºC
Approx gross weight	42.2 kg
Approx dispatch weight	88 kgs
Approx unit dimension	510 x 610 x 980 mm (w x d x h)
Color	Red (RAL3000)
Approvals	BS EN1866, MED, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Norfolk foam wheeled extinguisher 45 liter AB (cartridge)	1	SG00251
Spare cartridge, 0.8 kg	1	SG00436

Dräger High Quality Fire Hose

The lay-flat fire hoses are extremely durable and very flexible to use. This hose is suitable for intensive firefighting. This extruded hoses are resistant to oil, gasoline, salt solutions, acids and chemicals.

Applications
For intensive use, such as the offshore.

Features
The high quality hose made of PVC nitrile, has an ozone, chemicals and acids resistant layer. The burst pressure is 50 bar. The rubber liner on the inside is "extruded" with the outside. The standard length is 20 meters. Standard available with Storz pillars and in the color red. Other colors and/or columns on request.

Life span
Hoses are available in different qualities. Before purchasing, keep the usage frequency in mind. This will determine the life span of the hose. The Polydur has a long life.

Dräger high quality fire hose
Good protection against ozone and atmospheric weathering

TECHNICAL SPECIFICATIONS

Type	Polydur
Material	100% high tenacity synthetic yarn circular woven
Temperature	-35°C to +100°C
Working pressure	17 bar
Burtsting pressure	50 bar
Diameter	Ø 52 mm
Length	Standard: 20 meters Other lengths on request
Approvals	DIN 14811 Class 3, BS 6391:1983 Type III, Russian Maritime Register

ORDER INFORMATION

Description	Unit Sales	Articlenr
Storz - Pro / LM / N66 / 2,0" 20 meter, Red	1	SG00642
Storz - Pro / MS / N66 / 2" 20 meter, Red	1	SG00647
Storz - Pro / MS / N81 / 2" 20 meter, Red	1	SG00667
Storz - Pro / LM / N81 / 2,0" 20 meter, Red	1	SG00662
Storz - Pro / LM / N81 / 2,5" 20 meter, Red	1	SG00663
Storz - Pro / LM / N81 / 3,0" 20 meter, Red	1	SG00664

Dräger Standard Fire Hose

The lay-flat 500 Synthetic hose has a smooth outside PU coated making it more resistant to oils and chemicals and abrasion resistant than uncoated fire hoses. This hose is widely used in marine and offshore.

Applications
For preventive use, low usage fequency.

Features
The synthetic fire hose is a woven synthetic material, has a burst pressure of 40 bar and has a rubber inner lining. The standard length is 20 meters. Standard available with Storz pillars and in the color red. Other colors and / or columns on request.

Life span
Hoses are available in different qualities. Before purchasing, keep the usage frequency in mind. This will determine the life span of the hose. The synthetic 500 has a medium to long life.

Dräger standard fire hose
Low friction loss

TECHNICAL SPECIFICATIONS

Type	Synthetic 500
Material	Synthetic coating
Temperature	-30ºC to +80ºC
Working pressure	17 bar
Bursting pressure	40 bar
Diameter	1" to 4"
Length	Standard: 20 meters Other lengths on request
Approvals	DIN 14811 Class 3, BS 6391:1983 Type III, Russian Maritime Register

ORDER INFORMATION

Description	Unit Sales	Articlenr
Storz - Syn / LM / N66 / 2,0" 20 meter, Red	1	SG00542
Storz - Syn / LM / N66 / 1,5" 20 meter, Red	1	SG00541
Storz - Syn / LM / N81 / 2,0" 20 meter, Red	1	SG00562
Storz - Syn / LM / N81 / 2,5" 20 meter, Red	1	SG00563
Storz - Syn / LM / N81 / 3,0" 20 meter, Red	1	SG00564
Storz - Syn / MS / N66 / 1,5" 20 meter, Red	1	SG00546
Storz - Syn / MS / N81 / 1,5" 20 meter, Red	1	SG00566

Dräger Fire Hose - MED

Uncoated delivery hose for fire brigades and industry.

Dräger budget fire hose
Smooth surface and low friction loss

Applications
- municipal fire brigades
- industrial fire brigades
- shipboard
- refineries
- construction sites

Features
- jacket: 100% polyester high tenacity yarn, circular woven, warp threads 2-ply twisted, twill weave. Max. change in length: 3%. Max. change in diameter: 3%
- inner lining: two-component system consisting of black SBR-synthetic rubber and white NBR-synthetic adhesive

- inner lining: resistant to ozone and to external contact with oil products
- produced with a very low twist
- good abrasion resistance and long service life
- external resistance to oil, fuel and chemical products
- low friction loss
- aging and ozone resistant, weather resistant
- lightweight and flexible, kink resistant
- small coil diameter
- minimum maintenance
- easy to repair

TECHNICAL SPECIFICATIONS

Type	Top synthetic N/40
Material	Uncoated natural white
Temperature range	-30°C to +80°C
Working pressure	13 bar
Bursting pressure	40 bar
Diameter	Ø 52 mm
Length	Standard: 20 meters
	Other lengths on request
Approvals	DIN EN, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Storz - LM / N66 / 2" 20 meter, white, MED	1	SG00551
Storz - MS / N66 / 2" 20 meter, white, MED	1	SG00557

Multi-Purpose Spray Nozzle

A multi-purpose fog nozzle with very good performance for both fog and jet.

Features
- easy to handle multi purpose spray nozzle
- ideal for fire fighting departments and general industrial use
- to be used with or without man shield
- three spray positions

Delivery
Delivery excluding connection.

Multi-purpose spray nozzle
Easy to handle

TECHNICAL SPECIFICATIONS

Type	CM aluminium	CMM
Material	Aluminium alloy	Aluminium alloy
Switch position	Stop - jet - spray	Stop - jet - spray
Connection	G 2" A	G 2" A
Boring	12 x 9	12 x 9
Weight	1.16 kgs	1.50 kgs
Approvals	DIN 14365	DIN 14365

ORDER INFORMATION

Description	Unit Sales	Articlenr
Multi-Purpose Spray Nozzle, with man shield, LM-2"	1	SG01002

Unifire Spray Nozzles

The Unifire V-nozzle series is a multi-purpose fog nozzle with very good performance for both fog and jet. The V-nozzles are available in both long and short versions. The V-serie can be combined with an attachable foam-tube for heavy and medium foam.

Features

The Unifire V-nozzle is proven to be very reliable. It's designed for heavy professional use and no maintenance is required. The only spare part is the baffle and its crew.

The Unifire V-nozzles are available in sizes 7, 10, 12,14,16,18 and 20.

Material

The nozzles is made of chrome plated brass, red plastic cover and rubber bumper head.

Delivery

Delivery excluding connection.

Unifire spray nozzle
Multi-purpose fog and jet nozzle

TECHNICAL SPECIFICATIONS

Capacities at Fog 90°	L / min
Pressure 2 bar - V12	184 / 10
Pressure 6 bar - V12	325 / 13
Pressure 10 bar - V12	400 / 14
Positions	stop - jet - spray
Connection	2" MT
Material	Chrome plated brass, red plastic cover and rubber bumper head
Weight - for all V versions	1.7 kgs
Diameter nozzle	80 mm
Lenght	330 mm
Approvals	Lloyd, Det Norske Veritas, American Bureau of Shipping etc.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Unifire spray V-12 Nozzle, jet / foam, 2"	1	SG01011
Unifire V-16 Nozzle, jet / foam	1	SG01012
Unifire V-20 Nozzle, jet / foam	1	SG01013

POK 400 Spray Nozzle

We believe that POK products have the ability to provide firefighters all over the world the proper tools to save lives and to minimize property damage.

POK 400 DIN Spray Nozzle
Tough construction

POK nozzles are quality products that have been thoroughly tested. They meet the current standards and requirements of the daily (professional) user. Both standard and specialized nozzles are included in the range. Depending on the application, on-site use, performance, characteristics and manufacturing material, the appropriate nozzle is to be chosen. The final result of POK products comes after extensive testing of the products in consultation with users. This ensures that POK products meet the highest quality and usability.

Features
- tough anodized aluminium construction
- swivel inlet
- compact size for easy stowage
- meets the needs of Forestry and Rural Fire brigades where water conservation is desirable
- multi flow selection
- pattern detents for positive positioning
- change flow without changing pattern and flush without shutting down
- excellent for application of A class foam
- new inlet filter mesh prevents blockages caused by stones
- each nozzle etched with a unique serial number for identification

TECHNICAL SPECIFICATIONS

Material	Aluminium alloy, stainless steel
Spray	10 m, full jet, spray 110°, flush
Full stray	34 meters
Connection	G2"A
Adjustable	60, 130, 250, 400 l/min at 6 bar
Approvals	DIN 14367, DIN 14367-6-400-3-C

ORDER INFORMATION

Description	Unit Sales	Articlenr
POK: Debikador Spray Nozzle 400 - 2" DIN-14367	1	SG01021

Akron 3020 Spray Nozzle

The Akron 3020 spray nozzle is a combination fog and straight stream nozzle designed for more efficiency with AFFF or water on board of ships.

Features
- brass construction
- self-adjusting seats
- molded teeth

- massive rubber-like bumper, handle and pistol grip
- constant gallonage in all fog and straight stream patterns
- flush without shutting down

Akron 3020 spray nozzle
Water or foam spray nozzle

TECHNICAL SPECIFICATIONS

Length	219 mm
Weight	3.5 kgs
Inlet size	38 mm
Flow at 100 PSI	GPM 95, LPM 360
Approvals	DIN 14367, DIN 14367-6-400-3-C

ORDER INFORMATION

Description	Unit Sales	Articlenr
Akron 3020 Spray Nozzle 1,5"	1	SG01032

HS nozzles D10, D12, D16, D20

Hollow stream nozzles with shut-off for the delivery of firefighting water in the form of full jet and selectable spray jet.

Features
- hs nozzles can be conveniently and continuously adjusted from completely closed via full jet to spray jet between 0 - 120° by twisting the rubber coated head.
- switching sequence: Closed – full jet – spray jet.
- the spray teeth have flat deflection surfaces on the inside and produce a spray the centre of which is directed forwards. This results in a large spray jet throw distance. Large drops for reach, small drops for cooling. As a result, universal and effective use of the HS nozzles is possible.

Advantages
- low weight
- absolute corrosion resistance to seawater
- the simple design means the nozzle is not prone to repair
- low operating forces
- extremely sturdy
- completely maintenance-free

Structure of HS nozzles
All bills of material have an identical structure. The only difference between types HS10, 12, 16, 20 is that they have different valve plates at the front. These are marked at the front as "D10", "D12", "D16" and "D20".

HS nozzles D10, D12, D16, D20
Hollow stream nozzles

TECHNICAL SPECIFICATIONS

Operating head	Rubber (NBR) and chrome-plated brass
Barrel	Extremely impact-resistant plastic (POM)
Valve plate	Polyamide
Valve rod	Stainless steel
Dimensions	with C-type adapter: 347 x 98 x 98 mm
Weight	1.1 kg (aluminium)
	1.6 kg (brass)
Flow rate at 6 bar - full jet, litres/min - throw distance (meters)	HS10 - 160-24
	HS12 - 230-28
	HS16 - 330-30
	HS20 - 380-32
Flow rate at 6 bar - spray jet, litres/min - throw distance (meters)	HS10 - 440-4
	HS12 - 460-4.5
	HS16 - 470-4.5
	HS20 - 470-4.5
Flow rate at 2 bar - full jet, litres/min - throw distance (meters)	HS10 - 90-16
	HS12 - 130-17
	HS16 - 170-18
	HS20 - 220-21
Flow rate at 2 bar - spray jet, litres/min - throw distance (meters)	HS10 - 250-4
	HS12 - 265-4.5
	HS16 - 275-4.5
	HS20 - 275-4.5

ORDER INFORMATION

Description	Unit Sales	Articlenr
HS nozzles D10, D12, D16, D20	1	SG01051

Delta Low Expansion Foam HV225 / S

Delta's "V" range of foam branch pipes are designed for the foams of the late '90s. All purpose alcohol resistant, FFFP and AFFF foams.

Delta HV225 Branch pipe
Self inducing models

General information
The new style branch pipe is designed to first expand the foam and then accelerate it to high velocity producing long throws beyond the capability of many older designs.

Delta's branch pipes are designed to match Delta variable inline foam inductors or equivalent types.

Features
- long throw
- self inducing models
- designed for all new technology foams
- all international inlets

- dot/Lloyds certified
- optional on/off ball valve available

Construction
- body: Light Alloy - internally and externally powder coat
- finish: Epoxy Polyester International Orange
- nozzle: Light Alloy
- inlet: HV 2" BSP Male

A wide range of International fittings are available as an option.

Self inducing models are supplied with quick release pick-up and stainless steel dip tube.

TECHNICAL SPECIFICATIONS

Nominal flow (L/min)	5 bar - 200
	7 bar - 225
Foam Expansion	6-10
Range (metres) at 7 Bar	18-22
Length	740 mm
Weight	2.2 kgs
Approvals	Lloyds certified and D.O.T. approved (M.S.A.) for marine use

ORDER INFORMATION

Description	Unit Sales	Articlenr
Delta Low expansion foam HV225 / S	1	SG01041

POK Mixy Eductor

Body manufactures in bronze with an inlet filter metering valve 0 to 6% with by-pass. The pick up tube needs to be ordered separately.

POK Mixy Eductor
Tough construction

Features
The foam mixer works on the Venturi principle. The water pressure in the state, creates a vacuum that causes the suction of the liquid. The device has a check valve ball which prevents any return of water into the tank of foam concentrate.

A dispenser valve allows you to adjust the proportion of water / foam from 0% to 6%.

A valve device ensures constant mixing rates, even when the pressure varies.

TECHNICAL SPECIFICATIONS

Setting aspiration	0 - 6%
Pressure drop	35%
Capacity	200 liters, 400 liters or 800 liters per minute

ORDER INFORMATION

Description	Unit Sales	Articlenr
POK Mixy Eductor, 200 liter p/m, excluding coupling	1	SG01101
POK Mixy Eductor, 400 liter p/m, excluding coupling	1	SG01102
POK Mixy Eductor, 800 liter p/m, excluding coupling	1	SG01203
Pick up tube, 1.5 meters LM-N31 including suction bar	1	SG01211
Pick up tube, 1.5 meters LM-N31 excluding suction bar	1	SG01212

Couplings and o-rings

To couple a Storz connection, the two opposing couplings are pressed together such that the hooks of each one are inserted into the slots in the flange of the other. Then they are rotated in opposite directions until they are tight, or latched engages.

Features

The Storz couplings create a water-tight connection between the internal packing gaskets. To uncouple them, the latches are released and the couplings are turned in the opposite directions from coupling, and then separated when the hooks and slots are aligned.

Special wrenches are designed for assisting with Storz connectors.

Couplings and o-rings
Various sizes available

ORDER INFORMATION

Storz name	NOK	Male/Female thread	Unit Sales	Articlenr
Storz connector with BSP thread, light metal with rubber seal				
Storz-coupling: C - NOK 66 / LUG 66	66	2.0"	1	SG00727
Storz-coupling: C - NOK 66 / LUG 66	66	2.5"	1	SG00728
Storz-coupling: 65	81	1.5"	1	SG00733
Storz-coupling: 65	81	2.0"	1	SG00734
Storz-coupling: 65	81	2.5"	1	SG00735
Storz connector with male thread BSP, light metal with rubber seal				
Storz-coupling: C - NOK 66 / LUG 66	66	2.0"	1	SG00767
Storz-coupling: 65	81	2.0"	1	SG00774
Storz-coupling: 65	81	2.5"	1	SG00775
Storz hose connector included, light metal with rubber seal				
Storz-coupling: C, hose adapter Ø 52 mm, L 90 mm	66	2.0"	1	SG00827
Storz-coupling: 65, hose adapter Ø 52 mm, L 90 mm	81	2.0"	1	SG00834
Storz-coupling: 65, hose adapter Ø 65 mm, L 90 mm	81	2.5"	1	SG00835
Storz blind lid, light metal with rubber seal				
Storz-coupling: C - NOK 66 / LUG 66		66	1	SG00704
Storz blind cap with chain LA-N81			1	SG00706
Storz rings, Perbunan				
Storz seal ring: C - NOK 66 / LUG 66	66		1	SG00864
Storz seal ring: 65	81		1	SG00865

Coupling Spanners

Couplings spanners are used to attach fire hosed to hydrants, spray nozzles, monitors or other equipment. Coupling spanner are available for o.a. Storz couplings.

Features
- galvanized steel
- insulated hand grip

Coupling Spanners
Available for all Storz couplings

TECHNICAL SPECIFICATIONS

Sizes	For all B and C type of Storz couplings
	Other dimensions on request
Warranty	12 months

ORDER INFORMATION

Description	Unit Sales	Articlenr
Nakajima: 40A Spanner LUG SIZE: 61 MM	1	08143616
Nakajima: 50A Spanner LUG SIZE: 72 MM	1	08143615
Nakajima: 65A Spanner LUG SIZE: 91 MM	1	08143614
Storz-spanner: isolated BC, DIN 14822	1	SG00892

Monitor TKW 3000

The TKW monitor is a good alternative for the roll-out hoses on deck. This solution increases the safety of the crew on board.

Monitor TKW 3000
Easy to install, one man operation

Applications
- inland shipping

Features monitor
- deployable, both manned and without crew
- 360° rotation
- rotation, both horizontal as vertical

Features branch pipe POK 400 spray nozzle
- adjustable spray pattern
- diameter spray nozzle 2"
- maximum spray: 110°
- connection 3" DIN
- POK branch pipe 400 DIN EN 15182-2

Advantages
- easy to install semi-permanent arrangement
- quick response time in case of an emergency
- secure, one man operation
- the possibility of unmanned operation reduces dangerous situations for the crew
- more time to assist other crew members and emergency services
- increased safety level of the crew, less obstacles (hoses) on the deck
- throw length depends on pump capacity
- optional: foam
- from January 2013 ADN approval
- allowed at several terminals

TECHNICAL SPECIFICATIONS

Material	Aluminium
Color	Red
Weight	9.1 kgs
Lenght incl. branch pipe	850 mm
Lenght excl. branch pipe	560 mm
Width	390 mm
Max. flow	3.000 lpm @ 7 bar
Inlet	flange DN 80, PN 16

ORDER INFORMATION

Description	Unit Sales	Articlenr
Monitor TKW 3000	1	SG01225
POK: Debikador Spray Nozzle 400 - 2" DIN-14367	1	SG01021
Adapter 2" Bi/2,5" Bi Aluminium	1	08180006

Dräger firefighting monitors

Our robust range of various flow firefighting monitors cover fixed monitors for a mixture of fire suppression needs. Offering a variety of manual monitors, self-oscillating monitors, electric monitors, electro-hydraulic monitors with accompanying monitor nozzles, monitor towers/ turrets, trailers and control panels. The fire monitors are available with bronze body as standard it is possible to have the full casting in Nickle Aluminium Bronze suitable for being used with sea water or water foam solution within harsh industrial environments, chemical plants and offshore applications.
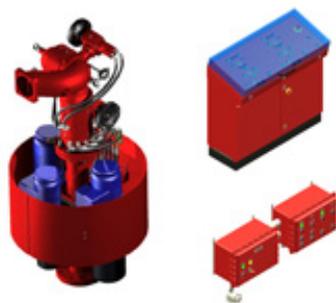
Applications for the marine, inland shipping and offshore market
- helideck
- foam firefighting
- general fire protection on multiple locations

Features
- bronze or Nickle Aluminium Bronze body

- various configurations from manual to electro hydraulic
- various nozzle selections including spray/ fog and auto aspirating
- various options such as turrets, supports and oscillating mechanisms
- various remote control options including stationary and wireless
- various models CE and ATEX approved

Dräger firefighting monitors
To be used within hars environments

TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Materials	bronze / nickle aluminium bronze
Control	manual / electric / electric + hydraulic
Capacity	up to 20.000 L/min
Size	up to 6"
Connections	ANSI / UNI
Options	non-standard painting systems on request
Approvals	ATEX / CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Firefighting Monitors	1	DFFM01

Dräger fire protection deluge valves

The deluge valves are able to control highly pressurised water flow in deluge, preaction, pressure reducing and ON/OFF fire protection systems. The double chamber deluge valves (with a fully redundant architecture) are compatible with hydraulic, electric, electro-pneumatic or pneumatic release systems and ensure a low probability of failure on demand. Both single and double chamber valves are available in Nickle Aluminium Bronze with Nickle Aluminium Bronze/ AISI 316L/ Monel K400 trim. All valves are in line with NFPA guidelines with UL listing, SIL 2 and SIL 3 on selected valves.
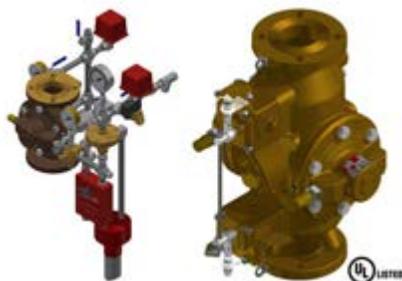
Dräger fire protection deluge valves
To control highly pressurised water flow

Applications for the marine, inland shipping and offshore market
- deluge systems
- heli deck
- foam fire fighting
- general fire protection on multiple locations

Features
- double chamber valves allow inline maintaince and overcome double failure
- body materials to be selected among: nickel aluminium bronze ASTM B14C958000, bronze EN 1982 – CC491K
- or stainless steel AISI 316 ASTM A351 Gr.CF8M
- diaphragm material: EPDM fabric reinforced
- nuts and bolts material: stainless steel AISI 316
- flanges ANSI B16.24 or UNI EN 1092-
- water temperature: from 0,5 °C to 90°C
- validation certificate for SIL 3 systems issued by Bureau Veritas (Double chamber)
- UL Listed (Double chamber under application)

TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Materials	nickle aluminium bronze ASTM B148 C9580 bronze EN 1982 - CC491K stainless steel AISI 316 ASTM A351 Gr.CF8M
Control	electric / electric + pneumatic / ON / OFF
Size	up to 8"
Connections	ANSI / UNI
Options	pressure reducing trims, diaphragm position monitoring system proximity sensors for monitoring the posistion of the in-built isolation valves

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Fire Protection Deluge Valves	1	DFPDV01

Dräger foam proportioning equipment

Dräger foam equipment solutions include bladder tanks, branch pipes, foam pourers, foam chambers, pump skids, portable foam trailers and foam concentrates as well as all the complimentary accessories. The fire suppression equipment we offer delivers effective fire protection through a series of low/ medium/ high expansion foam systems which are in accordance with NFPA guidelines. Each piece is designed and manufactured with care. These solutions are suitable for special hazard environments and are widely used in chemical, petrochemical, pharmaceutical industries.

Applications for the marine, inland shipping and offshore market
- deluge systems
- heli deck
- foam fire fighting
- general fire protection on multiple locations

Features
- bladder tanks
- atmospheric tanks
- inline inducators
- mixers
- proportioners
- branch pipes
- available in various materials
- complete system design
- engineering and calculations

Dräger foam proportioning equipment
Complete range of foam equipment

TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Materials	bronze / stainless steel / various
Capacity	up to 20.000 liters
Connections	ANSI / UNI
Options	various material selections

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Foam System Components	1	DFPE01

Dräger fire spray nozzles

The range of water and foam nozzles are the effective first line of fire suppression. Our nozzles are used in deluge water spray systems designed for cooling, vapour containment and water curtains. We also offer reliable average and high velocity nozzles as well as nozzles for low, medium and high expansion foam applications ensuring activation where needed to stop fire from spreading.

Applications for the marine, inland shipping and offshore market
- all the protected areas
- foam fighting

Features
- stainless steel, bronze, nickle aluminium bronze body

- various threads
- various inlet sizes
- various dispersion angles
- suitable execution for external installation in marine environment and operation with sea water and foam solutions

Dräger fire spray nozzles
Effective first line of suppression

TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Materials	stainless steel / bronze/ nickle aluminium bronze
Velocity	high / medium and low
Threads	BSP and NPT
Flow rates	Custom flow rates / K factors

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Fire Spray Nozzles	1	DFSN01

Dräger gaseous fire suppression systems

Providing gas based fire suppression systems and all supporting hardware approved to EN12094 and in line with NFPA guidelines. Our systems ensure total flooding and are extremely effective at suppressing fire. We can supply accessories needed for complete systems including valves, weighing systems, electric actuators, SIL 2, odorisers, control panels, cylinder racks and cabinets ensuring a highly reliable fire suppression unit.
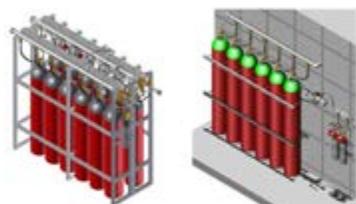
Applications for the marine, inland shipping and offshore market

- offshore platforms
- FPSO's
- gas turbines
- generators
- IT server farms
- electric rooms

Features

- CO2 and Inergen solutions
- skid supplied with various options including heating and lighting
- monitoring system for filling
- actuation with external cylinder or electro magnetic
- various other option including painting and multi zone systems
- various manifold selections
- various hose selections

Dräger gasesous fire suppression systems
Extremely effective at suppressing fire

TECHNICAL SPECIFICATIONS

Manufacturer	SA Fire
Storage	open rack or closed cabinet
Installation areas	safe, zone 1 and 2 areas
Cylinder volumes	60, 67.5 and 200 liters
Valve materials	brass and stainless steel
Declaration of conformity	97/23/CE - PED
	305/2011 - CPR

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Gaseous Fire Suppression Systems	1	DGFSS01

Bio-Ex Hydropol 3

HYDROPOL 3 is a fluorosynthetic foam AR 3X3. The Alcohol Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance. HYDROPOL 3 is pseudoplastic: its viscosity decreases when it is agitated. This property authorizes its use even at low temperature and low pressure.

Applications

HYDROPOL 3 can be used with tap water, sea water and brackish water at 3% on hydrocarbon and polar solvents fires as well as for the keeping of gazeous fumes : acids, HCl, NH3. in Medium Expansion. It is suitable with all kind of known equipment.

Foaming power

HYDROPOL 3 is usable at Low, Medium and High Expansion.

Fuel fires

HYDROPOL 3 is efficient on hydrocarbon and polar solvents fires. HYDROPOL 3 can keep its water for a very long period. This outstanding property makes it highly efficient on polar solvents fires.

Environment

HYDROPOL 3 is easily biodegradable.

TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Hydropol 3
Appearance	yellow gel
Specific gravity at 20ºC	1.05 ± 0.02 kg/dm3
Ph at 20º	7.0 ± 1.0
Viscosity at 20ºC (mPa.s)	1500 ± 200 mPa.s
Sediments	< 0.1 %
Surface tension at 3% (mN/m)	23 ± 2 mN/m
Freezing point	-15ºC
Temperature of use	-10ºC + 50ºC
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 50, foam expansion values depend on the equipment
High expansion	> 600, foam expansion values depend on the equipment

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Hydropol-AR: 3% per liter	1	SG01934
Bio-Ex Hydropol-AR: 3% per 20 liter per can	1	SG01932

Bio-Ex Filmopol 3x3

FILMOPOL 3LT15 is a fluorosynthetic foam AFFF-AR 3X3. The film-forming property AFFF gives to FILMOPOL 3LT15 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air. The Alcohol-Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance.

Bio-Ex Filmopol 3
Efficient on hydrocarbon and polar solvents fires

Applications
FILMOPOL 3LT15 can be used with tap water, sea water and brackish water at 3% on hydrocarbon and polar solvents fires as well as on special chemicals: acids, HF, HCl, amines, Butadiene, CS2. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

Pseudoplastic
FILMOPOL 3LT15 is pseudoplastic: its viscosity decreases when it is agitated. This property authorizes its use even at low temperature and low pressure.

Foaming power
FILMPOPOL 3LT15 is usable at Low, Medium and High Expansion.

Fuel fires
FILMPOPOL 3LT15 is efficient on hydrocarbon and polar solvent fires.

Environment
FILMPOPOL 3LT15 is easily biodegradable.

TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Filmopol 3 LT15
Appearance	white gel
Specific gravity at 20ºC	1.03 ± 0.02 kg/dm3
Ph at 20°	7.0 ± 1.0
Viscosity at 20ºC (mPa.s)	2300 ± 200 mPa.s
Sediments	<0.1%
Surface tension at 3% (mN/m)	16 ± 2 mN/m
Interfacial tension at 3% (mN/m)	2 ± 1 mN/m
Freezing point	-15ºC
Temperature of use	-13ºC / + 50ºC
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400, foam expansion values depend on the equipment
Approvals / standards	EN 1568-3, EN 1568-4, Lastfire certificate, Bureau Veritas certifcate

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Filmopol-3 AR: 3% - 20 liter per can	1	SG01951
Bio-Ex Filmopol-AR: 3% - 200 liter per can	1	SG01952

Bio-Ex Fluofoam 3

FLUOFOAM 3 is a fluorosynthetic foam AFFF, based on the combination of surfactants selected for their foaming property and their resistance to dehydration and heat. The film-forming property AFFF gives to FLUOFOAM 3 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air.

Applications

FLUOFOAM 3 can be used with tap water, sea water and brackish water at 3% on hydrocarbon fires. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

Foaming power

FLUOFOAM 3 is usable at Low Expansion. This fluid foam is not contaminated on hydrocarbons and enables a forceful application. FLUOFOAM 3 is usable at Medium Expansion to create a foam blanket to protect against burnback.

Fuel fires

FLUOFOAM 3 is efficient on all hydrocarbon fires, such as diesel, kerosene, petrol.

Environment

FLUOFOAM 3 is easily biodegradable.

Bio-Ex Fluofoam 3
Efficient on all hydrocarbon fires

TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Fluofoam 3
Appearance	yellow liquid
Specific gravity at 20ºC	1.01 ± 0.02 kg/dm3
pH at 20ºC	8.0 ± 1.0
Viscosity at 20ºC	4 ± 2 cStokes
Sediments	0%
Surface tension at 3%	17 ± 2 mN/m
Interfacial tension at 3%	2 ± 1 mN/m
Freezing point	-5ºC
Temperature of use	0ºC to +50ºC
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25%	> 2 minutes
Medium Expansion	> 40, foam expansion values depend on the equipment
Approvals	EN 1568-3, Bureau Veritas certificate

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Fluofoam: 3G% / LT15 - 20 liter, Freeze protected -15ºC	1	SG01921
Bio-Ex Fluofoam: 3% - 20 liter	1	SG01915
Bio-Ex Fluofoam: 3% - 200 liter	1	SG01916

Bio-Ex Fluofoam 6

FLUOFOAM 6 is a fluorosynthetic foam AFFF, based on the combination of surfactants selected for their foaming property and their resistance to dehydration and heat. The film-forming property AFFF gives to FLUOFOAM 6 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air.

Bio-Ex Fluofoam 6
Efficient on all hydrocarbon fires

Applications
FLUOFOAM 6 can be used with tap water, sea water and brackish water at 6% on hydrocarbon fires. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

Foaming power
FLUOFOAM 6 is usable at Low Expansion. This fluid foam is not contaminated on hydrocarbons and enables a forceful application. FLUOFOAM 6 is usable at Medium Expansion to create a foam blanket to protect against burnback.

Fuel fires
FLUOFOAM 6 is efficient on all hydrocarbon fires, such as diesel, kerosene, petrol.

Environment
PROPOL 6 is easily biodegradable.

TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Fluofoam 6
Appearance	yellow liquid
Specific gravity at 20ºC	1.01 ± 0.02 kg/dm3
pH at 20ºC	8.0 ± 1.0
Viscosity at 20ºC	4± 2 cStokes
Sediments	0%
Surface tension at 6%	17 ± 2 mN/m
Interfacial tension at 6%	3 ± 1 mN/m
Freezing point	-3ºC
Temperature of use	0ºC to +50ºC
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25%	> 2 minutes
Medium Expansion	> 40, foam expansion values depend on the equipment
Approvals	EN 1568-3: class IB, Bureau Veritas certificate

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Fluofoam: 6% - 20 liter	1	SG01918
Bio-Ex Fluofoam: 6% - 200 liter	1	SG01919
Bio-Ex Fluofoam: 3X - 20 liter, freeze protected -10ºC	1	SG01925

Bio-Ex Hydropol 6

HYDROPOL 6 is a fluorosynthetic foam AR 6X6. The Alcohol Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance. HYDROPOL 6 is pseudoplastic: its viscosity decreases when it is agitated. This property authorizes its use even at low temperature and low pressure.

Applications
HYDROPOL 6 can be used with tap water, sea water and brackish water at 6% on hydrocarbon and polar solvents fires as well as for the keeping of gazeous fumes: acids, HCl, NH3. in Medium Expansion. It is suitable with all kind of known equipment.

Foaming power
HYDROPOL 6 is usable at Low, Medium and High Expansion.

Fuel fires
HYDROPOL 6 is efficient on hydrocarbon and polar solvents fires. HYDROPOL 6 can keep its water for a very long period. This outstanding property makes it highly efficient on polar solvents fires.

Environment
HYDROPOL 6 is easily biodegradable.

Bio-Ex Hydropol 6
A fluorosynthetic foam

TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Hydropol 6 x 6
Appearance	yellow gel
Specific gravity at 20ºC	1.06 ± 0.02 kg/dm3
Ph at 20º	7.0 ± 1.0
Viscosity at 20ºC (mPa.s)	1000 ± 200 mPa.s
Sediments	< 0.1 %
Surface tension at 6% (mN/m)	23 ± 2 mN/m
Freezing point	-14ºC
Temperature of use	-10ºC + 50ºC
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400
Approvals	EN 1568-1, EN 1568-2, EN 1568-3, EN 1568-4 Navy: Bureau Veritas certificate

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Hydropol-AR: 6% - 20 liter	1	SG01935
Bio-Ex Hydropol-AR: 6% - 200 liter	1	SG01936

Bio-Ex Filmopol 6x6

FILMOPOL 6 is a fluorosynthetic foam AFFF-AR 6X6.The film-forming property AFFF gives to FILMOPOL 6 a high speed of extinction on hydrocarbon fires thanks to the aqueous film which insulates the fuel surface from the air. The Alcohol-Resistant property produces a thick layer – skin – if applied on any kind of fuels. The peculiar nature of our fluoropolymer gives outstanding burnback resistance.

Applications
FILMOPOL 6 can be used with tap water, sea water and brackish water at 6% on hydrocarbon, on polar solvents fires as well as on special chemicals: acids, HF, HCl, amines, Butadiene, CS2. It is compatible with dry extinguishing powders and it is suitable with all kind of known equipment.

Pseudoplastic
FILMOPOL 6 is pseudoplastic: its viscosity decreases when it is agitated. This property authorizes its use even at low temperature and low pressure.

Foaming power
FILMOPOL 6 is usable at Low, Medium and High Expansion.

Fuel fires
FILMOPOL 6 is efficient on hydrocarbon and polar solvents fires.

Environment
FILMOPOL 6 is easily biodegradable.

Bio-Ex Filmopol 6x6
A fluorosynthetic foam

TECHNICAL SPECIFICATIONS

Reference	Bio-Ex Filmopol 6x6
Appearance	white gel
Specific gravity at 20°C	1.00 ± 0.02 kg/dm3
Ph at 20°	7.0 ± 1.0
Viscosity at 20°C (mPa.s)	1000 ± 200 mPa.s
Sediments	<0.1%
Surface tension at 6% (mN/m)	16 ± 2 mN/m
Interfacial tension at 6% (mN/m)	2 ± 1 mN/m
Freezing point	0°C
Temperature of use	+2°C / + 50°C
Low expansion	> 7, foam expansion values depend on the equipment
Drainage time 25 %	> 10 minutes
Medium expansion	> 30, foam expansion values depend on the equipment
High expansion	> 400, foam expansion values depend on the equipment

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bio-Ex Filmopol-AR: 6x6 - 20 liter	1	SG01947
Bio-Ex Filmopol-AR: 6x6 - 200 liter	1	SG01948

Fire Plan Holder

This stainless steel 304 holder with weatherproof screw end cap comes complete with fixings and has been specifically designed to comply with the requirements of the SOLAS regulations. It hold fire plans up to size A1 to be accommodated without the need to fold the plan.

Features
- suitable for standard fire plan and safety plan sizes, maximum A1 format

- stainless steel 304 holder with waterproof screw end cap
- clear labeling for identification
- complete with mounting brackets

Fire plan holder
Stainless steel

TECHNICAL SPECIFICATIONS

Material	Stainless steel 304
Capacity	Holds folder of A1 format
Dimensions	Diameter: 76 mm, length: 1 meter
Color	Red
Approvals	In accordance with SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire plan holder	1	SG04911

Dräger Aramid Fireman's Suit

Dräger would like to present its new line of firefighting clothes designed to the highest standards with one thing in mind: the firefighter. The new suit is the result of a close study of technical key features and usability of suits that are currently available in the market: the suit has been improved on eight key features as compared to the most readily available suits. Providing a safe barrier "between human will and fire's forces".

Dräger Aramid Fireman's Suit
A lightweight, durable and highly comfortable suit

Radiation heat barrier
A Kermel fleece that provides excellent thermal protection, these very thin layers found inside the layer concept, minimise the amount of water that can replace the critical insulation air space in the garment.

Membrane
A Hi-Tech polyurethane membrane coated on the outer radiation heat barrier. Ensures exceptional breathable characteristics and unmatched durability. Up to a temperature of 380ºC, this membrane gives a good protection against heat and chemicals and will not melt.

Liner
A combination of Nomex and Viscose. The Nomex thread of this special weave method with the 2,5% Kevlar makes the liner strong. The fire retardant Viscose thread provides comfort and transports moisture to the outside of the liner. The multi-layer configuration ensures that each layer accomplishes its part of the job.

Air layers and thermal barriers
The protective value of the "ESS® 5 layer system" in combination with the fabric composite is found in the air between the fire fighter and the heat source. Air itself is the greatest single source of insulation qualities in protective clothing. Sandwiching stitching inside the facing cloth is therefore never used. All the layers are not stitched to each other; this improves the thermal insulation value (TPP) by protecting the moisture barrier and creating multiple air spaces between the very thin layers.

Comfort
The used layer system creates a lightweight, durable and highly comfortable garment without compromises to the suits protective features.

Quick Release Breakaway Zippers
Specially designed for military, firefighter and chemical suits. Ideal for situations where it's desirable to tear the zipper open without having to move the zipper all the way back.

Anti Aqua
High-Tech coated polyester fabric in sleeves, trouser legs, storm flap, back piece and pocket flaps. Prevents water and chemicals to easily enter the lining of the suit.

Eyelets
To quickly drain fluids from the suits pockets.

External padding
The suit features external protective pads on the knees and the elbows. Most other suits have their padding installed on the inside of the pants and do not use padding for elbows. Using padding for both elbows and knees increases user comfort. In addition using padding on the outside helps to protect the suit from damages on its most fragile parts.

Rounded pocket flaps
By using rounded pocket flaps the chances of being caught behind protruding parts when in action are reduced. In addition the rounding of the corners reduces wear and tear on the fabric in everyday use.

EU type Certificate - EN469:2020 X2, Y2, Z2 and MED
The manufacturer has obtained EU TYPE EXAMINATION in compliance with what is set out in Annex V (module B) in Regulation (EU) 2016/425 and in agreement with the applicable test procedures and technical specifications. Destined to protection of the entire body of the user with exception of head, hands and feet, according to the following standard/s:
- EN ISO 13688:2013+EN ISO 13:688:2013/A1 2021 general requirements.
- EN 469:2020 against risks up the operation of firefighting and related activities (X2,Y2, Z2).
- EN 1149-5:2018 against the riks of accumulation of electrostatic leads.
- Tests carried out after 5 washing cycles 40ºC.

Dräger Aramid Fireman's Suit

TECHNICAL SPECIFICATIONS

Type of material	Aramid
Pockets	Jacket: Two side pockets with flaps, one inside pocket and one radio pocket on each chest
	Trousers: 2 box pockets on thighs. Inverse pocket in both sides.
Color	Orange with reflective striping
Sizes	S - XXXL
Weight	± 2,92 kg
Approvals	MED,
	EN469:2020 (X2, Y2, Z2),
	EN ISO 13688:2013,
	EN ISO 13688:2013/A1 2021,
	EN1149-5:2018

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Aramid Fireman's Suit, size XS, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03700
Dräger Aramid Fireman's Suit, size S, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03701
Dräger Aramid Fireman's Suit, size M, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03702
Dräger Aramid Fireman's Suit, size L, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03703
Dräger Aramid Fireman's Suit, size XL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03704
Dräger Aramid Fireman's Suit, size XXL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03705
Dräger Aramid Fireman's Suit, size XXXL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03711
Dräger Aramid Fireman's Suit, size S, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03706
Dräger Aramid Fireman's Suit, size M, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03707
Dräger Aramid Fireman's Suit, size L, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03708
Dräger Aramid Fireman's Suit, size XL, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03709
Dräger Aramid Fireman's Suit, size XXL, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03710
Dräger Aramid Fireman's Suit, size XXXL, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03712

Aramid Fireman's Coverall

The Aramid Fireman's coverall is a navy dark blue or orange suit with reflective striping. The suit is manufactured from fire resistant natural fibre, It has a water repellent finish, which can withstand 50 washes without degradation.

Features
- one piece coverall
- front zipper extending to collar
- lace intake at waist. Snap hook in right pocket
- the coverall is provided with shoulder straps, microphone strap on right chest, loop

fastener for name/logo on left chest and an extra layer of knitting on shoulders
- knee pad pockets with pads and pre-bent knees
- elastic intake at waist on the back part of trousers
- anti-wicking barrier at bottom of trouser legs

Aramid fireman's coverall
One piece fireman's coverall

TECHNICAL SPECIFICATIONS

Type of material	Aramid
Pockets	Two side pockets with flaps, one inside pocket and one radio pocket on each chest
	2 box pockets on thighs. Inverse pocket in both sides.
Color	Navy Dark Blue or Orange with reflective striping
Sizes	S / M / L / XL / XXL
Approvals	EN 469-L2, EN13688 and EN1149-5

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's coverall Aramid, size S, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03761
Fireman's coverall Aramid, size M, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03762
Fireman's coverall Aramid, size L, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03763
Fireman's coverall Aramid, size XL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03764
Fireman's coverall Aramid, size XXL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03765
Fireman's coverall Aramid, size S, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03766
Fireman's coverall Aramid, size M, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03767
Fireman's coverall Aramid, size L, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03768
Fireman's coverall Aramid, size XL, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03769
Fireman's coverall Aramid, size XXL, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03770

Fire fighter hood

Nomex hood for fire fighters.

Features
Elastic inside at face opening.

Nomex hood
For fire fighters

TECHNICAL SPECIFICATIONS

Color	Grey
Size	One size
Material	Nomex/Viscose knit, 50/50, 235 g/m^2
Stitiching	100% Meta-Aramide
Approvals	EN 13911

ORDER INFORMATION

Description	Unit Sales	Articlenr
Flash hood: Nomex III	1	SG03881

Dräger Firemans Gloves

Best quality leather for the best protection.

Dräger fireman's gloves
Great protection for hands

General

These gloves are completely sewn with Kevlar. Between all seams, a leather tubing, which protects the Kevlar, can be seen. This extends the lifespan of the glove. The palm features an extra strong leather inside.

A piece of leather is sewn on the cuff as an additional radial artery protection. The glove is equipped with elastic so the glove will fit perfectly.

The Porelle breathable membrane ensures the user a breathability and protects the user against water and chemicals.

The knitted Kevlar lining provides high wearing comfort. The Kevlar elastic cuff fits well around the wrist and provides great protection for the user.

Features

- Material: Cowskin and fire resistant grain leather
- Membrane: Porelle breathable liner
- Liner: Knitted Kevlar (para Aramide fibre)
- Cuff: Knitted Kevlar with Spandex for elastic facility
- Stitching: Kevlar yarn
- Standard sizes: 7/S – 8/M – 9/L-10/XL-11/2XL

Porelle liner

- Keeps you dry and comfortable
- Innovative functional technology
- High moisture diffusion and drying ability
- Fire retardant and high capacity breathability
- Keeps your body temperature in balance

TECHNICAL SPECIFICATIONS

Color	Yellow
Fabric	Leather palm and backhand
	Knitted wrist
	Kevlar inner lining
Approvals	EN 659, EN 420, EN 388, EN 407 and MED approved

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Firemans Gloves, size S, MED approval	1	SG03741
Dräger Firemans Gloves, size M, MED approval	1	SG03742
Dräger Firemans Gloves, size L, MED approval	1	SG03743
Dräger Firemans Gloves, size XL, MED approval	1	SG03744
Dräger Firemans Gloves, size XXL, MED approval	1	SG03745

Fireman's Boots

Comfortable boots with reinforced toes and mid sole. Heat and oil resistent rubber sole with protection against penetrating nails. Approved according to EN345-2 and SOLAS/MED.

Fireman's Rubber Boots
Meets the heat and flame resistance requirements

Safe

The fireman's boot is an EC-approved safety boot and is produced in compliance with the PrEN 345 standard, section 2, category S5. In this way our fireman's boot meets the most stringent heat- and flame resistance requirements. Thanks to these specific characteristics and their broad fit our boots are particularly appreciated among fire fighters, civil protection and rescue services.

Flexible - elastic and supple

In contrast to PVC, which is a stiff material, especially at temperatures under 15ºC, the flexibility of rubber makes the boots pleasant to wear. In addition the boots adjust to the feet without pinching. The elasticity of rubber combined with the cotton stretch lining increase comfort, while putting them on, when wearing them and when removing them. The suppleness of rubber provides unequaled wearing comfort. The natural spring contributes to healthier ergonomics for the feet.

TECHNICAL SPECIFICATIONS

Color	Black and yellow
Sizes	36 - 50
Type of construction	Vulcanized rubber upper and sole
Rubber components	Black/yellow in color, 65% natural rubber, 30% styrene butadiene rubber and 5% chloroprene rubber
Sole/heel	Oil resistant - Immersion in iso-octane (22 hours at 22ºC) 12% max change in volume Abrasion resistant - DIN 53516: 250mm 3 max. Hardness shore A: 65 ± 5
Steel midsole	One piece stainless steel, meets CSA-Z195-02 sole penetration and EN345 flexing test
Steel toe	Meets EN 345 impact and compression
Chemical resistant	Upper - Resistant towards mild acids and alkali Sole - Resistant towards mild acids
Approvals	European standard, CE approved - EN 345-2: 1996 (SBFP-E-HRO-CI) and UK office A29, CSA Z195-02 - Canadian standards association (PR EH), ANSI - American national standard Z41PT99 (I/75 C/75)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's Boots, size 36	1	SG03721
Fireman's Boots, size 37	1	SG03722
Fireman's Boots, size 38	1	SG03720
Fireman's Boots, size 39	1	SG03723
Fireman's Boots, size 40	1	SG03724
Fireman's Boots, size 41	1	SG03725
Fireman's Boots, size 42	1	SG03726
Fireman's Boots, size 43	1	SG03727

Fireman's Boots

Description	Unit Sales	Articlenr
Fireman's Boots, size 44	1	SG03728
Fireman's Boots, size 45	1	SG03729
Fireman's Boots, size 46	1	SG03730
Fireman's Boots, size 47	1	SG03731
Fireman's Boots, size 48	1	SG03732

Fireman's Boots Herkules S3 5526-0

Comfortable boots for protection against heat and foot injuries and injuries caused by slipping, pushing, pinching, falling or sliding objects.

Fireman's Boots Herkules 5526-0
Meets the heat and flame resistance requirements

Features

- upper material: natural, heat-resistant and waterproof cowhide leather with smooth grain, black colour.
- lining: natural cowhide leather - in addition to the comfort, the properties of this leather increase hygiene of wear, because the moisture that appears during the use is drained through the leather of the lining. As a result, the skin of the feet does not overheat, does not attrition and does not infuse, without causing discomfort to the user.
- special construction of the tongue prevents the penetration of dust or dirt inwards the shoe.
- F2A: footwear for firefighters type 2, with antistatic properties, construction type C.
- an additional rubber cover protection sewn to the tip of the shoe prevents an attrition and mechanical damages of leather at front part of the upper.
- steel toecap: protecting against impact with energy up to 200J and 15kN crush force.
- steel insole: resistant to puncture up to 1100N.
- HI3: third level thermal resistance-level of heat insulation at 250ºC/40 min.
- double zipping system: zipper and laces.
- zipper handle blocker
- reflective inserts
- easy donning
- ventilated two-layer insole pad (outer part - natural leather, inner part - foam, both parts swen together), with additional layer of special foam in the heel section to increase the comfort of use.
- sole: top quality heatproof rubber, resistant to high temperatures, oils, weak acid and alkaline, antiskid SRC.
- shock-absorber protection for shock absorption in the heel part while walking.
- assembly system: gluing

TECHNICAL SPECIFICATIONS

Color	Black
Sizes	36 – 48 (special sizes 49 and 50)
Sole/heel	Molded rubber sole with 6 mm profile Heat-resistant up to 300 ºC SRC rated slip resistant Incorporated stainless steel soleplate
Weight	2.1 kgs
Height	22 cm in size 8
Approvals	Protection class F2A HI3 SRC according to the requirements of European standard for firefighting boots EN 15090:2012

ORDER INFORMATION

Description	Unit Sales	Articlenr
Herkules Fireman's Leather Boots, size 6 / 39	1	23112003
Herkules Fireman's Leather Boots, size 7 / 40	1	23112051
Herkules Fireman's Leather Boots, size 8 / 41	1	23112052
Herkules Fireman's Leather Boots, size 9 / 42	1	23112053
Herkules Fireman's Leather Boots, size 10 / 43	1	23112054
Herkules Fireman's Leather Boots, size 11 / 44	1	23112055
Herkules Fireman's Leather Boots, size 12 / 45	1	23112056

Fireman's SA Boots

Boots for emergency situation and fire with toxic chemicals emission.

Features
- safety toe cap
- anti-perforation mid-sole
- resistance to heat flow, heat contact, fire

- resistance to chemicals: fuels, oils, weak and diluted acids, solvents
- resistance to abrasion and cuts
- used with chemical protective suits (satisfy permeation tests according to EN 943-2)

Fireman's SA Boots
Meets the heat and flame resistance requirements

TECHNICAL SPECIFICATIONS

Color	Black
Sizes	36-50
Type of construction	Elastomer: fireproofed NBR (fireproofed nitrile rubber)
Steel midsole	Composite anti-perforation mid-sole
Toe	Polymer toe cap (steel toe for sizes 36, 37, 38)
Weight	1900g / pair (size 42)
Height	370mm (size 42)
Approvals	EN 943-2 EN 15090 type 3 HI3 EN ISO 20345 S5 HRO SRC EN 13832-3 J P Q EN 13287 Marine fire protection equipment certified by SEE-BG, notified body N°0736 MED approved

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's Boots, size 36	1	SG03746
Fireman's Boots, size 37/38	1	SG03747
Fireman's Boots, size 39	1	SG03749
Fireman's Boots, size 40/41	1	SG03751
Fireman's Boots, size 42	1	SG03752
Fireman's Boots, size 43	1	SG03753
Fireman's Boots, size 44	1	SG03754
Fireman's Boots, size 45	1	SG03755
Fireman's Boots, size 46/47	1	SG03756
Fireman's Boots, size 48	1	SG03757

Dräger HPS SafeGuard Helmet

The Dräger HPS® SafeGuard is the extremely lightweight universal helmet for fire and rescue services. Its innovative design combines optimal protection with the highest levels of wearing comfort. Its sporty look, light weight and tailor-made accessories make the helmet a real all-rounder for any challenge.

Dräger HPS® SafeGuard Helmet
The extremely lightweight universal helmet for fire and rescue services.

Optimal wearing comfort
Weighing just around 1.2 kg in its basic configuration, the Dräger HPS SafeGuard is one of the lightest helmets in its class. Its innovative design also ensures optimal weight distribution of the fire and rescue helmet. These two factors combined offer you the best possible wearing comfort and the perfect fit for all types of movement – even when crawling. The helmet is characterised by its advantageous weight distribution and the excellent climate characteristics: The excellent thermal insulation helps to protect you when fighting fires, while guaranteeing a balanced climate inside the helmet even during longer rescue missions without respiratory protection. Lots of benefits, all confirmed in external scientific studies.

Ready for every challenge
The multifunctional and sporty design of this compact helmet offers you exceptional protection, without limiting your movements or perception: vital senses such as sight, hearing and sensitivity to heat are not impaired, while at the same time all essential parts of the head are protected. A combination of aesthetic and functional elements makes the helmet attractive as well as safe. Examples include the integration of the lighting and communication systems, and the numerous configuration options and customisation markings available for each helmet. These make it easy to visually identify the role and function of each person.

Quick and easy helmet adjustment
One size fits all - the protective helmet covers a wide range of individual head sizes from 50 to 67 cm. You can adjust the helmet to your head size in just a few simple steps: The chin and neck strap are quick and easy to adjust. In addition, the adjustment wheel on the back of the helmet is particularly easy to access.

A helmet for all situations
Thanks to its universal design and multiple certifications, you can make perfect use of the helmet for all key applications required in fire and rescue services. The special endurance testing conducted by Dräger also means that you can rely on the multifunctional helmet to consistently deliver a high degree of safety, reliability and quality. With its fully integrated, highest optical quality visors, your face and eyes are perfectly protected. Moreover, the additional multi-coating feature prevents it from fogging and scratching. A gold coating not only provides the best possible protection against radiant heat but also gives the helmet a stylish look.

For better visibility
The helmet is available in a wide range of colours. For the best possible protection in conditions of poor visibility, you can also fix reflective strips in different designs all around the helmet, making it easily identifiable day or night. The HPS BuddyLight on the back of the helmet provides additional safety - it ensures that you can be immediately recognisable from behind even in conditions of poor visibility. You can use the individual lighting solutions to illuminate your immediate workspace as needed: our integrated, explosion-proof helmet lamps can be fitted at the front or side and can be handled hands-free.

Lots of options - easily fitted
For your convenience, the construction of the helmet has been streamlined to just a small number of main components, thereby simplifying the spare-parts logistics. You can easily and intuitively attach individual parts and accessories. You don't need any tools to replace the parts. All electronic accessory components can be powered using standard commercial batteries. In addition, RFID transponders and barcode technology also support your logistics processes.

Straightforward cleaning and maintenance
Whether manually or mechanically - you can use any common cleaning process on this protective helmet without any problems. In addition, the simple and tool-free removal of just four component parts makes for quick and effective cleaning of some or all parts of the helmet.

Dräger HPS SafeGuard Helmet

Unhindered communication

Thanks to the helmet shell's special design, your ears remain uncovered. For you this translates to improved communication with your team, that is being able to hear and speak to them clearly. Even the perception of background noises is flawless.

Optional integrated communication system

In addition, the integrated Dräger HPS-COM helmet communication unit provides reliable support for radio communication. Alongside its excellent voice quality, its stand-out features include a robust, compact design and easy installation. The new dual-mic technology is ideally suited to all operations, with or without breathing protection.

Different types of helmets

- 1. Dräger HPS® SafeGuard EN with Basic harness without cheek padding in size M, with crown straps without comfort pad, with clear AS/AF face guard, interior design with Basic padding, with Basic function plates, without neck protector, without reflective strips.
- 2. Dräger HPS® SafeGuard Extend EN with Extend harness including cheek padding in size M, with crown straps and comfort pad, with clear AS/AF face and eye guard interior design with Extend padding, with Extend function plates for adapting accessories, with short aramid Nomex® neck guard, with silver reflective strip at the back.

3D configurator - configure your own helmet!

Try out our new, exclusive 3D helmet configurator and discover the diversity of our HPS SafeGuard helmets in all their facets! Whether with your computer, tablet or smartphone - the configurator can be used with any device. Configure the helmet of your choice, share it with your colleagues and request a non-binding quote! Copy the following URL to your webbrowser: https://static.draeger.com/hps-configurator/nl_nl/hps-SafeGuard/index.html

TECHNICAL SPECIFICATIONS

Size	One-size-fits-all; can be continuously adjusted to fit head sizes 50 – 64/66 cm using the external adjusting wheel
Weight	HPS SafeGuard: approx. 1,250 g (+/-5%) HPS SafeGuard Extend: approx. 1,450 g (+/-5%)
Helmet shell	Helmet shell made of composite material consisting of glass-fibre reinforced plastic (PA-GF), high temperature resistant, with circumferential helmet shell end rail
Helmet shell colours	Unpainted version: matt black Painted versions: yellow green (RAL 6018) fluorescent yellow (RAL 1026) fluorescent orange (RAL 2005) luminescent (similar to RAL 110) luminescent yellow (similar to RAL 1016) red (RAL 3000) signal blue (RAL 5005) black (RAL 9005) pure white (RAL 9010) white aluminium (RAL 9006)
Customised markting and labelling	Reflective and designer strips as well as functional markings made of thermally resistant, highly flexible, long-lasting and retro-reflective Scotchlite™ series 580 reflective tape from 3M, available in different colours
Shock absorption system	Composite consisting of glass fibre reinforced plastic (PA-GF) and Rigid foam damping element made of two-component polyurethane (PUR) reinforced with aramid fabric and in combination with textile crown straps, optionally fitted with a comfort pad

Dräger HPS SafeGuard Helmet

Interior design	Flame-resistant and washable three-point harness with adjustable chin and neck strap made of Nomex® (Extend version) or alternatively of Modacryl (Basic version); carrier ring and adjustment system using continuous variable gear with padding – alternatively from Nomex® knit fabrics (Extend version) or eco-leather (Basic version), optional upgradeable with HPS SafeGuard COM holder for use with a helmet communication unit (e.g. Dräger HPS-COM)
Face guard	Made of high temperature resistant Apec® material, approved in accordance with EN 14458:2018; with highest optical quality (optical class 1), continuously swivelling up and down; multiple coatings (permanent anti-fog coating inside and anti-scratch coating outside) Alternatively available in versions: clear or gold (with radiant heat protection level R1)
Eye guard (optional)	Made of high temperature resistant Apec® material, approved in accordance with EN 14458:2018, with highest optical quality (optical class 1), continuously swivelling up and down, multiple coatings (permanent anti-fog coating inside and anti-scratch coating outside) Alternatively available in versions: clear or tinted.
Approvals	EN 443:2008 Firefighters helmets – Helmets for fire fighting in buildings and other structures (type: A 3b, C, E2, E3, -30°C) EN 16471: 2014 Firefighters helmets – Helmets for forest wildland fire fighting EN 16473: 2014 Firefighters helmets – Helmets for technical rescue MED 2014/90/EU Standard for helmets for fire fighting on board ships SOLAS II-2/10.10., IMO RES. MSC.327(90) International maritime resolution for helmets for fire fighting on board ships PPE Regulation (EU) 2016/42

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS® SafeGuard EN with Basic harness without cheek padding in size L, with crown straps without comfort pad, with clear AS/AF face guard, interior design with Basic padding, with Basic function plates, without neck protector, without reflective strips.		
Dräger HPS® SafeGuard EN luminescent (similar to RAL 110)	1	3701621
Dräger HPS® SafeGuard EN red (RAL 3000)	1	3701622
Dräger HPS® SafeGuard EN fluorescent yellow (RAL 1026)	1	3701623
Dräger HPS® SafeGuard EN white (RAL 9010)	1	3701624
Dräger HPS® SafeGuard Extend EN with Extend harness including cheek padding in size L, with crown straps and comfort pad, with clear AS/AF face and eye guard interior design with Extend padding, with Extend function plates for adapting accessories, with short aramid Nomex® neck guard, with silver reflective strip at the back.		
Dräger HPS® SafeGuard Extend EN luminescent (similar to RAL 110)	1	3701625
Dräger HPS® SafeGuard Extend EN red (RAL 3000)	1	3701626
Dräger HPS® SafeGuard Extend EN fluorescent yellow (RAL 1026)	1	3701627

Dräger HPS 7000 Fireman's Helmet

The Dräger HPS 7000 firefighter's helmet is in a class of its own thanks to its innovative, sporty and dynamic design, ergonomic fit and components which make it a multi-functional system solution. It provides you optimum protection during every operation.

Dräger HPS 7000 fireman's helmet
Tailor-made fit for every head

Firefighting helmet with tailor-made fit for every head

To meet this requirement, Dräger developed the HPS® 7000 firefighting helmet in close cooperation with customers worldwide. Two helmet shells for head sizes from 50 to 66 cm cover a wide range of individual head and face shapes. With a weight of approx. 1,380 g in the basic version, it is one of the lightest helmets in its class. In addition to its comfortable interior fitting made of skin-friendly, anti-allergic and flexible materials, the Dräger HPS 7000 stands out with its high level of operating and wearing comfort.

Comfort is a matter of position

The padded 4-point harness allows for safe and easy adjustment to any head shape. The optimum balance of the firefighting helmet can be adjusted individually in the neck and chin area. The padding made of Nomex® also ensures a comfortable fit. The integrated comfort hairnet enables the height to be adjusted and assures a good climate inside the helmet. During operation, the head size can be adjusted quickly via an easy-to-operate size-adjustment wheel with a safety mechanism on the outer shell, even with wet and thick gloves. Nomex® is a registered trademark of the company DuPont.

Design at its strongest

The ergonomic firefighting helmet design evenly distributes the weight to the head and relieves the neck muscles. The large and modern facial protection visor offers unrestricted protection with best visibility. For operations under chemical protective suits, the visor can be fixed permanently. A safe alternative is provided by the integrated and individually adjustable protective goggles with an integrated soft-pad edge protection. Both visors leave enough space for the simultaneous use of corrective glasses or respiratory masks. A firefighter's helmet is more than a mere piece of equipment – it serves as a personal distinguishing feature. Therefore, you can configure the helmet according to your wishes: select from a variety of colours and also pick an individual emblem for your front plate.

Innovative system design

As a provider of integrated system solutions, Dräger sets new standards for the interaction of its products. The universally and individually adjustable mask connection system of the Dräger HPS 7000 creates a strong and safe helmet-mask combination. The full-face mask FPS 7000, the integrated mask communication units Dräger FPS-COM 5000 or FPS-COM 7000 and the SCBA of the PSS series allow you to optimally configure the overall system. The lightweight LED helmet lamp is integrated into the helmet shell and illuminates the whole working area. It is located in the centre of the front plate and has an effective glare shield as well as an intelligent battery management system. The interior fitting can be equipped with various audio/speech headsets for different radios. This ensures reliable communication even in loud environments.

Highest safety - the material mix makes the difference

Despite its low weight, the Dräger HPS 7000 firefighting helmet is one of the safest full-shell helmets in its class. Its outer shell of composite material in combination with the PUR inner shell provides reliable protection against thermal and mechanical influences. The plastic reinforced with fibreglass and aramid webbing resists extreme temperatures. It is even able to withstand the enormous radiation caused by the heat and flame engulfment of a flash over. The visors, made of high-temperature-resistant polyether sulphone, reliably protect your eyes and face against high heat, particles and liquid chemicals.

Nothing left to be desired

A comprehensive accessory programme completes the Dräger package. Reflective stripes improve your visibility under unfavourable conditions and allow for individual marking. Matched to your clothing, the various neck-protection versions reliably keep your back free. Separate helmet lamps are attached with a lamp adapter on the right or left helmet side. A Nomex® fabric protects your firefighting helmet in any training situation and extends its service life. Helmet

Dräger HPS 7000 Fireman's Helmet

bags and cases provide safe storage and transport.

Ready again in no time at all

he Dräger HPS 7000 firefighting helmet is easy and efficient to service, thanks to the minimum number of components. The entire interior fitting can be removed and reinstalled in just a few steps. You can replace individual components easily and quickly using standard tools. All helmet components are cleaned and disinfected manually or in an industrial washing machine.

TECHNICAL SPECIFICATIONS

Size	H1: for head size 52 to 60 and optional for 50/51 (when using a separate padding strip), H2: for head size 56 to 64/66, continuously adjustable via adjustment wheel (available 2014)
Weight	Approx. 1,380 g (±5%)
Color	Luminescent, pure white,red, signal blue, zinc yellow, black, bright yellow, other colors on request
Mask connection (only PRO version)	Option to attach any adapter mask, e.g. Dräger FPS 7000, 4 positions adjustable
Interior fitting	Flame-resistant and washable 4-point harness made of Nomex, sweat band of eco leather, head support ring with wheel adjustment system (patent pending), integrated comfort hairnet, fixing lever for facial protection visor and communication adapter
Material, outer shell	Composite consisting of glass fibre reinforced plastic (PA-GF) and additionally reinforced with aramide webbing, high temperature resistant
Facial protection visor	2.5 mm polyether sulphone, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3) clear or gold-coated version
Protective goggles (only for PRO version)	2.5 mm polyether sulphone with softpad edge protection, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3), clear or tinted version, 2 positions adjustable
Approvals	EN 443:2008 (type B 3b, C, E2, E3, -40 °C), mask-helmet combination acc. to DIN 58610

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS 7000, luminescent	1	R79170
Dräger HPS 7000, white	1	R79171
Dräger HPS 7000, PRO luminescent/matt black	1	R79250
Dräger HPS 7000, PRO white/matt black	1	R79251
Dräger HPS 7000 - neck protection aramid / Aluminium	1	R79145
Dräger HPS 7000 - neck protection aramid / short	1	R79146
Dräger HPS 7000 - neck protection aramid, neck curtain, three-layer	1	R79147
Dräger HPS 7000 - helmet lamp, LED, integrated	1	R79013
To attach the integrated LED helmet lamp, order separately: kit front plate for HPS® 7000 helmet lamp	1	R79226
Lamp holder Dräger HPS 7000 (for helmet lamps Dräger PX1)	1	R79129
Helmet lamp Dräger PX 1 LED	1	R62350

Dräger HPS 4500 Fireman's Helmet

The Dräger HPS® 4500 is a traditional half-shell helmet with a modern design. Its robust outer shell provides you with excellent protection against impact and extreme heat. With a modern visor design, the helmet has superior wearer comfort due to ergonomic and lightweight internal components. A comprehensive range of accessories make our solution a truly versatile helmet across a variety of applications.

Dräger HPS 4500 fireman's helmet
Comfortable and easily adaptabel

Hard shell

The outer shell is characterised by a robust and resistant design. The combination of high-temperature-resistant Duroplast and latest aramid fabrics protects you both against falling debris and the heat of naked flames. The outer shell, pressed using a special method (SMC* method) provides the HPS® 4500 with exceptional stability. At the same time it is one of the lightest helmets of its class and meets the requirements of the new standard EN 443:2008 – type A (half shell).

High wearing comfort and easy operation

The HPS 4500 features modern and comfortable internal helmet components. The 4-point harness can be adjusted both in the neck area as well as in the temple area via a simple tensioning system. The convenient adjusting wheel allows you to adjust the fit of the helmet even with thick gloves. The integrated hair net allows for height adjustment, and at the same time, ensures a comfortable cool climate inside the helmet. The harness made of fire-resistant Nomex®/aramid fabric and the sweatband made of eco-leather are washable using common detergents.

Heat and scratch resistant visor

The large visor of the HPS 4500 reaches down to the chin area. It is made of thermally high-resistant Polyphenylsulfon material and therefore suitable for interior fire fighting. The visor is approved according to EN 14458 and classified as "face guard". Therefore the visor provides the greatest possible protection without any interfere in your field of vision. The visor has anti-scratch coating on both sides.

Comprehensive accessories for every challenge

Dräger offers you a wide range of accessories for the most varied applications during fire fighting. You can optimize and individualize your helmet to these various challenges by choosing between numerous versions of neck guards, face protections, helmet lamps and communication systems – all of which can be quickly and easily attached to the HPS 4500.
- * SMC (Sheet Molding Compound) – Duroplast, reinforced with aramid fibre cloths; for a higher performance of the entire helmet.
- Nomex® is a registered trademark of DuPont.
- Parasnap® is a registered trademark of Parat.
- Pinlock® is a registered trademark of Pinlock.

TECHNICAL SPECIFICATIONS

Size	H2: 48 to 61, H3: 56 to 64, freely adjustable
Weight	H2: 995 g +/- 5%, H3: 1,060 g +/- 5%
Outer shell	GRP = Glass fibre reinforced duroplastic, high-temperature resistant, specially reinforced with aramid fabric
Inner helmet components	Flame-resistant and washable harness made of Nomex®/aramid, eco-leather sweatband with PU foam padding, polyester hair net
Visors (optional selections)	2 mm Polyphenylsulfon (amber), anti-scratch coating on both sides, approved according to EN 443:2008 and EN 14458:2004, or 2 mm polycarbonate (clear), approved according to EN 14458:2004
Insulation resistance	E2, E3
Radiant heat	14 kW/m2
Cold resistance	up to -40ºC

Dräger HPS 4500 Fireman's Helmet

Approvals	EN 443:2008 - Type A, shipping approvals in accordance with SOLAS and MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS® 4500, luminescent, size H2	1	R62451
Dräger HPS® 4500, red, size H2	1	R62455
Dräger HPS® 4500, fluorescent yellow, size H2	1	R62459
Visor - Dräger HPS® 4500-PC AS/AS, size H2	1	R62494
Visor - Dräger HPS® 4500, PPSU AS/AS, size H2	1	R62496
Neck guard, Nomex® short	1	R56620
Neck guard Nomex®, Belgian version (shell version), 4 layers	1	R56621
Neck guard, aluminium/Nomex®	1	R56622
Neck guard, wool, Dutch shroud	1	R56623
Neck guard Nomex®, Dutch shroud version (shell version)	1	R58015

Dräger UCF® FireVista

Small, light, robust and can be operated with just one button: The compact thermal imaging camera Dräger UCF® FireVista provides excellent picture quality even under the most difficult operating conditions. The camera is ready for immediate use and provides the best possible support on firefighting deployments. Outstanding quality – especially in the price.

Dräger UCF® FireVista
Small, light and robust

Ideally suited for firefighting

When fire, smoke and darkness make firefighting difficult, the Dräger thermal imaging camera provides a vital sense of orientation, supporting the firefighter to advance, to identify the source of the fire and to locate victims. The Dräger UCF® FireVista helps you to optimally assess dangerous situations and thus obtain additional safety.

Excellent image quality

Even in poor visibility conditions, the Dräger UCF FireVista produces exceptional images. It is optimised for structural firefighting and provides a clear view even in thick smoke and darkness. Thanks to its high thermal sensitivity, it reliably detects even the smallest differences in temperature, which allows you to localise fire sources more quickly. This means that the image displayed shows a clear contrast between walls, doors and stairs. The high resolution and frame rate ensure that optimal image quality creates a quick overview in split seconds. This helps to find people more quickly when searching for them. With a clear view, you can search rooms and surrounding areas for sources of fire or locate victims. These features help you complete your mission quickly and safely.

Extremely durable and heat resistant

Even under the harshest operating conditions, you can rely on the camera's durability and heat resistance. Thanks to its almost indestructible outer shell, the Dräger UCF FireVista is extremely heat resistant. It can also easily withstand mechanical stresses that occur during a mission. Its IP67 protection class means water and dust cannot affect it in typical operating conditions.

Light and manageable

Weighing only 870 g, it makes it one of the lightest thermal imaging cameras currently on the market. During a mission, this means two important benefits: increased mobility and minimum physical strain for the user. The compact design ensures comfortable handling.

Ease of use with one-button operation

The camera deliberately dispenses with additional functions and focuses on optimised thermal imaging. With just one on/off switch, the camera requires minimum effort to operate. It is quickly ready for operation and gives you all the information you need in just a few seconds. This saves you valuable time in critical deployment situations. Despite the compact design, it has a large screen, so you can also assess the situation with others.

Reliable during use

Thanks to the powerful LiFe PO4 rechargeable battery, the operating time of approx. five hours gives you enough leeway for even longer deployments. The camera is virtually maintenance-free, and the integrated battery has a lifetime of approx. 4000 charging cycles.

A high-quality thermal imaging camera at a compelling price

Our Dräger UCF FireVista offers outstanding image quality at a compelling price, in trusted Dräger quality. Take this opportunity to equip your emergency teams on a large scale with an easy-to-use and technically advanced camera.

TECHNICAL SPECIFICATIONS

Dimension of the camera	134 x 89 x 134 mm (w x h x d)
Weight	870 g incl. rechargeable battery
Display Colour scheme	1
Size display (diagonal)	3.5 in (9 cm)
Protective rubber cover	EPDM rubber

Dräger UCF® FireVista

Carrying loops	High-temperature-resistant textile
Housing material	High-temperature-resistant plastic
Resolution	320 x 240 pixels
Thermal sensitivity	50 mK / 0.05 ℃
Frame rate	30 Hz
Operating time (at 23℃) with rechargeable battery	approx. 5 hours
Temperature measurement	Digital display of temperature -20℃ ... 650℃
Operating temperature	260℃ for 5 mins
Battery technology	Integrated
Battery type	LiFe PO4
Battery charging time	2 – 4 hours
Approvals and tests	IP67 Protection class for resistance to dust and immersion
	Drop test: 2 m onto concrete

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger UCF® UCF FireVista	1	3719350

Dräger UCF® FireCore

The Dräger UCF® FireCore* hands-free thermal imaging camera gives you a permanent vision of your immediate surroundings, even under the toughest conditions. That allows you to orientate yourself more quickly and safely, while also improving your situational awareness.

Dräger UCF® FireCore
Small, light and robust

Rapid assessment of the situation during firefighting
Especially during firefighting, difficult conditions such as fire, smoke and darkness prevail. The UCF® FireCore provides important orientation, helps to quickly assess the situation and thus identify potential hazards.

A clear view at all times
The FPS® in-mask display (FPS® IMD) is integrated into the Dräger FPS® 7000 full-face mask, so you have the thermal image in front of your eyes from the first second and at all times, and thus a permanent view of your surroundings, even under zero visibility conditions. This enables you to complete your mission with greater speed and safety.

Work with both hands free
The UCF® FireCore is ergonomically integrated into your PPE, so you do not have to hold the thermal imaging camera in your hand. That means you have both hands free to focus on what matters most: saving lives.

High level of flexibility
No matter whether you are crawling or climbing stairs, you always have a complete overview, because the camera angle is flexibly adjustable. This reduces physical strain, such as neck pain.

Thermal imaging camera is easily detachable
Especially when firefighting you often need to enter areas that are difficult to access. The UCF® FireCore makes it easier to manouevre, because you can simply detach it to capture a view of what is waiting in hard to reach areas. That gives you even better situational awareness.

Ease of use
The UCF® FireCore is very easy to handle and operate. It was designed for maximum usability. The UCF® FireCore is coupled with the FPS® IMD within a few seconds by briefly holding the two components next to each other. This also enables you to quickly hand over the thermal imaging camera to one of your teammates to use.

Tough and reliable on the job
You can rely on this durable camera even in the toughest conditions. With an IP67 rating, it is water and dust resistant under typical conditions. The UCF® FireCore is powered by lithium-ion batteries for long battery life. The batteries can easily be recharged either in a vehicle or at the fire station. The devices require minimal maintenance.

Modular design
The modular product concept allows for optimal adaptation to your operational tactics and budget. You can decide flexibly, based on your needs, which team member should be equipped with the FPS® in-mask display and also the UCF® FireCore.

TECHNICAL SPECIFICATIONS

Dimension of the camera	134 x 89 x 134 mm (w x h x d)
Weight	870 g incl. rechargeable battery
Display Colour scheme	1
Size display (diagonal)	3.5 in (9 cm)
Protective rubber cover	EPDM rubber
Carrying loops	High-temperature-resistant textile
Housing material	High-temperature-resistant plastic
Resolution	320 x 240 pixels
Thermal sensitivity	50 mK / 0.05 °C
Frame rate	30 Hz

Dräger UCF® FireCore

Operating time (at 23ºC) with rechargeable battery	approx. 5 hours
Temperature measurement	Digital display of temperature -20ºC ... 650ºC
Operating temperature	260ºC for 5 mins
Battery technology	Integrated
Battery type	LiFe PO4
Battery charging time	2 – 4 hours
Approvals and tests	IP67 Protection class for resistance to dust and immersion
	Drop test: 2 m onto concrete

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger UCF® FireCore	1	3716690

Dräger REGIS® 300 and 500

Hands-free monitoring of respiratory protection of emergency and rescue teams: The boards REGIS® 300 and 500 enable the incident manager to keep track of respiratory equipment wearers and their deployment time. Thanks to an automatic intermediate alarm, monitoring can be combined with other tasks. In co-usage with the external tracer, distances of up to 40 m are possible.

Dräger REGIS® 300 and 500
Hands-free monitoring of respiratory protection

Simultaneous monitring of three teams
With Dräger REGIS, the incident manager is able to monitor up to three teams simultaneously, with up to three wearers per team. Easy to read displays with countdown timers inform about the remaining deployment time. The displays of both boards are illuminated with the touch of a button to ensure all important data is easy to see even in difficult conditions.

More safety with intermediate alarms
A continuous beep is emitted once the deployment time of a team is over. To aid with assigning the right alarm with the right team, the corresponding LED flashes. The acoustic and visual alarm tracer also emits an alert after 1/3 and 2/3 of the deployment time has expired.

External tracer for more ease of movement
Some incidents require that the person performing the monitoring must leave the vicinity of the board. In these cases, a highly visible external tracer can be combined with the board as an additional module. The built-in transmitter reliably relays any alarm signals emitted by the monitoring board to the external tracer for a distance of up to 40 meters.

Full deployment monitoring with simple documentation
Name of the equipment wearer, cylinder pressure at the beginning of the deployment, air supply, start and end of deployment time, as well as location: A clip attached to the board holds a sheet for entering all necessary data. The person performing the monitoring can later detach and file this sheet as needed.

Name tags can be attached with snap hooks to the lower end of the board for help in visualizing the team members. The color of the tags also provides information about the type of respirators used.

REGIS 500: Coding plugs for different applications
The deployment time may be shorter or longer depending on the type of respirator used. With the coding plugs for standard and short time respiratory protective devices, extended time respiratory protective device, or closed-cycle respiratory protective devices, the monitoring board panel can adjust automatically to a specific deployment time between 25 and 120 minutes. Simply insert the coding plugs into the corresponding slots and the countdown starts automatically.

Other advantages of the REGIS 300
- three backlit displays
- digital clock for real-time display
- customisable deployment time
- deployment time with negative sign starting at 0 minutes on display
- made from durable plastic
- corner protectors made of rubber
- labeling field with intuitive symbols
- clip to hold sheets and pen

Other advantages of the REGIS 500
- integrated Digital clock for real-time display
- additional intermediate alarm at deployment halftime and remaining time of 10, 5, and 0 minutes
- large backlit display
- rubber edge protectors on side and pen holder

TECHNICAL SPECIFICATIONS

Dräger REGIS® 300: Size (h x w x d)	40 x 34,5 x 4,5 cm
Dräger REGIS® 300: Weight	1,5 kgs
Dräger REGIS® 500: Size (h x w x d)	24 x 23 x 5,8 cm
Dräger REGIS® 500: Weight	0,9 kgs

Dräger REGIS® 300 and 500

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGIS® 300	1	R55950
Dräger REGIS® 500	1	R54993

Insulated Fireman's Axe with Pouch

Insulated fireman's axe with leather pouch.

Insulated axe and pouch
For firefighting department

Applications
Firefighting department, axe is primary used for breaking down doors and windows.

Features axe
- handle is made of rubber
- can be carried in the fire fighting harness
- used by fire fighters in marine vessels

TECHNICAL SPECIFICATIONS

Axe	
Material	Blade: steel DIN EN 10083-2, class A DIN 7287
	Tubular: steel EN 10083-2 - C45
	Grip cover : impact proof, non-aging plastic
Length axe	32 cm
Weight	Appr. 1 kgs
Insulation value	Insulated handle tested to 10.000 volts
Color	Black handle, red axe
Pouch	
Material	Leather
Dimensions	230 x 215 mm
Weight	0.2 kg
Color	Black

ORDER INFORMATION

Description	Unit Sales	Articlenr
Insulated Fireman's Axe, 32 cm, exluding pouch	1	SG03803
Leather Pouch	1	SG03804

Streamlight Propolymer 3N LED Flashlight

The 3N alkaline battery-powered flashlight features (3) three ultra bright white LEDs.

Features
- impact resistant polymer body and face cap
- unbreakable polycarbonate lens with scratch resistant coating
- features momentary blink or constant "on" tail switch
- up to 120 hours continuous runtime

- features an integral pocket clip
- available in red and grey

Accessories
- holster
- lanyard

Streamlight LED Flashlight
ATEX zone 0 approved

TECHNICAL SPECIFICATIONS

Model	Propolymer 3N LED Zone 0
Material	Plastic
Light strength	30 Lumen
Maximum uptime	120 hours
Weight	60 gr
Dimensions	13.3 X 2.4 cm
Burn time light source	100.000
Approvals	DEMKO 04 ATEX 0406954 II 1G EEx ia IIC T4

ORDER INFORMATION

Description	Unit Sales	Articlenr
Streamlight Propolymer 3N LED Flashlight, Zone: 0	1	SG04115
Battery, Duracel PC2400 LR3 Size: AAA	1	SG04103

Peli 3315 Flashlight Zone 0

The 3315Z0 LED light: the lightweight compact design houses 3AA batteries that power a single LED for 138 lumens of super bright LED light.

Peli 3315 Flashlight
IP67

Features
- safety approved for the most volatile work environments ATEX Cat. 1 (Zone 0),

- the 3315Z0 LED light is one of the most efficient torches on the market today
- LED light: compact, huge LED performance

TECHNICAL SPECIFICATIONS

Lenght	6.14" (15.6 cm)
Light strength	138 lumens, 146 meter
Material body	Anti-static impact modified PC/PBT
Material o-ring	EPDM
Material lens	Anti-static coated Polycarbonate (PC)
Lamp type	LED
Battery	3x AA, Alkaline, included
Weight (with batteries)	176 gr
Weight (without batteries)	105 gr
Switch	Push button, light modes on/off
Approvals	Atex Zone 0, IP67

ORDER INFORMATION

Description	Unit Sales	Articlenr
Peli 3315 Flaslight Zone 0	1	SG04117

Peli StealthLite 2460 Flashlight, Zone 1

Peli's Rechargeable StealthLite™ is a powerful indestructible flashlight with an unbreakable corrosion proof ABS body and hi-impact polycarbonate lens. Its Laser Spot Xenon™ lamp module gives an extremely bright white beam, which can cut through water, smoke, fog and rain, making it a perfect light source for all applications. This flashlight is ATEX approved.

Features

It is a highly recommended flashlight to be used within shipping, industrial and fire applications because it is very powerful, light weight and attachable to any work helmet.

The state-of-the-art smart charger allows for a fast 2-3 hour charge time while the LED light indicates the charge state of the battery and eliminates overcharging and over heating. The Rechargeable StealthLite™ has a one handed on/off locking switch plus a heavy-duty lanyard and is water resistant (not for diving applications). It is for ATEX, FM and CSA approved.

Peli StealthLite 2460 Flaslight, Zone 1
Very powerful and light weight

TECHNICAL SPECIFICATIONS

Light source	LED
Lumen	112
Light strength	153 m
Length	17.8 cm
Volt	4,80
Operation time	4,5 hours
Batteries	4 Alkaline 'AA' Cells
Weight (without batteries)	120 gr
Weight (with batteries)	220 gr
Color	Yellow
Approvals	UL ATEX, Zone 1 (Category 2)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Peli StealthLite 2460 Flashlight, Zone 1	1	04143030
Peli StealthLite Flashlight, 220V, including charger	1	SG04112
Peli Stealth Lite Flashlight Lamp module	1	04143032

Peli StealthLite 3315 Flashlight

Peli's Rechargeable StealthLite™ is a powerful indestructible flashlight with an unbreakable corrosion proof ABS body and hi-impact polycarbonate lens. Its Laser Spot Xenon™ lamp module gives an extremely bright white beam, which can cut through water, smoke, fog and rain, making it a perfect light source for all applications. This flashlight is ATEX approved.

Features

It is a highly recommended flashlight to be used within shipping, industrial and fire applications because it is very powerful, light weight and attachable to any work helmet.

The state-of-the-art smart charger allows for a fast 2-3 hour charge time while the LED light indicates the charge state of the battery and eliminates overcharging and over heating. The Rechargeable StealthLite™ has a one handed on/off locking switch plus a heavy-duty lanyard and is water resistant (not for diving applications). It is for ATEX, FM and CSA approved.

Peli StealthLite 2460 Flaslight, Zone 1
Very powerful and light weight

TECHNICAL SPECIFICATIONS

Light source	LED
Lumen	112
Light strength	153 m
Length	17.8 cm
Volt	4,80
Operation time	4,5 hours
Batteries	4 Alkaline 'AA' Cells
Weight (without batteries)	120 gr
Weight (with batteries)	220 gr
Color	Yellow
Approvals	UL
	ATEX, Zone 1 (Category 2)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Peli StealthLite 2460 Flashlight, Zone 1	1	04143030
Peli StealthLite Flashlight, 220V, including charger	1	SG04112
Peli Stealth Lite Flashlight Lamp module	1	04143032

Fire Proof Lifeline

Lifelines for firefighters outfit are intended of being attached by means of a snap-hook to the harness of a firefighter. Especially suited for marine fire fighters, MED approved.

Features

The lifeline has a carabiner hook with a screw cap hook on one side. For the end connection the polyester cover is removed at the end of the wire rope. The end connection is with a thimble end the wire rope is pressed with a ferrule. A shrink hose is covering the ferrule.

Fire proof life line
MED approved

TECHNICAL SPECIFICATIONS

Material	- Galvanized steel wire rope 6X19+PP core 5 mm according to specification 619N5 in tensile strength of 1770 N/mm2 - woven cover sheet of Polyester yarns made out of Trevira CS of thickness approximately 1,5 mm - Carabiner hook in acc. to DIN 5299 Form C 100 x 10 mm WLL 350 kg
Length line	30 meters
Approvals	MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Proof Life Line with hook, 30 meter, MED approved	1	SG03823
Fire Proof Life Line with hook, 40 meter, MED approved	1	SG03825
Fire Proof Life Line with hook, 45 meter, MED approved	1	SG03826
Fire Proof Life Line with hook, 50 meter, MED approved	1	SG03827

Fire Resistant Belt

Fireman's work positioning belt is especially designed for fire brigades. They are exclusively intended to prevent falls from a height in hazardous areas.

Fire Resistant Belt
To prevent falls from a height

Features
When putting on the fireman's work positioning belt, the belt itself is wrapped around the body and closed by pulling the webbing end through the alloy frame, going back with it through the two-pin buckle and hooking the metal inserts into this. After that the webbing end is pulling through and fixed by the fitted webbing loops. The belt has to fit the body tightly.

Optional
The belt is optional equipped with carabiners with screw locking devices or Twistlocks. The multifunctional eye on the carabiner snaphook of the fireman's work positioning belt is a special feature for fire brigades and is intended exclusively for use with trained personnel. This multifunctional eye is for guiding loads to upper or lower levels.

Usage
The fixed lanyard is used for work place positioning (positioning or restraint purposes) and attaches to the anchor point by a carabiner snaphook. The anchor point has to be at or above waist level and should bear a minimum load of 10 kN according to EN 795. In fall hazardous areas the lanyard must always be tensioned to limit the free room of movement to maximum 0,6 meters.

Important
A fireman's work positioning belt is definitely not a full body harness. The positioning belt should be owned by the user individually and is only allowed to be used by seriously trained personnel.

TECHNICAL SPECIFICATIONS

Carbine	Twistlock
Weight	1.030 gr
Approvals	DIN 14927

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Resistant Belt, size 3	1	SG03848

Bag for Fireman's Outfit

Bag to store fireman's outfit.

Suitable for
- 1 x Dräger Nomex Fireman's Suit
- 1 x Dräger HPS 4500 firefighter's helmet, with neck curtain & visor
- 1 x Dräger fireman's gloves EN 659 (2003), MED approved
- 1 x Fireman's SA Boots

Fireman's bag
For fire fighters (equipment not included)

TECHNICAL SPECIFICATIONS

Color	Yellow and red
Dimensions	60 x 36 x 35 cm
Material	PVC Bisonyl

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bag for fireman's suit (equipment not included)	1	SG03882

Fire Blanket

A fire blanket is designed to smother a fire by cutting off its oxygen supply. The fire blanket is placed in a plastic wall container.

Features
- a fire blanket is a safety device designed to extinguish small starting fires

- it consists of a sheet of fire retardant material which is placed over a fire in order to smother it
- fire blankets are folded in to a quick-release container for ease of storage

Fire Blanket (normal)
To extinguish small fire

TECHNICAL SPECIFICATIONS

Material	Composition E glass
	Yarn: Warp: EC9 68 Ex
	Yarn: Werft: EC9 68 Ex
	Finish: 2 side white sillicone coating 2 x 35 gm/m2
Blanket sizes	1000 x 1000 mm
	1200 x 1200 mm, container size: 210x165x40 mm
	1200 x 1800 mm, container size: 280x165x40 mm
	1800 x 1800 mm, container size: 460x165x40 mm
Color	Container: Red
	Blanket: White
Approvals	Kitemark: BS EN 1869 / BS EN ISO 9002

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 100 x 100 cm	1	SG00481
Fire blanket, 120 x 180 cm	1	SG00483
Fire blanket, 180 x 180 cm	1	SG00484
Users manual Fire blanket in English	1	SG00485

Covers for all fire extinguishers

Protection covers for portable and movable fire extinguishers. Designed for i.e. shipping and offshore environments.

Features of protection covers for wheeled fire extinguisher covers
- all seams double stitched
- heavy hook and loop fastener closings with loops for quick removal in case of a emergency

- cover made heavier by a galvanized chain which is fully enclosed in the bottom seam to prevent the cover been blown off by strong winds
- depending on the extinguish agent an appropriate stripping is marking the cover

Cover for portable and wheeled fire extinguisher
Designed for shipping/offshore environments

TECHNICAL SPECIFICATIONS

Type	Covers portable fire extinguishers
Material	650 gr/m^2 flame retardant PVC
Color	Red with white logo
Type	Covers wheeled fire extinguishers
Material	650 gr/m^2 flame retardant PVC
Color	Cover: Red Striping dry powder: Blue Striping foam: Beige Striping CO_2: Black

ORDER INFORMATION

Description	Size	Articlenr
Cover for portable fire extinguisher 6-12 kg/liter	1	SG00322
Cover for wheeled powder extinguisher 50 kg, blue strip, weighted by steel chain	130 x 51 cm	SG00321
Cover for wheeled foam extinguisher 45/50 ltr., without striping, weighted by steel chain	80 x 50 cm	SG00327
Cover for wheeled foam extinguisher 45/50 ltr., beige strip , weighted by steel chain	80 x 50 cm	SG00325
Cover for wheeled foam extinguisher 155 ltr. beige strip, weighted by steel chain	120 x 68 cm	SG00326
Cover for wheeled CO2 extinguisher 10/20 kg., black strip, weighted by steel chain	120 x 54 cm	SG00328

Brackets for all fire extinguishers

Wall brackets for 2 till 12 kgs fire extinguishers.

Marine bracket CO2

Wall bracket for fire extinguishers 5 kgs and 6 kgs. Can be used for carbon dioxide extinguishers. Fitted with nylon securing strap to keep the extinguisher in place under all conditions.

Marine bracket for powder / foam / water

Wall bracket for fire extinguisher. Can be used for dry powder, foam or water extinguishers. Fitted with nylon securing strap to keep the extinguisher in place under all conditions.

Marine bracket CO2

Fitted with nylon securing strap

TECHNICAL SPECIFICATIONS

Material bracket	Bracket: mild steel / powder coated / Black
Material securing straps	Securing straps: Nylon webbing with PVC snap lock
Dimensions	25 x 900 mm
Fixation CO2 extinguisher	Bracket fitted with 3 predrilled holes 4 mm
Fixation powder/foam/water extinguisher	Bracket fitted with 4 predrilled holes 5 mm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Universal bracket for powder or foam extinguisher	1	SG00331
Marine bracket with strap for dry powder, foam or water extinguisher, 6 to 12 kgs	1	SG00334
Mounting bracket for composite extinguisher	1	SG00335
Marine bracket with strap for CO2 for 5 kgs extinguisher	1	SG00337
Marine bracket with strap for CO2 extinguisher, 2 kgs (small)	1	SG00338
Transport bracket: galvanised ZSB, with 2 straps	1	SG00339
Inland shipping bracket for powder extinguisher	1	18108019
Bracket for CO2 extinguisher, standard, 5 kgs	1	18108020

Hansen Sealife TP Life Jacket

Hansen Sea Life TP Life Jacket comes in adult and child models and is approved according to the newest NMD (Norwegian Maritime Directorate) requirements as a thermal life jacket.

Features
- protects against drowning
- insulation that counteracts hypothermia / heat loss from the head, neck, chest and groin
- designed to protect vital body parts and reduce cold shock

- derives as a regular jacket and is easy to put on
- "impossible" to slip out of when properly worn
- provides good sight and freedom of movement
- approved to the latest SOLAS/ IMO requirements as a thermal life jacket

Hansen Sealife TP Life Jacket
With thermal protection

TECHNICAL SPECIFICATIONS

Type	Solid life jacket
Color	International approved 290 orange
Size	child-adult
Dimensions (unpacked)	1040 x 290 x 120 mm, excluding size of thermal protection jacket
Approvals	SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sealife TP Life Jacket, safety light included	1	SG05012

Viking YouSafe™ Essence Life Jacket

Designed to minimize storage dimensions, while still allowing for easy repacking for crew. Featuring a compact design and proven in-water performance, VIKING YouSafe™ Essence is a great basic lifejacket for commercial cargo and passenger vessels.

General
- Good in-water performance with a torso and head-support buoyancy panel
- Intuitive donning and protection in case of emergency
- Easy repacking and storage when not in use

Features
- Whistle, buddy line, lifting strap

- Single front buckle and crotch strap ensures an easy intuitive donning
- Minimal storage space required
- Body and head-support buoyancy panel

Typical applications
- Cargo vessels
- Passenger vessels
- Offshore applications

Viking YouSafe™ Essence Lifejacket
Easy intuitive donning

TECHNICAL SPECIFICATIONS

Type	Solid life jacket
Color	High visibility yellow or Orange
Size	Universal size
Fabric	Coated polyester
Approvals	SOLAS/MED/MER

ORDER INFORMATION

Description	Unit Sales	Articlenr
Viking YouSafe™ Essence Lifejacket - Hi-Vis yellow	1	SG05014
Viking YouSafe™ Essence Lifejacket - Orange	1	SG05013

Secumar Golf 150N Life Jacket

A good value, this fully automatic inflatable life jacket is designed for tough jobs. Protective cover made of robust nylon fabric. Very light weight and with a compact design. Buoyancy chamber and protective cover are separate components and in the case of wear and tear can be replaced independently of each other.

Secumar Golf 150N Life Jacket
An inflatable life jacket for tough jobs

Applications
- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging
- underground engineering
- sewerage works
- stevedoring

Features
- the inflatable life jacket Golf 150 is available in an option with SPR-Protection cover for welding and hard-wearing purposes (washable)
- buoyancy chamber system: bright orange buoyancy chamber in navy blue protective cover
- standard equipment: whistle

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	150N
CO2-cartridge size	32 gr
Color	Navyblue, Orange (=SPR)
Closure	Front buckle
Emergency light	Optional
Approvals	CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 150N Life Jacket, safety light not included	1	20110001

Secumar DV 150N Life Jacket

Its compact and ergonomic design makes it a very light jacket offering a great freedom of movement. The protective stole and the buoyancy chamber are independent and can be changed independently if worn.

Applications
- suitable for high seas. For the wearers of foulweather clothing.

Features
- two tones whistle with cord
- multi-language instruction, service label
- transport bag
- 300 cm2 of M3 reflective strap
- equipped with an oral valve
- automatic inflator SECUMATIC 3001S
- automatic activation as the SECUMAR pills are in contact with water
- three green indicators show readiness of the inflation device

- buoyancy chamber system: bright yellow buoyancy chamber in navy blue protective cover
- the torque lock (Positorque®) prevents autonomous release of the CO2 cartridge due to shaking and vibration. Three indicators for all 3 necessary requirements: SECUMAR pill inserted, CO2 cartridge inserted correctly and release lever secured correctly.
- the service badge on the waist belt shows you at a glance when your life jacket should be serviced again in the SECUMAR service.

Secumar DV 150N Life Jacket
Inflatable universal safety vest

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	150N
CO2-cartridge size	32 gr
Temperature range	Storage: -54°C to +70°C
	Use: -10°C to +70°C
Weight	Approx. 0.8 kg
Color	Navyblue, Yellow
Closure	Front buckle
Emergency light	Optional
Approvals	DIN EN ISO 12402-3, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar DV 150N Life Jacket, safety light not included	1	20110012

Secumar Priva 275N L life jacket

This entry-level model has everything needed for safety on the waters. Favorable price in relation to good technology, easy to refill and pack, and a reliable 3001S torque protection (against patching of the cartridge) have contributed to this predicament.

Secumar Priva 275 L Life Jacket
An inflatable life jacket for tough jobs

Applications
- universal application for inland and maritime navigation.

Cover
- with integrated lifebelt / harness (according to DIN EN ISO 12401)
- loops (3.2 kN)
- material: Polyamide fabric
- color: Black
- closed with: hook and loop fastener closure
- front fitting: stainless steel

Float
- standard Float
- mouth valves
- material: polyurethane-coated
- polyamide fabric
- color yellow
- reflective strip: 400 cm2 (3M®)

Inflation
SECUMATIC 3001S Automatic activation with water contact. Torque protection (Positorque®) prevents the CO2 cartridge from being released independently by vibration and vibration.
- Triggering element: SECUMAR pill
- Three indicators:
- 1. Secumar pill inserted, 2. CO2 cartridge inserted correctly, 3. Trigger lever secured correctly.

Equipment
This life jacket comes complete with the following equipment:
- Operation manual
- 2-tone flute

Optional accessories
For this rescue vest, we also offer the following accessories:
- Replacement CO2 cartridge (56 g, TN 929)

Features
- Buoyancy chamber system: Bright orange buoyancy chamber in navy blue protective cover
- Standard equipment: Whistle

TECHNICAL SPECIFICATIONS

Weight	ca. 1.1 kgs
Size	Suitable for persons from 40 to 120 kgs
	From 85 to 150 cms chest size
Temperature	Storage temp.: -54° C to +70° C
	Operating temp.: -10° C to +60° C
Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	275N
CO2-cartridge size	56 gr
Color	Black and yellow
Closure	Front buckle
Approvals	DIN EN ISO 12402-2, DIN EN ISO 12401, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Priva 275N Life Jacket, safety light not included	1	20110019
Secumar: CO2 cartrige 56 gram, including 2 x pill and 2 x pin	1	20111023

Secumar Golf 275N Life Jacket

A good value, this fully automatic inflatable life jacket is for tough jobs. Protective cover made of robust nylon fabric. Very light and with a compact design. Buoyancy chamber and protective cover are separate components and in the case of wear and tear can be replaced independently of one other.

Applications
- water board authorities
- customs
- police
- locks
- dock workers
- inland waterways
- hydraulic engineering
- dredging

- underground engineering
- sewerage works
- stevedoring

Features
- buoyancy chamber system: Bright orange buoyancy chamber in navy blue protective cover
- standard equipment: whistle

Secumar Golf 275N Life Jacket
An inflatable life jacket for tough jobs

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	275N
CO_2-cartridge size	56 gr
Color	Navyblue, Orange (=SPR)
Closure	Front buckle
Emergency light	Optional
Approvals	CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275N Life Jacket, safety light not included	1	20110009

Secumar Golf 275 FR AC anti-static and flame retardant Life Jacket

Proven universal commercial 275N life jacket with anti-static and flame retardant properties (EN 1149-3 / EN ISO 14116 Index 1) for all activities in an explosive environment around water with fluorescent yellow cover and extra retro-reflective strips for higher visibility.

Secumar Golf 275 FR AC Life Jacket
Antistatic and flame retardant

Features
The compact folded life jacket with removable protective cover has a single buoyancy chamber. Once inflated, the back strap automatically holds the life jacket in the correct position. With its adjustable waist belt and back strap the life jacket can be individually adjusted to the size of the user. By using anti-static and flame-retardant materials and covering all fittings GOLF 275 FR AC has antistatic and flame retardant properties according to EN 1149-3 and EN ISO 14116 Index 1. In conjunction with appropriately approved protective clothing electrostatic discharges are safely excluded. The highly visible cover in fluorescent yellow with extra large reflective strip improves visibility.

Comfort and freedom of movement
Thanks to its compact construction, the wearing of the life jacket is barely noticeable and guarantees optimum freedom of movement. Nevertheless, their buoyancy chamber reaches a buoyancy of 280 Newtons.

Donning and doffing
Equipped with the patented SECUMAR CLICK-buckle the donning and doffing of the Golf 275 FR AC is very easy and is easy to operate even with gloves on.

Maintainability
Since the inflatable buoyancy chamber and protective cover are detachable, servicing is made much easier and the cover can be easily replaced.

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001S
Buoyancy	275N, effective 280N
CO2-cartridge size	56 g
Color	Orange
Color cover	Yellow
Closure	Front click buckle
Emergency light	Optional
Approvals	DIN EN ISO 12402-2
	DIN EN 1149-3
	DIN EN ISO 14116 Index 1

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275 FR AC Antistatic and Flame Retardant Life Jacket	1	SG05482

Secumar Survival 275 Duo Protect

275 N inflatabe offshore sailing life jacket with robust buoyancy chamber with twin skin buoyancy chamber for double protection against mechanical damage. Exceptional wearer comfort through ergonomic pre-shaped shoulder area. Integral harness with textile D-Ring. Adjustable padded back strap. SECUMAR 'winglet' buoyancy chamber for higher freeboard and stability in the water. Approved to DIN EN ISO 12402-2.

Secumar Survival 275 Duo Protect
Exceptional wearer comfort

Applications

The Survival 275 Duo Protect is an offshore sailing life jacket. It was ergonomically developed with more freedom of movement for the head and neck. That's the definitive design element for exceptional wearer comfort in this new SURVIVAL model. The secret is in pre-forming the shoulder area. So it remains stable and doesn't ‚load up' on the back of the neck.
The buoyancy chamber is shaped in the high performance WINGLET-design for better freeboard and turning power. It is equipped with an endurable multi-layer skin, called Duo Protect system. This is an inner protection for the buoyancy chamber against mechanical damage. It offers a higher resistance against wear and tear even during intensive use.

An integrated deck safety harness is equipped with a textiel D-Ring to reduce weight and avoid scratches on deck.
The shorter cut, rear padded webbing harness as well as having a front ‚Click' buckle all add to the wearer's comfort. Bt it's not short on safety – Crutch strap and sprayhood as standard. PLB and SOLAS light optional. All these features make the SURVIVAL 275 Duo Protect the perfect offshore sailing lifejacket.

Integration of emergency transmitters

This life jacket is designed to accept the AIS-SART easyRESCUE A040-BW-COM, but the following transmitters may be integrated using an optional extra pocket:
- Ocean Signal PLB1,
- Kannad SafeLink R10

TECHNICAL SPECIFICATIONS

Type of buoyancy / Method of inflator	Inflatable / Automatic inflatable 4001S 60 g CO_2 Dock
Buoyancy chamber system	SECUMAR Winglet buoyancy chamber, SECUMAR Duo Protect, dual walled system, retro-reflective strips, dedicated light attachment point, in protective cover
Standard equipment	In protective cover, Softshell neck area, oral valve, whistle, manual override, reflective strips, firing mechanism acccess zip, suspension loop, lifejacket storage bag
Color	Blue
Harness	Yes
Approvals	DIN EN ISO 12402-2 (CE mark), DIN EN ISO 12401 (integrated deck safety harness)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Survival 275 Duo Protect	1	20110029

Secumar Sierra 300 Neon Automatic Life Jacket

The SIERRA 300 are its low weight and particularly comfortable fit. It has been developed for universal use with long wearing times. There is also a pocket for a name tag in the front area. A unique fit with an ergonomically shaped shoulder area ensures optimal freedom of movement.

Secumar Sierra 300 Neon Automatic Life Jacket
Low weight and particularly comfortable fit

Applications
- ferry and passenger ships
- rescue organisations
- water board authorities

Buoyancy chamber
The powerful Winglet buoyancy chamber generates an exceptionally high free board and ensures an optimal rotation force thanks to its side wings. A fixed pocket can accommodate the easyRESCUE rescue transmitter. The buoyancy chamber can be easily separated from the protective cover and thus enables the two individual components to be exchanged in the event of damage and the protective cover to be washed.

SECUMATIC 4001S
The SIERRA 300 is equipped with the patented SECUMATIC 4001S automatic inflation device. A single indicator shows when the inflator and CO2 cartridge are ready for use. In the advanced version of the SECUMATIC 4001S automatic inflation device, the moving parts are gray and the new cartridge lock prevents the CO2 cartridge from being released unintentionally.

SECUMAR-Window
The SECUMAR window-design enables a direct view of the inflation device without opening the protective cover. This feature let you see at any time whether the inflation device is ready for use or not, by means of a single-coloured indicator.

Comfort and freedom of movement
The life jacket fits close to the body and is not bulky. The ergonomically preformed shoulder area, the padded side and back parts and the compact design ensure optimal freedom of movement and a good wearing comfort.

Donning and doffing
With the patented SECUMAR CLICK-buckle the donning and doffing of the life jacket is very easy, it is donned like a normal jacket. When it snaps in, a clear "click" can be heard as an acoustic signal that it is locked correctly. The handling of the buckle is easy, even when wearing gloves. To open the buckle, both red buttons must be pressed to prevent unintentional opening. If necessary (e.g. in an emergency situation) the SECUMAR 50-CLICK buckle can also be opened under load.

Protective cover
The protective cover is equipped with loops for fitting speaker microphones and a hand-held radio and a pocket for individual identification. Inside the protective cover there is a preparation for the subsequent installation of a spray hood.

Features
- with a buoyancy of approx. 280N the SIERRA 300 belongs to the 275N class. The powerful Winglet buoyancy chamber generates an exceptionally high freeboard and ensures an optimal rotation force thanks to its side wings.
- the ergonomically preformed shoulder area and the compact design ensure optimal freedom of movement. The life jacket is particularly suitable for long periods of wear, as the neck remains completely free and unencumbered. The head and helmet can be moved unrestrictedly without the lifejacket hindering "looking up". Thanks to the adjustable and padded waist belt, the life jacket can be individually adjusted to the size of the user and is comfortable to wear.
- the useful click buckle, a crotch strap and sprayhood preparation are essential standards and therefore already included.
- for additional safety, the buoyancy chamber is equipped with a pocket to stow the easyRESCUE AIS emergency beacon. For better visibility the protective cover is equipped with reflective strips.
- loops at the front of the life jacket can hold speaker microphones. A practical stowage pocket with zipper is located at the right side of the cover.
- the protective cover of the SIERRA 300 NEON is also equipped with a highly abrasion-resistant and easy-to-clean PVC coating in neon yellow.

Secumar Sierra 300 Neon Automatic Life Jacket

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 4001S
Buoyancy	280N
CO2-cartridge size	60 gr, CO2 dock
Color	Neon yellow
Color cover	Navyblue, yellow
Closure	Click attachment
Emergency light	Optional
Approvals	CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Sierra 300 Neon Automatic Life Jacket	1	SG05481

Dräger Life Jacket 275N SOLAS standard

Inflatable life jacket for adults. Approved and certified according to SOLAS MED, double compartment floating chamber with case made in high quality cover. Equipped with Buddy System. Double Automatic and Manual Activator (DAAM). Equipped with harness certified according to ISO 12401 and frontal safety D-ring. Smart, functional and comfortable donning. Designed for the maximum freedom and mobility on board during the manoeuvres in navigation.

Activation systems
Automatic activation (inflatable lifejacket): in case of falling overboard the system is submerged and automatically activates the inflation of chamber. Manual activation is possible as well.
Manual activation: the system is activated pulling the proper lever.
Oral inflation: the chamber inflates just blowing inside the oral tube. The oral tube is present on automatic inflatable lifejackets and on manual inflatable lifejackets as well.

Accessories on demand
Sprayhood, emergency automatic light, antiflame cover.

Spare parts
VSG rearming kit with 60 g CO_2 gas cylinder.

Service
The mandatory service for this inflatable lifejacket is each 12 months.

Dräger Lifejacket 275N standard
Automatic and Manual Activator (DAAM)

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Double Automatic and Manual Activator (DAAM)
Buoyancy	275N
	310N real buoyancy
CO2-cartridge size	2x 60 gr
Color	Yellow
Color cover	Blue
Closure	Click front buckle
Supported weight	43-140kg
Emergency light	Yes
Approvals	Solas, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger life jacket 275N DAAM with light	1	SG05495

Dräger Life Jacket 275N SOLAS Offshore

Inflatable life jacket for adults. Approved and certified according to SOLAS MED, double compartment floating chamber with case made in high quality cover. Equipped with Buddy System. Double Automatic and Manual Activator (DAAM). Equipped with harness certified according to ISO 12401 and frontal safety D-ring. Smart, functional and comfortable donning. Designed for the maximum freedom and mobility on board during the manoeuvres in navigation.

Activation systems
Automatic activation (inflatable life jacket): in case of falling overboard the system is submerged and automatically activates the inflation of chamber. Manual activation is possible as well.
Manual activation: the system is activated pulling the proper lanyard.
Oral inflation: the chamber inflates just blowing inside the oral tube. The oral tube is present on automatic inflatable life jackets and on manual inflatable lifejackets as well.

Accessories on demand
Sprayhood, emergency automatic light, anti-flame cover.

Spare parts
60 g CO2 gas cylinder. Double crotch strap.

Service
The mandatory service for this inflatable lifejacket is each 12 months.

Dräger Life Jacket 275N Offshore
Automatic and Manual Activator (DAAM)

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Double Automatic and Manual Activator (DAAM)
Buoyancy	275N (310N real buoyancy)
CO2-cartridge size	2x 60 gr
Color	Yellow flotation body
Color cover	Blue
Closure	Click front buckle
Supported weight	43-140 kg
Emergency light	Yes
Approvals	SOLAS, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger life jacket 275N SOLAS Offshore with light, crotch strap and sprayhood	1	SG05496

Secumar Golf 275N Twin SOLAS Life Jacket

Universal application, for offshore waters. With the patented SECUMAR CLICK-buckle the donning and doffing of the lifejacket is very easy, it is donned like a normal jacket.

Secumar Golf 275N Twin SOLAS Life Jacket
High buoyancy volume

Applications
- water board authorities
- customs
- ocean shipping
- police
- locks
- dock workers
- inland Waterways
- hydraulic Engineering
- dredging
- underground Engineering
- sewerage Works
- stevedoring

Buoyancy chamber
The twin chambers offer a 100% redundancy in case of a defect in the standard upper buoyancy chamber. The lower chamber can be activated if necessary. The volume of the lower chamber has the same buoyancy as the upper chamber. It is not necessary to inflate extra air via the oral inflation valve.

Features
- side fastening
- CO_2 cylinder 2 x 60 g
- distress light
- lifting harness
- double-chamber system
- optional crotch strap
- front fastening
-
-

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic inflator 3001s and manual inflator 301SM
Buoyancy chamber system	Bright yellow buoyancy chamber, twin-chamber-membrane-technology, overpressure valve
Standard equipment	Whistle, oral valve
Closure	Front click buckle
Emergency light	Yes
Inspection window	No
Size / body weight	over 43 kg
Buoyancy chamber	Classic
Type of clothing	Heavy weather clothing
Buddy line	Yes
Reflective strips	Yes
Back section	Divisible back strap
Approvals	CE, MED, SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275N Twin SOLAS Life Jacket, safety light included	1	SG05484
Secumar CO_2 cartridge 60 gr. Incl. 2x Pill + 2x Pin	1	SG05322

Secumar Golf 275N Twin SOLAS SPR PLB Life Jacket

275N SOLAS approved life jacket for industrial and professional application, for water engineering, inland waterways, offshore, high seas. Suitable for work with particularly high mechanical loads for the life jacket as well as for work on welding equipment. Integration possibility for the EPIRB Sea Marshall sMRT AU9 and AU10.

Secumar Golf 275N Twin SOLAS SPR PLB Life Jacket
An inflatable life jacket for tough jobs

Applications
- specifically developed life jacket for the requirements in the offshore use (oil and gas).
- due to a special coating of the protective cover the life jacket is extremely tear and abrasion resistant and can even withstand sparks and small metal splashes (according to DIN EN 348). On the front there is a hook and loop fastener panel for attaching a name tag.
- to improve the wearers comfort softer material and a removable neck fleece was used in the collar area. The back strap is detachable and adjustable.
- through the window in the protective cover the status of the PLB is visible at a glance.
- the service zipper allows access to the automatic 3001S and the manual override and the operation of the PLB without fully opening the protective cover.
- with the patented SECUMAR CLICK-buckle the donning and doffing of the life jacket is very easy, it is donned like a normal jacket. The fitting opens only when you press TWO keys - accidental opening by hanging is impossible.
- the buoyancy chamber is equipped with antenna mounts and bags for the PLB's Sea

Marshall sMRT AU9 & AU10. By inflating the life jacket, the antennas will set up independently and enable the best possible dispersion of the signal. The PLB will be activated automatically by contact with water.

Features
- distress light SECULUX CFX-II
- two-tone-whistle
- crotch strap
- manual override (stowed in cover of inflation device)
- buddy line
- spray hood
- Fittings for antenna and bags for the PLB Sea Marshall sMRT AU9 & AU10

Standard equipment
Window and Service-Zipper for PLB, Service-Zipper for inflation device, neck-fleece (detachable), hook and loop fastener for name tag, detachable and adjustable back strap, crutch strap loops, crutch strap, emergency light SECULUX CFX-II, Buddy-Line, two-tone-whistle, SECUMAR Click-buckle, manual override, spray hood, fittings for antenna and pocket for PLB SeaMarshall sMRT AU9 and AU10.

TECHNICAL SPECIFICATIONS

Type of buoyancy	Inflatable
Method of inflator	Automatic Inflator 3001S and Manual Inflator SECU 301SM
Buoyancy	275N
CO2-cartridge size	60 gr
Color	Yellow
Color cover	Orange (SPR) / blue
Closure	Click front buckle
Emergency light	Yes
Approvals	DIN EN ISO 12402-2 (CE-sign), SOLAS 74, IMO Res. MSC.81(70) amended by MSC.200(80), MSC.207(81) and MSC.226(82)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Secumar Golf 275N Twin SOLAS SPR PLB Life Jacket	1	SG05483

Hansen Sea Eco Immersion Suit

The Hansen Sea Eco Immersion Suit has been manufactured in waterproof flame retardant 4.5 or 5 mm neoprene, which provides insulation and buoyancy. Emergency suit for Fishing and Merchant vessels. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 10 years.

Features
- double glued seams and approved reflector tape
- leg fasteners keep feet in place in the boots
- delivered with handy carrier bag or air-tight package
- delivered as a one-size suit = standard (can be manufactured in x-large)
- can be delivered vacuum packed, so the suit doesn't need to be serviced for 10 years

Basic Product
Suit with neoprene cuffs, gloves attached with elastic band, attached hood, leg fasteners, neoprene face seal, approved reflector tape and attached hoodie.

Available sizes
- one size fits all: 150 - 200 cm
- x-large: to 210 cm

Important notice
SUIT HAS TO BE USED WITH AN APPROVED LIFEJACKET

Hansen Sea Eco Immersion Suit
Provides insulation and buoyancy

TECHNICAL SPECIFICATIONS

Materials	Flame retardant 4.5 or 5mm neoprene
Sizes	One size fits all and x-large
Weight	One size fits all: 4.5 kgs
	XL: 5.0 kgs
Color	International approved orange
Approvals	IMO/SOLAS 2,3 and resolution MSC-152 (78) / MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Eco Immersion Suit, size standard	1	SG05412
Hansen Sea Eco Immersion Suit, size standard, vacuum packed	1	SG05416
Hansen Sea Eco Immersion Suit, size XL	1	SG05413
Hansen Sealife Life Jacket, safety light included	1	SG05011

Hansen Sea Eco Plus Immersion Suit

The Hansen Sea Eco + Immersion Suit has been manufactured in waterproof flame retardant 5 mm neoprene, which provides insulation and buoyancy. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 5 years.

Hansen Sea Eco + Immersion Suit
Buoyancy pillow in back

Features
- 6h - Immersion suit IMO/SOLAS
- buoyancy pillow in back ensures correct floating position and freeboard
- flame retardant 5 mm neoprene
- emergency light
- with buddy line and floating hook
- lifting strap with stainless D-ring and carabine hook
- easy donned, waterproof PU-zip
- approved reflective patches
- fixed hood
- watertight cuffs
- gloves attached by elastic bands

- hook and loop fastener tighteners in legs
- rubber soles for optimal grip on slippery surface
- may be vacuum packed for extended service intervals (maximum 5 years)

Available sizes
- medium: 147 - 180 cm
- standard: 150 - 200 cm
- x-large: 180-210 cm

Important notice
SUIT TO BE USED WITHOUT LIFE JACKET

TECHNICAL SPECIFICATIONS

Material	Flame retardant 5 mm neoprene
Sizes	Medium, standard and x-large
Weight	Medium: 4,4 kgs, standard: 5,4 kgs, x-large: 5,8 kgs
Color	International approved orange (290)
Size packed in carrier bag	Medium: 65 x 45 x 24 cm
	Standard: 65 x 45 x 26 cm
	X-large: 65 x 45 x 28 cm
Size packed in vacuum	Medium: 65 x 45 x 20 cm
	Standard: 65 x 45 x 20 cm
	X-large: 70 x 45 x 18 cm
Colour of bag	Medium: yellow, standard: red, x-large: green
Approvals	IMO/SOLAS 2,3 and resolution MSC-152 (78) / MED, RMRS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Eco + Immersion Suit, size M	1	SG05441
Hansen Sea Eco + Immersion Suit, size Standard	1	SG05442
Hansen Sea Eco + Immersion Suit, size X-large	1	SG05443

Hansen Sea Nordic Immersion Suit

A 6-hour immersion suit produced in extra strong flame-retardant neoprene. SeaNordic is equipped with an emergency light and has an integrated sprayhood that protects the face from waves and possibly seabirds. The hood has an innovative inflatable bladder for improved water tightness of the face seals, improved floatation and freeboard. The suit is certified for use without a lifejacket and is perfect as a survival suit on board fishing vessels, merchant ships and offshore installations.

Hansen Sea Nordic Immersion Suit
For offshore, merchant ships and fishing vessels

Features

- immersion suit for fishing vessels, merchant ships and offshore installations
- flame retardant and UV-resistant 5 mm neoprene with double knitted polyester/spandex backing fabric for strength
- waterproof main zipper in soft PU/Plastic material - easy to close
- reinforced seams
- approved reflective patches
- inflatable hood for improved water tightness and floating position / free board
- detachable 3 finger gloves attached with elastic bands
- watertight cuffs in neoprene
- buddy line with floating hook
- lifting strap with D-ring and carbine hook in stainless steel
- approved emergency light
- velcro tighteners in legs
- spray shield in hood
- rubber soles for optimal grip on slippery surface
- SOLAS approved and in accordance with LSA Code MED 1.6b as an insulated immersion suit designed to be worn without a life-jacket
- accepted as an immersion suit by Transport Canada and Russian Maritime Register of Shipping (RMRS)
- may be vacuum-packed for extended service interval (max 5 years)

Important notice
SUIT TO BE USED WITHOUT LIFE JACKET

TECHNICAL SPECIFICATIONS

Materials	Waterproof flame retardant 5 mm neoprene
Color	International approved 290 orange and reflectors
Sizes	standard and XL
Weight	Standard: 5.5 kgs
	XL: 6.0 kgs
Dimensions packed in carrier bag	Standard: 68 x 40 x 20 cm, in red bag
	XL: 75 x 43 x 20 cm, in green bag
Dimensions packed in vacuum	Standard: 68 x 39 x 17 cm
	XL: 73 x 40 x 18 cm
Approvals	SOLAS, MED 96/98/EC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Nordic Immersion Suit, size standard	1	SG05452
Hansen Sea Nordic Immersion, size standard, vacuumm packed	1	SG05422

Hansen Sea Arctic Immersion Suit

The Hansen Sea Arctic Immersion Suit has been approved 6 hour immersion suit with an anatomic self righting unit. Suit to be used without life jacket. Emergency suit for fishing vessels, merchant ships and offshore installations. The immersion suit can be delivered vacuum packed, so the suit doesn't need to be serviced for 5 years.

Hansen Sea Arctic Immersion Suit
Immersion suit with an anatomic self righting unit

Features
The Hansen Sea Arctic Immersion Suit passes NMD requirements for self-righting insulated immersion suits for installations on the Norwegian Offshore sector.

The Sea Arctic Immersion Suit has a self-righting unit with automatic activation. The elastic cover keeps it out of the way after use.

The suit shall be used without a life-jacket as the required 120 mm freeboard is achieved by the suit alone. The hood has an integrated inflatable cushion to improve water tightness and allow variation of the floating position.

The suit is complete with an approved emergency light, whistle, and retro reflective material. The suit features reinforced seams. The suit is also fitted with a lifting loop and a floating buddy-line. The splash hood is removable and fitted by means of heavy duty hook and loop fastener.

Comes with light and handy carrier bag, or vacuum packed for efficient storing on board.

Basic Product
Dry Suit with fixed hood, watertight cuffs, attached gloves, leg fasteners, floating buddy line, lifting loop, light, reflective tape, spray hood and self-righting unit.

Available sizes
- medium: 147 - 180 cm
- standard: 150 - 200 cm
- x-large: 180-210 cm

Important notice
TO BE USED WITHOUT LIFE JACKET

TECHNICAL SPECIFICATIONS

Materials	Waterproof, flame retardant 5mm neoprene
Sizes	Medium, standard and x-large
Weight	Medium: 5.8 kgs
	Standard: 6.3 kgs
	X-large: 7.0 kgs
Size packed in carrier bag	Medium: 72x46x18 cm, in yellow bag
	Standard: 74x48x20 cm, in orange bag
	X-large: 76x50x22 cm, in green bag
Size packed in vacuum	Medium: 70x40x18 cm
	Standard: 72x42x20 cm
	X-large: 74x44x20 cm
Color	International approved 290 orange and reflectors
Approvals	IMO/SOLAS 2,3 and resolution MSC-152 (78) Norwegian NmD-rules for "mobile offshore units"

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Arctic Immersion Suit, size medium	1	SG05460
Hansen Sea Arctic Immersion Suit, size standard	1	SG05461
Hansen Sea Arctic Immersion Suit, size XL	1	SG05462
Hansen Sea Arctic Carrier Bag	1	20115046

Viking immersion suit PS2007

PS2007 is a neoprene immersion suit with built-in buoyancy. The built-in buoyancy gives excellent freeboard and ensures that the suit can be used without a life jacket. This is an advantage in emergency situations with little time to put on a life jacket.

Viking immersion suit PS2007
Immersion suit with built-in buoyancy

Features

The suit is made of highly flexible, high quality neoprene to ensure easy donning and fit. This also gives the product a longer lifespan. The suit has extended zipper providing the suit a better in-water performance and ensures quick donning. The extended zipper provides more comfort for the user and minimizes water ingress.
The yellow colour ensures high visibility. Some of the main features are integrated neoprene boots with rubber soles, three fingered neoprene gloves, buddy line, lifting becket and a SOLAS approved emergency light. All suits are produced in-house according to stringent manufacturing requirements.

Application areas

- cargo vessels
- fishing vessels
- navy
- offshore personnel

Design features

- lifting becket with snap hook and covered D-ring on breast
- buddy line
- semi-integrated neoprene gloves
- SOLAS approved emergency light
- extended zipper
- whistle
- comes in a bag

TECHNICAL SPECIFICATIONS

Materials	Neoprene, 5 mm
Size	58/Oversize: Height from 170 cm to 210 cm, weight from 80 kg to 160 kg
Color	High visibility yellow and reflectors
Approvals	MED SOLAS, RMRS, Transport Canada

ORDER INFORMATION

Description	Unit Sales	Articlenr
Viking Immersion Suit PS2007 Solas Oversized	1	20115015

Viking immersion suit YouSafe Wave PS2014

High-quality basic immersion suit approved according to SOLAS regulations. The VIKING YouSafeTM Wave provides good thermal protection combined with high visibility fabric to increase your chance of survival in an emergency.

Features
- basic model to be worn with an approved lifejacket
- durable flame retardant Neoprene with good elasticity for a perfect fit and easy donning
- detachable gloves for easy donning and handling of emergency equipment

Application areas
- commercial cargo vessels

Design features
- strap-attached gloves for easy donning
- fully integrated boots with adjustment strap
- extended zipper
- high visibility in dark water

Viking immersion suit YouSafe Wave
Basic model to be worn with an approved lifejacket

TECHNICAL SPECIFICATIONS

Materials	Neoprene, 5 mm
Size	54/Universal: Height from 140 cm to 200 cm,weight from 50 kg to 100 kg
	58/Oversize: Height from 170 cm to 210 cm, weight from 80 kg to 160 kg
Color	High-vis yellow
Approvals	MED, SOLAS, MER

ORDER INFORMATION

Description	Unit Sales	Articlenr
Viking Immersion Suit YouSafe Wave PS2014 SOLAS, 54/Universal: Height 140-200 cm, weight 50-100 kg	1	SG05500
Viking Immersion Suit YouSafe Wave PS2014, SOLAS, 58/Oversize: Height 170-210 cm, weight 80-160 kg	1	SG05501

Hansen E-300-2 Work Suit

The Hansen E-300-2 Work Suit is suitable for rescue personnel for the evacuation of ships and for use on MOB vessels. The outer material is flame retardant, waterproofed textile in international orange. It is thus a warmth reflecting material.

Hansen E-300-2 Work Suit

For heavy duty work on deck and for use in MOB operations

Applications

Underneath is a layer of foam with closed cells which both insulates and provides buoyancy. All the seams are sewn and welded. Cuffs with adjustable straps and gloves in separate pockets on the arms. Reinforced at the knees, elbows and seat. Comes with light and boots with a steel toe-cap and approved reflectors.

Features

- PU coated flame retardant, waterproof Oxford nylon
- Tyvec body warmth reflecting inner layer
- 3 mm flotation foam with closed cells for insulation and buoyancy
- detachable inner lining
- watertight zip and hood closure
- PVC reinforcements on elbows, knees and seat
- boots with steel toe cap
- cuffs with adjustable straps
- integral safety harness with stainless steel ring and carbine hook
- zip and elastic on legs for tight fit
- liaison line
- whistle
- 2 side pockets
- 9 reflective strips
- neoprene gloves and emergency light

TECHNICAL SPECIFICATIONS

Persons height, weight suit	Suit size	Boot size
155-165 cm, 5.7 kgs	XS	41
165-175 cm, 6.1 kgs	S	43
175-185 cm, 6.6 kgs	M	46
185-195 cm, 7.0 kgs	L	46
195-205 cm, 7.1 kgs	XL	46
Color	International approved 290 Orange	
Approvals	IMO/SOLAS, MED 96/98/EC AES (Anti Exposure Suit)	

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen E-300-2 Work Suit.	1	SG05419
When ordering, please mention the prefered suit size.		

Hansen SeaMOB Work Suit

SeaMob SOLAS approved anti-exposure work suit / survival suit for extreme cold water conditions.

Applications
- perfect for MOB boats
- elastic and good fit
- three fingered gloves in sleeve pockets
- leg tightening zips to adjust fitting
- integral /manually inflatable buoyancy lung.

Features
- for rescue personnel during evacuation and MOB Operations
- 3 mm flame retardant, waterproof neoprene providing insulation and buoyancy
- waterproof PU zip
- double-welded seams
- SOLAS approved reflective patches
- reinforcements on elbows, knees and seat

- lifting strap with D-ring and carbine hook
- integrated manually inflatable buoyancy lung for floating position and freeboard
- sleeve pockets for gloves
- boots may be used with flippers
- buddy line with floating hook, whistle and emergency light
- neoprene gloves and double neoprene cuffs
- radio pocket
- SOLAS approved and in accordance with Marine Equipment Directive 96/98/EC (MED-B) AES (Anti-exposure Suit), designed to be worn without a life jacket

IMPORTANT NOTICE
Approved for use without a life jacket.

Hansen SeaMOB Work Suit
For rescue personnel, evacuation and MOB operations

TECHNICAL SPECIFICATIONS

Persons height, weight suit	Suit size	Boot size
140-150 cm, 5.6 kgs	XS	41
150-165 cm, 5.8 kgs	S	41
165-180 cm, 5.8 kgs	M	43
180-190 cm, 6.2 kgs	L	45
190-198 cm, 6.6 kgs	XL	47
199-205 cm, 6.6 kgs	XXL	47
Color	International approved 290 Orange	
Approvals	IMO/SOLAS, MED 96/98/EC, AES (Anti Exposure Suit)	

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea MOB Work suit, size S	1	SG05430
Hansen Sea MOB Work suit, size M	1	SG05431
Hansen Sea MOB Work suit, size L	1	SG05432
Hansen Sea MOB Work suit, size XL	1	SG05433
Hansen Sea MOB Work suit, size XXL	1	SG05434

Hansen SeaWind II Suit

A comfortable and lightweight suit for tough and demanding environments. Designed with focus on ergonomics, light weight and comfort - without compromise. SeaWind is certified by both SOLAS, ISO and EASA. As such it certified for almost every conceivable situation. No other work/survival suit is designed for such a wide a range of uses as SeaWind.

Hansen SeaWind II Suit
Lightweight and comfortable

General information
The suit is certified for continuous wear, work, shipping and helicopter passenger transfers. To comply with helicopter transport certification, the suit must have the lining fitted and be used with a compatible ETSO-approved lifejacket. SeaWind is the first choice for many professional groups, not least for demanding work in connection with the service and maintenance of wind turbines.

Features
- Ergonomic – Y-shape construction with maximum freedom of movement
- Durable nylon 3L fabric with highly breathable properties
- Made as a shell suit for reduced weight
- Main zip in neck seal simplifies donning. Two zipper sliders allows relief-functionality
- Ventilation – pit-zips (underarm-zips) for ventilation in controlled situations
- Waterproof zip in neck seal for easy donning and comfort
- Pockets – roomy pockets constructed with mesh to enhance the breathable properties of the fabric, placed to ensure ease of access
- Must be used with a lifejacket approved for the user area

- For easy integration with safety equipment such as harness and/or SeaLion lifejacket, the suit is "clean" on both chest and back
- The suit fulfills the requirements of the IMO/Solas LSA code as an uninsulated (1 hour) suit, and ISO 15027-1 as a Class D immersion/quick donning suit (without lining)
- SeaWind fulfills the requirements for a Class B suit (4 hours thermal protection) according to ISO 15027 and also ETSO regulations (when used with a lining).
- The suit fulfills the requirements of both the ISO15027 Class A and the IMO/Solas LSA Code as an insulated (6 hour) suit

Thermal protection with lining/inherent insulation
- 4 hours (ISO 2012 Class B less than 2°C watertemp)
- 6 hours (IMO/Solas less than 2°C watertemp)

Thermal protection without lining/inherent insulation
- 1 hour (IMO/Solas less than 5°C watertemp)
- 1 hour (ISO 2002 Class D less than 5°C watertemp)
- 2 hours (ISO 2012 Class D less than 10°C watertemp)

TECHNICAL SPECIFICATIONS

Material	GoreTex Pazifik/HP Ocean 3L
Lining	Yes, thermal insulation long (zip-in)
Main zipper type	Soft polyurethane/Plastic with teeth, open - 2 zipper pullers
Neck seal	Neoprene standard
Wrist seals	Neoprene
Fit / Ergonomics	Articulated knees
	Ergonomic
	Sleeves constructed in Y-shape for mobility
Color	Yellow
Reflective material	IMO Solas
Pockets	Pen pocket on shoulder/sleeve
	Pocket(s) on lower leg
	Radio pocket
	Sleeve pockets

Hansen SeaWind II Suit

Hood	Neoprene, - in upper sleeve pocket
Gloves	5-finger neoprene in sleeve pocket
Lifting becket/loop	Yes, with D-ring and carbine hook in stainless steel
Buddy line	Yes, with floating carbine hook
Whistle	Yes
Boots/socks	Socks
Braces (elastic adjustable)	Yes
Ventilation	Pit-zips under sleeves
Compatibility	Yes, ETSO with ETSO lifejacket - IMO with IMO lifejacket - ISO with ISO lifejacket
Size	XS to XXXL
Approvals	ETSO 2C503 (Helicopter flight suit)
	Solas MED/1.5a (without inherent insulation)
	Solas MED/1.5b (with inherent insulation)
	ISO 15027-1 Constant wear suit, thermal class B
	ISO 15027-1 Constant wear suit, thermal class D

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen: SeaWind II Open Outer Shell GoreTex - Yellow (without inner lining), size: S	1	SG05470
Hansen: SeaWind II Open Outer Shell GoreTex - Yellow (without inner lining), size: M	1	SG05474
Hansen: SeaWind II Open Outer Shell GoreTex - Yellow (without inner lining), size: L	1	SG05475
Hansen: SeaWind II ETSO Suit Open GoreTex - Yellow (with inner lining), size: S	1	SG05477
Hansen: SeaWind II ETSO Suit Open GoreTex - Yellow (with inner lining), size: M	1	SG05478
Hansen: SeaWind II ETSO Suit Open GoreTex - Yellow (with inner lining), size: L	1	SG05479

Hansen Sea Breeze CTV SOLAS

SeaBreeze CTV - A constant wear 1 hour SOLAS suit for tough and demanding environments. Designed with focus on ergonomics, comfort and durable light weight fabrics, making it an ideal alternative for CTV wind farm transfer.

Features

- SOLAS approved 1 hr 5ºC water
- ergonomic – pre-shaped construction with 100% freedom of movement
- breathability – durable HP superlight fabrics with highly breathable properties
- lightweight shell to reduce weight
- waterproof zip in neoprene neck seal for easy donning and comfort
- pockets - roomy waterproof pocket placed to ensure ease of access

- for easy integration with safety equipment such as harness and/or SeaLion lifejacket, the suit has no details on chest and back
- socks
- separate soft comfortable neoprene hood stored on back
- neoprene gloves in forearm pockets
- knee and seat reinforcement

Must be worn with warm clothing and in conjunction with a compatible approved life jacket only

Hansen Sea Breeze SOLAS
For tough and demanding environments

TECHNICAL SPECIFICATIONS

Sizes	S-XXL
Color	Yellow and gray
Approvals	SOLAS, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Breeze SOLAS - Size S	1	20115055
Hansen Sea Breeze SOLAS - Size M	1	20115056
Hansen Sea Breeze SOLAS - Size L	1	20115057
Hansen Sea Breeze SOLAS - Size XL	1	20115058
Hansen Sea Breeze SOLAS - Size XXL	1	20115059

Hansen Sea Pass Passenger Suit

The Hansen emergency suit on board of passenger vessels and recreational vessels.

Features
- PU coated Nylon
- required use of additional approved life jacket on the outside of the suit
- insulated hood
- front zipper with waterproof inner lining
- attached 5-finger gloves
- adjustable ankle straps
- allows for use of shoes both inside as well as on the outside
- approved reflective tape
- the suit with approved life jacket is approved as substitute to thermal life jackets according to NMD regulations
- supplied in a vacuum watertight packed bag, takes a minimum of space
- tested and approved in accordance with ISO/SFD requirements for non-insulated immersion suits

Hansen Sea Pass Passenger Suit
On board of passenger and recreational vessels

TECHNICAL SPECIFICATIONS

Materials	Pu coated Nylon
Size	50 - 100 cm / 100-150 cm / 150 - 200 cm
Weight	0.3 kgs / 0.7 kgs / 0.9 kgs
Color	200 Fluor Orange
Approvals	SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Hansen Sea Pass Passenger Suit -	1	SG05466
Available sizes: baby, junior/child, standard		

Seculux LED Life Jacket Light

Automatic SOLAS life jacket light, 75 cm cable between battery and light, at least 4 years. For all inflatable life jackets and foam life jackets.

Function
The life jacket light SECULUX LED functions in sea and fresh water at low temperatures, and has a manual off switch. The light and battery are separate components, there are various easy ways of fitting the light, and it is easily stowed in your life jacket.

Features
- applicable for life jackets and marker buoys
- flashlight (50-70 flashes per minute)
- operates in fresh or salt water
- automatic activation upon immersion in water
- test button included
- can be used with all Secumar life jackets

Seculux LED Life Jacket Light
Manually / automatically activated

TECHNICAL SPECIFICATIONS

Light intensity	Average 1.5 cd (minimum requirement according to SOLAS = 0.75 cd)
Light duration	More than 10.5 hours at 1.5 cd (more than 24 hours at 0.75 cd)
Dimension	16 x 35.5 x 60.5 cm
Weight	66 gr
Battery cell	Alkaline
Cord length	75 cm
Storage life	5 years from date of manufacture
Approvals	SOLAS, US Coast Guard

ORDER INFORMATION

Description	Unit Sales	Articlenr
Seculux LED Life Jacket Light	1	SG05602

AQ8A Life Jacket Light

The AQ8A life jacket light is an alkaline battery powered emergency light designed to be installed on any type of life jacket. It is automatically activated upon contact with water and features a manual switch.

AQ8A Life Jacket Light
Automatically activated

Fitting
The light must be secured to the life jacket in a position that provides maximum visibility when the wearer is in the water, preferably near the shoulder. The installation position must ensure that the water sensors on main light body will have contact with water when the wearer is in the water. Feed the clip behind life jacket material or button hole and press into the light unit until it clicks securely into place. When fastened the light cannot be removed unless the clip is broken.

Operation
The light will automatically activate when the sensors are immersed in water. To operate the light manually, press the button on the front of the unit. It is possible to turn the light off by pushing the button on the front of the unit, regardless of whether it is still immersed in water.

Maintenance
Inspect unit for signs of damage or corrosion. Test the light by immersing the sensors in water or manually pressing the button on the front of the unit, the light should illuminate. Turn the light off by pushing the button on the front of the unit. When in storage, ensure the water sensors are dry at all times.

Disposal
The unit has a five year life span from the date of manufacture, it should be replaced by the expiry date shown on the label. The unit should be disposed in accordance with local regulation through an approved environment disposal agent.

Safety
The light contains a Alkaline battery which must be handled correctly:
- do not dismantle battery pack
- do not make any external electrical connection
- do not recharge
- do not incinerate
- store between -30ºC and +65ºC

TECHNICAL SPECIFICATIONS

Battery	Alkaline batteries
Light source	LED
Chromaticity	White
Light type	Flashing
Flash Frequency	50 – 70 times/min
Luminous Intensity	≥0.75.cd
Operation Life	≥13h over 0.75cd at -1ºC
Storing Temperature	-30ºC – +65ºC
Working temperature	-1ºC to 30ºC
Expiry Date	5 years
Weight	38g (including buckle)
Dimension	Main body: 62.5 x 25.4 x 23.5mm buckle: 61.2 x 9.5 x 11.7mm
Activation	Water-activation automatically on / manual off / manual on
Performance	Fire-resistant, oil-resistant, mould-proof, corrosion-proof, water-proof
Environment Performance	Meets RoHS and asbestos-free requirement
Standards	MSC.81(70) as amended
Certifications	MED, CCS

AQ8A Life Jacket Light

ORDER INFORMATION

Description	Unit Sales	Articlenr
AQ8A Life Jacket Light	1	SG05606

Man Over Board MOB2 personal locator beacon

Introducing the world's smallest AIS Man Overboard (MOB) device with integrated VHF DSC. This vital component of any maritime safety kit is designed for rapid response in man-overboard emergencies. Compact and lightweight, the MOB2 integrates seamlessly with even the most compact inflatable lifejackets, ensuring automatic activation upon inflation.

MOB2 Man Over Board
Personal locator device

Broadcasting your precise location
The MOB2 sends the first alert within 15 seconds, broadcasting your precise location using AIS technology to nearby vessels and onboard navigation systems. It communicates with the vessel you've been separated from and other vessels up to 5 miles away, depending on conditions. Additionally, nearby vessels are instantly notified of the man-overboard situation through DSC technology.

Rapid rescue
In an emergency, the rescueME MOB2 provides two methods of rapidly communicating your position, accurate to a few meters, and offers visual indication via its built-in strobe lights. Its integrated dual Infrared (IR) and White strobe lights ensure maximum visibility in low light conditions, providing peace of mind for sailors and boaters by enhancing safety on the water and potentially saving lives in critical situations. Waterproof to 10 meters, the MOB2 features a robust construction and a long-lasting battery.

Smartphone Connectivity utilizing Near Field Communication (NFC)
The integration of NFC technology provides users with the ability to conveniently program the MOB2 MMSI and access beacon data from their mobile phone. The simple act of placing a phone near the beacon automatically opens the Ocean Signal Product App and provides access to a variety of usage data including current battery life, number of self-tests completed, number of GNSS tests completed, and if applicable, the amount of time the beacon has been activated.

Class M Approved AIS Man Overboard Beacon with VHF DSC
Engineered to exceed Class M requirements, the MOB2 is Compliant with regulation ECC/DEC/(22)02 regarding the use of MOB devices.

Life jacket Integration
The MOB2 can be activated manually or automatically when installed within an inflatable life jacket (automatic). Installation is made simple using the included oral inflation tube clip to attach the MOB2 to the life jacket with a ribbon connected around the bladder of the life jacket. Once correctly installed, the action of the life jacket inflating triggers the deployment of the antenna and activation of the beacon.

Compatibility
Most modern AIS plotters and DSC VHF comply with the standards required to receive MOB transmissions. It is however, especially if you are using older equipment, recommended that you check compatibility with the equipment manufacturer.
- The MOB2 may be configured by the user to enter the vessels DSC MMSI number* by downloading the software at the link below. The vessel's DSC number may be programmed multiple times.
- * DSC functionality is subject to regulations of country.
- ** Always refer to the lifejacket manufacturer for specific instructions before installing this product directly to your lifejacket.
- *** Subject to warranty statement. (Note: When used in commercial applications the warranty period is restricted to two years.)

More features
- 12+ hours operational life
- Integrated Near Files Communication (NFC)
- Smartphone connectivity via NFC
- Ocean Signal Mobile App (IOS and Android)

Man Over Board MOB2 personal locator beacon

TECHNICAL SPECIFICATIONS

Communication method	AIS (Automatic Identification System)
	DSC (Digital Selective Calling)
Dimensions	Height 134 mm, excl. antenna
	Height 178 mm, incl. antenna
	Diameter 38 mm
	Dept 27 mm
AIS transmission Transmit Power	1Watt
Frequency	161.975/162.025MHz
DSC Transmission Transmit Power	0.5Watt
Frequency	156.525MHz
DSC messages	Individual Distress Relay Distress Alert (by single call made on press of the activation button)
Temperature range (operational)	-20ºC - +55ºC
Temperature range (storage)	-30ºC - +70ºC
Waterproof	20 meter depth
Weight	92 grams
Battery lifetime	5 years***
Approvals	RTCM SC11901, EN303 098-1
	Class M Compliant (Regulation: ECC/DEC/(22)02)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Man Over Board MOB2 personal locator beacon	1	SG05812

Sea Marshall AU9X PLB

Within 2 - 5 seconds of immersion in water, the Sea Marshall AU9X sends a distress signal on 121.5MHz which is then tracked using a sMRT SARfinder base unit. The Sea Marshall AU9X is intrinsically safe and has ATEX approval for Zone 2 areas.

Sea Marshall AU9X
Personal locator device

Function
The Sea Marshall AU9X works in seconds, sending an emergency alert and tracking on 121.5 MHz, after automatic or manual activation. All nearby vessels will receive the alert and be able to track, using their SARFinder 121.MHz homing signal, to quickly locate and track the man overboard (MOB) casualty.

Features
- worldwide ATEX Zone 2 approval

- lightweight and easily integrates in to a life jacket
- 2 second auto-activation via immersion in water or manual operation
- minimum of 12 hours emergency transmission on 121.5 MHz - International Search and Rescue frequency
- LED light on antenna for visual tracking
- automatic low battery indicator
- test function to check signal transmission and battery power

TECHNICAL SPECIFICATIONS

Tx frequency	121.5 MHz (Test Units: 121.65 MHz)
Bandwith	25KHz (in alignment with ETSI)
Modulation	Continuous swept tone A3X
Alerting radius	Surface-to-surface: 2 to 3 nautical miles (100mW) depending on sea state, atmospheric conditions and altitude/height of receiving antenna
121.5 MHz Tx Power Output	100mW
Time to Auto-Activation from READY	2 seconds
Time to Water-Activation Override from OFF	40 seconds
Battery type	2 x CR-AA 3V battery pack
Operating time	minimum 12 hours
Battery service life	1 year (at 20ºC)
Operating temperature	-20ºC - +55ºC
Storage temperature	-55ºC - +70ºC
Dimensions	90 x 80 x 35 mm, antenna length: 105 mm
Antenna lenght	105 mm
Weight	250 gr including atenna
Internal loudspeaker	80dB
Environmental resistance	IP68, Eurocae ED-14F
Approvals	CE, FCC, ATEX Zone 2 II 3G (AU9-X)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Sea Marshall: AU9X personal beacon locator	1	SG05801
Sea Marshall: AU9X harnas	1	SG05802

Electronic Distress Flare EDF1

The EDF1 electronic distress flare offers users a safe and long-lasting solution to visual signaling in an emergency.

Electronic Distress Flare EDF1
Visual signaling in an emergency

Advanced LEDs
The unique lens design combined with the use of advanced LEDs and highly efficient circuit technology ensures a constant level of light output throughout the life of the user replaceable battery.

Light coverage
The light output is a beam of over 30° throughout the full 360° azimuth, providing in excess of 6 times more light coverage than other electronic flares. Light is also distributed throughout the hemisphere above the unit to ensure visibility from the air.

Repeatedly usage
Unlike single use pyrotechnic flares the rescueME EDF1 can be used repeatedly in any of its four modes, ensuring continued visibility is maintained over a longer period. The unit is both safe to store and operate while also eliminating any worries associated with disposal.

Grab bag
The compact size and rugged design means the rescueME EDF1 is the perfect safety product for a grab bag, life raft or hiker's backpack.

TECHNICAL SPECIFICATIONS

Type	Lithium Primary
Chemistry	LiMn02
AIS transmission Transmit Power	> 6 hours
Temperature range	20ºC to +55ºC (operational)
Temperature range	30ºC to +70ºC (storage)
Waterproof	10 meters at +20ºC
Weight	155 grams
Size	187 mm x 42 mm
Modes of operation	4 plus SOS signaling
Reach	7 mile / 11,2 km
Battery	Easy change replaceable battery

ORDER INFORMATION

Description	Unit Sales	Articlenr
Electronic Distress Flare EDF1	1	20121003

Lifebuoys, 2.5 and 4 kgs

Inherent buoyant lifebuoy for use on board of vessels or offshore installations. Durable synthetic material, reflective striping and grab line.

Features
- Solas 4 kg lifebuoy: the lifebuoy may be fitted with a light & smoke signal

Marking for identification
The lifebuoy shall be marked in block capitals of the Roman alphabet with:
- the name and the port of registry of the ship
- two last digits of year affixed
- not less then 50mm high

Important notice
Buoy 2.5 kg: not to be used where light and smoke signal is to be fitted and maximum permitted fall height is 30 metres. The 2.5 kg lifebuoy is the standard for inland shipping.

Lifebuoy
2.5 kg and 4 kg

TECHNICAL SPECIFICATIONS

Outer diameter	751 mm +/- 2%
Inner diameter	450 mm +/- 2%
Reflective tape	yes
Materials	Buoy ring: EUROPOL RCC 128P
	Grab line: polyethylene 10 mm
Maximum installation height	60 meter
Color	International orange
Approvals	EC / SOLAS / MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy 2.5 kgs	1	SG05712
Lifebuoy 4 kgs	1	SG05711
Lifebuoy lanyard, 30 meter	1	SG05722
Lifebuoy cabinet Polyethyleen 30", red, size: 830 x 850 x 270 mm	1	20120009
Lifebuoy Y bracket, Stainless steel	1	SG05753
Lifebuoy bracket, Stainless steel	1	SG05751
Lifebuoy, lettering	1	20120027

Lifebuoy Lanyard

Orange lifebuoy lanyard; meets all stringent demands.

Features
A safety line to attach to a lifebuoy to pull back
the lifebuoy.

Lifebuoy lanyard
Safety line

TECHNICAL SPECIFICATIONS

Material	Lanyard: Polypropylene
	Ring: Rubber
Color	Orange
Weight	App. 1.5 kgs for 50 meters

ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy lanyard with ring, with 20 meter line	1	SG05721
Lifebuoy lanyard with ring, with 30 meter line	1	SG05722
Lifebuoy lanyard with ring, with 50 meter line	1	SG05724
Lifebuoy lanyard with ring, with 60 meter line	1	SG05725
Lifebuoy lanyard with ring, with 85 meter line	1	SG05727

Encapsulated Safety Line

It is an encapsulated safety line of 30 meter to suit 24" or 30" lifebuoys.

Features

It is an encapsulated line made of polypropylene orange rope with a breaking strain of 250 kgs which fits neatly in the inner diameter of the buoy providing a good stowage facility and protection of the line from environmental deterioration.

Lifebuoy safety line
Providing a good stowage facility

TECHNICAL SPECIFICATIONS

Material	Polypropylene
Color	Body: White
	Rope: Orange

ORDER INFORMATION

Description	Unit Sales	Articlenr
Encapsulated Safety Line, 30 meter line	1	SG05723

Lifebuoy Bracket Stainless Steel, standard

Chrome finished steel lifebuoy Y-bracket for installation of a life buoy against the railing or the wall.

Features
- bracket is pre-drilled

Lifebuoy bracket stainless steel, standard
For installation against railing or the wall

TECHNICAL SPECIFICATIONS

Dimensions	Appr. 720 x 380 x 110 mm
Material	3 mm stainless steel
Color	Stainless steel

ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy bracket RVS	1	SG05753
Lifebuoy bracket RVS, J shape	1	SG05752

Lifebuoy, MOB and lifeline bracket, stainless steel

Stainless steel bracket to mount lifebuoy against railings or walls.

Features
- rigid offshore design will keep buoy in place under the worst weather conditions
- predrilled bracket for various lifebuoy lights
- predrilled installation plate for easy fixation with u-bolts to the railing
- bracket for lifeline

Lifebuoy bracket
Stainless steel

TECHNICAL SPECIFICATIONS

Dimensions	Appr. 720 x 380 x 110 mm
Weight	5.5 kg
Materials	4 mm stainless steel 316
Color	Non-coated

ORDER INFORMATION

Description	Unit Sales	Articlenr
Lifebuoy bracket, Stainless steel	1	SG05751

Daniamant L90 Lifebuoy Light

The Daniamant L90 uses five alkaline batteries, offering a life of one year. Robust and reliable, the Daniamant L90 is automatically activated after release.

Features
- the Daniamant L90 is supplied complete with a 2.5m lanyard
- minimum 2 cd light output
- minimum 2 hour light duration
- fully MED approved
- IMO SOLAS approved

Daniamant L90 Lifebuoy Light
Actived after release

TECHNICAL SPECIFICATIONS

Weight	1080 gr
Dimensions	380 mm
Lamp	4 Volt, 0.6 Amp.
Batteries	5 1.5 Volt LR20
Activation	Self-activating by tilt switch
Approvals	IMO / SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant L90 Lifebuoy Light, bracket and battery included	1	SG05731
Bracket for Daniamant L90 Lifebuoy Light	1	SG05732

Daniamant L160 Lifebuoy Light

The L160 lifebuoy light is a water-activated system designed for automatic actuation by the act of releasing the lifebuoy to which the unit is attached, such that the battery is unsealed ready for use when the light is pulled from the housing. The light illuminates when the unsealed battery is immersed.

Features
- the L160 lifebuoy light has a 5-year storage life and uses the famous water-activated, silver chloride-magnesium batteries first developed by McMurdo, for intrinsically safe operation

- the L160 is both corrosion and tamper-proof, so the batteries cannot be removed or expended accidentally, nor can they be activated unless removed from the container and floated in fresh or salt water
- the lamp is sealed inside a tough, polycarbonate dome

Daniamant L160 Lifebuoy Light
Designed to be smaller and highly resistant

TECHNICAL SPECIFICATIONS

Color light	Yellow
Light output	2 Candela
Light duration	min. 2 hours
Light type	Flashing LED
Storage temperature	-30˚C to + 65˚C
Operating temperature	-1ºC to + 30ºC
Drop height	76 meters
Storage life	5 years
Battery type	Lithium manganese dioxide
Dimensions	185 x 106 mm
Weight	255 grams
Approvals	IMO / SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant L160 Lifebuoy Light	1	SG05733

Daniamant L161 Lifebuoy Light

The Lifebuoy light is designed to deliver, as a minimum standard, the 2cd output specification and 2 hour duration required by IMO SOLAS regulations.

Features
- five year life
- no maintenance or replacement batteries are required
- compact size
- 76 meter drop height, exceeding SOLAS requirement
- easy fitting
- LED technology
- exempt from Class 9 transport requirements
- ATEX Ex proof

Daniamant L161 Lifebuoy Light
The only water actived intrinsically safe Lifebuoy light

TECHNICAL SPECIFICATIONS

Color light	Yellow
Light output	2 Candela
Light duration	min. 2 hours
Light type	Flashing LED
Storage temperature	-30˚C to + 65˚C
Operating temperature	-1ºC to + 30ºC
Drop height	76 meters
Storage life	5 years
Battery type	Lithium manganese dioxide
Dimensions	185 x 106 mm
Weight	300 gr
Approvals	SOLAS / MED /ATEX / ECEx

ORDER INFORMATION

Description	Unit Sales	Articlenr
Daniamant L161 Lifebuoy Light, ATEX proof	1	SG05735

Comet red hand flare

The Comet Red Handflare conforms to SOLAS 74/88 as amended. Designed to withstand exceptional environmental exposure and to perform reliably even after immersion in water. Featuring a unique telescopic handle with improved grip, making it very compact for stowage. Easily extended for safe handling and operation by pull wire igniter. Produces hot red flame for 60 seconds at 15000 candela.

Comet red hand flare
Designed to withstand exceptional environmental exposure

Applications

For use day or night the Comet red hand flare is a short-range distress signal used to pinpoint position. May be carried on the ship's bridge and is a requirement in ship's lifeboats and life rafts. The hand flare is suitable for use on other commercial and recreational boats. Also available is the Comet White Collision Warn-off hand flare which is for use day or night when a collision danger exists or for the illumination of small areas outside.

Storage

Ideally, both products should be stored in the robust, specially designed Polybottle, or in a dry, easily accessed location at ambient temperature.

Operation

1. Pull out red end until telescopic tube is fully extended and engaged.
2. Unscrew red end cap and point away.
3. Pull ball out sharply to fire.
4. Hold at arms length. Point Downwind. End plug ejects after 2 seconds delay.

TECHNICAL SPECIFICATIONS

Length	175 mm (6.9 ins)
Length with handle pulled out	280 mm (11 ins)
Diameter	28 mm (1.1 ins)
Weight	160 gr (5.6 oz)
Light intensity	15,000 candela
Burning time	60 seconds
Ignition	Pull-wire igniter
Net explosive content	61 gr (2.14 oz)
Approvals	SOLAS 74/88 as amended, IMO resolution MSC. 81(70) Part 1, (MED) 96/98/EC, SBG 426.004, BAM PT1 -1108, USCG

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet red hand flare	1	SG05901

Pains Wessex hand flare

Red hand-held, short range distress signal. Used to pinpoint location by day or night.

Pains Wessex hand flare
Used to pinpoint location

Features
Burns for 60 seconds at 15,000 candela. Features a unique telescopic handle making it very compact and space saving when stowed. Easily extended and pull wire operated.

Applications
- use to signal distress by day or night.
- hand-held and short range flare used to pinpoint position.
- typically 6 hand flares are required to be fitted in SOLAS/commercial life rafts and lifeboats

TECHNICAL SPECIFICATIONS

Length	175 mm (6.9 ins)
Length with handle pulled out	280 mm (11 ins)
Diameter	28 mm (1.1 ins)
Weight	160 gr (5.6 oz)
Light intensity	15,000 candela
Burning time	60 seconds
Color of light	Red
Ignition	Pull-wire igniter
Net explosive content	61 gr (2.14 oz)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Handflare	1	06130009

Comet Parachute Signal Rocket, Red

The Comet Red Parachute Signal Rocket conforms to SOLAS 74/88 as amended. Designed to withstand exceptional environmental exposure and to perform reliably even after immersion in water, the pull wire igniter and improved grip provides easy handling.
Ejecting a red Flare suspended on a parachute at 300 m (1000ft), burning for 40 seconds at 30,000 candela.

Comet Red Parachute Signal Rocket, red
Designed to withstand exceptional environmental exposure

Applications
A day or night long-range distress signal. 12 may be carried on ships
- bridge and there is a requirement for 4 in ships lifeboats and liferafts. Also suitable for use in other commercial and recreational boats

Storage
Ideally, should be stored in the robust, specially designed Polybottle, or in a dry, easily accessed location at ambient temperature.

Warning
- ejects rocket projectile - do not point at people or property
- do not fire in a confined space
- keep out of reach of children

- only for emergency use at sea
- if damaged or dented do not use
- do not dismantle
- keep away from source of heat
- do not use after expiry date

Disposal
Pyrotechnics must be treated as hazardous waste and must be disposed of responsibly in accordance with local regulations.

Operation
- hold signal firmly by ribbed handle. Unscrew RED bottom cap. Do not point at people or property
- hold rocket vertically above head pointing away from body
- ensure hands remain clear of top. To fire - pull red ball sharply down

TECHNICAL SPECIFICATIONS

Dimensions	287 x 38 mm Ø
Weight	245 gr (8.23 oz)
Light intensity	30,000 candela
Burning time	40 seconds
Ignition	Pull-wire igniter
Altitude	300 m (985 ft)
Approvals	Conforms to SOLAS 74 as amended, IMO Resolution 96/98/EC. MED BGV 425.005, BAM-P2-0059, 0589-P2-0046, USCG and other major maritime authorities world wide

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Parachute Signal Rocket, red	1	SG05902

Pains Wessex Red Rocket

Pains Wessex red rocket.

Pains Wessex Red Rocket
Easy handling

Applications
A day or night long-range distress signal. 12 should be carried on the ship's bridge and 4 are required in ship's lifeboats and life rafts, also suitable for use in other commercial and recreational boats.

Features
The Pains Wessex Para Red MK8A Rocket conforms to SOLAS 74/88 as amended. Designed to withstand exceptional environmental exposure and to perform reliably even after immersion in water, the pull wire igniter and improved grip provides easy handling. Ejecting a red flare on a parachute at 300m (1000ft), burning for 40 seconds at 30,000 candela.

Usage
Remove red end cap. Hold firmly, vertically above head at arms length. Turn head away and pull toggle. Rocket is ejected instantaneously with a loud report and slight recoil. Be careful not to direct towards people or property.

TECHNICAL SPECIFICATIONS

Length	295 mm
Diameter	Diameter at handle: 38 mm
	Diameter: 32 mm
Weight	235 gr
Light intensity	30,000 candela
Burning time	40 seconds
Altitude	300 m
Ignition	Pull-wire igniter
Net explosive content	84 gr

ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Red Parachute Signal Rocket	1	06130005

Comet Smoke Signal, Orange

The Smoke Signal Orange is a compact, daylight distress signal designed to be easy and safe to handle. It provides effective position marking during rescue operations and can be used to indicate wind direction, producing dense orange smoke for a minimum of 3 minutes.

Comet Smoke Signal, orange
Designed to be easy and safe to handle

Application
The Comet orange smoke signal is a small and compact distress signal for daylight use designed for stowage in liferafts and lifeboats. SOLAS requires 2 smoke signals per raft/boat.

Features
- signal for position marking during rescue operations
- indicates wind direction
- safe use on oil or petrol covered water
- conforming to SOLAS 74 as amended
- ideal also for leisure boats

Storage
This compact unit is ideally stored in a water-resistant locker at ambient temperature allowing easy access in an emergency or in the robust, specially designed polybottle.

Operation
- 1. Remove plastic cap. Point away from body.
- 2. Pull tab firmly away from canister. Ensure hand remains clear of HOT END.
- 3. Throw life smoke overboard immediately. Smoke will be emitted after a 2 second delay.

TECHNICAL SPECIFICATIONS

Dimensions	114 (h) x 82 (Ø) mm
Weight	370 gr (13.05 oz)
NEC	239 gr (8.43 oz)
Burning time	3 minutes minimum
Colour of smoke	orange
Ignition	percussion ignitor with 2 seconds safety delay
Approvals	SOLAS 74 as amended, Res. MSC 81 (70). Approvals: CE 0589, BAM–P1-0191, 0589-P1-0324, BGV MED 423.008, USCG 160.122./21/0, 160.022/21/0, and other major maritime authorities worldwide.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Smoke Signal, Orange	1	SG05904

Pains Wessex Orange Smoke Signal

Pains Wessex Orange Smoke Signal.

Pains Wessex Orange Smoke Signal
Small and compact

Applications
The Pains Wessex life smoke MK8 is a small and compact distress signal for daylight use only, designed for stowage in life rafts. Signal for position marking during rescue operations. Indicates wind direction. Safe to use on oil or petrol covered water. Conforming to SOLAS 74/88 as amended. Two signals are required carriage in SOLAS life rafts and lifeboats. Two are supplied in RORC and Offshore leisure kits.

Features
The Pains Wessex life smoke MK8 is a compact, flat top, day time distress signal designed to be easy and safe to handle. It provides effective position marking during rescue operations and can be used to indicate wind direction, producing dense orange smoke for a minimum of 3 minutes.

Usage
Peel off top cap, pull string sharply away from body. A 2 second delay allows time to throw the canister downwind into the water.

TECHNICAL SPECIFICATIONS

Dimensions	100 x 84 mm Ø
Weight	370 gr (13 oz)
NEC	200 gr (7 oz)
Burning time	3 minutes minimum
Color of smoke	Orange
Ignition	pull-wire igniter with 2 seconds safety delay

ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Orange Smoke Signal	1	06130006

Comet Light Smoke Signal MOB

The comet light and smoke lifebuoy marker features 15 minutes of dense orange smoke and a self-activated lighting system which far exceeds SOLAS requirements for light output and duration. It is mounted on a ships bridge wing with the bracket supplied and is attached by line to a lifebuoy. The signal is used to mark the position of a man overboard by day or night. It can be automatically deployed by releasing the attached lifebuoy, or manually activated.

Comet light and smoke lifebuoy marker
Used in emergency to mark position of man overboard

Application
- day and night signal attached to 4kg lifebuoy and used in emergency to mark position of man overboard
- provides 15 minutes of dense orange smoke
- far exceeds SOLAS requirements of 2 hours at 2 candela for light output and duration
- safe to use on petrol or oil covered water
- lithium battery sealed for life - no annual replacement
- automatic or manual deployment
- universal stainless steel mounting bracket. Usually mounted on a ships bridge wing
- tested to survive a 60m drop into water (SOLAS 30m)
- ideal for use on ships or rigs with high free board

Storage
This compact unit is ideally stored in good magazine conditions in an upright position, mounted to its stainless steel bracket in our original packaging.

Onboard vessel: two units are normally required to be carried. Mounted inverted and attached to a Lifebuoy. Usually positioned on each Bridge wing and need a clear, uninterrupted drop into the water.

Operation
- 1. Signal and lifebuoy mounted on bridge wing in ready to fire position.
- 2. Release locking pin and lifebuoy falls, automatically deploying marker.
- 3. Alternatively, manually throw lifebuoy overboard.

Warning
- produces dense orange smoke - do not inhale.
- do not fire in a confined space
- keep out of reach of children
- only for emergency use at sea
- if damaged or dented do not use
- do not dismantle
- keep away from source of heat
- do not use after expiry date

Disposal
Pyrotechnics must be treated as hazardous waste and must be disposed of responsibly in accordance with local regulations.
-

TECHNICAL SPECIFICATIONS

Height	453 mm (17.83ins)
Diameter	275 mm (10.83ins)
Weight	4.7 kgs (10.36 lbs)
Weight - including bracket	6.7 kg (14.77 lbs)
Lamps (bulbs)	2 x 2.4v 1.2A
Operating temp range	-1ºC - + 30ºC
Storing temp range	-30ºC - + 65ºC
Colour of light	White
Burning time	15 minutes
Duration	2 candela for 2 hours
Use with lifebuoy weighing	4.0 kgs (8.82lbs)
Attach to lifebuoy with line	4 m (13ft) long, 9.5 mm (0.37ins) diameter

Comet Light Smoke Signal MOB

Approvals	SOLAS 74/88
	IMO Resolution MSC 81 (70) part 1
	96/98/EC. SBG 422.006
	MED
	MER

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Light Smoke Signal MOB	1	SG05910

Comet Line Throwing Device

A self-contained line-throwing appliance consisting of a weatherproof plastic casing with end cap, twist-grip trigger assembly, rocket and line. Fully compliant to the latest international SOLAS legislation, the device has a throwing range of between 230m and 250m and meets world-wide approval standards. A solid propellant is used which guarantees a highly accurate flight path even in strong side winds.

Comet line throwing device
Designed for ease operation

Applications

The Comet line thrower 250 is designed for ease of operation in the most extreme weather conditions. It can be used in all situations where a line is required to be passed accurately and quickly.

Features

- all line-throwing operations at sea between vessels, ship-to-shore, shore-to-ship and shore based rescue services
- rescue of swimmers in distress
- line carrying across obstacles and rough terrain

Storage

This compact appliance is ideally stored in a water-resistant locker at ambient temperature allowing easy access in an emergency. The set of 4 appliances normally carried onboard can be dispersed in strategic positions throughout the vessel.

Operation

- 1. Remove the front cover and point in the desired flight direction.
- 2. Pull out safety pin.
- 3. Aim over the top of target. Be prepared for recoil.
- 4. Turn grip to left or right to fire.
- 5. If misfire occurs hold unit in firing position for one minute, then dispose of overboard.

TECHNICAL SPECIFICATIONS

Dimensions	330 x 313 x 205 mm Ø
Weight	4.3 kgs
Explosive content	113 gr
Line breaking strain	>2 kn
Approvals	SOLAS 74/88 as amended, IMO resolutions MSC. 81(70) Part 1, (MED) 96/98/EC, SeeBG MED 424. 002, SAS S010012, USCG

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Line Throwing device	1	SG05907

Pains Wessex Line Thrower

Pains Wessex Line Thrower 250 meters.

Pains Wessex Line Thrower
Self-contained rocket propelled line throwing
appliance

Features
A self-contained line-throwing appliance
consisting of a plastic case with an end cap
and 250m of line, an integral striker
mechanism plus a rocket. Fired by a twist
grip and used for passing a 4 mm diameter.

line from ship to ship and ship to shore or for
rescuing a swimmer in distress. Ships
typically have to carry 4 units to comply with
SOLAS regulations. Rocket propels line 250
meter in calm conditions.

TECHNICAL SPECIFICATIONS

Dimensions	330 x 313 x 205 mm Ø
Weight	4.2 kgs
Explosive content	113 gr
Line breaking strain	>2 kn
Approvals	SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Pains Wessex Line Thrower	1	06130002

Comet Life Boat Set

Container for the safe and dry storage of various pyrotechnics in marine environment like lifeboats or MOB boats.

Contents for a lifeboat set
- 6x Comet Hand flare
- 4x Comet Parachute signal

- 2x Comet Smoke Signal
- 1x Container

Comet life boat set
For safe and dry storage

TECHNICAL SPECIFICATIONS

Container	
Dimensions	220 x 410 mm
Material specs	PVC container with screw off lid
	Rubber seal in lid

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Life Boat Set	1	SG05906
Extra watertight Comet container: width 218 mm, height 400 mm, diameter 218 mm, 12 liter	1	SG05909

Comet Bridge Set

Container for the safe and dry storage of pyrotechnics in marine environment like lifeboats or MOB boats.

Contents for the bridge set
- 12x Comet Parachute rockets
- 1x Container

Comet bridge set
For dry and safe storage

TECHNICAL SPECIFICATIONS

Container	
Dimensions	220 x 410 mm
Material specs	PVC container with screw off lid
	Rubber seal in lid

ORDER INFORMATION

Description	Unit Sales	Articlenr
Comet Bridge Set	1	SG05905

Dräger Medical Oxygen Resuscitation Device

The Dräger Medical Oxygen Resuscitation Unit is a quick-& easy to-use unit which will be of equal interest in emergency services, general practitioners and hospital personnel. The device concept drew on experience from all areas.

Dräger Medical Oxygen Resuscitation Device
Quick to use Medical Oxygen Resuscitation device

Features
Among the outstanding features are the 100% by volume Medical Oxygen delivery, the simultaneous operation of several professional components, the medical Oxygen Cylinder with an RPV and a handy small Oxygen Case.

Even from a distance, the robust, highly condensed polyethylene case is clearly visible thanks to its bright orange colour.

Equipment
Inside the device no space is wasted as all the contents are ergonomically arranged. The pack contains everything emergency ventilation requires.
The main component is a 2.0 L Medical Oxygen cylinder with a special Residual Pressure Valve (RPV) which provides the best protection against pollution. A compact

pressure reducer with a 5 Bar outlet and an adjustable flow regulator (0-30) L/min. is included.

Type of cylinders
There are two types of cylinders:
- cylinder O2: 2 liter 200 Bar with Pin-index RPV (SG04842)
- cylinder O2: 2 liter 200 Bar with Bull-nose 5/8" RPV (SG04841)
- the suitcase is suitable for one cylinder + the standard content
- the cylinder is not included in the suitcase and needs to be ordered seperately

Standard content of the case
- ambu resuscitator manual ventilation bag
- aero Suc manual suction pump
- 2 pcs. inhalation masks
- 3 pcs. Guedel Airway tubes
- cylinder bracket

TECHNICAL SPECIFICATIONS

Dimensions	480x360x170mm
Weight incl contents	Approx. 7 kgs
Pack material	Polyethylene, highly condensed
Capacity O2 cylinder	2 liter
Filling pressure O2 cylinder	200 bar
Material O2 cylinder	Steel
Valve type	RPV

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Oxygen Case, excl. 2 liter cylinder, c/w Pin-Index Adjustable Flow Valve	1	86073701
Cylinder O2: 2 liter 200 Bar with Pin-index RPV	1	SG04842
Dräger Oxygen Case, excl. 2 liter cylinder, c/w Bull-nose Adjustable Flow Valve	1	86073702
Cylinder O2: 2 liter 200 Bar c/w Bull-nose 5/8 " RPV	1	SG04841

First Aid Kit

First aid kit in plastic container. Container fitted with wall bracket. First aid kit container suitable for mechanical workshops.

First aid kit
Suitable for shipping

Features
- orange plastic first aid kit
- made from high quality ABS plastic, so it's sturdy and shockproof
- the kit can be mounted to a wall with the wall bracket
- the two-section kit is fitted with Plexiglas sheets inside to prevent the contents from falling out when opening
- the bag is waterproof
- the rubber seal ensures that resources are protected from dirt and dust
- size 33 cm x 23 cm
- content according to directive and regulation BHV and inland shipping

Important
The kit should always be within reach. It is important that the contents of the kit regularly (checked) and if necessary replaced.

TECHNICAL SPECIFICATIONS

Dimensions	330 x 230 mm
Color	Orange

ORDER INFORMATION

Description	Unit Sales	Articlenr
Toolsan First Aid Kit	1	SG04811
Complete refill, without tweezers and scissors	1	19110024

First Aid Backpack

Compact handy backpack with first aid content. Equipped with reflective cross and triangle on the front pocket. The content is separated. The first aid backpack can also be used as a shoulder bag and is easy to hang on the wall. The backpack is waterproof and suitable for emergency response and first aid. Content is according to the guidelines of the Orange Cross.

Contents
- 3 First aid dressing 6 x 8 cm sterile
- 4 First aid packet medium sterile
- 4 Gauze compress sterile 5 x 8,5 cm
- 4 Non-woven compress sterile 10 x 10 cm
- 3 Synthetic wadding 3 m x 10 cm
- 5 Aluminium wound dressing 10 x 10 cm
- 2 Elastic bandage 4 m x 6 cm
- 10 Wound closure strips 3 x 7,6 cm
- 2 Self-Adhesive Fixation Bandage 4 m x 8 cm
- 3 Ideal supportive bandage 5 m x 8 cm
- 2 Triangular bandage non woven
- 1 Roll adhesive plaster
- 1 Assortment plaster bandages
- 1 Plaster bandage elastic 100 x 6 cm
- 1 Life saving kiss resuscitation mask
- 1 Lister bandage scissors 14 cm
- 4 Latex gloves non sterile
- 1 Rescue sheet gold/silver 160 x 210 cm
- 1 Splinter tweezer Feilchenfeld 8,5 cm
- 1 Tick-out tick tweezer
- 1 Disinfection liquid lotion 1%
- 1 First aid advice step by step leaflet

First Aid backpack
All first aid kit contents

TECHNICAL SPECIFICATIONS

Dimensions	340 x 100 x 380 mm
Material	Nylon 1680D
Color	Red
Packaging	Per piece in a bag

ORDER INFORMATION

Description	Unit Sales	Articlenr
First Aid Back Pack	1	19110018

Zoll AED Plus

A cardiac arrest or cardiac fibrillation is always sudden and, at that moment it is necessary to act immediately. Of course, one of the first things one should do is contact professional help. Zoll AED Plus does not only alert you when a transient is needed, also tells you if the heart massage is deep enough and runs at the right motion.

Zoll AED Plus
With a good step-by-step resuscitation guidance

Features
For the victim however, it is of the highest importance that directly first aid is granted. This first aid exists in the base from CPR and rescue breathing: an AED can increase the survival rate of the victim.

Dräger has consciously chosen for the Zoll's AED Plus.

This AED distinguishes itself from other brands
- ignores vibrations and movements of the vessel, making a good analysis
- based on IP55
- makes use of special CPR-D padz; a pressure point mounted to the electrodes , with which the pressure and the pace of the heart massage is controlled
- a good step-by-step-resuscitation guidance with understandable icons and clear voice
- a lifetime of batteries and electrodes of 5 years without maintenance
- the Zoll AED Plus is also the only AED using normal batteries, these are easy to replace and cheap to run the Zoll AED has a standard LCD screen 7 x 3 cm with, optionally, text or ECG-view.

TECHNICAL SPECIFICATIONS

Particle and wateringress	IP-55
Battery life	5 years
Display	LCD display, 70 x 30 mm
Dimensions	133 x 241 x 292 mm
Weight	3.1 kg
Operating temperature	0ºC to +50ºC
Storage temperature	-30ºC to +60ºC
Cable length	1.1 m
Recharge time	Less than 10 seconds when using new batteries
Energy level shock	120J-150J-200J
Warranty	7 years
Approvals	UL2601, AAMI DF-39, IEC 601-2-4, EN 60601-1

ORDER INFORMATION

Description	Unit Sales	Articlenr
Zoll AED Plus, complete with carrying bag, Dutch version	1	19130027
Zoll AED Plus, complete with carrying bag, German version	1	SG04743
Zoll AED Plus, complete with carrying bag, English version	1	SG04744
Zoll AED: Electrode pack for adults CPR-D Padz	1	SG04746
Zoll AED: Rescue Kit incl. Gloves, Antimicrobial Wipe,Face Shield, Disposable Razor, Dry Towel	1	19130082
Zoll AED: Electrode pack for child Pedipadz	1	19130083

Fire Blanket

A fire blanket is designed to smother a fire by cutting off its oxygen supply. The fire blanket is placed in a plastic wall container.

Features
- a fire blanket is a safety device designed to extinguish small starting fires

- it consists of a sheet of fire retardant material which is placed over a fire in order to smother it
- fire blankets are folded in to a quick-release container for ease of storage

Fire Blanket (normal)
To extinguish small fire

TECHNICAL SPECIFICATIONS

Material	Composition E glass
	Yarn: Warp: EC9 68 Ex
	Yarn: Werft: EC9 68 Ex
	Finish: 2 side white sillicone coating 2 x 35 gm/m2
Blanket sizes	1200 x 1200 mm, container size: 210x165x40 mm
	1200 x 1800 mm, container size: 280x165x40 mm
	1800 x 1800 mm, container size: 460x165x40 mm
Color	Red
Approvals	Kitemark: BS EN 1869 / BS EN ISO 9002

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 100 x 100 cm	1	SG00481
Fire blanket, 120 x 180 cm	1	SG00483
Fire blanket, 180 x 180 cm	1	SG00484

Thermal Protection Blanket

Protection of people against rain, wind and cold to prevent hypothermia.

Thermal Protective Blanket
Protection against rain, wind and cold

TECHNICAL SPECIFICATIONS

Color	Yellow
Approvals	IMO and SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
TPA-SO: Thermal protective aid	1	SG04921

Stretcher Spencer Scoop

The Spencer scoop stretcher telescopes to accommodate the tallest patient and folds for compact storage designed so attendants can uncouple either end of the stretcher and gently scoop up the patient using scissors. Tubular aluminum construction with extruded aluminum blades.

Folding Spencer Scoop Grey
Also for tall patients

Features
Thanks to the scoop action carried out by two longitudinal edges it is possible to position the stretcher below the patient without having to move him/her. The scoop stretcher can be used to lift, transfer or transport the majority of patients.

The silhouette of the scoop stretcher has been studied to improve the insertion below the patient's body and at the same time stabilise when transferring or transporting.

Material
Special attention has been given to the choice and definition of the material used in construction, which have to respond to certain needs: lightness, mechanical resistance, trustworthiness and durability.

Available types
- gray Spencer scoop stretcher
- orange Spencer scoop stretcher

TECHNICAL SPECIFICATIONS

Stretcher Spencer Scoop - specifications	
Length minimum	167 cm
Length maximum	201 cm
Width	42,5 cm
Depth folded	9 cm
Weight	10 kgs
Load capacity	170 kgs

ORDER INFORMATION

Description	Unit Sales	Articlenr
Stretcher Spencer Scoop	1	SG04721
Bracket for Stretcher Spencer Scoop	1	SG04722
Storage bag for Stretcher Spencer Scoop	1	SG04723
Shoulder Strap (2Pcs) for Stretcher Spencer Scoop	1	SG04724

Stretcher Spencer Shell Basket

This shell is a design for a wide range of rescue situations. The shell is built from high density cross linked polyethylene, this avoids splintering and cracking. The surface is impervious to body fluids and petroleum products. Easy to keep clean. Especially usable rescue operations in mines and in water.

Spencer Shell basket
Ideal for rescue operations in mines, at altitude and in water

Applications
The Spencer basket stretcher Shell, has been studied to confront the most difficult of emergency situations. It is ideal for rescue operations in mines, at altitude and in water. Thanks to its robust form, resistance and flexibility of use, it is indispensable anytime that a reliable and safe stretcher is needed.

Features
A revolutionary technique has been used in its realization which ensures uniform thickness of the entire length of the stretcher. The shell is in high-density polyethylene and is joined to an aluminium framework that aims to consolidate its strength. The handles for transport, which are part of the structure itself, are placed along the entire perimeter. The grommets for the fixing of the spring catches of the harnessing are in stainless steel.
Inside the shell there is a removable mattress, applied with hook and loop fastener®, made in closed-cell EPDM, which makes it impermeable to both blood and water. The use of high-density polyethylene for this shell guarantees not only that it is shatterproof but also an exceptional sanitization. The Spencer Shell can contain a spine board.

Safety Technology
The use of high density polyethylene moulded with this technology, gives a consistency to the thickness that is much higher than that achieved with other forms of moulding; the advantages are evident in the corners, curves and on the base, exactly where the other bodies prove to be more fragile. The body is resistant to damage and corrosion and has been joined to an aluminium framework to guarantee a demanding use and safe transportability in helicopters.
The moulding technology used for this shell offers consistency and uniformity of thickness, the resistance to damage and corrosion much higher than that attained with other forms of moulding, especially in the areas where the other systems are more usually more fragile and delicate (corners, tapering).
Thanks to a modification of the structure material the lifetime of the Spencer basket stretcher shell has been doubled from 5 to 10 years.

Lifting bridle systems
Adjustable lifting bridle used for horizontal and vertical lifting situations. Constructed from durable woven nylon with sound steel attachment hardware and brass locking mechanisms.

Including
- nylon rope along entire perimeter
- three 50 mm nylon belts with quick-release buckles
- water resistant, closed-cell mattress
- footrest in pre-formed polyethylene with position regulator
- optional hoist strap

TECHNICAL SPECIFICATIONS

Stretcher Spencer Shell - specifications	
Dimensions	217 x 62 x 18.5 cm
Width	62 cm
Height	18,5 cm
Weight	13.5 kgs
Load capacity	278 kgs

Stretcher Spencer Shell Basket

ORDER INFORMATION

Description	Unit Sales	Articlenr
Stretcher Spencer Shell Basket	1	SG04711
Lifting Spin Stretcher Spencer Shell Basket	1	SG04701
Storage bag for Basket Stretcher	1	SG04713

Neil Robertson Stretcher

The Neil Robertson Stretcher & Carry Bag is constructed from strong spliced slats and tough cotton. It ensures the patient is secure and stable before and during lifting.

Neil Robertson Stretcher
A well proven rescue stretcher

Features
A well proven rescue stretcher, the Neil Robertson provides comfort and security to the casualty whilst enhancing the rescue effort. Designed for use in instances where the casualty needs to be lowered or lifted to safety, this stretcher is widely used by the Royal Navy, Merchany Navy, Mining, Industry and Emergency Rescue Services.

Specially designed features include
- constructed from spliced, ramin slats with a tough rot proof cotton exterior

- strong and supportive head restraints offer stability to the head when vertical lifting is necessary
- features cotton straps with a traditional buckle and regularly spaced eyelets which assist in holding the casualty safely in place
- support ropes manufactured from durable manilla enhance rescuer confidence and offers a high degree of resistance to chafing
- an optional carrying bag is available for convenient storage of the stretcher when not in use

TECHNICAL SPECIFICATIONS

Dimensions	1500 x 1000 x 40 mm
Dimensions folded	1500 x 310 x 180 mm
Weight	9.8 kgs
Load capacity	136 kg

ORDER INFORMATION

Description	Unit Sales	Articlenr
Neil Robertson Stretcher	1	SG04731

Ferno Kendrick Extrication Device

The Ferno K.E.D.® is a versatile, improved means of immobilizing and extricating patients from auto accidents or tight spaces.

Ferno KED Stretcher
Easy application

The wrap-around design provides horizontal flexibility for easy application and vertical rigidity for maximum support of the spine, neck, and head during extrication. The K.E.D.® immobilizes the torso, head and neck, enabling prompt extrication while minimizing risks of further injury. X-rays or advanced life support procedures can be performed with the K.E.D.® in place.

Features

- wraparound design provides horizontal flexibility for easy application and vertical rigidity for maximum support of the spine, neck, and head during extrication
- built-in handles enable rescuers to get a firm grip on the patient and K.E.D.® as one unit
- adapts to a hip and pelvic splint by simple inversion
- adjustable, fold-back sides permit easy access to patient's chest
- can be used for multiple patient sizes, including children and pregnant women
- color-coded, sewn-in securing straps and snaplock buckles for quick, easy application
- effective in immobilization of pediatric patients
- ideal for immobilizing and extricating patients from auto accidents or confined spaces
- does not interfere with the application of anti-shock trousers

TECHNICAL SPECIFICATIONS

Model	125 K.E.D.
Dimensions	Lenght: min 830 mm - max 900 mm
	Width: min 270 mm
Weight	3 kgs
Load limit	227 kg

ORDER INFORMATION

Description	Unit Sales	Articlenr
Ferno K.E.D.	1	P912WG096

Stretcher Blanket

Blanket to cover victims in case of an accident.

Simple blanket to be used on stretcher.

Stretcher Blanket
To cover victims

TECHNICAL SPECIFICATIONS

Material	Cotton/polyester fabric
Delivery	Sealed in PE bag
Size	1300 x 2100 mm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Stretcher Blanket, 210 x 130 cm	1	SG04741

Basket Stretcher Storage Bag

With the STX 40, Spencer offers a professional solution for practical, easy and robust stocking and protection systems for basket stretchers.

General information
This bag for transport and storage of Spencer Shell basket stretchers is made in PVC fabric easy to clean, with upper strap closure and handles coated with soft plastic material for easy transport. It is fitted with longitudinal belts with ring terminal allow wall hanging.

Basket Stretcher Storage Bag
Protection systems

TECHNICAL SPECIFICATIONS

Material	PVC
Number of handles	6
Dimensions	2150 x 610 x 200 mm
Weight	2.35 kgs
Color	Yellow

ORDER INFORMATION

Description	Unit Sales	Articlenr
Storage bag for Basket Stretcher, color: yellow	1	SG04713

Adjustable wrench

Wrench Swedish made by BAHCO tools B.V., adjustable to 12 thumbs. Combination of pipe grip facility, one side serrated, may be used as a pipe wrench. Left-reading, measurement scale in mm.

Adjustable wrench
May be used as a pipe wrench

TECHNICAL SPECIFICATIONS

Material	Phosphated. Precision-hardened and anti-corrosion treated
Dimensions	length: 305mm; thickness:18mm
Maximum opening	34 mm
Weight	665 gr
Color	Black
Approval	DIN 3117

ORDER INFORMATION

Description	Unit Sales	Articlenr
Adjustable wrench	1	SG03842

Large Aircraft Axe

Big fire axe for use in combination with the helicopter crash kit.
Extremely durable and rigid.

Features

- large aircraft axe with a protective shield below non-wedging pattern head
- head and sleeve of axe manufactured from steel with wooden handle
- an optional cover is available for the head

Large Aircraft Axe
Ideal for offshore helideck rescue equipment

TECHNICAL SPECIFICATIONS

Overall length axe	74 cm
Weight	2.6 kgs

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman axe: Aircraft Large, Non-Wedging	1	SG03807

Bolt cutter

Very robust and strong, made by using a special process with mangan-vanadium steel which contains high carbon levels. Induction hardened out of Rockwell HRC 55-60. Knifes are parallel adjustable. Gummy hand grips.

Bolt cutter
Very robust and strong

TECHNICAL SPECIFICATIONS

Material	Mangan-vanadium steel
Dimensions	450 x 1050 mm
Weight	1700 - 8600 gr
Color	Red
Approval	DIN

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bolt cutter	1	SG03856

Crow bar

Crow bar made of hardened steel, very robust.

Crow bar
Very robust

TECHNICAL SPECIFICATIONS

| Material	Steel
Size	1000 mm
Color	Available in various colors

ORDER INFORMATION

Description	Unit Sales	Articlenr
Crow bar 1000 mm	1	SG03845

Grab hook

Long grab hook which makes it suitable for most rescue situations. Can be stored in three pieces which means it does not take in a lot of space when not in use.
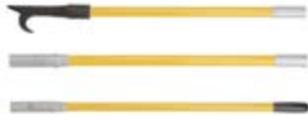
Grab hook
Ideal for offshore helideck rescue equipment

TECHNICAL SPECIFICATIONS

Material	Wooden shaft; brass connection and steel tip
Length	270 cm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Grab hook 3 parts - 2.70 meter	1	SG04907

BAHCO hack saw

Durable hacksaw supplied with 1 spare blade. An easy-to-handle compass saw. The interchangeable blade can be positioned at eight different angles by turning the screw in the handle. The 321 is supplied with a SANDFLEX® Bi-metal blade, 24 TPI.

BAHCO hack saw
Easy-to-handle

TECHNICAL SPECIFICATIONS

Material	Metal
Color	Orange
Weight	330 gr
Approval	DIN

ORDER INFORMATION

Description	Unit Sales	Articlenr
BAHCO hack saw with 1 blade	1	SG03857
Spare part for hacksaw	1	SG06201

Fire Blanket

A fire blanket is designed to smother a fire by cutting off its oxygen supply. The fire blanket is placed in a plastic wall container.

Features
- a fire blanket is a safety device designed to extinguish small starting fires

- it consists of a sheet of fire retardant material which is placed over a fire in order to smother it
- fire blankets are folded in to a quick-release container for ease of storage

Fire Blanket (normal)
To extinguish small fire

TECHNICAL SPECIFICATIONS

Material	Composition E glass
	Yarn: Warp: EC9 68 Ex
	Yarn: Werft: EC9 68 Ex
	Finish: 2 side white sillicone coating 2 x 35 gm/m2
Blanket sizes	1200 x 1200 mm, container size: 210x165x40 mm
	1200 x 1800 mm, container size: 280x165x40 mm
	1800 x 1800 mm, container size: 460x165x40 mm
Color	Container: Red
	Blanket: White
Approvals	Kitemark: BS EN 1869 / BS EN ISO 9002

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire blanket, 120 x 180 cm	1	SG00483
English manual for fire blanket	1	SG00485

Ladder

The Varitrex Plus is a versatile folding ladder. Multifunctional thanks to the 6 hinges. You can place it in A-position, ladder position, platform position and wall-holding position. Whichever position you use: you can do any job with the Varitrex Plus. Thanks to the stability bar with non-slip feet, you always stand firm and stable.

Multifunctional and versatile
The Varitrex Plus is easy to change positions: A-position, ladder position, platform position ánd wall-holding position.

Stable and safe
Stability bar and non-slip feet ensure that you always stand firm and stable. Whichever position you use it in.

Compact storage
When folded, the folding ladder takes up little space.

Multiple positions, various heights
Put the folding ladder in the desired position and achieve the height you need for your job.

Folding ladder
Compact, multifuctional ladder

TECHNICAL SPECIFICATIONS

Steps	4x3
Length	430 cm
Working height	430 cm
Weight	14.5 kgs
Carrying weight	150 kgs
Floor surface	227 x 0,77 m
Approvals	EN131, TUV

ORDER INFORMATION

Description	Unit Sales	Articlenr
Ladder: Multipurpose (4x3 Steps)	1	SG03854

BAHCO side cutting plier

Side cutting plier with progressive edges designed to cut hard material such as piano wire close to the joint and to cut softer material as copper wire and plastic insulated wire at the tip.

BAHCO side cutting plier
Designed to cut hard materials

Specifications
- monomaterial polypropylene insulated handles
- for working on live equipment up to 1000 volts acc. to IEC 60900
- cutting capacity: 4.5 mm of Cu, 3 mm of Fe+ and 2.5 mm of piano wire
- distance from joint to centre of cutting edges is reduced for greater leverage and increased cutting capacity
- high-performance alloy steel
- phosphate finish, anti-corrosion treated
- cutting radius progresses along edge in order to cut hard material such as piano wire close to the joint as well as soft materials
- screw joint provides excellent running and accurate alignment of cutting edges
- round-shaped jaws give improved accessibility in confined spaces
- induction hardened cutting edges
- heavy-duty induction hardened cutting edge
- each and every tool is tested to 10.000V for 10 seconds at the end of the manufacturing cycle

TECHNICAL SPECIFICATIONS

Weight	304 gr
Finish	Monomaterial polypropylene insulated handles
Color	Orange/black

ORDER INFORMATION

Description	Unit Sales	Articlenr
BAHCO side cutting plier	1	SG03858

Screwdriver set

Set of screw drivers for all kinds of maintenance or rescue operations, specially fitted with ergonomic handles for supreme grip and comfort.

Screwdriver set
Supreme grip and comfort

TECHNICAL SPECIFICATIONS

Material	Rubber grip, steel shaft with hardened tip
Finish	Anti-corrosion treated
Color	Red/black
Approvals	DIN

ORDER INFORMATION

Description	Unit Sales	Articlenr
Screwdriver set	1	SG03859

Rescue knife

Patented rescue knife from the USA for fire brigade, police and rescue services. Extremely sturdy metal structure.

Features

Two replaceable blades are securely anchored in the "V". The rounded edges prevent injuries to the rescue victim. The heavy head can even smash thick panes of glass. The shape of the handle prevents the device from falling out of your hand. The special DZUS connection makes it possible to open aircraft and vehicle doors.

Rescue knife
For fast rescue

TECHNICAL SPECIFICATIONS

Weight	460 gr
Length	240 mm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Rescue knife, required for each helideck crew member	1	SG03802

GRP storage cabinet: DMO-55

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- helideck crash equipment (excl. ladder/ rescue hook)
- fall protection equipment / descent units (donut type)

Options
- ventilation
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-55
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	1024 x 500 x 600 mm (LxWxH)
Aperture dimensions	910 x 359 x 560 mm (LxWxH)
Angle of door opening	90°
Weight	20 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IPX6
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-55 Hinged Lid	1	SG02110
Add. Costs DMO-55: Fire retardant	1	SG02111

Safety harness

The safety harnesses offer all the necessary elements for a complete fall protection system and allows the user to choose components based on personal preference and job constraints. In addition to offering economical compliance, these safety harnesses are built with quality and reliability, fall protection gear you can trust.

Features
- large back plate: for easy and efficient donning
- fall indicator: clear indicator which shows that the harness should be retired
- contrasting leg and shoulder straps: for easy and rapid donning

- covered identification labels: protects labels during the life of the harness

Applications
(maintenance) activities on board of a vessel or a rig.

Safety harness
D-rings at front and back

TECHNICAL SPECIFICATIONS

Brand	PROTECTA
Type	AB17511UNI / AB17711UNI
Size	Universal
D-ring locations	Back / Back & Front
Body belt	No
Leg strap buckle type	Pass through buckle
iSafe equipped	No
Physical weight	0.95 kg (2.1 lbs) / 1.05 kg (2.3 lbs)
Approvals	CE, EN361

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety harness, d-ring on back, universal size	1	SG04253

Dräger X-plore® 3500

A perfect combination of durability, protection and comfort. For harsh conditions and long duration use, the Dräger X-plore 3500 half mask is the first choice.

Dräger X-plore 3500
Excellent chemical resistance and protection

Flexible nose area for secure fit
The special design of the nose sealing strip ensures leak free sealing and an optimal fit with safety glasses. Three sizes (S, M, L) ensure a perfect fit for every type of face.

Low profile" design
The swept-back position of the filters guarantees a wide field of vision free from obstruction and ensures optimal fit for use under protective visors. Furthermore, the comfortable design leads to the highest level of user acceptance.

"FlexiFit" head harness
The new smooth material provides an excellent fit to your head without hair entanglement. You won't even notice it under your hard hat.

Easily adjustable head harness
The innovative X-guided (cross over) strap system is easy to adjust and ensures an even

weight and pressure distribution resulting in increased wearer comfort.

Innovative "DrägerFlex" material
Specially developed for the mask body of the Dräger X-plore 3500, the "DrägerFlex" material combines hypoallergenic properties with excellent chemical resistance and protection.

"Drop down" harness
Allows you to remove the mask without removing a hard hat or faceshield. By simply opening the neck clips the respirator slides down from your face. While in the drop-down position, the mask sits close to your body, protected from dirt and grime.

Versatile use
The Dräger X-plore 3500 is equipped with two lateral bayonet connections for use with the comprehensive Dräger X-plore® bayonet filter series.

TECHNICAL SPECIFICATIONS

Material of mask body	"DrägerFlex" – very friendly to the skin, hypoallergenic, extremely comfortable, robust, black
Sizes	Small (S), medium (M), large (L)
Filter connection	Two side-positioned bayonet connectors for use with the Dräger X-plore® filter range
Weight	Approx. 95 gr
Maintenance	Spare parts available for Dräger X-plore® 3500
Extras	Drop down harness system and resealable storage bag (with Dräger X-plore® 3500)
Approvals	CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 3500 (size S)	1	R55351
Dräger X-plore 3500 (size M)	1	R55350
Dräger X-plore 3500 (size L)	1	R55352

Dräger X-plore® Half-mask Filters

Experience a new dimension of comfort and safety in respiratory protection: the Dräger X-plore® Twinfilter series. It sets the benchmark in comfort and use. The utilization of modern materials coupled with an attractive design guarantees maximum comfort and user acceptance.

Dräger X-plore half-mask filters
High level of user safety

Innovative and comfortable
The extensive X-plore Bayonet filter series is an innovative line of twin filter respiratory protection products for all major applications which combines modern design with enhanced wearer comfort. The off-center arrangement of the bayonet connections enables a wide and unobstructed field of view. The filters are suitable for use with Dräger X-plore 3300/3500 half masks and Dräger X-plore 5500 full face masks with Dräger bayonet connection.

Easy and secure attachment
The filters are equipped with a secure and quick-release bayonet catch which provides easy guidance until they click into place. The P3 particle filters have a white housing for easy identification.

Many possibilities
The gas cartridges can be upgraded to operate as combination cartridges by using various pad attachments or Dräger X-plore® Pure with an adapter. The additional particle filters can be replaced independently from the gas cartridge. An optional course particulate prefilter prevents premature clogging of to the combination cartridge with grit or spray paint.

Durable plastic housing
All bayonet filters are equipped with a robust plastic housing.

CE marking
All filters are CE-marked in accordance with EN 14387 and/or EN 143.

Supporting cartridge selection
The Dräger VOICE database of hazardous substances offers comprehensive support for selecting cartridges (www.draeger.com/voice).

ORDER INFORMATION

Filter Type	Weight Order	Ordernr.
Combination Filters		
A1B1E1K1Hg P3 D, two pieces needed per mask	140 gr/pc	6738817

Dräger Firemans Gloves

Best quality leather for the best protection.

Dräger fireman's gloves
Great protection for hands

General

These gloves are completely sewn with Kevlar. Between all seams, a leather tubing, which protects the Kevlar, can be seen. This extends the lifespan of the glove. The palm features an extra strong leather inside.

A piece of leather is sewn on the cuff as an additional radial artery protection. The glove is equipped with elastic so the glove will fit perfectly.

The Porelle breathable membrane ensures the user a breathability and protects the user against water and chemicals.

The knitted Kevlar lining provides high wearing comfort. The Kevlar elastic cuff fits well around the wrist and provides great protection for the user.

Features

- material: Cowskin and fire resistant grain leather
- membrane: Porelle breathable liner
- liner: Knitted Kevlar (para Aramide fibre)
- cuff: Knitted Kevlar with Spandex for elastic facility
- stitching: Kevlar yarn
- standard sizes: 7/S – 8/M – 9/L-10/XL-11/2XL

Porelle liner

- keeps you dry and comfortable
- innovative functional technology
- high moisture diffusion and drying ability
- fire retardant and high capacity breathability
- keeps your body temperature in balance

TECHNICAL SPECIFICATIONS

Color	Yellow
Fabric	Leather palm and backhand, knitted wrist, Kevlar inner lining
Approvals	EN 659, EN 420, EN 388, EN 407 and MED approved

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Firemans Gloves, size S, MED approval	1	SG03741
Dräger Firemans Gloves, size M, MED approval	1	SG03742
Dräger Firemans Gloves, size L, MED approval	1	SG03743
Dräger Firemans Gloves, size XL, MED approval	1	SG03744
Dräger Firemans Gloves, size XXL, MED approval	1	SG03745

Fireproof Rope Lines

Lifelines for firefighters outfit are intended of being attached by means of a snap-hook to the harness of a firefighter. Especially suited for marine fire fighter, MED approved.

Features
- inner core made from 72 strands of flexible galvanised steel wire with an outer covering of plaited jute, giving an overhaul diameter of approximately 10-12 mm,
- breaking strain of not less than 1 ton (1016 kg),

- a large double lock safety hook for ease off attachment to a safety harness or belt is fitted to one end of the lifeline,
- the lifelines are available in varying lengths from 15 metres to 61 metres as standard.

Fireproof Rope Lines
MED approved

TECHNICAL SPECIFICATIONS

Material	galvanised steel wire with an outer covering of plaited jute
Length line	15 meters
Approvals	MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireproof rope Lines with hook, 15 meter	1	SG03820

Fire Resistant Safety Belt

Fireman's work positioning belt is especially designed for fire brigades. They are exclusively intended to prevent falls from a height in hazardous areas.

Fire Resistant Safety Belt
To prevent falls from a height

Features
When putting on the fireman's work positioning belt, the belt itself is wrapped around the body and closed by pulling the webbing end through the alloy frame, going back with it through the two-pin buckle and hooking the metal inserts into this. After that the webbing end is pulling through and fixed by the fitted webbing loops. The belt has to fit the body tightly.

Optional
The belt is optional equipped with carabiners with screw locking devices or Twistlocks. The multifunctional eye on the carabiner snaphook of the fireman's work positioning belt is a special feature for fire brigades and is intended exclusively for use with trained personnel. This multifunctional eye is for guiding loads to upper or lower levels.

Usage
The fixed lanyard is used for work place positioning (positioning or restraint purposes) and attaches to the anchor point by a carabiner snaphook. The anchor point has to be at or above waist level and should bear a minimum load of 10 kN according to EN 795. In fall hazardous areas the lanyard must always be tensioned to limit the free room of movement to maximum 0,6 meters.

Important
A fireman's work positioning belt is definitely not a full body harness. The positioning belt should be owned by the user individually and is only allowed to be used by seriously trained personnel.

TECHNICAL SPECIFICATIONS

Carbine	Twistlock
Weight	1.030 gr
Approvals	DIN 14927

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Resistant Safety Belt, size 3	1	SG03848

Power Cutting Tool Lukas

Combination tool with integrated hand pump cuts and spreads. Highly portable for rescue operations in areas difficult to access. Rotatable tool head can be adjusted in any desired angle for 360 degrees.

Applications
- rescue operations
- disaster management
- rescue operations on top of ladder or in wilderness areas
- moving and lifting of obstacles
- opening doors and deforming metal structures
- cutting of metal constructions, vehicle parts, pipes, sheet metal etc

Features
- no external power source is required
- lightweight and highly portable
- cutting and spreading with one tool
- easy to operate, automatic change over from low pressure to high pressure
- device can be rotated 360 degrees - thus always in the optimal working position

Power Cutting tool Lukas
Combination tool with integrated hand pump cuts and spreads

TECHNICAL SPECIFICATIONS

Dimensions	850 x 190 x 158 mm
Weight	11.9 kgs
NFPA cutting classes	A6, B6, C6, D7, E7
Round steel up to	26 mm
Cutting force up to	261 kN
Series	Tubular
Spreading force up to	405 kN
Spreading distance	308 mm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Lukas: Power Cutting tool SC 250 M	1	SG03811

Dräger Aramid Fireman's Suit

Dräger would like to present its new line of firefighting clothes designed to the highest standards with one thing in mind: the firefighter. The new suit is the result of a close study of technical key features and usability of suits that are currently available in the market: the suit has been improved on eight key features as compared to the most readily available suits. Providing a safe barrier "between human will and fire's forces".

Dräger Aramid Fireman's Suit
A lightweight, durable and highly comfortable suit

Radiation heat barrier
A Kermel fleece that provides excellent thermal protection, these very thin layers found inside the layer concept, minimise the amount of water that can replace the critical insulation air space in the garment.

Membrane
A Hi-Tech polyurethane membrane coated on the outer radiation heat barrier. Ensures exceptional breathable characteristics and unmatched durability. Up to a temperature of 380ºC, this membrane gives a good protection against heat and chemicals and will not melt.

Liner
A combination of Nomex and Viscose. The Nomex thread of this special weave method with the 2,5% Kevlar makes the liner strong. The fire retardant Viscose thread provides comfort and transports moisture to the outside of the liner. The multi-layer configuration ensures that each layer accomplishes its part of the job.

Air layers and thermal barriers
The protective value of the "ESS® 5 layer system" in combination with the fabric composite is found in the air between the fire fighter and the heat source. Air itself is the greatest single source of insulation qualities in protective clothing. Sandwiching stitching inside the facing cloth is therefore never used. All the layers are not stitched to each other; this improves the thermal insulation value (TPP) by protecting the moisture barrier and creating multiple air spaces between the very thin layers.

Comfort
The used layer system creates a lightweight, durable and highly comfortable garment without compromises to the suits protective features.

Quick Release Breakaway Zippers
Specially designed for military, firefighter and chemical suits. Ideal for situations where it's desirable to tear the zipper open without having to move the zipper all the way back.

Anti Aqua
High-Tech coated polyester fabric in sleeves, trouser legs, storm flap, back piece and pocket flaps. Prevents water and chemicals to easily enter the lining of the suit.

Eyelets
To quickly drain fluids from the suits pockets.

External padding
The suit features external protective pads on the knees and the elbows. Most other suits have their padding installed on the inside of the pants and do not use padding for elbows. Using padding for both elbows and knees increases user comfort. In addition using padding on the outside helps to protect the suit from damages on its most fragile parts.

Rounded pocket flaps
By using rounded pocket flaps the chances of being caught behind protruding parts when in action are reduced. In addition the rounding of the corners reduces wear and tear on the fabric in everyday use.

EU type Certificate - EN469:2020 X2, Y2, Z2 and MED
The manufacturer has obtained EU TYPE EXAMINATION in compliance with what is set out in Annex V (module B) in Regulation (EU) 2016/425 and in agreement with the applicable test procedures and technical specifications. Destined to protection of the entire body of the user with exception of head, hands and feet, according to the following standard/s:
- EN ISO 13688:2013+EN ISO 13:688:2013/A1 2021 general requirements.
- EN 469:2020 against risks up the operation of firefighting and related activities (X2,Y2, Z2).
- EN 1149-5:2018 against the riks of accumulation of electrostatic leads.
- Tests carried out after 5 washing cycles 40ºC.

Dräger Aramid Fireman's Suit

TECHNICAL SPECIFICATIONS

Type of material	Aramid
Pockets	Jacket: Two side pockets with flaps, one inside pocket and one radio pocket on each chest
	Trousers: 2 box pockets on thighs. Inverse pocket in both sides.
Color	Orange with reflective striping
Sizes	S - XXL
Weight	± 2,92 kg
Approvals	MED,
	EN469:2020 (X2, Y2, Z2),
	EN ISO 13688:2013,
	EN ISO 13688:2013/A1 2021,
	EN1149-5:2018

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Aramid Fireman's Suit, size S, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03701
Dräger Aramid Fireman's Suit, size M, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03702
Dräger Aramid Fireman's Suit, size L, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03703
Dräger Aramid Fireman's Suit, size XL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03704
Dräger Aramid Fireman's Suit, size XXL, Orange, EN469:2020 (X2,Y2, Z2), MED	1	SG03705
Dräger Aramid Fireman's Suit, size S, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03706
Dräger Aramid Fireman's Suit, size M, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03707
Dräger Aramid Fireman's Suit, size L, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03708
Dräger Aramid Fireman's Suit, size XL, Navy, EN469:2020 (X2,Y2, Z2), MED	1	SG03709
Dräger Aramid Fireman's Suit, size XXL, Navy,EN469:2020 (X2,Y2, Z2), MED	1	SG03710

Dräger HPS 7000 Fireman's Helmet

The Dräger HPS 7000 firefighter's helmet is in a class of its own thanks to its innovative, sporty and dynamic design, ergonomic fit and components which make it a multi-functional system solution. It provides you optimum protection during every operation.

Dräger HPS 7000 fireman's helmet
Tailor-made fit for every head

Firefighting helmet with tailor-made fit for every head

To meet this requirement, Dräger developed the HPS® 7000 firefighting helmet in close cooperation with customers worldwide. Two helmet shells for head sizes from 50 to 66 cm cover a wide range of individual head and face shapes. With a weight of approx. 1,380 g in the basic version, it is one of the lightest helmets in its class. In addition to its comfortable interior fitting made of skin-friendly, anti-allergic and flexible materials, the Dräger HPS 7000 stands out with its high level of operating and wearing comfort.

Comfort is a matter of position

The padded 4-point harness allows for safe and easy adjustment to any head shape. The optimum balance of the firefighting helmet can be adjusted individually in the neck and chin area. The padding made of Nomex® also ensures a comfortable fit. The integrated comfort hairnet enables the height to be adjusted and assures a good climate inside the helmet. During operation, the head size can be adjusted quickly via an easy-to-operate size-adjustment wheel with a safety mechanism on the outer shell, even with wet and thick gloves. Nomex® is a registered trademark of the company DuPont.

Design at its strongest

The ergonomic firefighting helmet design evenly distributes the weight to the head and relieves the neck muscles. The large and modern facial protection visor offers unrestricted protection with best visibility. For operations under chemical protective suits, the visor can be fixed permanently. A safe alternative is provided by the integrated and individually adjustable protective goggles with an integrated soft-pad edge protection. Both visors leave enough space for the simultaneous use of corrective glasses or respiratory masks. A firefighter's helmet is more than a mere piece of equipment – it serves as a personal distinguishing feature. Therefore, you can configure the helmet according to your wishes: select from a variety of colours and also pick an individual emblem for your front plate.

Innovative system design

As a provider of integrated system solutions, Dräger sets new standards for the interaction of its products. The universally and individually adjustable mask connection system of the Dräger HPS 7000 creates a strong and safe helmet-mask combination. The full-face mask FPS 7000, the integrated mask communication units Dräger FPS-COM 5000 or FPS-COM 7000 and the SCBA of the PSS series allow you to optimally configure the overall system. The lightweight LED helmet lamp is integrated into the helmet shell and illuminates the whole working area. It is located in the centre of the front plate and has an effective glare shield as well as an intelligent battery management system. The interior fitting can be equipped with various audio/speech headsets for different radios. This ensures reliable communication even in loud environments.

Highest safety - the material mix makes the difference

Despite its low weight, the Dräger HPS 7000 firefighting helmet is one of the safest full-shell helmets in its class. Its outer shell of composite material in combination with the PUR inner shell provides reliable protection against thermal and mechanical influences. The plastic reinforced with fibreglass and aramid webbing resists extreme temperatures. It is even able to withstand the enormous radiation caused by the heat and flame engulfment of a flash over. The visors, made of high-temperature-resistant polyether sulphone, reliably protect your eyes and face against high heat, particles and liquid chemicals.

Nothing left to be desired

A comprehensive accessory programme completes the Dräger package. Reflective stripes improve your visibility under unfavourable conditions and allow for individual marking. Matched to your clothing, the various neck-protection versions reliably keep your back free. Separate helmet lamps are attached with a lamp adapter on the right or left helmet side. A Nomex® fabric protects your firefighting helmet in any training situation and extends its service life. Helmet

Dräger HPS 7000 Fireman's Helmet

bags and cases provide safe storage and transport.

Ready again in no time at all
he Dräger HPS 7000 firefighting helmet is easy and efficient to service, thanks to the minimum number of components. The entire interior fitting can be removed and reinstalled in just a few steps. You can replace individual components easily and quickly using standard tools. All helmet components are cleaned and disinfected manually or in an industrial washing machine.

TECHNICAL SPECIFICATIONS

Size	H1: for head size 52 to 60 and optional for 50/51 (when using a separate padding strip),
	H2: for head size 56 to 64/66, continuously adjustable via adjustment wheel (available 2014)
Weight	Approx. 1,380 g (±5%)
Color	Luminescent, pure white,red, signal blue, zinc yellow, black, bright yellow, other colors on request
Mask connection (only PRO version)	Option to attach any adapter mask, e.g. Dräger FPS 7000, 4 positions adjustable
Interior fitting	Flame-resistant and washable 4-point harness made of Nomex, sweat band of eco leather, head support ring with wheel adjustment system (patent pending), integrated comfort hairnet, fixing lever for facial protection visor and communication adapter
Material, outer shell	Composite consisting of glass fibre reinforced plastic (PA-GF) and additionally reinforced with aramide webbing, high temperature resistant
Facial protection visor	2.5 mm polyether sulphone, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3) clear or gold-coated version
Protective goggles (only for PRO version)	2.5 mm polyether sulphone with softpad edge protection, anti-scratch coated (optional), approved acc. to EN 14458:2004 (±40 °C, T, N, K, AT, R, E3), clear or tinted version, 2 positions adjustable
Approvals	EN 443:2008 (type B 3b, C, E2, E3, -40 °C), mask-helmet combination acc. to DIN 58610

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS 7000, luminescent	1	R79170
Dräger HPS 7000, white	1	R79171
Dräger HPS 7000, PRO luminescent/matt black	1	R79250
Dräger HPS 7000, PRO white/matt black	1	R79251
Dräger HPS 7000 - neck protection aramid / Aluminium	1	R79145
Dräger HPS 7000 - neck protection aramid / short	1	R79146
Dräger HPS 7000 - neck protection aramid, neck curtain, three-layer	1	R79147
Dräger HPS 7000 - helmet lamp, LED, integrated	1	R79013
To attach the integrated LED helmet lamp, order separately: kit front plate for HPS® 7000 helmet lamp	1	R79226
Lamp holder Dräger HPS 7000 (for helmet lamps Dräger PX1)	1	R79129
Helmet lamp Dräger PX 1 LED	1	R62350

Fireman's SA Boots

Boots for emergency situation and fire with toxic chemicals emission.

Features
- safety toe cap
- anti-perforation mid-sole
- resistance to heat flow, heat contact, fire

- resistance to chemicals: fuels, oils, weak and diluted acids, solvents
- resistance to abrasion and cuts
- used with chemical protective suits (satisfy permeation tests according to EN 943-2)

Fireman's SA Boots
Meets the heat and flame resistance requirements

TECHNICAL SPECIFICATIONS

Color	Black
Sizes	36-50
Type of construction	Elastomer: fireproofed NBR (fireproofed nitrile rubber)
Steel midsole	Composite anti-perforation mid-sole
Toe	Polymer toe cap (steel toe for sizes 36, 37, 38)
Weight	1900g / pair (size 42)
Height	370mm (size 42)
Approvals	EN 943-2 EN 15090 type 3 HI3 EN ISO 20345 S5 HRO SRC EN 13832-3 J P Q EN 13287 Marine fire protection equipment certified by SEE-BG, notified body Nº0736 MED approved

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's Boots, size 36	1	SG03746
Fireman's Boots, size 37/38	1	SG03747
Fireman's Boots, size 39	1	SG03749
Fireman's Boots, size 40/41	1	SG03751
Fireman's Boots, size 42	1	SG03752
Fireman's Boots, size 43	1	SG03753
Fireman's Boots, size 44	1	SG03754
Fireman's Boots, size 45	1	SG03755
Fireman's Boots, size 46/47	1	SG03756

Fire fighter hood

Nomex hood for fire fighters.

Features
Elastic inside at face opening.

Nomex hood
For fire fighters

TECHNICAL SPECIFICATIONS

Color	Grey
Size	One size
Material	Nomex/Viscose knit, 50/50, 235 g/m^2
Approvals	EN 13911

ORDER INFORMATION

Description	Unit Sales	Articlenr
Flash hood: Nomex III	1	SG03881

Fire Proof Lifeline

Lifelines for firefighters outfit are intended of being attached by means of a snap-hook to the harness of a firefighter. Especially suited for marine fire fighters, MED approved.

Features
- inner core made from 72 strands of flexible galvanised steel wire with an outer covering of plaited jute, giving an overhaul diameter of approximately 10-12mm.
- breaking strain of not less than 1 ton (1016 kg).
- a large double lock safety hook for ease off attachment to a safety harness or belt is fitted to one end of the lifeline.
- the lifelines are available in varying lengths from 15 metres to 61 metres as standard. Other lengths can be made up to order as required.

Fire proof life line
MED approved

TECHNICAL SPECIFICATIONS

Material	galvanised steel wire with an outer covering of plaited jute
Length line	15 meters
Approvals	MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Proof Life Line with hook, 15 meter	1	SG03820

Helideck Closed Marker

Marker for the helideck in offshore quality.
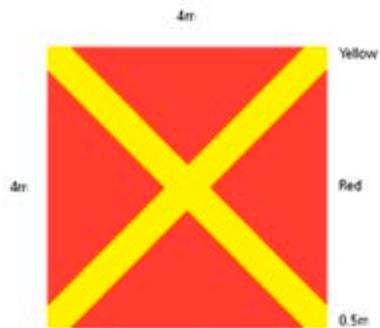
Helideck Closed Marker
Marker 4 x 4 mtr

TECHNICAL SPECIFICATIONS

Material	PVC 630g/m2
Dimensions	4x4 m , stripe width: 0.5m
Fixation	Every 0,5m a brass fixation eye

ORDER INFORMATION

Description	Unit Sales	Articlenr
Helideck Closed Marker, 4 x 4 mtr	1	SG04902

Helideck Wheel Block

Wheel block for use on the helideck.

Wheel blocks for helicopter

TECHNICAL SPECIFICATIONS

Material	Rubber
Dimensions	Appr.: 230 x 210 x 160 mm (HxDxW)
Weight	4.8 kgs
Other	Galvanized chains for fixation

ORDER INFORMATION

Description	Unit Sales	Articlenr
Wheel block for helicopter, including chain	1	SG04901

Helideck Ty down Straps

Straps for the securing of a helicopter on the helicopter-deck.

Ty down strap for helicopter

Features
- LOAD-LOK® 50 mm high strength polyester webbing lashing systems for heavy general
- loads

- easy – quick – secure lashing for flats, tilts, containers, rail wagons
- suitable for road/rail/ sea/air
- can be supplied with various end fittings suitable for the majority of lashing points and produced at a length 'made to measure'

TECHNICAL SPECIFICATIONS

Material	Polyester
Webbing width	50 mm
Lashing capacity	2500 kgs
Breaking strength	5000 kgs
Approval	EN 12195-2

ORDER INFORMATION

Description	Unit Sales	Articlenr
Helideck Ty down Straps	1	SG03860

Helideck Landing Officer vest

Helideck Landing Officer Nomex III Vest.

Features
- conform to EN-471

- two hook and loop fasteners
- with HLO reflections

Landing officer vest
Nomex III

ORDER INFORMATION

Description	Unit Sales	Articlenr
HLO-vest Nomex, orange c/w striping and zipper. Size S. HLO on chest and back.	1	SG03865
HLO-vest Nomex, orange c/w striping and zipper. Size M. HLO on chest and back.	1	SG03866
HLO-vest Nomex, orange c/w striping and zipper. Size XL. HLO on chest and back.	1	SG03867
HLO-vest Nomex, orange c/w striping and zipper. Size XXL. HLO on chest and back.	1	SG03868
HLO-vest Nomex, orange c/w striping and zipper. Size L. HLO on chest and back.	1	SG03869
HDA-vest Nomex: Orange c/w Stripping/ Zipper. Size XL, HDA on chest and back	1	SG03871

Windsock

To be used for measurement of wind direction and speed. Thanks to numerous years of experience Bingham is able to produce a rugged and durable wind sock. Due to the balanced combination of fabric and manufacturing techniques you will receive a top notch product.

Windsock
For wind directional speed

Quality
Fabricated from red/white/red/white/red spinnaker cloth and finished with either popper buttons or copper rings. Dependent on the location and the type of use other configurations are also possible. There is for instance the possibility to print advertisements on the cloth. Bingham is able to deliver wind socks with your logo and company colors printed on them!

Mounting
A wind sock is mounted in a special accompanying wind direction mechanic. This mechanic is provided with nylon bearings to assure accurate measurement even when there is only moderate wind. A special bracket assures that even in wind still conditions the wind direction can be approximated accurately.

Masts
The abovementioned can be mounted on special storm proof masts. These masts have a large diameter at the foot to withstand the forces of a storm. With help of the provided tilting mechanism, the wind sock is easily replaced.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Windsock, ask our sales department for available sizes and colors	1	SG03861

Helideck CO2 Extinguisher Lance

Lance for wheeled CO_2 extinguisher.

Features
- stainless steel piping R16 x 2 mm
- HP ball valve 1/2 inch stainless steel
- rubber CO_2 hose 5 meter with connection
  1/2 inch x 21.8

- CO_2 expansion horn

- note: the piping is insulated by a full rubber
  cover

CO_2 lance
Type Offshore - Helideck

TECHNICAL SPECIFICATIONS

Materials	Stainless steel and rubber
Hose length	5 meters
Piping length	2.7 meters

ORDER INFORMATION

Description	Unit Sales	Articlenr
Helideck CO2 extinguisher lance - complete: 2.7 meter stainless steel lance inclusief 5 meter hose en snow horn	1	SG00384

Powder Wheeled Extinguisher 50 kgs ABC (cartridge)

This wheeled extinguisher is designed for professional use under severe circumstances, resulting in a high level of quality and ease of use. The cylinder, CE marked, has the welded frame. Ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation.

Powder Wheeled Extinguisher 50 kgs ABC
External cartridge operated

Applications for the marine, inland shipping and offshore market
- engine rooms
- deck rooms
- heli decks
- car decks

Features
- suitable placing of supporting handle, axis and supporting roll guarantees an optimal center of gravity of the apparatus as well as a good mobility

- easy-running, solid tyres steel wheels
- quick readiness for use and space-saving by placing the hose around the powder container
- 5 meter high pressure hose with textile insert
- interruptible extinguishing pistol enables a dosed fire fighting
- with the mark "GS"= tested security
- can be used at low temperatures (-30ºC)
- very mobile and easy to operate
- painted inside

TECHNICAL SPECIFICATIONS

Manufacturer / Model	14163
Extinguisher	Dry Chemical Powder
Type	External Cartridge
Capacity	50 kgs
Fire class / Rating	ABC
Propellant gas	CO_2, 2 kgs
Discharge time	41 seconds
Throw length	11 meters
Working pressure	14 bar at 20ºC
Suitable for electrical equipment	Up to 1000V
Extinguishing agent	Powder MAP ABC 30
Length discharge hose	5 meters
Diameter wheels	300 mm
Material wheels	Hard rubber / PVC
Temperature range	-30ºC to +60ºC
Approx gross weight	50 kgs
Approx dispatch weight	85 kgs
Approx unit dimension	550 x 450 x 1050 mm (l x w x h)
Color	Cylinder red RAL 3000
Approvals	EN 1866 / CE, MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Powder Wheeled Extinguisher 50 kgs ABC (cartridge) MED	1	SG00262
Cover for wheeled foam extinguisher 45/50 ltr., without striping, weighted by steel chain	1	SG00327
Cover for wheeled powder extinguisher 50 kg, blue strip, weighted by steel chain	1	SG00321
Spare CO_2 cylinder for Powder Wheeled Extinguisher 50 kgs ABC	1	SG00432

ABS CO2 Wheeled Extinguisher 20 kgs B

Wheeled extinguishers are designed for professional use under severe circumstances, resulting in a high level of quality and ease of use.

ABS CO$_2$ wheeled extinguisher 20 kgs B
Suitable for fires in electrical equipment in fire class B

Applications for marine, inland shipping and offshore market
- engine rooms (electrical appliances such as switch boards etc)
- welding areas

Features
- very mobile and easy to operate
- excellent quality, therefore a long operational lifetime
- good ergonomy, easy to drive
- can be used at low temperatures (-30ºC)

- easy to service
- first in Europe in accordance with the new EN 1866 standards with CE approval
- extremely high ratings on B class fire (liquid fuels)
- ease of mobility is achieved as a result of the large wheels with solid rubber tyres and push bar also ensuring good stability during operation
- high performance discharge horn
- highly flexible hose with an excellent resistance

TECHNICAL SPECIFICATIONS

Manufacturer / Model	ABS
Extinguisher	CO$_2$
Capacity	20 kgs
Fire class	233B
Propellant gas	CO$_2$
Discharge time	32 seconds
Throw length	4 meter
Working pressure	60 bar at 20ºC
Suitable for electrical equipment	??
Extinguishing agent	CO$_2$
Length discharge hose	4 meters
Diameter of wheels	300 mm
Material wheels	Felly: Polypropylene
	Wheels: Polypropylene
Temperature range	-30ºC to +60ºC
Approx gross weight	70 kgs
Approx dispatch weight	65.3 kgs
Approx unit dimension	970 x 400 x 600 mm
Color	Cylinder: Red
	Frame: Yellow, optional black or red
Approvals	Directive 96/98/EC MED, EN 1866 and with CE-mark

ORDER INFORMATION

Description	Unit Sales	Articlenr
ABS CO2 20 kgs B (stored pressure) MED	1	SG00272
Cover for wheeled CO2 extinguisher 10/20 kg., black strip, weighted by steel chain	1	SG00328

Fire Proof Lifeline

Lifelines for firefighters outfit are intended of being attached by means of a snap-hook to the harness of a firefighter. Especially suited for marine fire fighters, MED approved.

Features
The lifeline has a carabiner hook with a screw cap hook on one side. For the end connection the polyester cover is removed at the end of the wire rope. The end connection is with a thimble end the wire rope is pressed with a ferrule. A shrink hose is covering the ferrule.

Fire proof life line
MED approved

TECHNICAL SPECIFICATIONS

Material	- Galvanized steel wire rope 6X19+PP core 5 mm according to specification 619N5 in tensile strength of 1770 N/mm2 - woven cover sheet of Polyester yarns made out of Trevira CS of thickness approximately 1,5 mm - Carabiner hook in acc. to DIN 5299 Form C 100 x 10 mm WLL 350 kg
Length line	30 meters
Approvals	MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Proof Life Line with hook, 30 meter, MED approved	1	SG03823

Dräger Pac® 6000

The disposable personal single-gas detection device, Dräger Pac® 6000, measures CO, H_2S, SO_2 or O_2 reliably and precisely, even in the toughest conditions. The robust design, quick sensor response times, and a powerful battery ensure maximum safety for up to two years with virtually no maintenance required.

Dräger Pac 6000
Robust design, quick sensor response time

Strong performance for maximum safety

You can rely on the Dräger Pac 6000: The personal single gas detection device warns against hazardous concentrations of carbon monoxide, hydrogen sulphide, sulphur dioxide or oxygen with precision and reliability. Powerful sensors with a very low t-90 response time ensure quick reactions. The Pac 6000 is versatile thanks to its wide measurement range. For example, the CO sensor measures concentrations from 1 to 1,999 ppm, and the H2S sensor from 0.4 to 100 ppm.

Easy handling thanks to clear user guidance

The D-Light indicates whether the functionality of the device has been tested and that it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 6000 features a clear, well visible colour coding, thereby minimising the chance of mistakes.

Robust design – even for the toughest conditions

The Pac 6000 can easily handle even extreme conditions: depending on the sensor, temperatures from -40°C to 55°C and air pressures between 700 and 1,300 mbar can be tolerated. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

User-friendly display with all important information

The large display is non-verbal and clearly indicates the respective gas concentration. Other important information, such as remaining operating time and battery capacity, is also displayed. The bright backlighting ensures clear reading of all values in the dark.

360° alarm with various functions

If the Dräger Pac 6000 measures hazardous gas concentrations, it sets off an audible, visual, and noticeable vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic alarm reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if acknowledged. The Pac 6000 with oxygen sensor has two additional alarm thresholds in addition to the standard alarm threshold setting.

Event logger for analyses and reports

The Dräger Pac 6000 logs concentrations and events along with date and time. The data can be downloaded to a PC via an interface and processed further there.

Economical operational costs

All of the versions of the Pac 6000 are equipped with extremely durable DrägerSensors® and a powerful battery. Neither the sensor nor the battery need to be changed for the entire two-year maintenance-free service life of the H2S, SO2 and CO versions. The service life of the Dräger Pac 6000 starts when it is first activated. The device automatically switches off after two years. The Pac 6000 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled you can quickly and easily replace it yourself. The device is then ready to use again in no time.

Fast function test saves time and money

Function tests and calibrations can be carried out especially efficient using the Dräger X-dock® calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to short test duration and extremely low test gas consumption. The Dräger Pac 6000 is simply placed in the bump test station and automatically selects the correct setting.

Dräger Pac® 6000

TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Device service life	2 years from first activation
Battery service life	2 years (O2 min. 12 months)
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 ℃ to +55 ℃ (briefly down to -40 ℃ for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 6000 CO LC	1	8326321
Dräger Pac 6000 H$_2$S LC	1	8326320
Dräger Pac 6000 O$_2$	1	8326322

Dräger Pac® 6500

The robust Dräger Pac® 6500 is your reliable companion under tough conditions. The personal single-gas detection device measures CO, H<sub2S, SO_2 or O_2 quickly and precisely. Quick sensor response times and a powerful battery also ensure safety.

Dräger PAC 6500
Quick sensor respone time and powerful battery

Strong performance for maximum safety

You can rely on the Dräger Pac 6500: the personal single-gas detection device warns against hazardous concentrations of carbon monoxide, hydrogen sulphide, sulphur dioxide or oxygen with precision and reliability. Powerful sensors with a very low t-90 response time ensure quick reactions. The Pac 6500 is versatile thanks to its wide measurement range. For example, the CO sensor measures concentrations from 1 to 1,999 ppm, and the H2S sensor from 0.4 to 100 ppm.

Easy handling thanks to clear user guidance

The D-Light indicates whether functionality of the device has been tested and whether it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 6500 features clearly visible colour coding, thereby minimising the chance of mistakes.

Robust design – even for the toughest conditions

The Pac 6500 can easily handle even extreme conditions. Depending on the sensor, temperatures from -40 ℃ to 55 ℃ and air pressures between 700 and 1,300 mbar can be tolerated. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemicalresistant housing meets the requirements specified in the IP68 standard rating.

User-friendly display with all important information

The large display is word-free and clearly indicates the respective gas concentration. Other important information, such as the battery capacity, is also displayed. The bright backlighting ensures that all values are clearly legible in the dark.

360° alarm with various functions

If the Dräger Pac 6500 measures hazardous gas concentrations, it sets off an audible, visual and perceptible vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if they have been acknowledged. The Pac 6500 with oxygen sensor has two additional alarm thresholds in addition to the standard alarm threshold settings.

Data logger and event logger for analyses and reports

The Dräger Pac 6500 logs concentrations and events along with the date and time. The data can be loaded on a PC via an interface and processed further there.

Economical operating costs

All versions of the Pac 6500 are equipped with extremely durable DrägerSensors® and a powerful battery. Neither the sensor nor the battery need to be changed over the two-year maintenance-free service life of the H_2S, SO_2 and CO versions. The Pac 6500 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again right away.

Fast function test saves time and money

Function tests and calibrations can be carried out especially efficient in the Dräger X-dock® calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to the short test duration and the extremely low consumption of test gas. The Pac 6500 is simply placed in the bump test station and automatically selects the correct setting.

Dräger Pac® 6500

TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Battery service life	2 years (O_2 min. 12 months)
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 ℃ to +55 ℃ (briefly down to -40 ℃ for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 6500 H_2S LC	1	8326330
Dräger Pac 6500 CO LC	1	8326331
Dräger Pac 6500 O_2	1	8326332

Dräger Pac® 8000

With the robust Dräger Pac® 8000, you'll be well equipped for tough conditions: this non-disposable, personal single-gas detection device is a reliable and precise instrument, which detects hazardous concentrations of 29 different gases, including special gases like NO_2, O_3 or $COCl_2$.

Dräger PAC 8000
Detects 29 different gases

Strong performance for maximum safety

You can count on the Dräger Pac 8000 to give you reliable, precise readings at any time even in extreme conditions. Our powerful sensors with a low t-90 response time ensure quick reactions. In addition to the standard alarms, you can define extra alarm thresholds for TLV®* and STEL*. * TLV® = Threshold Limit Values, STEL = Short Term Exposure Limit

Sensors for special gases

The Pac 8000 can be fitted with sensors for carbon dioxide (CO_2), chlorine gas (Cl_2), hydrogen cyanide (HCN), ammonia (NH_3), nitrogen dioxide (NO_2), phosphine (PH_3) and organic vapours (OV or OV-A). The Dräger Pac 8000 performs especially well when detecting different special gases: it can detect ozone (O_3) from concentrations as low as 0.02 ppm and phosgene ($COCL_2$) from 0.01 ppm. The Pac 8000 detects nitrogen dioxide (NO_2) from concentrations as low as 0.04 ppm.

Robust design – even for the toughest conditions

The Pac 8000 can easily handle even extreme conditions. The sensors can tolerate air pressures between 700 and 1,300 mbar. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

Easy handling thanks to clear user guidance

The D-Light indicates whether functionality of the device has been tested and that it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 8000 features clear, well visible colour coding, thereby minimising the chance of mistakes.

User-friendly display with all important information

The large display is non-verbal and clearly indicates the respective gas concentration. Other important information, such as the unit of concentration and battery capacity, is also displayed. The bright backlighting ensures that all values can be clearly read off in the dark.

360° alarm with various functions

If the Dräger Pac 8000 measures hazardous gas concentrations, it sets off an audible, visual and noticeable vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if acknowledged.

Data logger and event logger for analyses and reports

The Pac 8000 logs concentrations and events along with date and time. The data can be downloaded to a PC via an interface and processed further there.

Economical operational costs

All of the versions of the Dräger Pac 8000 are equipped with extremely durable Dräger sensors® and a powerful battery. The Pac 8000 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again in no time.

Fast function test saves time and money

Function tests and calibrations can be carried out especially efficiently in the Dräger X-dock® calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to short test duration and the extremely low test gas consumption. The Pac 8000 is simply placed in the bump test station and automatically selects the correct setting.

Dräger Pac® 8000

TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Battery service life	2 years
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 ℃ to +55 ℃ (briefly down to -40 ℃ for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 8000 NH_3	1	8326354
Dräger Pac 8000 PH_3	1	8326355
Dräger Pac 8000 H_2	1	3729680
Sensorfilter 8x00 (sensor grid, silver), set of 4 pieces	1	8326852

Dräger Pac® 8500

The Dräger Pac 8500® single-gas detection device is a reliable and precise instrument even under the toughest of conditions. The device can be equipped with a hydrogen-compensated CO sensor or a Dräger dual sensor. This gives you the option of measuring two gases at once: either H_2S with CO or O_2 with CO.

Dräger PAC 8500
Measuring two gases at once

Strong performance for maximum safety

You can count on the Dräger Pac 8500 to give you reliable, precise readings at any time even under extreme conditions. Our powerful sensors with a low t-90 response time ensure quick reactions. In addition to the standard alarms, you can define extra alarm thresholds for TLV®* and STEL*. The Pac 8500 also provides a data and event logger for logging concentrations and events along with the date and time. The data can be loaded on a PC via an interface and processed further there. * TLV® = Threshold Limit Values, STEL = Short Term Exposure Limit

Convert to two-gas detection device using a dual sensor

Your single-gas detection device can become a two-gas device when a dual sensor is used. The Dräger Pac 8500 series offers the following sensor combinations: hydrogen sulphide with carbon monoxide or oxygen with carbon monoxide. Dual sensors enable detection of even low concentrations – and all in one and the same handy device. Measuring two gases at the same time reduces downtime as well. You can take vol.% measurements of oxygen and ppm measurements of carbon monoxide simultaneously using just one sensor.

Measurement of carbon monoxide with significantly reduced cross sensitivity

In industries where carbon monoxide needs to be measured with hydrogen as a background gas, the measured value for carbon monoxide may be falsified by cross sensitivity. Thanks to the special hydrogen-compensated CO sensor from Dräger, this cross sensitivity to hydrogen is significantly reduced in the display of carbon monoxide.

Robust design – even for the toughest conditions

The Pac 8500 can easily handle even extreme conditions. The sensors can tolerate air pressures between 700 and 1,300 mbar. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified in the IP68 standard rating.

Easy handling thanks to clear user guidance

The D-Light indicates whether functionality of the device has been tested and if it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 8500 features clearly visible colour coding, thereby minimising the chance of mistakes.

User-friendly display with all important information

The large display is word-free and clearly indicates the respective gas concentration. Other important information, such as the unit of concentration and battery capacity, is also displayed. The bright backlighting ensures that all values are clearly legible in the dark.

360° alarm with various functions

If the Dräger Pac 8500 measures hazardous gas concentrations, it sets off an audible, visual and perceptible vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time even if they have been acknowledged. The Pac 8500 with oxygen sensor has two additional alarm thresholds in addition to the standard alarm threshold settings.

Economical operating costs

All of the versions of the Dräger Pac 8500 are equipped with extremely durable DrägerSensors® and a powerful battery. The Pac 8500 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again right away. Thanks to the powerful battery, the Pac does not require charging on a daily basis and is easy to handle.

Dräger Pac® 8500

Fast function test saves time and money
Function tests and calibrations can be carried out especially efficient in the Dräger X-dock® calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to the short test duration and the extremely low consumption of test gas. The Pac 8500 is simply placed in the bump test station and automatically selects the correct setting.

TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm (w x h x d)
Weight	Approx. 106 g (113 g with clip)
Battery service life	2 years
Ingress protection	IP68
Air pressure	700 to 1300 hPa
Air humidity	10 to 90% relative humidity, non-condensing
Temperature	-30 ℃ to +55 ℃ (briefly down to -40 ℃ for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 8500 CO LC / O_2	1	8326366
Dräger Pac 8500 H_2S LC / O_2	1	3702251
Sensorfilter 8x00 (sensor grid, silver), set of 4 pieces	1	8326852

Dräger X-am® 2500

The Dräger X-am 2500® was especially developed for use as personal protection. The 1 to 4 gas detector reliably detects combustible gases and vapours, as well as O_2, CO, NO_2, SO_2 and H_2S. Reliable and fully mature measuring technology, durable sensors and easy handling guarantee a high degree of safety with extremely low operating costs.

Dräger X-am 2500
Robust 1- to 4-gas detector for personal monitoring

Durable electrochemical sensors

Fully developed, high performance Dräger sensors in an extra small format for CO, H_2S, O_2, SO_2 and NO_2 gases enable safe use in industry, mining and in refineries. The impressive hydrogen sulphide sensor has a high resolution, so it can reliably measure even very low workplace limits. The non-consumptive and lead-free sensor for oxygen is characterized by an especially long service life of more than 5 years. Our CO and H_2S sensors also have this long service life expectation, so they contribute to especially low operating costs.

Poison-resistant Ex Sensor

The innovative, catalytic Ex sensor is impressive due to its high resistance to silicone and hydrogen sulphide. Together with the high degree of drift stability, this resistance enables an extraordinarily long service life of more than 4 years. Its high sensitivity with regard to flammable gases and vapours is confirmed by technical approval for measuring according to IEC/EN 60079-29-1 from methane to nonane. This approval also demonstrates the suitability of this instrument for use in refineries and in the chemical industry as well.

Maximum safety

The Dräger X-am 2500 has Ex approval for zone 0, so it is clearly designed for very high user safety in areas subject to explosion hazard. The functional design ensures that gas can enter from above and from the side – even if the instrument is inside a pocket or if the front gas entry is accidentally covered.

Fast, easy and inexpensive

From functional test to complete documentation, users have access to practical solutions that provide safety for implementation at any time. The Dräger Bump Test Station, which does not require a local power source, and the automatic Dräger X-dock testing and calibration station for comprehensive equipment management are ideal system additions that save time and effort. Together with the Dräger X-dock, the high quality Dräger sensors enable quick

bump tests of 8 to 15 seconds1 with very low gas consumption. This significantly reduces your equipment operating costs.
- 1) With standard sensors: CH_4, O_2, CO, H_2S

Diffusion or pump

For clearance measurements for tanks and shafts or when searching for leaks, an optional external pump with a hose up to 30 m long is the optimum solution. When the measuring instrument is inserted, the pump function starts automatically. The switch from diffusion to pump operation can be handled quickly and easily without tools or screws.

Ergonomic and robust

Thanks to its low weight and ergonomic design, the Dräger X-am 2500 offers a high degree of wearing comfort. The practical two button control panel and easy menu navigation allow the instrument to be used intuitively, despite its comprehensive functionality. The integrated protective rubber coating and sensors that are not sensitive to shock provide additional safety in case of impacts or vibrations. Moreover, the Dräger X-am 2500 is not sensitive to electromagnetic radiation, e.g. from wireless devices. The Dräger X-am 2500 is water and dust resistant in accordance with protection class IP 67, so full functionality is guaranteed even if it falls into the water.

Reliable power supply

The Dräger X-am 2500 can operate with either alkaline batteries or with rechargeable NiMH batteries. This enables a reliable power supply for more than 12 hours, and with the high capacity battery pack more than 13 hours. Depending on the requirements, the batteries can be charged either in the workshop or in a vehicle. Operating time without Ex sensor is typically more than 250 hours.

Dräger X-am® 2500

TECHNICAL SPECIFICATIONS

Dimensions	48 x 130 x 44 mm
Weight	220 - 250 gr
Temperature	-20°C to +50°C
Pressure	700 tot 1300 mbar
Humidity	10 to 95% r.h.
Alarms	Visual 360°, Audible Multi-tone > 90 dB at 30 cm, Vibration
Ingress Protection	IP67
Operating time	> 12 hours (without Ex sensor > 700 hours)
Charging time	< 4 hours
Data logger	Retrievable using an infrared interface > 1000 h with 4 gases at a recording interval of 1 value per minute
Approvals	ATEX: II 2G EEx ia d IIC T4/T3; I M2 Eex ia d I CE mark: 89/336/EEG MED

ORDER INFORMATION

Description	Unit Sales	Articlenr
Complete sets		
Dräger X-am 2500 Ex/O$_2$, excl. charger and battery	1	8323900/2
Dräger X-am 2500 Ex/O$_2$/CO/H2S, excl. charger and incl. battery	1	8323900/3
Dräger X-am 2500 Ex/O$_2$/CO/H2S (LC), excl. charger, incl. battery	1	8323900/4
Sensors		
DrägerSensor XXS/H2S LC, Range: 0-100 ppm	1	6811525
DrägerSensor XXS/O2	1	6810881
DrägerSensor CatEx 125 PR	1	6812950
Sensor dummy XXS	1	6811425
Sensor sealing ring	1	8318783
Sensor sealing for CatEx 125	1	8318784
Water- and dustfilter (incl. 6 cm hose) for pump	1	8313648
Batteries and chargers		
Single charger for charging modules, max. 5 charge modules	1	8316994
Battery charger adapter for separate charging of spare spare batteries - consisting of an empty instrument housing without membranes	1	8326101
Power supply for charging modules - up to 20 modules	1	8315805
Adapter	1	8325736
Charging module	1	8318639
Battery Pack T4 NiMH 2.0 Packed	1	3703887
Charging kit - (NiHM battery T4, charger)	1	8318785
Seal / gasket / battery compartment / battery	1	8318734
Dräger: Battery, GPLI 3 V, 38 mAh LV00602	1	1822667
Vehicle charger adapter 12V / 24V, for use with loading module 8318639 and vehicle construction holder 8318779	1	4530057
Vehicle construction holder, for use with 1 loading module 8318639 and vehicle adapter 4530057	1	8318779
Belt for vehicle builder	1	8318788
Spare parts		
Frontplate for Dräger X-am 2500	1	8323921
Backplate for Dräger X-am 1/2/5	1	8318712
Display: spare	1	8322085
Printplate PCB assy: spare set	1	8320071

Dräger X-am® 2500

Description	Unit Sales	Articlenr
Resanator: spare part	1	8322876
Set of screws X-am: spare (4x screw ISO 14583 M2x10 - 8323903, 1x screw DIN 7984 M3x12 - 1390068, 1x captive ring - 8318733, 1x spring - 8318782)	1	8323618
Shock absorption pad	10 per box	8320078
Membrane DAE	1	8316421
Clip	1	8319186
Accessories		
Leather carrying bag for Dräger X-am 1/2/5x00	1	8318755
Rubber boot Dräger X-am 1/2/5x00	1	8321506
Case for external pump Dräger X-am 1/2/5x00	1	8319385
Leather case for external pump Dräger X-am 1/2/5x00	1	8319380
Shoulder strap	1	8319386
Extension hose 3mm 1 meter (price per meter)	1	8325837
Float probe	1	8327654
Dräger: Hose connection set 3 mm	1	8327641

Dräger X-am® 2800

The X-am 2800 multi-gas detector measures up to four gases and is equipped with a particularly shock-resistant CatEx sensor. With the Dräger Gas Detection Connect software, it offers live data transmission and powerful fleet management. Designed for personal monitoring, the X-am 2800 offers you the highest level of safety at a low cost of ownership.

Dräger X-am 2800
The X-am 2800 multi-gas detector measures up to four gases

Powerful data analysis in the cloud

Safety and efficiency thanks to its networking capability: transfer your recorded data directly and conveniently via Bluetooth to a smartphone and from there to the backend of the Gas Detection Connect software. As an alternative, you can also transfer the data directly to the cloud with the X-dock test station. This way, you have secure access to your data and its analysis at any time and from anywhere - simply via your internet browser.

Comfortable fleet management

With the X-am 2800 you can manage your fleet of equipment comfortably and efficiently in daily use. Save operating costs and time through fast tests by using the automatic test station X-dock with low gas consumption or a pure mechanical bump test station. Further advantages: powerful fleet management via our smart software solution, convenient firmware updates in the X-dock, an optional RFID transponder and individual colour marking of the devices. Few, easy-to-replace spare parts - including the power supply - and durable sensors ensure that your devices remain operational for many years. Dräger provides a 4-year manufacturer's warranty on the basic device. Existing, relevant accessories from its predecessor, the X-am 2500 can continue to be used.

Tailor-made gas monitoring

Small and lightweight: the X-am 2800 is comfortable to wear and easy to use even with gloves on thanks to its large buttons. The display clearly shows important information such as gas readings, alarms and time. The green D-light indicates that the unit is ready for use. All this, plus the completely language-free icon based user interface, makes it pleasantly simple to use and familiarise yourself with. For your added safety, its oxygen channel has four alarm thresholds - real pre-alarms and main alarms for falling and rising concentrations. Approved for use in Ex zone 0, it has also been tested according to protection class IP 68.

Sensors: durable and powerful

The newly developed Ex sensor combines many advantages: readiness for calibration within seconds, extreme robustness against shocks and the measurement of flammable vapours - such as petrol, diesel and nonane. You can also set the measurement gas to methane, propane, hydrogen, and many other gases. The performance is complemented by Dräger's simple cross calibration concept, in which the measurement gas, calibration gas and bump test gas can be specified individually. Upon testing, the X-am 2800 then takes over the necessary conversions. The sensor is target to meet the demanding requirements of the new IEC standard 60079-29-1 (International Electrotechnical Commission).
At the same time, the Ex sensor is resistant to poisoning substances such as silicones and other harmful substances. This combination of properties is exceptional. With years of experience in sensor technology, Dräger develops and produces the sensors itself, including the powerful and durable electrochemical sensors in the XXS format. Your advantage: sensors and device are perfectly matched to each other — saving you operating costs.

Focus on sustainability

During the development of the X-am 2800, great importance was given to sustainability. The durable Dräger Sensors and the rechargeable power supply, which can be easily replaced with one screw, ensure it has a long service life. Almost all spare parts can be replaced by trained users, while all remaining parts can be repaired by Dräger Service. Furthermore, existing accessories from the previous series can still be used. Environmental protection has also been taken into account in the technical documentation and packaging: Designed to save paper, when you order two or more units, we can reduce the number of instruction manuals supplied if you order the modular version. For your convenience, Dräger also takes back old devices and ensures that they are recycled properly.

Dräger X-am® 2800

TECHNICAL SPECIFICATIONS

Dimensions	130 x 48 x 44 mm (w x h x d)
Weight	typically 220 to 250 g, depending on sensor
Temperature	-20 to+50 ℃ (Measurement and storage), -40 to+50 ℃ (Use in potentially explosive atmospheres)
Pressure	700 to 1300 mbar (Measurement), 800 to 1100 mbar (Use in potentially explosive atmospheres)
Humidity	10 to 95% r.h.
Alarms	Visual: 3 LED "red" (gas alarms), 3 LED "yellow" (device alarm), Audible: Multi-tone > 90 dB at 30 cm, Vibration
Ingress Protection	IP68
Operating time	typical 12 h (Bluetooth active), typical 100 h without Ex-sensor
Charging time	< 4 hours
Data logger	Application of an optimised data compression method with high accuracy and large storage capacity. (Typically data compression >90 % compared to the traditional data logger concept with adjustable interval)
Approvals	ATEX: I M1 Ex da ia I Ma II 1G Ex da ia IIC T4 Ga (usable in Ex-Zone 0) IECEx: Ex da ia I Ma Ex da ia IIC T4 Ga (usable in Ex-Zone 0) CSA (USA & Canada): Contact Dräger for availability EAC: Contact Dräger for availability Directives: 2014/34/EU (ATEX) 2014/53/EU (RED) 2011/65/EU (RoHS)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Not configured versions		
Dräger X-am 2800 Ex, O_2, CO, H_2S, without charger, with power supply	1	3703918
Dräger X-am 2800 Set: 37 03 918 incl. power supply (rechargeable battery) and with charger/power supply unit	1	3703919
Dräger X-am 2800 Basic (without sensors, without power supply (battery), without charger)	1	3703920
Configured versions		
Dräger X-am 2800 (configurator) consisting of: Basic device (with data memory), Quick guide and safety instructions enclosed Calibration and manufacturer certificate will be provided by Dräger. Configurator: up to 4 sensors can be selected, sensor configuration can be changed later in product life.	1	3703900

Dräger X-am® 3500

The Dräger X-am® 3500 was especially designed for clearance measurements. The 1 to 4 gas detector reliably detects flammable gases and vapours as well as O_2, CO, H_2S, NO_2 and SO_2. The innovative signalling design and extensive range of accessories ensure optimum safety and easy handling.

Dräger X-am 3500
especially designed for clearance measurements

Specially designed for use with a pump, optimised for clearance measurement

The Dräger X-am 3500 is equipped with a very powerful pump. It can be connected with hoses of up to 45 metres in length. A pump adapter makes it easy to switch between diffusion and pump mode at any time. This means the pump is only operated when you actually need it. That saves energy, reduces wear and tear, and thereby extends the lifespan of the pump. Handy and durable, the Dräger X-am 3500 is intuitive to operate single-handedly using three function keys. The easy-to-read colour display clearly lays out all the information for you. Thanks to its compact and robust construction, the device can withstand even the harshest conditions.

Clear signalling design

The signal system of the Dräger X-am 3500 is based on a clear colour code, in accordance with the requirements of the EN 60079-29-1, EN 45544-1 and EN 50104: - Red light = gas alarm, - Yellow light = device-related alarm, e.g. low battery, - Green light = device is ready for use. The green glow of the D-light allows you to see from a distance whether the device has been properly tested and is ready for use. In case of an alarm, the X-am 3500 alerts you with colourful alarm LEDs, a loud horn (100 dB(A) at a distance of 30 cm), and clearly palpable vibration. Optionally, four preset hazard symbols are available for the display which explicitly indicate the presence of explosive or toxic gas hazards, for example. This allows the user to easily recognise the type of hazard based purely on the symbol displayed.

Economical Fleet Management

Bumptest and calibration are carried out simply and quickly using the Dräger X-dock® calibrating station. Its low test gas consumption keeps operating costs to a minimum. Its reporting function and numerous other useful features make the X-dock Manager PC software a smart addition to any fleet management operation. To identify the devices in the fleet, you can either use tried and tested barcodes or an integrated RFID transponder.

Inductive charging protects against wear and tear

The X-am 3500 features inductive charging. This makes it easier to operate and increases the lifespan of the device. Issues like corrosion and contact problems in the charging cradle are a thing of the past. You can charge (outside of explosion-hazard zones) and measure at once, e.g, when in use inside vehicles or on machinery. The charging cradle can connect with one another, taking up minimal space, and are compatible with existing Dräger X-am® series cradles.

TECHNICAL SPECIFICATIONS

Dimensions	179 x 77 x 42 mm (h x w x d)
Weight	Approx. 495 g, depending on sensor configuration, without strap, without pump Approx. 550 g, depending on sensor configuration, without strap, with pump
Temperature	-20ºC to +50ºC
Pressure	700 to 1.300 hPa
Humidity	10 to 90% (short-term up to 95%) r.h.
Ingress protection	IP67
Energy supply	Lithium-ion battery, rechargeable, inductive charging
Charging times	Typically 4 hours after use during a shift of max. 10 hours
Alarms	Visual: 3 LED 'red' (gas alarms), 3 LED 'yellow' (device alarms)
	Acoustic: Multi-tone, typically 100 dB(A) at 30 cm
	Vibration

Dräger X-am® 3500

Start-up times	Typically <60 seconds for standard sensors
Data storage	12 MB, e.g. at 10 minutes per hour of gas exposure with measuring values changing by the second on all 4 channels: approx. 300 hours
Pump operation	Max. hose length 45 m
Approvals	ATEX / IECEx: I M1, II 1G Ex da ia I Ma, Ex da ia IIC T4 Ga, Metrological approval pending
	EAC (Please contact Dräger regarding availability.): PO Ex da ia I Ma X Ex da ia IIC T4 Ga X
	cCSAus (Please contact Dräger regarding availability.): Class I, Zone 0, AEx da ia IIC T4 Ga Div 1, Gr. E, F, G T4
	CE labelling
	MED / DNV GL

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am 3500 Basic	1	8328420
Dräger X-am® 3500 Ex, O_2 1 (without charging equipment)	1	8328412
Dräger X-am® 3500 Ex, O_2, CO LC, H_2S LC1 Set (with charging equipment)	1	8328419

Dräger X-am® 5000

The Dräger X-am 5000 belongs to a new generation of gas detectors, developed especially for personal monitoring applications. This 1 to 5-gas detector reliably measures combustible gases and vapors as well as O_2 and harmful concentrations of O_3, Cl_2, CO, CO H_2-CP, CO_2, H_2, H_2S, HCN, NH_3, NO, NO_2, PH_3, SO_2, $COCl_2$, organic vapors, Odorant and Amine.

Dräger X-am 5000
The smallest gas detection instrument for 5 gases

Ergonomic mobile phone design
Despite its advanced functionality, the Dräger X-am 5000's practical mobile phone design and light weight make it comfortable to carry. Reduced to its essentials, the two button control panel and easy to follow menu allow for intuitive use.

Flexible sensor exchange
It is easy to exchange, upgrade or calibrate the sensors to other gases. The ability to customize the Dräger X-am 5000's sensors makes more applications possible, including rental equipment.

Poison-resistant Ex Sensor
For improved safety when facing unknown and potentially explosive hazards – the Dräger X-am 5000 provides dependable warnings in the event of explosive atmospheres thanks to the high level of sensitivity of the innovative catalytic Ex sensor. It not only responds quickly to explosive gases and combustible organic vapors, but is also highly resistant against sensor poisons such as silicone and hydrogen sulfide. In combination with its long term stability this offers an extraordinary long expected sensor lifetime of more than 4 years. This will reduce your operational costs.

Durable Sensor technology
Equipped with durable XXS sensor technology, the Dräger X-am 5000 offers maximum security at extremely low operational costs. The sensor's resistance, in combination with its long term stability, provides the sensor with a lifetime in excess of four years, which can help reduce your operational costs.

Robust and water-tight
The Dräger X-am 5000 is water and dust resistant according to IP 67 standards. This means that the detector remains fully functional and ready for use even after being dropped into water. The integrated rubber protection and shock-proof sensors provide additional resistance to impact and vibration. Moreover, the Dräger X-am 5000 is resistant to electromagnetic interference.

External pump
The optional external pump, which operates with a hose up to 30 (98 feet) meters long, makes it possible to use the detector for pre-entry measurements into confined spaces such as tanks, shafts, etc. The pump starts automatically when the detector is inserted.

Area Monitoring
In combination with the Dräger X-zone 5000 the gas detector can be used for various area monitoring applications. Up to 25 Dräger X-zone 5000 units can be automatically interconnected to form a wireless fenceline. This interconnection of the area monitoring devices allows for the fast securing of larger areas, e.g. pipelines or industrial tanks – even within the scope of industrial shutdowns.

Optimum solutions for function or bump tests and calibrations
Simple, fast and professional: from a function or bump test to complete documentation, users can choose from a range of practical, on-site solutions that offer maximum safety for every application. The Dräger E-Cal automatic test and calibration station and the Dräger Bump Test Station are ideal system extensions that save time and reduce workload. Fresh air, mixed gas and single gas calibrations can be done directly using the Dräger X-am 5000 menu.

Flexible power supply
The Dräger X-am 5000 can be used with either the standard alkaline or rechargeable NiIMH batteries. In addition, it can be fitted with a T4 battery that can be charged while still inside the instrument. An optional Save Energy Mode makes it possible to increase the operating time of Dräger X-am 5000 to more than 40 hours. This is done by selecting a measurement interval of either 1 second (the standard), 10 or 20 seconds for the CatEx sensor.

Dräger X-am® 5000

TECHNICAL SPECIFICATIONS

Dimensions	48 x 130 x 44 mm
Weight	approx. 220 gr
Temperature	-20ºC tot +50ºC
Pressure	700 tot 1300 mbar
Humidity	10 to 95% r.v.
Ingress Protection	IP 67
Operating times	> 12 hours (without Ex sensor > 700 hours) when using the Save Energy Mode > 40 hours
Charging times	< 4 hours
Data logger	Can be read out via Infrared > 1,000 hours with 5 gases and a recording interval of 1 value per minute
Pump operation	Maximum hose length 30 meter
Approvals	ATEX I M1 Ex ia I
	II 1G Ex ia IIC T3 (Zone 0)
	I M2 Ex d ia I
	II 2G Ex d ia IIC T4/T3
	Measurement performance certificate according to:
	- EN 50104 (2002) + A1 (2004) O2
	- EN 45544 CO & H2S
	- EN 60079-29-1:2007 Methane to Nonane
	- EN 50271:2001 Software and Documentation
	UL Class I & II, Div. 1 Group A, B, C, D, E, F, G T.-Code T4/T3
	CSA Class I, Div. 1 Group A, B, C, D T.-Code T4/T3
	IECEx Ex ia I
	Ex ia IIC T3
	Ex d ia I
	Ex d ia IIC T4/T3
	CE-mark Electromagnetic compatibility Directive 2004/108/EG; EN 50270:2006
	MED Marine Equipment Directive 96/98/EC
	MSHA

ORDER INFORMATION

Description	Unit Sales	Articlenr
Complete sets		
Dräger X-am 5000 (basic) excluding power supply and sensors	1	8320088
Dräger X-am 5000 Ex/O$_2$/CO/H2S LC, excluding power supply	1	8320000
Sensors		
DrägerSensor Cat-Ex 125	1	6812950
DrägerSensor XXS CO LC	1	6813210
DrägerSensor XXS H2S LC, Range: 0-100 ppm	1	6811525
DrägerSensor XXS O2	1	6810881
DrägerSensor XXS CO2	1	6810889
Dräger Sensor XXS Cl2, Range: 0-20ppm	1	6810890
Sensor dummy XXS	1	6811425
Sensor sealing for CatEx 125	1	8318784
Water- and dustfilter (incl. 6 cm hose) for pump	1	8313648
Batteries and chargers		
Single charger for charging modules, max. 5 charge modules	1	8316994
Power supply for charging modules - up to 20 modules	1	8315805

Dräger X-am® 5000

Description	Unit Sales	Articlenr
Charging module	1	8318639
Battery Pack T4 NiMH 2.0 Packed	1	3703887
Charging kit - (NiHM battery T4, charger)	1	8318785
Adapter	1	8325736
Seal / gasket / battery compartment / battery	1	8318734
Battery charger adapter for separate charging of spare spare batteries - consisting of an empty instrument housing without membranes	1	8326101
Vehicle charger adapter 12V / 24V, for use with loading module 8318639 and vehicle construction holder 8318779	1	4530057
Vehicle construction holder, for use with 1 loading module 8318639 and vehicle adapter 4530057	1	8318779
Spare parts		
Frontplate for Dräger X-am 5000	1	8321633
Backplate Dräger X-am 125: spare part	1	8318712
Display: spare	1	8322085
Printplate PCB assy: spare set	1	8320071
Shock absorption pad	10 per box	8320078
Resanator: spare part	1	8322876
Membrane DAE	1	8316421
Screw set for housing: spare part	1	8319185
Clip	1	8319186
Accessoiries		
Leather bag for Dräger X-am 1/2/5x00	1	8318755
Rubber boot	1	8321506
Nonane - tester Dräger X-am 1/2/5	1	8320080
Extension hose 3mm 1 meter (price per meter)	1	8325837
Float probe	1	8327654
Dräger: Hose connection set 3 mm	1	8327641

Dräger X-am® 5600

Featuring an ergonomic design and innovative infrared sensor technology, the Dräger X-am® 5600 is the smallest gas detection instrument for the measurement of up to 6 gases. Ideal for personal monitoring applications, this robust and water-tight detector provides accurate, reliable measurements of explosive, combustible and toxic gases and vapors as well as oxygen.

Dräger X-am 5600

Small, light and tough for single-handed detection of up to 6 gases

Small and yet robust

Small, light and easy to use - the robust and water-tight Dräger X-am 5600 is designed for single-handed operation in tough industrial environments. Water- and dust proof according to IP 67 and with an integrated rubber boot, the device provides optimal functionality even under harsh conditions.

Durable infrared technology

Thanks to the high stability and a resistance to contamination, Dräger infrared sensors can generally be used for up to eight years. This advanced technology reduces the cost of ownership considerably because less replacement sensors are needed. In addition, a sensor calibration is only necessary every 12 months which reduces maintenance costs.

Single or dual sensor - accurate measurement results

The new Dräger infrared sensors can be used for the measurement of explosive substances or CO_2. The infrared sensor IR Ex allows the measurement of explosive, combustible hydrocarbons in the range of the lower explosive limit. With this sensor, measurements in the range of 0-100 Vol.-% for methane, propane and ethylene are also possible.

The infrared sensor IR CO_2, with a measurement resolution of 0.01 Vol.-%, provides safe and exact measurements as well as a warning against toxic concentrations of carbon dioxide in the ambient air. For those applications where the reliable measurement of explosive substances and CO_2 is specifically needed, the advantages of both can be achieved by a dual sensor (Dual IR CO_2/Ex).

Also in combination with Hydrogen

Besides hydrocarbons, hydrogen can also be an explosive gas. Because sensors based on infrared technology do not warn against hydrogen explosion dangers, the Dräger X-am 5600 combines two sensor signals (Infrared Ex and electrochemical H_2) for reliable hydrogen detection. The X-am 5600 provides the advantages of poison-free

technology to be used in areas where, until now, only catalytic Ex sensors have been used.

Various monitoring possibilities

Thanks to the combination of innovative infrared technology and the latest electrochemical Dräger XXSminiature sensors, this 1-to-6 gas detector reliably detects explosive, combustible and harmful concentrations of O_2, Cl_2, CO, CO_2, H_2, H_2S, HCN, NH_3, NO, NO_2, PH_3, SO_2 and organic vapors.With the PC software Dräger CC-Vision, the sensors can easily be exchanged, calibrated or converted to meet the needs of different applications.

Flexible use

This small gas detection instrument is perfectly suited as a personal monitor. The simple two-button control panel allows for the intuitive use of the device. The gas inlets – on the upper and front side – provide optimal measurement accuracy even if they are inadvertently placed in a pocket or a gas inlet is covered.

An optional external pump which can be operated with hoses up to 20 m or 65 ft. in length is the perfect solution for pre-entry measurements in tanks or pipelines. To monitor entire areas, the Dräger X-am 5600 can be used in combination with the innovative Dräger X-zone 5000.

Suitable for EX zone 0

The small and reliable gas detector is suitable for use in areas classified as zone 0, which are areas where explosive atmospheres are always to be expected.

Simple solution for bump tests

Simple, quick, and professional: From bump testing to complete documentation, users can choose from a range of practical, on-site solutions for optimal safety in every application. Both the Dräger E-Cal automatic test and calibration station and the Dräger Bump Test Station are ideal system extensions that save costs and time.

Dräger X-am® 5600

TECHNICAL SPECIFICATIONS

Dimensions	47 x 130 x 44 mm
Weight	250 gr
Temperature	-20 ℃ to +50 ℃
Pressure	700 to 1300 hPa
Humidity	10 to 95 % r. h.
Ingress protection	IP 67
Display	Language-free LCD display, indication of gas type to be measured, actual concentration during alarm, operating time, notice and warning functions
Operating time	~10 h or rather ~12 h
Charging time	< 4 hours
Data logger	Can be read out via Infrared > 1000 hours with 6 gases and a recording interval of 1 value per minute
Pump operation	Maximum hose length 30 m
Alarm	Visual 360º, Audible Multi-tone > 90 dB at 30 cm, Vibration
Approvals	ATEX I M1 Ex ia I Ma
	II 1G Ex ia IIC T4/T3 Ga
	IEC Ex ia I Ma
	Ex ia IIC T4/T3 Ga for MQG 01**
	MED (0736-YY)

ORDER INFORMATION

Description	Unit Sales	Articlenr
The basic instrument of the Dräger X-am 5600 consists of an integrated data logger and manufacturer's and calibration certificates. A functional instrument must include up to 4 sensors and a power supply unit.		
Dräger X-am 5600, basic instrument	1	8321373
DrägerSensor Dual IR Ex/CO_2	1	6851880
DrägerSensor IR Ex	1	6812180
DrägerSensor IR CO_2	1	6812190
External pump (max. 20 meter hose length), exluding x-am device	1	8319400
Confined space entry set, with an external pump and 3 m or 9 ft. viton hose	1	8319399
Carrying case Dräger X-am 5600 external pump	1	8319385
Charging module	1	8318639
NiMH power pack T4	1	8318704

Dräger X-am® 5800

The X-am® 5800 multi-gas detector measures up to six gases and is equipped with a particularly shock-resistant CatEx sensor. With the Dräger Gas Detection Connect software, it offers live data transmission and powerful asset management. Designed for personal monitoring, the X-am 5800 offers you the highest level of safety at a low cost of ownership.

Dräger X-am 5800

Small, light and tough for single-handed detection of up to 6 gases

Powerful data analysis in the cloud

Safety and efficiency thanks to its networking capability: Transfer your recorded data directly and conveniently via Bluetooth® to a smartphone and from there to the backend of the Gas Detection Connect software. As an alternative, you can also transfer the data directly to the cloud with the X-dock test station. This way, you have secure access to your data and its analysis at any time and from anywhere – simply via your internet browser.

Comfortable asset management

With the X-am 5800 you can manage your fleet of equipment comfortably and efficiently in daily use. Save operating costs and time through fast tests by using the automatic test station X-dock with low gas consumption or a pure mechanical bump test station. Further advantages: powerful asset management via our smart software solution, convenient firmware updates in the X-dock, an optional RFID transponder and individual colour marking of the devices. Few, easy-to-replace spare parts – including the power supply – and sensors ensure that your devices remain operational for many years. Dräger provides a 4-year manufacturer's warranty on the basic device. Existing, compatible accessories from its predecessor, the X-am® 2500/5000/5600 can continue to be used.

Tailor-made gas monitoring

Small and lightweight: The X-am 5800 is comfortable to wear and easy to use even with gloves on thanks to its large buttons. The display clearly shows important information such as gas readings, alarms and time. The green D-light indicates that the unit is ready for use. All this, plus the completely language-free icon based user interface, makes it pleasantly simple to use and familiarise yourself with. For your added safety, its oxygen channel has four alarm thresholds – real pre-alarms and main alarms for falling and rising concentrations. Approved for use in Ex zone 0, it has also been tested according to protection class IP 68.

Powerful sensors

The new CatEx sensor offers you even more advantages: readiness for calibration within seconds, extreme robustness against shocks and the measurement of flammable vapours – such as petrol, diesel and nonane. You can also set the measurement gas to methane, propane, hydrogen, and many other gases. The performance is complemented by Dräger's simple cross calibration concept, in which the measurement gas, calibration gas and bump test gas can be specified individually. Upon testing, the X-am 5800 then takes over the necessary conversions. The sensor is target to meet the demanding requirements of the new IEC standard 60079-29-1 (International Electrotechnical Commission).

At the same time, the CatEx sensor is resistant to poisoning substances such as silicones and other harmful substances. This combination of properties is exceptional. With years of experience in sensor technology, Dräger develops and produces the sensors itself, including the powerful and durable electrochemical sensors in the XXS format. Your advantage: sensors and device are perfectly matched to each other – saving you operating costs. We are currently developing a durable, power-saving infrared sensor to measure flammable gases and vapours and/or carbon dioxide, as well as a photo-ionisation detector sensor for measuring volatile organic compounds (VOCs). These can be used instead of the CatEx sensor.

Focus on sustainability

During the development of the X-am 5800, great importance was given to sustainability. The optimised Dräger Sensors and the rechargeable power supply, which can be easily replaced with one screw, ensure it has a long service life. Almost all spare parts can be replaced by trained users, while all remaining parts can be repaired by DrägerService. Furthermore, existing accessories from the previous series can still be used. Environmental protection has also been taken into account in the technical documentation and packaging: Designed to

Dräger X-am® 5800

save paper, when you order two or more units, we can reduce the number of instruction manuals supplied if you order the modular version. For your convenience, Dräger also takes back old devices and ensures that they are recycled properly.

TECHNICAL SPECIFICATIONS

Dimensions	130 x 48 x 44 mm
Weight	Typically 220 to 250 g, depending on sensor equipment
Temperature	-20 to +50ºC (Measurement and storage)
	-40 to +50ºC (Use in potentially explosive atmospheres)
Pressure	700 to 1,300 mbar (Measurement)
	800 to 1,100 mbar (Use in potentially explosive atmospheres)
Humidity	10 to 95 % r. h.
Ingress protection	IP 68
Display	Matrix display with high resolution
Operating time	For CatEx and PID sensor: typical 12 h (Bluetooth® active),
	For IR sensor: typical 50 h (Bluetooth® active)
	Operating with electrochemical sensors only: typical 100 h
Charging time	< 4 hours
Data logger	Application of an optimised data compression method with high accuracy and large storage capacity. (Typically data compression >90 % compared to the traditional data logger concept with adjustable interval)
Alarm	3 LED 'red' (gas alarms)
	3 LED 'yellow' (device alarms)
	Multi-tone > 90 dB at 30 cm
Approvals	ATEX:
	I M1 Ex da ia I Ma
	II 1G Ex da ia IIC T4 Ga (usable in Ex-Zone 0)
	IECEx:
	Ex da ia I Ma
	Ex da ia IIC T4 Ga (usable in Ex-Zone 0)
	EAC:
	Contact Dräger for availability
	Directives:
	2014/34/EU (ATEX)
	2014/53/EU (RED)
	2011/65/EU (RoHS)

Dräger X-am® 5800

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am® 5800 (configurator)	1	3703850
Configurator consisting of:		
Basic device (with data logger), delivery with manufacturer and calibration certificate.		
Configurator: up to 4 sensors can be selected, sensor configuration can be changed later in product life.		
Customer-specific settings (firmware) can be selected when ordering, examples: measurement gas for the Ex sensor		
(factory setting: methane), alarm thresholds, alarm behaviour, quick menu options, D-light etc. Power supply (battery)		
optional (factory setting: with battery), without charger		
Dräger X-am® 5800: charging set	1	8320333
Basic consisting of a charging module and a plug-in power supply (worldwide)		

Dräger X-am® 7000

Dräger X-am 7000 is the innovative solution for the simultaneous and continuous measurement of up to five gases. A combination of more than 25 sensors allows flexible solutions to individual monitoring tasks. It is the ideal companion in a variety of applications where the reliable detection of oxygen, toxic and combustible gases and vapors is necessary.

Dräger X-am 7000
Modular, rugged and waterproof

Flexibility through sensor variety
The extensive portfolio of over 25 different DrägerSensors allows the detection of more than 100 gases and vapors. The measuring range of the EC, Cat-Ex, IR and PID sensors can be changed to another gas within a list of gases by a push of a button – without the necessity of re-calibrating. In this way the instrument can be adapted easily to various applications. DrägerSensors are renowned for fast response, minor cross sensitivities, high accuracy and long life.

Intelligent and interchangeable sensors
Each sensor is recognized automatically by the instrument. All sensors are pre-calibrated, and a reconfiguration of the Dräger X-am 7000 is done by simply changing a sensor. I.e. no additional service or maintenance is necessary. Intuitive software functions The software menu of the Dräger X-am 7000 was designed in partnership with our customers making it simple and easy to use. Functions such as TWA and STEL values, as well as functions, like peak hold can be viewed or switched on quickly and with minimal training.

Strong integrated pump
The built-in high-performance pump makes it possible to sample gas using a hose up to 45 m/150 ft. long. The operation of the pump is continuously monitored, and the instrument will generate an alarm if the flow of gas reduces. The instrument is equipped with an internal plug and play pump pump included adapter. This powerful pump allows sampling via a hose or tube up to 45 m.

Intuitive software functions
The software menu within the Dräger X-am 7000 was designed in partnership with our customers making it simple and easy to use. With the help of Dräger CC-Vision software, up to 5 different detection applications can be saved within the instrument. By doing so, the use of different instrument configurations can be set for that specific application. During operation, a simple change between these set parameters can be done via the instrument's menu.

Strong Built-in Pump
The built-in high power pump allows to sample gas through an up to 45 m/150 ft. long tube. The operation of the pump is continuously monitored, and the instrument will generate an alarm if the flow is too low.

TECHNICAL SPECIFICATIONS

Dimensions	150 x 140 x 75 mm
Weight	Instrument: 600 gr
	Rechargeable battery: 490 gr (3.0 Ah); 730 gr (6.0 Ah)
Temperature	- 20 to + 55 °C, short-term - 40 to + 60 °C
Pressure	700 to 1300 hPa
Humidity	10 to 95 % r. h.
Ingress protection	IP 67
Typical battery life	NiHM (4.8 V / 6.0 Ah): >20 hours
Audible alarm	>100 dB (A) at a distance of 30 cm
Charging time	3.5 to 7 hours, depending on battery type
Pump mode	Maximum length of tubing 45 m
Approvals	MED

Dräger X-am® 7000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Complete sets		
Dräger x-am 7000 basic instrument, exclusive battery, including pump and datalogger	1	8317400
Dräger X-am 7000 basic instrument and two DrägerSensors EX/O$_2$, including pump and datalogger	1	8317400/2
Dräger X-am 7000 basic instrument and three DrägerSensors EX/O2/H$_2$S, including pump and datalogger	1	8317400/3
Dräger X-am 7000 basic instrument and four DrägerSensors EX/O$_2$/H$_2$S-LC/CO, including pump and datalogger	1	8317400/4
Sensors		
DrägerSensor XS O$_2$ - LS	1	6809130
DrägerSensor XS EC H2 HC	1	6811365
DrägerSensor XS EC H$_2$S	1	6809110
DrägerSensor XS EC NH$_3$	1	6809145
DrägerSensor XS EC CO	1	6809105
DrägerSensor XS EC H$_2$S 100	1	6809110
DrägerSensor XS R H2S	1	6810260
DrägerSensor IR EX	1	6810460
DrägerSensor Smart IR CO$_2$	1	6810590
DrägerSensor Smart IR CO$_2$ HC	1	6810599
DrägerSensor Smart CatEx HC PR	1	6812970
DrägerSensor Smart CatEx PR	1	6812980
Water- and dustfilter (incl. 6 cm hose) for pump	1	8313648
DrägerSensor Smart PID	1	8319100
Set of sensors sealings, 5 pieces	1	8317604
Set of sensormembrame, 5 pieces	1	8317805
PID parts		
PID lamp	1	8319110
Cleaningset for PID light	1	8319111
PID sensor cap	1	8319405
PID ionization cell	1	8319406
Batteries and chargers		
NiMH-power pack 4,8V/6,0Ah	1	8317454
Vehicle construction charger 12V/24V, for use with loading module (8316487) and vehicle adapter (8318169)	1	8312645
Dräger: Battery, GPLI 3 V, 38 mAh LV00602	1	1822667
Battery holder T4 (without battery)	1	8317550
Alkaline battery T4 (4 pieces)	1	8317447
Part set chassis for X-am 7000	1	8318646
Plug seal	1	8317137
Charging module	1	8316487
Adapter	1	8325736
Dräger X-am 7000: single charger (worldwide) for charging modules, max. 2 charge modules	1	8316994
Power supply for charging modules - up to 20 modules	1	8315805
Vehicle construction holder, for use with 1 loading module (8316487) and vehicle adapter (8312645)	1	8318169
E-cal module	1	8317705
Spare parts		
Sealing plate, complete	1	8317836
Cap for X-am 7000, complete	1	8317538
Set dummy plug (2x blindstop / 2x stop for company without pump)	1	8317337
Grid	1	8316870
Brush strap for support kit 8316878	1	8317682
Screw M44X6 DIN 965	1	1315781

Dräger X-am® 7000

Description	Unit Sales	Articlenr
Print board	1	8317401
Divider print board	1	8317091
Print board sensor	1	8317431
Print board display	1	8320357
Window IR	1	8317585
Set pumpmembrane, 2 pieces - Europe	1	8326840
Set pompmembrane, (2x) and water- and dustfilter (3x) - worldwide	1	8318607
Red push button	10 per box	8317540
IP 67, parts set (2x sub-d-charger internal sealing (6408233) / 2x sub-d-sealing accu (8317137) / 2x screw cap (1390034) / 4x screw sub-d-charger (1339931) / 1x membrane DAE (8316421)	1	8320450
Membrane DAE	1	8316421
Rubber housing	1	8317397
Interne plug and play pump X-am 7000	1	8317406
Accessories		
Calibration adapter	1	8317656
Pumpadapter	1	8317639
Carrying case, black	1	8322730
Holder for Dräger X-am 7000	1	8317542
Leather carrying case	1	8317683
5 meter extension hose and driver for Dräger X-am 7000	1	8318371
Tire for vehicle construction holder	1	8318105
Pumpadapter with gasconnection	1	8318374
Water- and dustfilter (incl. 6 cm hose) for pump	1	8313648
Carrying frame (carrying strap with plate without chest strap)	1	8316878
Upgrade pump, incl. pump adapter	1	8317804
Seal for X-am 7000	1	8317423

Dräger X-am® 8000

Clearance measurement was never this easy and convenient: the Dräger X-am® 8000 measures up to seven toxic as well as flammable gases, vapours and oxygen all at once — either in pump or diffusion mode. Innovative signaling design and handy assistant functions ensure complete safety throughout the process.

Dräger X-am 8000
Up to 7 toxic measurements

Specially designed for use with a pump, optimised for your requirements

The Dräger X-am® 8000 is equipped with a very powerful pump. It can be connected with hoses of up to 45 metres in length. A pump adapter makes it easy to switch between diffusion and pump mode at any time. This means the pump is only operated when you actually need it. That saves energy, reduces wear and tear, and thereby extends the lifespan of the pump. Handy and durable, the Dräger X-am® 8000 is intuitive to operate single-handedly using three function keys. The easy-to-read colour display clearly lays out all the information for you. Standard accessories include a sturdy shoulder strap, so you can comfortably carry the X-am 8000. Thanks to its compact and robust construction, the device can withstand even the harshest conditions.

Clearance measurement, release and documentation in no time

The X-am 8000 effectively supports various applications with specially developed assistant functions that guide you through each process step by step. During clearance measurement, for example, the smart assistant calculates the necessary flooding time for the device and probe (FKM hose) based on parameters such as measuring gases, temperature limits, and the indicated hose length. When monitoring for high methane concentrations, an optional automatic measurement range switch makes it easier to take a reading: if the Cat-Ex sensor measures values above 100% LEL, the display switches to the range of 0 to 100 vol%. An additional useful tool is CSE Connect. It combines an Android app, specially designed for the X-am 8000, with a cloud-computing solution. Measuring jobs can be quickly and easily transferred to the app using an online application. An optional Bluetooth® module in the Dräger X-am 8000 enables measured values to be transferred automatically to the CSE Connect app. You can also easily and conveniently use the app to create measurement reports. This saves time and helps you manage your measuring

tasks during clearance measurements more efficiently.

Clear signalling design

The signal system of the Dräger X-am 8000 is based on a clear colour code:
- Red light = gas alarm
- Yellow light = device-related alarm, e.g. low battery
- Green light = device is ready for use

Economical Fleet Management

Bumptest and calibration are carried out simply and quickly using the Dräger X-dock® calibrating station. Its low test gas consumption keeps operating costs to a minimum. Its reporting function and numerous other useful features make the X-dock Manager PC software a smart addition to any fleet management operation. To identify the devices in the fleet, you can either use tried and tested bar codes or an integrated RFID transponder.

Specialist for high and low hydrocarbon concentrations

To measure hard-to-detect hydrocarbons, you can fit the Dräger X-am 8000 with one of two high-performance PID sensors. The PID HC covers a measurement range of 0 to 2,000 ppm (Isobutene). The PID LC ppb is particularly suited for a measurement range of 0 to 10 ppm (Isobutene) with a low resolution in the range below 1 ppm. For benzene-specific measurements, the X-am 8000 can be used with a pre-tube. The advantage: you only need one measuring device for this application, which significantly reduces the costs of purchasing, maintaining and transporting devices in use. The use of the pre-tubes is supported by a built-in assistant.

Inductive charging protects against wear and tear

The X-am 8000 features inductive charging. This makes it easier to operate and increases the lifespan of the device. Issues like corrosion and contact problems in the charging cradle are a thing of the past. You can charge (outside of explosion-hazard zones) and measure at once, e.g, when in

Dräger X-am® 8000

use inside vehicles or on machinery. The charging cradle can connect with one another, taking up minimal space, and are compatible with existing Dräger X-am® series cradles.

TECHNICAL SPECIFICATIONS

Dimensions (HxWxD)	179 x 77 x 42 mm
Weight	Approx. 495 g, depending on sensor configuration, without strap, without pump
	Approx. 550 g, depending on sensor configuration, without strap, with pump
Temperature	-20 ℃ to + 50 ℃
Pressure	700 to 1300 hPa
Humidity	10 to 90% (short-term up to 95%) r.h.
Ingress protection	IP 67
Energy supply	Lithium-ion battery, rechargeable, inductive charging
Alarms	visual: 3 LED 'red' (gas alarms), 3 LED 'yellow' (device alarms)
	acoustic: multi-tone, typically 100 dB(A) at 30 cm
	vibration
Charging time	Typically 4 hours after use during a shift of max. 10 hours
Pump operation	Maximum length of tubing 45 m
Approvals	ATEX / IECEx, MED / DNV GL, Class I, Zone 0, AEx da ia IIC T4 Ga, CE labelling
Warranty	3 years for the device, 1 year for the power supply, sensors: see DrägerSensor & Portable Instruments Handbook

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger x-am 8000 basic instrument	1	8325800
Dräger X-am 8000 IR EX	1	8325800/1
Dräger X-am 8000 Ex/O2	1	8325800/2
Dräger X-am 8000 EX/O2/H2S	1	8325800/3
Dräger X-am 8000 EX/O2/CO/H2S	1	8325800/4
Dräger X-am 8000 PID HC/ EX/O2/CO/H2S	1	8325800/5
Dräger X-am 8000 IR-EX/O2/CO/H2S	1	8325800/6
Sensors		
Dräger Sensor XXS O2/CO-LC, Range: 0-2000ppm CO/0-25%Vol% O2	1	6813275
Dräger Sensor XXS H2S LC, Range: 0-1000 PPM	1	6812015
Dräger Sensor IR-Ex ES range 0-100% LEL	1	6851881
Dräger Sensor XXS H2S LC, Range: 0-100 PPM	1	6811525
Dräger Sensor XXS CO LC range 0 - 2000ppm	1	6813210
Dräger Sensor XXS E O2 range 0-25 Vol.% O2	1	6810881
Batteries and chargers		
Spare Li-ion battery including housing (backside) Dräger X-am 8000	1	8326817
Spare induction charger Dräger X-am 8000	1	8325825
Accessories		
Shoulderbelt Dräger X-am 8000	1	8326823
Spare filter set without hose adapter set of 20 pieces	1	3705997
Filter set including hose adapter 3mm + 5mm Dräger X-am 8000	1	8319364

Dräger X-am® 8000

Description	Unit Sales	Articlenr
Pump adapter Dräger X-am 8000	1	8326820
Crocodile Clip Dräger X-am 8000	1	8319186
Extension hose 3mm 1 meter (price per meter)	1	8325837
Float probe	1	8327654
Dräger: Hose connection set 3 mm	1	8327641

Dräger X-Zone® 5500

State-of-the-art area monitoring – the Dräger X-zone® 5500 in combination with the Dräger X-am® 5000, 5100 or 5600 gas detection instruments can be used for the measurement of up to six gases and extends the portable gas detection technology to a unique system with many applications.

Dräger X-Zone 5500
Easily transportable, robust and water-proof

Innovative area monitoring
The Dräger X-Zone® 5500 transforms the Dräger personal gas detection instruments X-am® 5000, 5100 and 5600 into innovative area monitoring devices for a wide range of applications. A patented combination for increased safety – in addition to the personal air monitors carried on the body, these area monitors are positioned where gas hazards are expected.

Clear warning
Even from a distance, the illuminated green LED ring indicates that the air is free of toxic and combustible gases. Upon detection of gas hazards, the LED color changes from green to red, thus providing a clear visual warning that gas is present. Additionally, a loud and highly audible evacuation alarm is emitted. The Dräger X-zone 5500 gas entry is located that the gas can diffuse into the Dräger X-am 5000, 5100 or 5600 from all sides.

Wireless fenceline
Up to 25 Dräger X-Zone 5500 can be automatically interconnected to form a wireless fenceline. The interconnection of the area monitoring devices allows for rapid establishment of safety networks for larger areas. A Dräger X-zone 5500 detecting a gas alarm transmits the alarm signal to all interconnected units. A red flashing master alarm in the mother unit detecting gas contrasts with red/green flashing alarms of the connected daughter units providing simple recognition of alarm status and the actual location of the hazard.

With the corresponding configuration, the maximum gas concentration in the monitored area is shown on the display. Combined with the display of the X-zone ID a clear containment of the hazard area is possible.

Continuous operation for up to 120 hours
The 24 Ah battery of the Dräger X-zone 5500 provides up to 120 hours of continuous operation – a complete working week.

Other benefits
- 360° gas entry
- approval for Ex-Zone 0 (with Switch On or Switch Off for Ex-Zone 1)
- daily function test and calibration not required after single on-site testing
- individually configurable with the Dräger CC-Vision PC software (e.g. alarm frequency)
- inductive charging station: easy and convenient non-contact charging

Data interface modus
- integration in a control room system
- connection to external displays, such as Dräger RVP 5000

Simply connected - informed everywhere
The new Dräger X-zone® 5500 with X-zone Com GSM module, sends all data and alarms to your location – by email, SMS and to the Cloud.

The more secure type of area monitoring
Time, place and gas concentration are the most important data in the event of a gas leak. In an emergency, every second counts. Therefore we have developed a more efficient and significantly safer type of area monitoring with the Dräger X-zone 5500, including X-zone Com. With these you can receive and view the measured data and alarms outside of the danger zone.

The new x-zone com GSM-module
This module allows you to access the Dräger X-zone 5500 data wirelessly over the GSM network. Be it status requests or alerts via SMS using a periodic delivery of data via e-mail to a FTP server or a cloud service – the X-zone Com GSM module sends all data directly to the device of your choice.
In combination with an X-zone Com up to 15 Dräger X-zone can automatically connect themselves to a wireless alarmchain to accurately and comprehensively monitor large areas. For this only a single X-zone Com is required to retransmit the data of the entire chain. All relevant information such as maximum values of the measured gas type will reach those responsible within seconds.

Dräger X-Zone® 5500

Additional functions

On the laptop data of the Dräger X-zone 5500 group can also be displayed via Bluetooth®. With the integrated GPS module, the position of the X-zone Com and thus the location of the hazard source is transmitted. A data logger continuously stores the measured values. This ensures that no data is lost. Analysis of trends are simply in the cloud possible. Thus, all important measures covering evacuation and protection as well as the elimination of the problem and the resumption of work can be implemented quickly, efficiently and, above all, safer.

TECHNICAL SPECIFICATIONS

Dimensions	490 x 300 x 300 mm
Weight	10 kg (24 Ah battery)
Temperature	Max +40ºC
Pressure	700 to 1,300 hPa
Humidity	10 to 95 % r.h.
Ingress protection	IP 67
Alarm	Visual 360º LED (illuminated ring)
	Audible 360º; > 108 dB in a distance of 1 m (30 ft.), 120 dB in a distance of 30 cm (1 ft.)
	Configurable alarm patterns, frequencies and volumes
Life signal	Green status display (360º), illuminated ring (LED)
Operating time	Approx. 120 h (24 Ah battery)
	Depending on sensor equipment / configuration of the life signal
Charging times	Approx. 14 h
	Flexible power supply: External 100 – 240 V charger (worldwide) or inductive wireless charger
Alarm output	Potential-free alarm contact for intrinsically safe circuits (6-pole); < 30 V to 0.25 A (0.15 A constant current), resisting load
Radio transmission	Worldwide license-free ISM frequencies
	Digital radio, robust and interference-free transmission up to 100 m
Approvals	ATEX: I M1 Ex ia I Ma
	II 1G Ex ia IIC T3 Ga
	II 2G Ex ia d IIC T4 Gb
	IECEx: Ex ia IIC T3 Ga
	Ex ia d IIC T4 Gb
	Ex ia I Ma
	CSA/US: Class I, zone 0, AEx ia IIC T3 Ga
	Class I, zone 1, AEx ia d IIC T4 Gb

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-zone® 5500, 868 MHz, 24 Ah battery with diffusion cap	1	8324819
Spare parts		
Print board PCB X-Zone 5500	1	8324181
Light ring (incl. speaker)	1	8320125
Parts set pump holder / bracket (incl. screws)	1	8322933
Middle part housing (incl. speaker II)	1	8320123
Pump X-zone 5x00	1	8320652
Set of battery pack 24 Ah (incl. screws)	1	8322921
Part of housing	1	8320121
Protection of external connections	1	1893632
Cable duct	1	8324912
Upper part of housing diffusion, complete	1	8324806

Dräger X-Zone® 5500

Description	Unit Sales	Articlenr
Upper part pump, complete	1	8324807
O-ring set	1	8322922
Contact block: spare set (incl. contactvet Electrolube 2 ml)	1	8325323
Set of rubber socket (incl. screws)	1	8323231
Connector, male	1	8324370
Connector, female	1	8324371
Batteries and chargers		
Plug charger 15V/2A	1	8320749
Induction charger with power cord (Europe)	1	8322080
Accessories		
Diffusion cap for Dräger X-am 5000/5600	1	8323935
Kit pump cover for Dräger X-am 5000/5600	1	8323936
Gas inlet filter for pump cap X-am 5100, spare set	1	8323016
Filter for fresh air pump inlet for X-am 1/2/5x00	1	8319364
Filter connection pump (tulle, nut)	1	8319397
Hose set (condensate separator, 10 cm FKM (viton) hose, dust and water filter)	1	8321527
RS 485 cable, 25 meters	1	8321669
Alarm damper	1	8320110
Socket	1	8320645
5 x 1.5 mm fluorinated rubber hose (by the metre), ideally suited for connecting the test gas cylinder with X-dock	1	1203150
Condenser separator, set of 100 pieces	1	6805473
Bumptest adapter (for 8323935)	1	8323314
Calibration cradle X-am 125	1	8318752
Electrolube CG60 (contactvet: 35 ml)	1	3810003
Kit pump cover for Dräger X-am 5100	1	8323938
Antenna 868 / 915 MHz SMA	1	1894216
Antenna 429 / 433 MHz SMA	1	1894037
Parts set 1/4 Twist-off-top	1	8320674

Dräger X-Zone® 5800

State-of-the-art area monitoring – the Dräger X-zone® 5800 in combination with the Dräger X-am® 5000, 5100 or 5600 gas detection instruments can be used for the measurement of up to six gases. The internal pump and continuous power supply in the explosive area of zone 0 extend the range of applications in mobile gas detection technology.

Dräger X-Zone 5800
Easily transportable, robust and water-proof

Area monitor
- combination with Dräger X-am® 5000, 5100 or 5600 – measurement of up to 6 gases
- extensive area monitoring thanks to fenceline of up to 25 devices
- option for permanent power supply in explosive areas (zone 0)

Innovative area monitoring
The Dräger X-zone 5800 transforms the Dräger personal gas detection instruments X-am 5000, 5100 and 5600 into innovative area monitoring devices for a wide range of applications. A patented combination for increased safety – in addition to the personal air monitors carried on the body, these area monitors are positioned where gas hazards are expected.

Clear warning
Even from a distance, the illuminated green LED ring indicates that the air is free of toxic and combustible gases. Upon detection of gas hazards, the LED color changes from green to red, thus providing a clear visual warning that gas is present. Additionally, a loud and highly audible evacuation alarm is emitted. The Dräger X-zone 5800 gas entry location permits gas to diffuse into the Dräger X-am 5000, 5100 or 5600 from all sides.

Wireless fenceline
Up to 25 Dräger X-zone 5800 can be automatically interconnected to form a wireless fenceline. The interconnection of the area monitoring devices allows for rapid establishment of safety networks for larger areas. A Dräger X-zone 5800 detecting a gas alarm transmits the alarm signal to all interconnected units. A red flashing master alarm in the unit detecting the gas contrasts with red/green flashing alarms of the connected units. This provides simple recognition of alarm status and the actual location of the hazard. With the corresponding configuration, the maximum gas concentration in the monitored area is shown on the display. Combined with the display of the X-zone ID a clear containment of the hazard area is possible.

Continuous operation for up to 120 hours
The 24 Ah battery of the Dräger X-zone 5800 provides up to 120 hours of continuous operation – up to a complete working week. The Power Supply Ex is available for continuous use of the X-zone 5800. It offers a 50 m supply from a safe area to a potentially explosive area and is even approved for use with the X-zone 5800 in Zone 0. For safe transport, the cable of the Power Supply Ex is rolled up on a cable drum in which the power supply is also integrated.

Pump or diffusion mode - suitable for your respective application
The X-zone 5800 offers you both the possibility to draw in gas from a distance of up to 30 m in pump mode and the use in diffusion mode. The switch between these two options takes less than a minute. Simply exchange the pump cover or the supplied diffusion cover against each other. The X-zone 5800 is ready for another measuring operation – without any tools.

Other benefits
- 360°-gas entry
- approval for Ex-Zone 0
- individually configurable with the Dräger CC-Vision PC software (e.g. alarm frequency)
- inductive charging station: easy and convenient non-contact charging (outside the Ex-area)

Interfaces
The interfaces on the back of the device offer the possibility of switching actuators in case of alarms by means of the configurable relay. The interface can also directly forward device data, such as measured values of sensors and alarms, via Modbus protocol. This allows you to integrate the devices into existing evaluation units.

Extended area monitoring - X-zone Com
Time, place and gas concentration are the most important data in the event of a gas leak. In an emergency, every second counts. Consequently, we have developed a more efficient and significantly safer method of area monitoring compared to conventional

Dräger X-Zone® 5800

solutions: the Dräger X-zone 5800 together with X-zone Com. With these you can receive and view the measured data and alarms outside of the danger zone.

The module X-zone Com allows you to access the Dräger X-zone 5800 data wirelessly over the GSM network. Be it status requests or alerts via SMS using a periodic delivery of data via e-mail to a FTP server or a cloud service – the X-zone Com GSM module sends all data directly to the device of your choice.

Up to 25 Dräger X-zone can automatically connect themselves to a wireless alarmchain to accurately and comprehensively monitor large areas. Only a single X-zone Com is

required to retransmit the data of the entire chain. All relevant information will reach those responsible within seconds.

Data from the Dräger X-zone 5800 group can also be displayed on a laptop via Bluetooth®. With the integrated GPS module, the position of the X-zone Com and thus the location of the hazard source is transmitted. A data logger continuously stores the measured values ensuring that no data is lost. Trend analysis using data from the cloud is possible.

Thus, all important measures covering evacuation and protection as well as the elimination of the problem and the resumption of work can be implemented quickly, efficiently and, above all, safely.

TECHNICAL SPECIFICATIONS

Dimensions (w x h x d)	490 x 300 x 300 mm
Weight	10 kg (24 Ah battery)
Temperature	Max +50ºC
Pressure	700 to 1,300 hPa
Humidity	10 to 95 % r.h.
Ingress protection	IP 67
Alarm	Visual 360º LED (illuminated ring)
	Audible 360º; > 108 dB in a distance of 1 m (30 ft.), 120 dB in a distance of 30 cm (1 ft.)
	Configurable alarm patterns, frequencies and volumes
Life signal	Green status display (360º), illuminated ring (LED)
Operating time	Approx. 120 h (24 Ah battery)
	Depending on sensor equipment / configuration of the life signal
Charging times	Approx. 14 h, flexible power supply: External 100 – 240 V charger (worldwide) or inductive wireless charger
Pump	Max. hose length: 45 meter, 30 meter for zone 0
Alarm output	Potential-free alarm contact for intrinsically safe circuits (6-pole); < 20 V to 0.25 A (0.15 A constant current), resisting load
Radio transmission	Worldwide license-free ISM frequencies
	Digital radio, robust and interference-free transmission up to 100 m
RF-toelatingen	868 MHZ (EU, Norway, Switzerland), 915 MHz (USA, Canda, Singapore, Australia), 433 MHz (Russia)
Approvals	ATEX: I M1 Ex ia I Ma
	ATEX: II 1G Ex ia IIC T4 Ga
	IECEx: Ex ia I Ma
	IECEx: Ex ia IIC T4 Ga

Dräger X-Zone® 5800

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-zone® 5800, 868 MHz, 24 Ah pump	1	8329030
Power supply Ex, 50 meter cable	1	8329000
Netcable (EU)	1	8324181
Inductive charger	1	8322080
Plug charger 15V/2A	1	8320749

Dräger ConHub

Automated area monitoring gives you maximum safety with a minimal workload. The explosion-proof Dräger ConHub serves as a gateway that automatically connects your Dräger gas detectors from any location to Dräger Gas Detection Connect, our live monitoring solution. This helps you monitor vulnerable areas more closely, so you get the most out of your gas detection system, while also improving safety at your location.

Dräger Conhub
Automated area monitoring gives you maximum safety with a minimal workload.

Innovative, advanced area monitoring
The Dräger ConHub is an easy solution for optimising your daily monitoring activities. It transmits device data and alarms from the Dräger X-zone 5X00 area monitor via a Modbus cable as well as data from up to 20 Dräger X-am 2800/5800 and Pac devices with Bluetooth® function to the Dräger Gas Detection Connect cloud solution. All these Bluetooth® equipped devices automatically connect with the ConHub if they are within its range of up to 100m line of sight. This ensures a live flow of data from all the devices inside the area you are monitoring. The ConHub has a built-in GPS receiver to automatically detect its own position and indicate where the detectors are located. It transfers data to the cloud via your choice of WiFi®, LTE or a wired internet connection.* The portable devices not only serve as personal gas detectors for monitoring the ambient air, but also enhance traditional area monitoring with the help of the gateway. The transmission of measured values and alarms to Gas Detection Connect increases safety at maintenance sites, in the event of accidents or during a shutdown.
- *please contact Dräger on availability of this feature in your country

Low-cost, flexible live monitoring
The ConHub is a cost-effective solution for implementing live monitoring at your location. Use the gateway's cloud connection anywhere you require deeper insights into your gas detection system. In less critical areas, your detection devices continue to serve as classic personal gas detectors. You only pay connection fees when the portable detectors are actually connected with the ConHub. All of the devices mentioned above offer full connectivity and can be permanently connected for each specific user via the smartphone app. There's no need for any additional devices for special applications. You can benefit from our favourable "pay per use" conditions for live monitoring in Dräger Gas Detection Connect and high flexibility.

Continuous use, even in Zone 1 sites
The ConHub comes with a rechargeable battery that powers it for up to 60 hours. You also have the option of adding a second battery to double the battery life to 120 hours, the length of a full working week. If you prefer to install a permanent power supply to the ConHub, the Dräger Power Supply Ex is available separately. It includes a 50-metre power cable that runs from a safe area into the explosive/hazardous area. If you require a power solution that is approved for use in Zone 0 environments, connect the Power Supply Ex with a Dräger -X-zone -5800 area monitor. The mains adapter is integrated into a cable drum which houses the Power Supply Ex cable for safe transport.

Multiple input/output ports for maximum flexibility
The interfaces on the back of the device offer you multiple connection options. You can connect a digital input or output device via the configurable I/O port.*
- *please contact Dräger on availability of this feature in your country

Configure and update your devices anywhere
The ConHub offers a wide range of configuration options. Adjust its settings directly in Gas Detection Connect and update the ConHub at the touch of a button, just like a regular device update.

Built for sustainability
Sustainability was one of our top priorities when developing this product. We designed the system's electrical componentry to be detachable easily from the housing. This means the rechargeable battery and any damaged or permanently soiled components can be simply exchanged by trained personnel. In addition, all the electrical components are easily accessible by design, so they can be repaired or replaced quickly and cost-effectively by DrägerService if necessary. If you already have a Power Supply Ex system in place to power X-zone 5800 detectors in explosive/hazardous areas, you can continue using it with the

Dräger ConHub

ConHub. The technical documentation and packaging are also designed with the environment in mind. Plus, Dräger offers a return and recycle programme for end-of-life devices.

TECHNICAL SPECIFICATIONS

ConHub	
Dimensions	347 x 284 x 171 mm (H X W X D)
Weight	approx. 8 kg (with a rechargeable battery)
Operating conditions	Temperature: -20 ℃ - max. +50 ℃ (-4 ℉ – max. +122 ℉)
	Pressure: 800-1100 mbar
	Humidity: max. 95%
Protection rating	IP65
Visual alarms	LED strips, LED symbols
Location information	GPS, Galileo, Manual Location Input
Operating time	Approx. 60 h at 20 ℃ (68 ℉) with a 92Wh rechargeable battery. Approx. 120 h at 20 ℃ (68 ℉) with two 92Wh rechargeable batteries. Permanent use in explosion-protected and non-explosion-protected areas when used with explosion-protected power supply unit.
Charging times	approx. 12 h. Flexible power supply: External charger 100 - 240 V (global).
External cable connection	Modbus connection to X-zone 5X00. I/O change (not yet available at launch). Passive 4-20mA input (not yet available at launch). Ethernet port to connect to Gas Detection Connect (not yet available at launch).
External wireless connection	LTE connection to Gas Detection Connect. WiFi® connection to Gas Detection Connect. Bluetooth® connection to Dräger Pac (Bluetooth®), Dräger X-am 2800, Dräger X-am 5800.
Approvals - EX	ATEX: Ex II 2(1)G Ex ib [ia Ga] IIC T4 Gb. IECEx: Ex ib [ia Ga] IIC T4 Gb.
Approvals - EMC RADIO	ETSI EN 301 489-1. (Common requirement). ETSI EN 301 489-3. (Short Range Devices -SRD). ETSI EN 301 489-17. (2.4GHz ISM band). ETSI EN 301 489-19. (RNSS band - GNSS). ETSI EN 301 489-52. (Cellular communication UE).
Approvals - LVD	EN 62368-1EN 62368-1
Approvals - RED	EN 301 908-1 V13.1.1:2019-11(LTE). EN 300 328 V2.2.2:2019-07 (WLAN). EN 300 328 V2.2.2:2019-07 (BLE). EN 303 413 V1.1.1:2017-06 (GNSS).
Power Supply Ex	
Dimensions	350 x 290 x 175 mm (H X W X D)
Weight	10 kg
Protection rating	IP44
Temperature	-20 ℃ - max. +55 ℃
Cable lenght	Cable drum 50 m (164 ft). Kabelfix 0.5 m connection + power cable EU, UK, US, or AUS 3 m.
Approvals	ATEX: Ex II (1)G [Ex ia Ga] IIC. IECEx: [Ex ia Ga] IIC. North-America: [Ex ia Ga] IIC, [AEx ia Ga] IIC.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger ConHub, including 1 rechargeable battery without charger	1	3729600
Battery charger		
Charger set ConHub, to recharge the built-in battery	1	3729611
External charger adapter ConHub (adapter for the ConHub charger to externally charge 1 to 2 batteries)	1	3729653
External connections		

Dräger ConHub

Description	Unit Sales	Articlenr
Cable ConHub X-zone 5 meter, for connecting a ConHub with X-zone	1	3729658
Cable ConHub X-zone 20 meter, cable for connecting a ConHub with an X-zone	1	3729657
Power supply explosion-protected area		
Power supply Ex 230V, without cable, 50 meter	1	8329000
Cable (EU)	1	8329180

Dräger X-pid® 9500

The selective PID gas measurement device is ideal for users who frequently test for hazardous toxic substances. Benzene, butadiene and other volatile organic compounds (VOCs) are carcinogenic even in the smallest concentrations. Selective measurement is necessary because other gases and vapours are often also present. The gas measurement device allows for short test times and laboratory-quality results.

Dräger X-pid 9500
Selective PID gas measurement device

Multigas detector
- selective VOC gas detection
- for frequent testing of toxic & carcinogenic substances
- laboratory quality results in very low concentrations
- benzene measurement starting from 50 ppb
- no consumables per measurement

Two modes for an efficient measurement strategy
"Seeker" mode is a broadband measurement for pre-testing and localising measurement points. It allows continuous, direct-reading measurement of the total concentration of all VOCs present. "Seeker" mode is similar to using a single-PID gas measurement device. "Analysis" mode allows selective measurement for monitoring specific toxic compounds. Pre-defined target compounds can be precisely measured in seconds. "Analysis" mode is similar to gas chromatography analyses conducted in the laboratory.

Up to 90% time savings
The Dräger X-pid 9500 requires no preparation and is ready to use after a brief start-up phase. Selective measurement in "Analysis" mode takes only a few seconds. A benzene measurement starts with the push of a button and is completed in only 30 seconds. After another 60 seconds, the device is ready to measure for benzene again. Compared with other detection systems, the Dräger X-pid 9000/9500 saves considerable time and enables further monitoring to be undertaken. Simultaneous measurement of other compounds, like benzene and butadiene, further reduces testing times.

Cost savings
Because no consumables are used to take measurements, operating costs can be reduced. For users with high measurement needs, the Dräger X-pid 9000/9500 quickly pays for itself. For example, it requires no pre-tubes, also making it easier to use and preventing user errors. On the basis of 200 measurements per year, the Dräger X-pid 9000/9500 is generally more cost-effective than comparable measurement systems.

High selectivity for greater safety
The selective measurement mode "Analysis" relies on technology which separates individual compounds present in mixed gases. This makes it possible to conduct a compound-specific measurement for benzene, even if other VOCs like toluene and xylene are also present in high concentrations. Cross-sensitivities for benzene are reduced to a minimum. This reduces the number of false-positive measurement results and false alarms.

Reliable performance under tough conditions
The influence on measurement results by environmental factors like variable ambient temperature or high humidity are reduced to a minimum. The sensor unit maintains a constant temperature above the ambient air temperature and separates water vapour from the target compounds. This ensures reliable measurements under tough environmental conditions.

Low detection limits
Concentrations of toxic compounds in the air at work sites must not exceed threshold limit values. Mandatory time-weighted averages in the low ppb to ppm range need to be performed for carcinogenic vapours like benzene. The Dräger X-pid 9000/9500 is optimised for measuring in this concentration range and detects benzene starting at 50 ppb.

Intuitive handling with mobile app
The sensor unit is controlled and the measurment data processing is conducted by a mobile app installed on an explosion-proof smartphone (delivery includes both). The large touch screen and familiar user interface elements are easy to use. This makes the sophisticated technology accessible to a broad group of users. No prior knowledge or extensive training is required.

Dräger X-pid® 9500

Laboratory-quality measurement results

The gas measurement device is based on gas chromatography (GC) and photoionisation detection (PID) technologies. These technologies, used widely in laboratories, have a high acceptability due to their excellent analytical performance. The Dräger X-pid 9500 brings these technologies directly to the hazardous area of any production site.

Simple functional test and calibration

The functional test with the test gas isobutylene and toluene is done in just two minutes and the Dräger X-pid 9500 is ready to use. During the test the user is guided through the user interface step-by-step. The calibration is completed within about four minutes.

TECHNICAL SPECIFICATIONS

Dimensions (w x h x d)	ca. 132 x 281 x 56 mm
Weight	ca. 880 gr
Temperature	-10 ℃ to + 35 ℃
Pressure	700 to 1300 mbar
Humidity	10 to 95 % RH
Ingress protection	IP54
Start-up phase	ca. 10 minutes, can be increased at low ambient temperatures
Operating times	typically 8 hours, reduces with lower ambient temperatures
Approvals	ATEX: II 1G Ex ia IIC T4 Ga
	IECEx: Ex ia IIC T4 Ga
	cCSAus: Class I, Div. 1 Group A, B, C & D T4, Ex ia Class I, Zone 0, A/Ex ia IIC T4 Ga
	CE Marking: RED (Directive 2014/53/EU), ATEX (Directive 2014/34/EU)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-pid® 9500 with sensor unit, control unit with pre-installed mobile app, power supplies, charging cables, test gas adapter and dust and water filter	1	6851848
Test and calibration gas 58 l Isobutylene 10 ppm, Toluene 10 ppm	1	6814046
Control valve basic 0.5 LPM; fits to 58 l Test gas cylinder	1	6810397
Dräger X-pid® 9000/9500 test gas adapter	1	6851850
Case for Dräger X-pid® 9500	1	6851851
Sampling hose Tygon with inlined PTFE hose Length (3 m); OD: 8 mm; ID: 4.8 mm; WD: 1.6 mm	1	8326980
Sampling hose Tygon with inlined PTFE hose Length (15 m); OD: 8 mm; ID: 4.8 mm; WD: 1.6 mm	1	4594679
Sampling hose FKM (solvent resistant) OD: 6.4 mm; ID: 3.2 mm; WD: 1,6 mm	1	8325837
Dust and water filter with hose adapter	1	8319364
Telescopic probe ES 150 Length up to 150 cm with FKM sampling hose extension	1	8316533
Bar probe 90 Length: 90 cm with FKM sampling hose extension	1	8316532

Dräger X-node

Dräger X-node is a wireless IoT solution for process monitoring and analysis. The system solution converts reliable measurement data - gas concentration, temperature, humidity and pressure - from the X-node device into valuable information that you can access, analyse, visualise, monitor and store online via the X-node Hub.

Dräger X-node
 Wireless IoT solution for process monitoring and analysis

Flexible and easy to use

The Dräger X-node IoT solution helps you to avoid damage, optimise production processes and prevent loss of resources - regardless of whether you want to use Dräger X-node or individual components of it in the long or short term:

- Transparency: to make better, data-driven decisions
- Monitoring; with the help of information-driven attention
- Documentation: through traceability and verifiability of measured values

X-node devices do not require a cable for data transmission or power supply. A rechargeable, lithium-polymer battery powers the transmitter for up to 12 months and provides flexibility for rapid positioning in a variety of locations. And, with an IP65 rating, the X-node Device is protected against dust and high-pressure jets, so it can be used indoors and outdoors. A clearly visible, all-round LED indicator on the X-node device continuously shows its status: operation, malfunction, limit value violation.

Industry-proven sensor technology

Choose from over 15 different, reliable DrägerSensors (see below) and let the X-node device continuously monitor the concentration of a specific gas and simultaneously measure temperature, relative humidity and air pressure. DrägerSensors are renowned for their fast response time, high accuracy, great stability and long service life.

They can be simply fitted into the measuring head without tools, using plug-and-play.

Control via the X-node app

You can access the X-node device via Bluetooth® using the X-node app to, for example, configure limit values, set sensors or display the current measured values. The X-node app is available free of charge in the Google Playstore and Apple App Store.

Analyse with the X-node Hub

With the X-node Hub online dashboard, you can conveniently view and manage measured values, online from anywhere. A variety of functions support you in monitoring and analysing your processes, for example:

- status overview of all your X-node devices
- detailed, individually adjustable visualisation of the measurement data
- email notifications (ad-hoc messages and interval reports)
- limit value violation list
- display device's geolocation
- tags for flexible organisation of your devices
- download measurement data

The Dräger X-node uses a LoRa network to transmit the measured data (gas concentration, ambient temperature, air pressure and humidity) encrypted to a cloud.

The X-node Hub is your flexible data-management system that allows you to conveniently process and analyse the data from individual or multiple X-node devices.

TECHNICAL SPECIFICATIONS

Automation	Information via X-node Hub and X-node app
Measuring gases	Oxygen and toxic gases such as Cl_2, CO, CO_2, H_2, H_2O_2, H_2S, NH_3, NO, NO_2, O_3
Measuring ranges	See sensor datasheet
Memory function	Real time clock with backup, Datalogger
Weight	ca. 300 g
Dimension	ca. 170 x 90 mm
Temperature	-20 ℃ to +50 ℃
Approvals	See datasheet

Dräger X-node

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-node transmitter	1	5601008
Dräger X-node Hub Basic	1	3732056
Dräger X-node Hub Professional	1	3732057
Dräger X-node Hub Premium	1	3732058
DrägerSensor® H2S LC, 0-100 ppm	1	6809610

DrägerSensor XS

DrägerSensors can be used for detecting many different gases and vapours. We develop and produce the DrägerSensors ourselves. Additionally, you benefit from the sensors' long service life and low operating costs.

DrägerSensor XS
Simple to use due to Smart Technology

Electrochemical sensor XS
- monitoring of toxic gases and oxygen deficiency including hydrides, amines, organic vapours
- compatible with: X-am 3000 and X-am 7000
- measuring range: in vol.-% and ppm

Our own design
We develop the sensors using our own engineering knowledge. In this way, we can assure their quality and we know the measurements are accurate. This allows them to be fully utilized in combination with our full line of in-house developed Dräger gas detectors. Our engineers have even developed DrägerSensors XS to deal with the challenges of highly reactive gases such as H_2O_2, HF, HCl or hydrazine, for example.

Multiple sensor options
With the DrägerSensors XS, you can safely monitor industrial and special gases. In addition to DrägerSensors XS H2S, CO, O2, Dräger also offers sensors for hydrides, amines and organic vapours. The sensitivity data of more than 12 different gases and vapours are stored in the XS OV sensor, so that multiple gas hazards can be measured by a single sensor.

Low operating costs
Due to the excellent reliability and high measurement quality of DrägerSensors XS, Dräger can ensure a service life of up to five years. Also, because they are so stable, longer calibration intervals are possible. These excellent properties reduce your operating costs considerably.

Simple to use due to Smart Technology
The DrägerSensors XS are so-called intelligent sensors that are equipped with an integrated EEPROM (Electrically Erasable Programmable Read-Only Memory). All relevant sensor data, such as temperature compensation, measuring range, calibration interval and gas type are stored in this memory module. This information is automatically processed when the sensor is inserted into a Dräger X-am® 7000. The plug & play function allows sensors to be swapped between devices, without, for example, having to recalibrate them.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Refer to the DrägerSensor & Portable Instruments Manual, found under Documentation, for article numbers.	6810258 draeger xs sensor.jpg	

DrägerSensor XXS

Dräger has developed miniature electrochemical sensors specially for the Dräger Pac®, X-am® 1/2/5 and X-am® 8000 generation. The sensors detect many different gases and vapours. They are also very reliable and stable over the long-term, thereby reducing your operating costs.

DrägerSensor XXS
Miniature electrochemical sensors

Electrochemical sensor XXS
- monitoring of toxic gases and lack of oxygen
- compatible with: Pac series and X-am family
- measuring range: in vol.-% and ppm

XXS in size – XXL in performance
Portable gas-detection devices for daily use should be as small, light and robust as possible – but also offer maximum performance. Reason enough for us to reduce the volume and weight of the sensors drastically and develop a miniaturised XXS generation of DrägerSensors. High sensitivity and improved gas selectivity combined with excellent long-term stability and rapid response times ensure that users are alerted quickly and reliably to the presence of hazardous gases, providing more safety at work.

Sensor diversity
In addition to the DrägerSensors XXS H2S, CO and O2, Dräger also offers sensors for hydride, amine and organic vapours. The sensitivity data for more than 12 different gases and vapours stored on the XXS OV sensors make it possible to detect several gas hazards with a single sensor.

Two in one
The dual sensors combine the special features of two sensors. We are setting new standards for simultaneous testing using a single sensor: simultaneous O2 % by vol. testing and ppm testing for CO or H2S.

Internal development
We develop the sensors ourselves using our own engineering knowledge. In this way, we can assure their quality and we know the measurements are accurate. This allows them to be fully utilized in combination with our full line of in-house developed Dräger gas detectors.

Low operating costs
Our sensors deliver reliable measurement results and have long calibration intervals. Depending on the sensor type, we ensure a lifetime of up to five years.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Refer to the DrägerSensor & Portable Instruments Manual, found under Documentation, for article numbers.	draegersensor x xs.jpg	

PID sensors

PID sensors are the ideal choice for detecting low concentrations of volatile organic compounds. A PID (photoionization detector) is used to measure hazardous substance groups or can even be adjusted to measure individual substances.

PID sensors
Many different applications

Benefits
- detection of volatile organic compounds in low concentrations
- compatible with: X-am 7000 and X-am 8000 – selective benzene measurement with pre-tubes possible
- measuring range: in ppm and ppb range

Detection of volatile organic compounds in the ppm and ppb range
The photoionisation detector (PID) sensors complete the DrägerSensor series in the area of detecting volatile organic compounds (VOCs) in the ppm or ppb ranges. Therefore, these sensors are a useful addition to workplace monitoring with multi-gas detectors in certain applications.

Many different applications
PID sensor technology is very versatile and can be used, for example, for clearance measurements during shutdowns in the chemical and petrochemical industries, monitoring operations in shafts and enclosed spaces, detecting leaks and many other applications.

Benzene-specific measurements
Selective benzene detection can be carried out using the Dräger X-am® 8000 in combination with the benzene pre-tube. This pre-tube filters out all hydrocarbons present except for benzene.

Robust design
The Dräger PID detectors are equipped with water-repellent membranes to protect the integrated PID sensor during industrial use. The sensors also have very short response times and give a rapid warning.

Adjustment and response factors
PID sensors are quickly and simply adjusted using isobutylene. Isobutylene is a harmless gas that is available in practical, disposable, test gas bottles. Sensitivity to the monitored substance can then be individually set using response factors. This means that it can be calibrated on location at any time.

Optimised for the mission
Optimised for compatibility with original Dräger gas detection devices, so the PID sensors can be used to their full potential.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Refer to the DrägerSensor & Portable Instruments Manual, found under Documentation, for article numbers.	PID Sensor.jpg	

Dräger infrared sensors

Dräger infrared sensors deliver the best-possible measurement results and are unaffected by sensor poisons. The long service life of these sensors results in hardly any follow-up costs. You can also use Dräger infrared sensors to take Ex and CO_2 measurements simultaneously.

Dräger infrared sensors
Extremely precise and impervious to sensor poisons

Infrared Sensors
- monitoring of explosive mixtures and CO_2
- recommended for frequent occurrence of explosive gases
- compatible with: X-am 5600 / 7000 / 8000
- measuring range: lower explosion limit up to 100 vol.%, for CO_2 0 – 5 vol.%

Low operational costs thanks to long service life
The long service life of this type of sensor (anticipated length of use ca. 8 years) as well as its reduced drift and 12-month calibration interval result in low operational costs.

Extremely precise and impervious to sensor poisons
The infrared sensor technology distinguishes itself by its high level of accuracy. Combined with the imperviousness to sensor poisons, they enable the detection of gases and vapours in a wide range of application areas.

Measurements in extraordinary conditions
Measuring explosive gases and vapours in environments with hydrogen sulphide and silicones, as well as in inert atmospheres, has no impact on the performance of this sensor.

Simultaneous Ex and CO2 measurement
Depending on the application, it is necessary to measure explosive gases and monitor carbon dioxide concentrations simultaneously, e.g. in the sewage sector. For this, only one sensor is needed – the Dual IR-Ex/CO2 sensor fulfils both measurement tasks. This increases your flexibility when configuring the gas warning device.

Our own design
The sensor set-up, selection of detectors and type of gas ingress are just a few of the factors that have a direct influence on the measuring performance of an IR sensor. Developing the sensors ourselves gives Dräger the opportunity to optimise these parameters, so they fulfil the requirements of various applications, e.g. personal monitoring, clearance measurements and leak detection.

From LEL to 100 vol. %
The infrared Ex sensors can be used for the most diverse measurement tasks: in the range of the lower explosive limit and also for measurements up to 100 vol. %. The IR measuring method can also be used for carbon dioxide in the range of 0 – 5 vol. % CO2. Dräger offers both types (Ex/CO2) as single sensors as well as an application-optimised dual sensor.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Refer to the DrägerSensor & Portable Instruments Manual, found under Documentation, for article numbers.	draegersensors i r.jpg	

Dräger catalytic Ex-sensors

Save measurement results, professionally configure gas detection instruments and viewing performance data – all that is possible with the tailor-made Dräger software.

Dräger catralytic Ex-sensors
Durable and resistant against sensor poisons

Our own design
- monitoring of explosive mixtures
- high poisoning resistance to silicones and H2S
- compatible with: X-am family
- measuring range: lower explosion limit up to 100 vol.-%

Our own design
We develop the sensors with our own engineering knowledge. In this way, we can assure their quality and we know the measurements are accurate. This allows them to be fully utilised in combination with our full line of in-house developed Dräger gas detectors.

Durable and resistant against sensor poisons
Hydrogen sulphide and silicone are known catalytic poisons that may be present in environments where explosive gases can develop. Thanks to a new pellistor composition, the sensors are highly resistant to poisoning from these substances. The sensors are also lead-free and thereby adhere to Directive 2002/95/EG (Restriction of Hazardous Substances). The high resistance to poisoning leads to extraordinarily stability over the long-term and that ensures low operational costs.

Vapour sensitivity
Unknown gas hazards and higher hydrocarbons pose a particular challenge to the display sensitivity of catalytic sensors. The new CatEx PR sensors distinguish themselves through their sensitivity. The detection of all hydrocarbons (from methane to nonane) has been certified in a measurement performance certificate for the device series X-am® 1/2/5000, X-am 7000 and X-am 8000.

Rapid response times
A rapid warning for explosive gases and vapours is vital. The CatEx PR sensors' fast response times minimise the timespan between danger and warning.

From the LEL to 100 vol. %
Our catalytic sensors are suitable for measurements from the lower explosion limit to 100 vol. %.
The X-am 8000 features the option to automatically switch testing ranges, making it easier to read off results when monitoring for high methane concentrations: if the sensor measures values above 100% LEL, the display switches to the range of 0 to 100 vol. %.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Refer to the DrägerSensor & Portable Instruments Manual, found under Documentation, for article numbers.	6812950 catalyt ic sensor.jpg	

Dräger X-am® pump

The Dräger X-am® pump is an external pump for the portable gas detectors Dräger X-am® 2500, 2800, 5000, 5600 and 5800 – designed for clearance measurement, for example in tanks and shafts. The pump automatically switches on when it is connected to a running X-am® device. The change from pump mode to diffusion mode is fast and easy.

Dräger X-am® Pump
For Dräger X-am® 2500, 5000, 5600 en 5800

Easy to use
The pump is attached onto the X-am 2500/5000/5600/5800 and fastened with a clip. Pumping starts automatically once pump and running gas detection device are connected. The pump turns off automatically once it is removed from the device. Using the X-am with the pump has no effect on the measuring performance for standard gases.

Charging via USB
The pump battery can be recharged using the micro USB port. A standard cellphone charger can be used for connecting. The charge status is indicated by an LED on the pump. A full charge requires approximately six hours.

Handy and robust
The pump's easily manageable 17.5 cm device height and a weight of only 200 g permit easy carrying and stowage. The Dräger X-am pump is dust and water resistant according to the IP67 protection classification. It performs reliably even at temperatures down to -40 ℃. The battery is solid cast to protect against damage due to dropping or impact.

Effective range of measuring results: with explosion protection
The pump can reach the ambient atmosphere in inaccessible places – up to a distance of 45 m, e.g. in channels, shafts, or tank systems. The pump has been optimised for hoses with a diameter of 3 mm – for fast response times and low power consumption. The use of the pump in combination with a X-am device ensures you of consistently precise measuring results – even in the most demanding situations. Because the pump has an explosion protection approval for Ex zone 0. In combination with the Dräger X-am 2500/5000/5600, which are likewise approved for Ex zone 0, the X-am pump allows for secure and continuous monitoring of enclosed areas.

Long operating time for long deployments
The pump is not only highly resilient on the outside but also inside. The battery capacity lasts for three workweeks at 8 measurements per day (i.e. up to 20 hours of continuous operation). Convenient: The operating time of the X-am is not decreased when the pump is in operation. Moreover, the entire pump operating time can be evaluated using CC-vision software.

Data logger
Pump operating time, charge status, battery warnings, and flow alarm are displayed on the Dräger X-am and stored in the data logger. This makes it possible to display the results of the clearance measurements separate from the evaluations of personal monitoring.

TECHNICAL SPECIFICATIONS

Dimensions	67 x 175 x 38 mm (without X-am®),
	67 x 220 x 55 mm (with X-am®)
Weight	approx. 200 g
Operating temperature	-20 ℃ to 50 ℃ (briefly -40 ℃)
Temperature when charging	0 – 35 ℃
Charging time	< 6 hours
Operating time	up to 20 hours, depending on type of application and temperature
Maximum hose length	45 m
Air flow volume	0.4 L/min
Storage temperature	Up to 1 month -20 ℃ to 60 ℃, otherwise -20 ℃ to 45 ℃
Pressure	700 to 1,300 hPa

Dräger X-am® pump

Air humidity	0 to 95 % RH
IP protection class	IP67
Approvals	c CSA us, ATEX/IECEx (Zone 0 T4 and M1), DNV-GL, CE label

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-am pump	1	8327100
Dräger X-am pump incl. USB charger and shoulder strap	1	8327115
USB power supply	1	8327102
Shoulder strap	1	8319386
Pump cap, complete	1	8319356
Sealing cab	1	8319363
Parts set, sled with magnet	1	8322996
Leather case for Dräger X-am® pump	1	8327103
Case for Dräger X-am® pump	1	8327104
Dräger: CSE set X-am® pump, incl. USB charger	1	8327105
Dräger X-am® 2500 CSE-Kit, for remote measurement	1	8327106
Filter for fresh air pump inlet for X-am 1/2/5x00	1	8319364
Telescopic probe ES 150	1	8316533
Float probe	1	8327654
5 m FKM hose (diameter 3 mm)	1	8325705

Dräger Bump Test Station

Easy to use, stand-alone and portable. With the Bump Test Station, functionality tests of gas detection and warning devices can be carried out easily and quickly.

Easy to use

The Bump Test Station has no requirement of any power source and can thus be used at any location. The easy to use Bump Test Station checks whether the instrument in question is responding to a known concentration of gas. The gas provided by the Bump Test Station flows through the dust and water filter to the sensor(s) confirming correct functionality of the gas detector ensuring compliance with country-specific requirements and regulations, standards, recommendations, etc.

Reliable results

To test the device using a known gas concentration is the only way to guarantee a reliable, precise measurement and functionality against a gas hazard and to ensure correct warnings against them.

Automatic calibration

If the test is not completed successfully, the device has to be adjusted/calibrated. This calibration is capable of being carried out automatically on the Bump Test Station.

Dräger Bump Test Station
Reliable and accurate detection

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger bump test station for X-am 1/2/5x00, including test cylinder	1	8319130
Dräger bump test station for X-am 2/5/5X00, excluding test cylinder	1	8319131
Dräger bump test station for X-am 7000, excluding test cylinder	1	8318909
Dräger bump test station for X-am 7000, including calibration gas cilinder 58 liters	1	8319072
Dräger bump test station for PAC serie	1	8317410

Dräger Mobile Printer

The Dräger Mobile Printer prints breath alcohol and drug test measurement results without using a dedicated power supply. The Mobile Printer documents measurement results of the Dräger the Dräger DrugTest® 5000.

Dräger Mobile Printer
High-quality, long-term stable thermal paper

Documenting results
The Dräger Mobile Printer documents measurement results of the Dräger Alcotest® 6810, the Dräger DrugTest® 5000 and the Dräger Bump Test Station.

Wireless data transfer
Wireless data transmission from the Dräger Alcotest 6810 Dräger Mobile Printer is via an optical transmission. The Dräger DrugTest® 5000 utilises an IR interface for data transmission.

Easy operation
The device is operated via a single button. Changing the paper is simple. In addition, the Dräger Mobile Printer uses heat transfer printing technology, eliminating the need for ribbons or ink, ensuring low on-going running costs.

Long-term stable printouts
High-quality, long-term stable thermal paper is used for printouts. The user can select between a paper with a long-term stability of 7 or 25 years.

Flexible power supply
The Dräger Mobile Printer can be run with Alkaline or NiMH batteries.

Data storage
For data storage, the device can be connected to a PC and a keyboard.

TECHNICAL SPECIFICATIONS

Operating Temperature	-5ºC to 45ºC
Storage Temperature	-20ºC to 50ºC
Humidity	100%, not condensing
Atmospheric Pressure	600 to 1050 mbar
Dimensions	109 x 61 x 206 mm
Weight	0.45 kgs
Power supply	4 x 1.5V alkaline (AA) batteries

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger mobile printer	1	8319310
Paper, thermal, 7 years shelf-life, 5 pieces	1	8319002
Netwerk adapter	1	8319348
Dräger: NiMH Accu for Mobile Printer		1890092

Dräger X-dock®

The Dräger X-dock series provides you with full control of your portable Dräger gas detection instruments. Automatic bump tests and calibrations with reduced test gas consumption and short testing times save time and money. Comprehensive documentation and evaluations provide you with a clear overview.

Dräger X-dock
Provides you with full control of your portable Dräger gas detection instruments.

As versatile as your requirements
The X-dock is available in a wide variety of versions. The X-dock 5300 includes a master station including a module for a gas detection instrument from the X-am 1/2/5x00 or Pac family. It is immediately ready to use. The X-dock 6300 and 6600 versions can be configured freely. They consist of a master station and can be expanded with up to 10 modules for X-am 1/2/5x00 and/or Pac 1 gas detection instruments.

Easier than ever before
Insert the device, close the lid and remove it when the indicator goes "green" – a test with the X-dock is just that simple. It immediately detects all sensor combinations. Furthermore, the X-dock automatically tests and adjusts when all required test gases are connected. The station works independently and can be configured and used without a PC. The station is operated via an integrated touchscreen. A gas detection instrument is detected as soon as it is inserted, and all data is documented in the database.

More safety thanks to complete documentation
Do you need to document whether or not your devices are ready for operation? Who tested which device when, and what the result was? The X-dock stores all of the relevant data and reads the collected information from the gas detection instruments for subsequent evaluations – providing you with complete control every step of the way. You can use the reporting function (report wizard) to create customised reports. Furthermore, you can print a calibration certificate right at the stations, since the X- dock series supports standard PostScript-compatible USB printers. This functionality allows the user to manage all requirements of EN 60079-29-1 and EN 60079-29-2.

Automatically reduced costs
With a reduced gas flow (300 mL/min instead of 500 mL/min) per module, you save costs on test gases. Short testing times reduce the overall maintenance efforts. The valve concept (patent pending) requires one pump only, resulting in the need for less wear and tear parts. The valves automatically switch the test gases and – when connected – the compressed air as well.

Significant time savings
Up to 10 modules can be connected to the X-dock at any given time, allowing you to test gas detection instruments simultaneously but also independently of each other. The automatic bump test also saves time, because the test only takes 8 to 15 seconds 2. All Dräger test gas cylinders are already stored in the database – entering the part number will automatically fill in the fields required for the gas configuration. This eliminates the need for manual data entry.

Overview of results
The additional "X-dock Manager" software offers you even more comfort: It produces a detailed evaluation of the data in the calibration system and gas detection instruments, and presents the information in various graphics and statistics – providing you with a complete overview of all results. All connected X-dock systems can be connected in one network. Therefore, the data is not only stored locally in the system, but in a central database as well. With the X-dock manager you are always in control.

Further benefits
- touchscreen operation at the master station
- up to three configurable test routines
- automatic leak tests
- automatic tests of alarm elements (acoustic, visual and vibration alarms)
- optional charging function for X-am 1/2/5x00
- replaceable seal cartridge
- 12V operation (e.g. in vehicles) possible
- can be subsequently expanded with up to 10 modules (X-dock 6300/6600)
- evaluation of sensor response time

The X-dock manager offers much more
- gas exposure in specific areas, number of conducted tests, device availability, overview of created and sent reports
- templates for regular reports

Dräger X-dock®

- an issue and return function to allocate gas detection instruments to specific individuals
- monitoring of stations within the network: All connected systems can be monitored (e.g. information on the gas configuration)
- overview of devices: direct access to test reports and device configuration
- notifications, also via email, e.g. if test gases are running out
- VLAN capable

TECHNICAL SPECIFICATIONS

Operating Temperature	-5°C to 45°C
Storage Temperature	-20°C to 50°C
Humidity	100%, not condensing
Atmospheric Pressure	600 to 1050 mbar
Dimensions	109 x 61 x 206 mm
Weight	0.45 kgs
Power supply	4 x 1.5V alkaline (AA) batteries

ORDER INFORMATION

Description	Unit Sales	Articlenr
Ready to use		
Dräger X-dock 5300 X-am 1/2/5, 3 gas connections, limited to one module, including charger	1	8321880
Dräger X-dock 5300 PAC 1/2/5, 3 gas connections, limited to one module, including charger	1	8321881
Dräger X-dock 5300 X-am 3500/8000, 3 gas connections, limited to one module, including charger	1	8321882
Master versions		
Dräger X-dock 6300 Master, 3 test gas connections, can be expanded to 10 modules	1	8321900
Dräger X-dock 6600 Master, 6 test gas connections, can be expanded to 10 modules	1	8321901
Modular versions		
Dräger X-dock module X-am 1/2/5	1	8321890
Dräger X-dock module X-am 1/2/5+, allowing charging X-am 1/2/5 devices	1	8321891
Dräger X-dock module PAC	1	8321892
Dräger X-dock Module for 1pcs X-am 8000	1	8321893
X-dock Manager		
Dräger X-dock manager professional, standard functions plus instrument handout and return function and reporting centre	1	8321870
Power supply		
Connector 100-240, 24 V / 1.25 A plug-in power supply, up to 3 modules	1	8321849
Connector 100-240, 24 V / 6,25 A plug-in power supply, up to 10 modules	1	8321850
Car adapter supply 12/24 V DC, up to 5 modules	1	8321855
Accessories		
Pressure valve 0.5 bar, constant, nickel-plated	1	8324250
Pressure valve 0.5 bar, constant , nickel-plated and with flow stop, vlave closes immediately when hose is removed	1	8324251
Pressure valve 0.5 bar constant , stainless steel	1	8324252
Hose connector (5 pcs)	1	8324095
Wall mount, standard	1	8321922
Wall mount, comfort (adjustable tilt angle)	1	8321910
Cylinder bracket for table mount version X-dock, excl. cylinder	1	8321918
Cylinder holder for DIN rail/wall mount	1	8321928
Filter for fresh air pump inlet for X-am 1/2/5x00	1	8319364
5 x 1.5 mm fluorinated rubber hose (by the metre), ideally suited for connecting the test gas cylinder with X-dock	1	1203150
Spare parts		
Seal cartridge for X-am 1/2/5 module	1	8321986

Dräger X-dock®

Description	Unit Sales	Articlenr
Seal cartridge for PAC module	1	8321987
Display protection seal	1	8321804
Stickers for module numbering (1-10)	1	8321839
Floater complete, without hose	1	6802337
Spare part housing pad	1	8321974

Calibration gas

Calibration of equipment will ensure safe operation and functionality of equipment and will also meet with the applicable regulations and codes of practice. Various calibration options are available to provide this facility.

Single gas and mixtures of reliable quality
Dräger provides single gases and gas mixtures of reliable, constant quality. These are available in a range of different size cylinders.

Recyclable cylinders
The gases are supplied in small, light and recyclable disposable cylinders. Therefore, calibration tasks and function tests can easily be carried out in the workshop or on site.

Tailor-made for Dräger gas measuring devices
The Dräger calibration gases are specifically tailored to meet the requirements of the range of gas measuring devices.

Calibration gas
Calibration of equipment will ensure safe operation and functionality of equipment

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger: Calibration mix gas in N2, 15 PPM H2S / 50 PPM CO / 2.5% CH4 / 18% O2, content: 60 liter	1	6811130
Dräger: Calibration mix gas in N2, 15 PPM H2S / 50 PPM CO / 2.5% CH4 / 18% O2, content: 112 liter	1	6812375
Draeger: Calibration gas 2 Vol.% H2 in Air, content: 112 liter	1	6810388
Dräger: Calibration gas 2.5 Vol.% CO2 in Air, content: 60 liter	1	6810391
Dräger: Calibration gas 20 PPM H2S in N2, content: 60 liter	1	6810393
Dräger: Calibration gas 99.999 Vol.% N2 in Air, content: 112 liter	1	6810394
Dräger: Calibration gas 100 PPM I-C4H8 in Air, content: 34 liter Isobutylene	1	6810687
Dräger: Calibration gas 50 PPM NH3 in N2, content: 60 liter	1	6811352
Dräger: Calibration gas 100 PPM H2S in N2, content: 60 liter	1	6812112
Dräger: Calibration gas 50 Vol % CH4 in N2, content: 112 liter	1	6812109
Dräger: Calibration gas 5 PPM CL2/N2, content: 60 liter	1	6812103
Dräger: Calibration gas 112L, 2,2% CH4, 18% O2-N2	1	6811646
Dräger: Calibration gas 112L H2S, CO2, CH4, O2-N2	1	6812376
Dräger: Regulator 0.5 L/min	1	6810397

Dräger Accuro®

Measurements are often taken under extreme conditions: on ladders, in shafts, at spots difficult to access, often with additional respiratory protection. For your own safety, one hand must always remain free. Accuro® is robust, inexpensive and easy to service, and can be operated single-handedly.

Dräger Accuro®
Robust, inexpensive and easy to service

Safety management with one single hand
Often measurements need to be done in difficult areas. For those kind of situations the Dräger Accuro is the perfect measurement tool.

The Dräger tube
The Dräger-Tube system is an established method for measuring and detecting contaminants in the soil, water and air. Today we distinguish between short-term detector tubes, long-term detector tubes and long-term measurement systems. Short-term detector tubes require anything from 10 seconds to 15 minutes. Long-term tubes perform measurements in 0.5 to 8 hours. Among the long-term measurement systems are the direct-reading diffusion tubes and badges whose measurement process does not require a gas detection pump. Sampling tubes are used when the user has no knowledge of the hazardous substance composition.

Applications
They can be used in an extremely wide range of applications, from the monitoring of workplaces and living areas, ventilation systems or emission sources, to process control and quality control. Dräger-Tubes are kept current at all times through the continuous development and rapid adaptation to new legal requirements such as limit values, as well as research into new detection techniques.

Dräger Accuro in bag
Dräger Accuro soft side kit (in carrying case), content:
- Dräger tube pump Accuro
- tube opener
- set of spare parts
- size bag: 185 (l) x 170 (w) x 130 (d) mm
- nylon carrying case with extra space for 7 boxes of Dräger tubes - excluding Dräger tubes

TECHNICAL SPECIFICATIONS

Dimensions (w x h d)	170 x 45 x 85 mm
Stroke volume	100 ± 5 cm^3
Weight	250 gr
Ambient conditions	Temperature -20°C to +50°C
	Relative humidity: 0 - 95% non-condensing
Approvals	CE certified (EN 0158),
	ATEX: I M1, II 1GD IIB 85 °C T6, II 2G IIC T6
	-20 °C ≤ Ta ≤ +50 °C, DIN EN ISO 17621

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Accuro handpump	1	6400000
Dräger Accuro adapter	1	6400076
Dräger Accuro extension hose: 3 meter	1	6400077
Dräger Accuro extension hose: 10 meter	1	6400078
Dräger Accuro extension hose: 15 meter	1	6400079
Dräger Accuro soft side kit (in carrying case)	1	8317186

Dräger X-act® 5000

The automatic tube pump Dräger X-act 5000 is the first all-in-one solution designed for measurements with Dräger short-term tubes and for sampling tubes and systems. Ease of operation and a high degree of reliability compliment the measurement and sampling of gases, vapors and aerosols.

Dräger X-act® 5000
Versatile and robust

Versatile and robust

The Dräger X-act 5000 introduces a new era of gas measurement: Only one device is necessary for measuring and sampling. The automatic tube pump is compatible with Dräger short-term tubes as well as sampling tubes and systems. The robust housing supports the use of the pump to perform the daily measuring tasks under tough conditions. The IS approved (pending) Dräger X-act 5000 can be used for confined space applications and in explosive gas atmospheres.

New pump concept

The key principle is the ability to provide the required flow characteristics of the Dräger Short-term Tubes, while also providing the option to be used with Sampling Tubes and Systems requiring constant flow. Compared to the Dräger accuro hand pump, this new concept reduces the average measurement time of the Dräger Short-term Tubes in case of a high number of strokes. The internal pump is also designed to use extension hoses up to a length of 30 meters (98 ft.).

Simplicity of operation

The handling of gases, vapors and aerosols has never been easier. The automatic tube pump Dräger X-act 5000 directs the air to be measured through the appropriate Dräger-Tubes effortlessly. It is comfortably carried with one hand or using the shoulder strap and is easily operated, even wearing protective gloves. A simple and intuitive menu structure provides the user efficient operation with just a few button presses. Using the password-protected menu repetitive operating modes can be set.

Automatic transfer of measurement parameters

A barcode printed on the label on the backside of a Dräger Short-term Tube box contains all relevant measurement parameters. Simply sliding the barcode over the barcode reader of the pump, automatically transfers the name of the substance to be measured, the number of strokes, and the measuring range to the display. The required steps to carry out the measurement are simplified with the Dräger X-act 5000 and the possibility of making an error is reduced to a minimum.

Measurement in technical gases

To evaluate measurements in technical gases, the properties of the technical gas must be taken into consideration. Technical gases have a different viscosity than ambient air. Therefore, the flow of the pump must be set accordingly. Following the operating steps in the mode „Measurement in Technical Gases", the Dräger X-act 5000 will automatically be adjusted to the required flow parameter and the measurement result can be read directly.

Direct settings for sampling

Depending on the Sampling Tubes or Systems, the required parameters for the test can be set directly, without the need for an external flow meter. The Dräger X-act 5000 automatically adjusts the flow rate. After setting the sampling time the pump can immediately be started. At the end of the measurement the pump will stop automatically. The set data, the elapsed time and the pumped volume will be indicated on the display.

TECHNICAL SPECIFICATIONS

Short-term measurements, number of strokes	adjustable, 1 to 199 strokes
Short-term measurements, stroke volume	100 ml
Flow rate range, sample taking	0.1 to 2.0 L/min Resolution 0.1 to 1.0 L/min: 0.1 L/min ± 5% Resolution 1.0 to 2.0 L/min: 0.2 L/min ± 5%

Dräger X-act® 5000

Sampling time	adjustable, up to 12 hours, depending on flow rate
	Resolution in steps of 15 minutes (default) or 1 minute
Display	Two parts: segment and matrix
Menu languages	Danish, Dutch, English, Finnish, French, German, Italian, Norwegian, Polish, Spanish, Swedish
Use of extension hose	up to 30 meter (98 ft.)
Dimensions (H x W x D)	approx. 175 x 230 x 108 mm (7" x 9" x 4.25")
Weight (without battery pack)	approx. 1.6 kg (3.5 lbs)
Temperature during storage	-20 to 55 ℃ (-4 to 131 ℉)
Temperature during operation	5 to 40 ℃ (41 to 104 ℉)
Humidity	0 to 95% r. h., non-condensing
Pressure	700 to 1300 hPa (10.2 to 18.9 psi)
Approvals	ATEX: Ex ia IIC T4 Ga, Ex ia I Ma, I M 1 / II 1G
	MED: Steering Wheel approval 96/98 EC
	UL: Class I, Div. 1, Group A, B, C, D, Class II, Div. 1, Group F, G, 5 ℃ ≤ Ta ≤ + 40 ℃ Temp. Code T4 Ex ia
	cUL: Class I, Div. 1, Group A, B, C, D, Class II, Div. 1, Group F, G, 5 ℃ ≤ Ta ≤ + 40 ℃ Temp. Code T4 Ex ia
	IECEx: Ex ia IIC T4 Ga
	CE-mark: according to 2004/108/EC and 94/9/EC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-act® 5000, shoulderstrap without power supply	1	3707674
Dräger X-act 5000 NiMh Battery	1	4523520
Alkaline Battery Pack, T4 w/o Batteries (6 batteries required)	1	4523525
Wall-Wart Charger 100 – 240 VAC (worldwide)	1	4523545

Dräger X-act® 7000

The innovative Dräger X-act® 7000 analysis system consists of Dräger MicroTubes and an opto-electronic analysis device that lets you precisely measure gases in the low ppb range. It gives you precise results right on site, replacing slow, expensive lab analyses. It's extremely easy to use: insert the Dräger MicroTubes, start measuring, then read out the test result.

Dräger X-act® 7000
To be used with Dräger MicroTubes

Multi-Gas Detector
- opto-electronic analysis system for selective detection of carcinogenic and toxic substances
- lab quality measurement in ppb range
- to be used with Dräger MicroTubes
- with coupler and X-am pump suitable for CSE

Measures the lowest-quantity concentrations with lab-quality analysis
Concentrations of hazardous substances in ambient workplace air must never exceed the defined limits. Monitoring these sometimes very low concentration levels is a responsible task. The Dräger X-act 7000 in combination with Dräger MicroTubes is focussed on measuring carcinogenic and toxic substances in the low ppb range. This sensitive testing system is based on colorimetric chemical sensors. These are capable of replacing conventional laboratory analysis and providing precise results right on site. This saves time and money.

More safety thanks to high selectivity
The substance-specific reactive layers and multiple pre-layers in the Dräger MicroTubes allow for selective gas testing. The various layers serve as a filter, for example. During testing, they filter out other substances that occur in the workplace so that only the target substance is reflected in the test result. This greatly eliminates cross-sensitivities and reduces the number of false-positive test results and false alarms.

Explosion-proof and ready to use
The RFID tags applied to the Dräger MicroTubes contain all the calibration data that apply throughout their normal lifespan of one year. This eliminates the need for lengthy function tests and manual calibration. Because it works on the basis of mass-flow measurement, air pressure fluctuations have no influence on the device. Any possible temperature or humidity influences are already accounted for during the factory calibration. The analyser is explosion-proof and certified under ATEX/IECEx for Zone 0. The system is also dust- and splash-resistant in accordance with IP54. It also meets the requirements for electromagnetic compatibility under EN 61326-1.

Easy to use
After an automatic self-test, the X-act 7000 analysis system is immediately ready for use. It is suitable for testing with all available Dräger MicroTubes. Simply insert the right Dräger MicroTube for your testing needs. The automatic drive carefully draws the MicroTube in and positions it. Control your test using the 3-button control and 2.4 inch colour display. When the test is complete, the green LED will glow and a message is displayed on the screen. You can store the test result, location and time in the internal data logger and read it later using the Dräger CC Vision software. The device is powered by five easily replaceable standard batteries. The battery life lasts for more than ten hours of testing and can be read on the display.

Also suitable for pump-assisted testing
Using the coupler (connector piece), the Dräger X-am® Pump can be adapted to the X-act 7000. This allows you to test for carcinogenic and toxic substances in the ppb range, even in hard-to-reach places like ducts, pipelines or tanks up to a distance of 45 metres (147.6 feet). Because the X-am Pump is also certified explosion-proof for Zone 0, it is perfectly suited for these tasks.

TECHNICAL SPECIFICATIONS

Measuring range and resolution	varies, depending on the Dräger MicroTubes in use
Typical testing time	from 5 seconds to 1,200 seconds, depending on the Dräger MicroTubes in use and the concentration of the test substance.
Ready to use	immediately

Dräger X-act® 7000

Calibration	not necessary
Operating temperature	0 to +40 ℃
Storage temperature	-20 to +60 ℃ (Analyser)
	+4 to +25 ℃ (Dräger MicroTubes)
Air pressure	700 to 1,300 hPa
Humidity	0 to 95 % relative humidity, non-condensing
Recording of measured data	CMOS sensor optics and LED light
System diagnostics	Automatic, using micro-controllers for all system components
Display	2.4 inch high contrast, colour display with a resolution of
	240 x 320, viewing angle of 160°
Menu language	30
Operating time	Approx. 600 minutes of testing time
Power supply	5 x 1.5 v batteries
Dimensions (L x W X H)	195 mm x 85 mm x 70 mm
Protection class	IP54, dust and splash-resistant
Approvals	ATEX/IECEx, II 1G Ex ia IIC T4 Ga

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-act 7000:		
Consists of basic device X-act 7000, incl. batteries, shoulder strap complete, MicroTube Demo, Torx T10 screwdrawer,		
USB cable 2 meter with mini-connection. See Datasheet for more order information.		
Dräger X-act® 7000	1	8610800
Dräger MicroTube: Methyl-tert-butyl ether (MTBE)	1	8610530

Dräger Tubes

Tried and tested a million times: worldwide, the Dräger short-term detector tubes have proven to be a very cost-effective and reliable way for the measurement of gas.

What is the Drager Tube® system?
DrägerTubes are glass vials filled with a chemical reagent that reacts to a specific chemical or family of chemicals. A calibrated 100 ml sample of air is drawn through the tube with the Dräger Accuro® bellows pump. If the targeted chemical(s) is present the reagent in the tube changes color and the length of the color change typically indicates the measured concentration. The Dräger Tubes System is the world's most popular form of gas detection.

Fast and reliable measuring
More than 200 different Dräger-tubes are available make spot measurements for over 500 gases and vapors.

Easy to use
The short-term Dräger tubes are employed manually together with the Dräger Accuro gas detection pump or automatically together with the pump Accuro 2000 or the compact microprocessor-controlled Quantimeter 1000.

Field applications
A great number of different gases and vapors can be measured by the short-term Dräger tubes. These tubes are used e.g. for the determination of concentration peaks, the measurement of exposures in the inhalation area, the determination of possible leakages as well as for the analysis of air in sewers, shafts, tanks or other confined spaces.

Dräger Tubes
Fast and reliable measuring

ORDER INFORMATION

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Acetaldehyde 100/a	100-1,000 ppm	5	10 per box	6726665
Dräger tube: Acetic acid 5/a	5-80 ppm	30 s	10 per box	6722101
Dräger tube: Acetone 40/a	400-800 ppm	1	10 per box	8103381
Dräger tube: Acetone 100/b	100-12,000 ppm	4	10 per box	CH22901
Dräger tube: Acid Test	qualitative	3 s	10 per box	8101121
Dräger tube: Acrylonitrile 0.2/a	0.2-4 ppm / 5-50 ppm	20 / 5	10 per box	8103701
Activation tube for formaldehyde 0.2/a			10 per box	8101141
Dräger tube: Methanol 20/a	20-5,000 ppm	2	10 per box	8103801
Dräger tube: Amine test	qualitative	5 s	10 per box	8101061
Dräger tube: Ammonia 0.25/a	0.25-3 ppm	1	10 per box	8101711
Dräger tube: Ammonia 0.5%/a	0.5-10 Vol.-%	20 s	10 per box	CH31901
Dräger tube: Ammonia 2/a	2-30 ppm	1	10 per box	6733231
Dräger tube: Ammonia 5/a	5-70 ppm / 50-600 ppm	6 s / 10 s	10 per box	CH20501
Dräger tube: Ammonia 5/b	5-100 ppm	10 s	10 per box	8101941
Dräger tube: Ammonia 20/a-d	2.5-1,500 ppm	10 s	10 per box	8101301
Dräger tube: Aniline 0.5/a	0.5-10 ppm	4	10 per box	6733171
Dräger tube: Arsine 0.05/a	0.05-3 ppm	6	10 per box	CH25001
Dräger tube: Benzene 0.25/a	0.25-2 ppm / 2-10 ppm	5 / 1	10 per box	8103691
Dräger tube: Benzene 2/a	2-60 ppm	8	5 per box	8101231
Dräger tube: Benzene 5/a	5-40 ppm	3	10 per box	6718801
Dräger tube: Benzene 5/b	5-50 ppm	8	10 per box	6728071
Dräger tube: Benzene 15/a	15-420 ppm	4	10 per box	8101741
Dräger tube: Benzene prefilter			1 per box	8103511
Dräger tube: n-Butanol 10/a	10-250 ppm / 250-2.000 ppm	6 / 1	10 per box	8103861

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20ºC, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Carbon dioxide 0.1%/a	0.5-6 Vol.-% / 0.1-1.2 vol%	30 s / 2.5 m	10 per box	CH23501
Dräger tube: Carbon dioxide 0.5%/a	0.5-10 Vol.-%	30 s	10 per box	CH31401
Dräger tube: Carbon dioxide 1%/a	1-20 Vol.-%	30 s	10 per box	CH25101
Dräger tube: Carbon dioxide 100/a	100-3,000 ppm	4	10 per box	8101811
Dräger tube: Carbon dioxide 5%/a	5-60 Vol.-%	2	10 per box	CH20301
Dräger tube: Carbon disulfide 3/a	3-95 ppm	2	10 per box	8101891
Dräger tube: Carbon disulfide 5/a	5-60 ppm	3	10 per box	6728351
Dräger tube: Carbon monoxide 2/a	2-60 ppm / 25-300 ppm	4 m / 50 s	10 per box	6733051
Dräger tube: Carbon monoxide 5/c	100-700 ppm / 5-150 ppm	50 s / 150 s	10 per box	CH25601
Dräger tube: Carbon monoxide 8/a	8-150 ppm	2	10 per box	CH19701
Dräger tube: Carbon monoxide 10/b	100-3,000 ppm / 10-300 ppm	20 s / 4 m	10 per box	CH20601
Dräger tube: Carbon preset tubes				CH24101
Dräger tube: Carbon tetrachloride 0.1/a	0.1-5 ppm	2.5 m	10 per box	8103501
Dräger tube: Carbon tetrachloride 1/a	1-15 ppm / 10-50 ppm	6 / 3	10 per box	8101021
Dräger tube: Chlorine 0.2/a	0.2-3 ppm	3	10 per box	CH24301
Dräger tube: Chlorobenzene 5/a	5-200 ppm	3	5 per box	6728761
Dräger tube: Chlorodioxide 0.025/a	0.1-1 ppm / 0.025-0.1 ppm	2.5 m / 7.5 m	10 per box	8103491
Dräger tube: Chloroform 2/b	2-10 ppm 20-80 ppm	10 / 3	5 per box	6728861
Dräger tube: Chloroformates 0.2/b	0.2-10 ppm	3	10 per box	6718601
Dräger tube: Chloropicrine 0.1/a	0.1-2 ppm	7.5	10 per box	8103421
Dräger tube: Chloroprene 5/a	5-60 ppm	3	10 per box	6718901
Dräger tube: Cyanide 2/a	2-15 mg/m^3	2.5	10 per box	6728791
Dräger tube: Cyclohexane 40/a	40-200 ppm / 300-3,000 ppm	75 s / 15 s	10 per box	8103671
Dräger tube: Chromic acid 0.1/a	0.1-0.5 mg/m^3	8	9 per box	6728681
Dräger tube: Diesel Fuel	25-200 mg/m^3	2.5	10 per box	8103475
Dräger tube: Diethyl ether 100/a	100-4,000 ppm	3	10 per box	6730501
Dräger tube: Dimethyl sulfate 0.005/c	0.005-0.05 ppm	50	9 per box	6718701
Dräger tube: Dimethyl sulfide 1/a	1-15 ppm	15	5 per box	6728451
Dräger tube: Dimethyl formamide 10/b	10-40 ppm	3	10 per box	6718501
Dräger tube: Epichlorohydrin 5/c	5-80 ppm	8	10 per box	6728111
Dräger tube: Ethyl acetate 200/a	200-3,000 ppm	5	10 per box	CH20201
Dräger tube: Ethanol 100/a	100-3,000 ppm	1.5	10 per box	8103761
Dräger tube: Ethyl benzene 30/a	30-400 ppm	2	10 per box	6728381
Dräger tube: Ethylene 0.1/a	0.2-5 ppm	30	5 per box	8101331
Dräger tube: Ethylene 50/a	50-2,500 ppm	6	10 per box	6728051
Dräger tube: Ethylene glycol 10/a	10-180 mg/m^3	7	5 per box	8101351
Dräger tube: Ethylene oxide 1/a	1-15 ppm	8	5 per box	6728961
Dräger tube: Ethylene oxide 25/a	25-500 ppm	6	10 per box	6728241
Dräger tube: Formaldehyde 0.2/a	0.5-5 ppm / 0.2-2.5 ppm	1.5 / 3	10 per box	6733081
Dräger tube: Formaldehyde 2/a	2-40 ppm	30 s	10 per box	8101751
Dräger tube: Formic acid 1/a	1-15 ppm	3	10 per box	6722701
Dräger tube: Halogenated Hydrocarbons 100/a	200-2,600 ppm	1	8 per box	8101601
Dräger tube: Hexane 10/a	10-200 ppm / 300-2,500 ppm	75 s / 15 s	10 per box	8103681
Dräger tube: Hydrazine 0.01/a	0.01-0.4 ppm / 0.5-6 ppm	20-30 / 1	10 per box	8103351
Dräger tube: Hydrazine 0.25/a	0.25-10 ppm / 0.1- 5 ppm	1 / 2	10 per box	CH31801
Dräger tube: Hydrocarbons 2/a	2-24 mg / L	5	10 per box	8103581

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Hydrocarbon 0.1%/c	0.1-1.3 Vol.-%Propane 0.1-1.3 Vol.-%Butane 0.1-1.3 Vol.-%mix 1:1	3	10 per box	8103571
Dräger tube: Hydrochloric/Nitric acid 1/a	1-10 ppm / 1-15 ppm	1.5 / 3	10 per box	8101681
Dräger tube: Hydrochloric acid 0.2/a	0.2-3 ppm / 3-20 ppm	2 m / 0.4 m	10 per box	8103481
Dräger tube: Hydrochloric acid 1/a	1-10 ppm	2	10 per box	CH29501
Dräger tube: Hydrochloric acid 50/a	500-5,000 ppm / 50-500 ppm	30 s / 5 m	10 per box	6728181
Dräger tube: Hydrocyanic Acid 0.5/a	0.5-5 ppm / 5-50 ppm	2.5 / 30 s	10 per box	8103601
Dräger tube: Hydrogen acid 0.2%/a	0.2-2.0 Vol.-%	1	10 per box	8101511
Dräger tube: Hydrogen acid 0.5%/a	0.5-3.0 Vol.-%	1	10 per box	CH30901
Dräger tube: Hydrogen fluoride 0.5/a	0.5-15 ppm / 10-90 ppm	2 m / 25 s	10 per box	8103251
Dräger tube: Hydrogen fluoride 1.5/b	1.5-15 ppm	2	10 per box	CH30301
Dräger tube: Hydrogen peroxide 0.1/a	0.1-3 ppm / 1 ppm	3 m / 18 s	10 per box	8101041
Dräger tube: Hydrogen sulfide + Sulfur dioxide 0.2%/a	0.2-7 Vol.-%	2	10 per box	CH28201
Dräger tube: Hydrogen sulfide 0.2%/a	0.2-7 Vol.-%	2	10 per box	CH28101
Dräger tube: Hydrogen sulfide 0.2/a	0.2-5 ppm	5	10 per box	8101461
Dräger tube: Hydrogen sulfide 0.2/b	0.2-6 ppm	55 s	10 per box	8101991
Dräger tube: Hydrogen sulfide 0.5/a	0.5-15 ppm / 5-150 ppm	6 m / 40 s	10 per box	6728041
Dräger tube: Hydrogen sulfide 1/c	10-200 ppm / 1-20 ppm	20 s / 3 m	10 per box	6719001
Dräger tube: Hydrogen sulfide 1/d	10-200 ppm / 1-20 ppm	1 / 10	10 per box	8101831
Dräger tube: Hydrogen sulfide 100/a	100-2,000 ppm	30 s	10 per box	CH29101
Dräger tube: Hydrogen sulfide 2%/a	2-40 Vol.-%	1	10 per box	8101211
Dräger tube: Hydrogen sulfide 2/a	20-200 ppm / 2-20 ppm	20 s / 3.5 m	10 per box	6728821
Dräger tube: Hydrogen sulfide 2/b	2-60 ppm	30 s	10 per box	8101961
Dräger tube: Hydrogen sulfide 5/b	5-60 ppm	4	10 per box	CH29801
Dräger tube: Mercaptan 0.1/a	0.1-2.5 ppm / 3-15 ppm	3 m / 40 s	10 per box	8103281
Dräger tube: Mercaptan 0.5/a	0.5-5 ppm	5	10 per box	6728981
Dräger tube: Mercaptan 20/a	20-100 ppm	2.5	10 per box	8101871
Dräger tube: Mercury vapor 0.1/b	0.05-2 mg/m^3	10	10 per box	CH23101
Dräger tube: Methyl acrylate 5/a	5-200 ppm	5	10 per box	6728161
Dräger tube: Methyl bromide 0.1/a	0.1-5 ppm / 5-50 ppm	8 / 4	10 per box	3706301
Dräger tube: Methylene chloride 20/a	20-200 ppm	7	10 per box	8103591
Dräger tube: Natural gas test	qualitative	100 s	5 per box	CH20001
Dräger tube: Nickel tetracarbonyl 0.1/a	0.1-1 ppm	5	9 per box	CH19501
Dräger tube: Nitric acid1/a	5-50 ppm / 1-15 ppm	2 / 4	10 per box	6728311
Dräger tube: Nitrogen dioxide 2/c	5-100 ppm / 2-50 ppm	1 / 2	10 per box	6719101
Dräger tube: Nitrogen dioxide 0.1/a	5-30 ppm / 0.1-5 ppm	15 s / 75 s	10 per box	8103631
Dräger tube: Nitrous fumes 0.2/a	0.2-6 ppm	75 s	10 per box	8103661
Dräger tube: Nitrous fumes 2/a	5-100 ppm / 2-50 ppm	1 / 2	10 per box	CH31001
Dräger tube: DR Nitrous fumes 50/b	50-1,000 ppm / 2,000-4,000 ppm	120 s / 60 s	10 per box	8103941
Dräger tube: Oil mist 1/a	1-10 mg/m^3	25	10 per box	6733031
Dräger tube: Olefine 0.05%/a	0.06-3.2 Vol.-% proylene / 0.04-2.4 Vol.-% butylene	5	10 per box	CH31201
Dräger tube: Oxygen 5%/B	5-23 Vol.-%	1	8 per box	6728081
Dräger tube: Oxygen 5%/C	5-23 Vol.-%	1	10 per box	8103261
Dräger tube: Ozone 0.05/b	0.05-0.7 ppm	3	10 per box	6733181
Dräger tube: Ozone 10/a	20-300 ppm	20 s	10 per box	CH21001
Dräger tube: Pentane 100/a	100-1,500 ppm	15 s	10 per box	6724701
Dräger tube: Perchloroethylene 0.1/a	0.5-4 ppm / 0.1-1 ppm	3 / 9	10 per box	8101551

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20ºC, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Perchloroethylene 2/a	20-300 ppm / 2-40 ppm	30 s / 3 m	10 per box	8101501
Dräger tube: Petroleum hydrocarbons 10/a	10-300 ppm	1	10 per box	8101691
Dräger tube: Petroleum hydrocarbons 100/a	100-2,500 ppm	30 s	10 per box	6730201
Dräger tube: Phenol 1/b	1-20 ppm	5	10 per box	8101641
Dräger tube: Phosgene 0.02/a	0.02-1 ppm / 0.02-0.6 ppm	6 / 12	10 per box	8101521
Dräger tube: Phosphine 0.01/a	0.1-1 ppm / 0.01-0.3 ppm	2,5 / 8	10 per box	8101611
Dräger tube: Phosphine 0.1/b in Acetylene	1-15 ppm / 0.11-1 ppm	20 s / 4	10 per box	8103341
Dräger tube: Phosphine 0.1/c	0.5-3 ppm / 0.1-1 ppm	1 / 2.5	10 per box	8103711
Dräger tube: Phosphine 1/a	10-100 ppm / 1-20 ppm	2 / 10	10 per box	8101801
Dräger tube: Phosphine 50/a	50-1,000 ppm	2	10 per box	CH21201
Dräger tube: Phosphoric acid ethers 0.05/a	0.05 ppm Dichloorvos	5	10 per box	6728461
Dräger tube: Polytest	qualitative	1.5	10 per box	CH28401
Dräger tube: i-Propanol 50/a	50-5,000 ppm	2.5 m	10 per box	8103741
Dräger tube: Pyridine 5/a	5 ppm	20	10 per box	6728651
Dräger tube: Styrene 10/a	10-200 ppm	3	10 per box	6723301
Dräger tube: Styrene 10/b	10-250 ppm	3	10 per box	6733141
Dräger tube: Styrene 50/a	50-400 ppm	2	10 per box	CH27601
Dräger tube: Sulfur dioxide 0.1/a	0.1-3 ppm	20	10 per box	6727101
Dräger tube: Sulfur dioxide 0.5/a	1-25 ppm / 0.5-5 ppm	10 / 20	10 per box	6728491
Dräger tube: Sulfur dioxide 1/a	1-25 ppm	3	10 per box	CH31701
Dräger tube: Sulfur dioxide 20/a	20-200 ppm	3	10 per box	CH24201
Dräger tube: Sulfur dioxide 50/b	400-8,000 ppm / 50-500 ppm	15 s / 3 m	10 per box	8101531
Dräger tube: Sulfuric acid 1/a	1-5 mg/m^3	100	9 per box	6728781
Dräger tube: Tetrahydrothiophene 1/b	1-10 ppm	15 in air	5 per box	8101341
Dräger tube: Toluene 5/b	50-300 ppm / 5-80 ppm	2 / 10	10 per box	8101661
Dräger tube: Toluene 50/a	50-400 ppm	1.5	10 per box	8101701
Dräger tube: Toluene 100/a	100-1,800 ppm	1.5	10 per box	8101731
Dräger tube: Toluene diisocyanate 0.02/a	0.02-0.2 ppm	20	9 per box	6724501
Dräger tube: Trichloroethane 50/d	50-600 ppm	1.5	5 per box	CH21101
Dräger tube: Trichloroethylene 2/a	20-250 ppm / 2-50 ppm	1.5 / 2.5	10 per box	6728541
Dräger tube: Triethylamine 5/a	5-60 ppm	3	10 per box	6718401
Dräger tube: Vinyl chloride 0.5/b	5-30 ppm / 0.5-5 ppm	30 s / 2.5 m	10 per box	8101721
Dräger tube: Vinyl chloride 100/a	100-3,000 ppm	3	10 per box	CH19601
Dräger tube: Water vapour 0.1	1-40 mg/L	2	10 per box	CH23401
Dräger tube: Water vapour 0.1/a	0.1-1.0 mg/L	1.5	10 per box	8101321
Dräger tube: Water vapour 1/b	20-40 mg/L / 1-18 mg/L	20 s / 40 s	10 per box	8101781
Dräger tube: Water vapour 3/a	3.0-60 lbs/mmcf	90 s	10 per box	8103031
Dräger tube: Xylene 10/a	10-400 ppm	1	10 per box	6733161
Dräger Aerotest: compressor air quality check:				
Dräger: Aerotest Ammonia 2/a	0.6-9 ppm	5	10 per box	6733231
Dräger: Aerotest Carbon dioxide 100/a-P	100-3,000 ppm	5	10 per box	6728521
Dräger: Aerotest Carbon monoxide 5/a-P	5-150 ppm	5	10 per box	6728511
Dräger: Aerotest Oil 10/a-P	0.1-1 mg/m^3	see details in instructions manual	10 per box	6728371
Dräger: Aerotest Water vapor 20/a-P	20 -250 ppm	10	10 per box	8103061
Dräger: Aerotest Water Vapour 5/a-p	5 -200 mg/m^3		10 per box	6728531
Dräger Areotest: Impaktor	0,1-1 mg/m^3	10	1	8103560
Dräger Aerotest: Adapter Impactor			1	8103557

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger Aerotest: Holder			1	CH07000
Dräger tube: Simultaneous Test-Set I			1	8101735
Dräger tube: Simultaneous Test-Set II			1	8101736
Dräger tube: Simultaneous Test-Set III			1	8101770
Dräger: Tubes book English - edition 21 -			1	9092086

Dräger Fumigation Test Kit

The Dräger-Tube® measurement system provides an easy method for testing containers and other spaces for the presence of fumigation agents. A specially developed measuring strategy allows for the detection of fumigants even when the chemical is unknown. The Dräger Fumigation Test Set can be equipped with all of the necessary components for this measurement.

Dräger Fumigation Test Kit
Quick and easy way to determine whether a container has been fumigated

Hazards caused by fumigants
To prevent goods from being damaged by animals such as insects and other disease carriers, containers are flooded with toxic or suffocating gases.

Fumigants are highly toxic and harmful to the health in many ways. To ensure adequate protection, the concentration of the fumigants used must be measured.

Relevant for all personnel present during:
- the start or finish of the fumigation process
- the opening of transport containers or other confined spaces
- the loading or unloading of fumigated products from transport containers
- the removal of fumigated goods from packaging materials
- transportation (in case of leakages)

Determine the type and concentration of fumigants
Suitable measurement instruments are used to determine the type and concentration of fumigants before opening a container or entering other spaces. Thereby, it is important to check the Oxygen concentration in the container or other spaces. When inert gases have been used, they will displace Oxygen and this results in a very high probability of suffocation. A leakage in one individual package is one example of a relatively simple cause for this.

Mobile and quick
The well-known Dräger-Tube measuring method is an easy way to perform measurements. In only a few minutes, the concentration of the fumigants within the container can be determined. Depending on the concentration measured, the decision can be made whether the container or space can be entered or ventilated.

Even when a container has not been declared correctly or the labeling is no longer legible, the Dräger measuring strategy will assist in the identification and detection of the fumigation agents.

Easy to use
For several decades, Dräger-Tubes have been renowned for their ease of use and high degree of measurement accuracy. Even without special training, the Dräger Tubes, which were especially developed for this application, provide reliable test results. Dräger-Tubes are ready for use at any time. All that is needed are the corresponding tubes, the Dräger accuro® hand pump, and the Dräger bar probe. By comparing the color change within the detector tube to the printed scale, an estimation of the concentration can be made.

Recommended measurement strategy
If the fumigant is known, the corresponding Dräger-Tube is chosen and the measurement carried out as instructed. If the measurement result is too high, then the container or space should be ventilated. A new measurement should be taken at periodic intervals and, when the concentration is low enough, the container or room can be released for entry. If the concentration detected is below the defined maximum limit, the container or room can be opened and entered.

The measurement of fumigants should take place while the container is still closed. To do this, insert the Dräger Bar Probe (order code 83 17 188) e.g. through the rubber seal of the container door. The probe should be used to lift the rubber seal of the container at its lowest point and pushed as far as possible into the container. The Dräger-Tubes should then be prepared for measurement and attached to the bar probe. The necessary pump strokes for the measurement should then be made by using the Dräger gas detection pump.

If the fumigant is not known, the use of the Dräger Simultest Fumigation is recommended to determine which chemical has been used. This test set allows for the measurement of five typical fumigation agents at the same time:

Dräger Fumigation Test Kit

Ammonia or Ethylene Oxide, Methyl Bromide, Hydrocyanic Acid, Phosphine and Formaldehyde.

Use of Dräger Tubes

In addition, the following Dräger Tubes should be used for the measurement of Ethylene Oxide, Carbon Dioxide, and Sulfuryl Fluoride: Ethylene Oxide 1/a Measuring range from 1 to 15 ppm, Carbon Dioxide 0,1 %/a Measuring range from 0.1 to 1.2 Vol.-% and Sulfuryl Fluoride 1/a Measuring range from 1 to 5 ppm.

Additional information

When one or more gases are present, the container or space should be ventilated with air before entry and individual Dräger Tubes used to test the concentrations of the corresponding gases periodically.

If personnel should be equipped with personal air monitors for the measurement of Oxygen, Dräger offers a complete line of measurement and warning devices equipped with electrochemical sensors for this purpose. To determine a potential risk of explosion, Dräger measurement and warning devices equipped with an infrared Ex-sensor should be used. Gas detectors that use catalytic ex-sensors are not appropriate as they do not operate in inert atmospheres.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Accuro	1	6400000
Bar Probe 400 for the measurement of fumigants in containers	1	8317188
Extension hose for Dräger accuro, 1 meter	1	6400561
Spare parts set for Dräger accuro	1	6400220
Dräger tube: Ammonia 5/a	10 per box	CH20501
Dräger tube: Benzene 0.25/a	10 per box	8103691
Dräger tube: Carbon Dioxide 0.1%/a	10 per box	CH23501
Dräger tube: Chloropricine 0.1/a	10 per box	8103421
Dräger tube: Ethylene Oxide 1/a	5 per box	6728961
Dräger tube: Oxygen 5%/C	10 per box	8103261
Dräger tube: Phosphine 0.01/a	10 per box	8101611
Dräger tube: Phosphine 0,1/c	10 per box	8103711
Dräger tube: Sulfuryl Fluoride 1/a	10 per box	8103471
Dräger tube: Toluene 5/b	10 per box	8101661

Dräger Configuration and Evaluation Software

Save measurement results, professionally configure gas detection instruments and viewing performance data – all that is possible with the tailor-made Dräger software.

Dräger CC-Vision and GasVision
Customized software

Configuration of gas detectors
The software CC-Vision is the premium choice to configure your portable gas detector: easy use, comprehensive possibilities for configuration and saving individual settings. Moreover, CC-Vision can generate templates, used by X-dock to configure complete gas detector fleets. The best: CC-Vision is free of charge!

Data evaluation
The software GasVision 7 is the key to a benifical analysis of data collected by portable gas detectors. Analysing the graph, calculating average and finding peak values, creating excel exports and printing tables and charts - GasVision 7 is the ideal tool. In conjunction with X-dock Manager, GasVision 7 gets data logger read out by X-dock with a simple mouse-click.

Calibration
CC-Vision can show the response curve during calibration and can document the calibration results. If you don't own an X-dock system for calibration, CC-Vision is the next best way to ease your life.

Real time measurements
GasVision 7 supports most of the Dräger portable gas detectors in regards to real time measurements. See the values immediately on your PC while the gas detector is measuring it.

Free download
You can download Dräger CC Vision free of charge. Visite the following website: https://www.draeger.com/en uk/Software-Download

ORDER INFORMATION

Description	Unit Sales	Articlenr
Gasvision 7 software - license key - software GasVision	1	8325646
Download via Dräger website (free of charge during 45 days)		
USB DIRA cable	1	8317409
Dräger CC Vision - free for download via www. draeger.com/software		

Dräger X-dock® Manager

The Dräger X-dock® Manager keeps you informed about whether your existing Dräger gas detection devices are ready for use. It also notifies you when it's time for regular maintenance and keeps track of all testing, including results. It's never been easier to record and analyse statistical data. With the asset management software, you can be sure your fleet of devices is ready for optimal use.

Dräger X-dock Manager
Keeps you informed about whether your existing Dräger gas detection devices are ready for use

Digital documentation
No more manual record-keeping or test procedures: the Dräger X-dock Manager automates the documentation of all tests performed. To do this, the network-connected Dräger X-dock stations send data to the X-dock Manager server. Data from non-connected Dräger X-dock stations can be transferred using a USB thumb drive. New gas detection devices in the fleet are automatically integrated. Test results are available at all times, along with comprehensive calibration certificates.

Reporting at the push of a button
At the push of a button, the X-dock Manager prepares comprehensive reports with information about the frequency and results of tests, ongoing alarm reports or whether specific devices are available/currently in use. You can structure, analyse and send this information by e-mail. Reporting can be done periodically or ad hoc, for example in the event of an exceptional incident.

Cockpit for direct overview
The cockpit function prepares data and compiles it for utilization analysis and predictive planning. New test reports, alarm reports and device availability data can be quickly and clearly displayed here. Simply click the tabs to see detailed information.

Device assignment and user management
The user management function lets you allocate the devices to specific users. This is done using bar codes or RFID, along with a scanner, so there is never any manual data entry. The documentation is created automatically. This means you can always see who has received and returned which device,

when and where. If calibration and bump testing are not performed until the device has been assigned to someone, then the user will also be documented in the certificate that is issued by the X-dock Manager.

Licensing packages
For users who have only one Dräger X-dock station, the single license is the perfect choice. Where there are many alarms or multiple network-connected X-dock stations, we recommend a network license. These are perpetual licenses. During the first year of use, updates are included at no cost. After that, you can purchase a subscription to continue receiving updates. The updates include new features, new operating system versions, security updates and more.

Database back-ups and individual settings
To protect against data loss, automatic backups of the database are included. The X-dock Manager can also be configured individually. You can also adjust the language settings, columns, and widgets on the cockpit page, add your own company logo and adjust the date format as desired.

Remote configuration of gas detection devices
The X-dock Manager even lets you remotely configure gas detection devices in the X-dock station. This is done using a CC Vision template (free Dräger configuration software) which is transferred to the network-connected X-dock stations. This ensures that all gas detection devices are using precisely the specifications required by the risk assessment for the work area or industrial plant. This includes the values for setting the alarm thresholds for the sensors.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-dock® Manager - Single Limited to one X-dock® Station, unlimited number of users, free updates.	1	8328605
Dräger XDM Network (Subscription) - For an unlimited number of X-dock® stations, unlimited number of users, 1 year of free updates, renews automatically	1	8328607

GS01 Hydrocarbon IR Detector

Truly wireless, the GasSecure GS01 combines single-beam triple-wavelength infrared (IR) technology with extremely low power consumption, to provide fast hydrocarbon gas detection in the most demanding and hazardous of settings. The GS01 creates value for the customer with dramatically reduced installation cost and time, reliable infrared operation, and calibration-free design.

GS01 Hydrocarbon IR Detector
Wirelessly reduces project costs by 60-80%

GS01 wireless gas detector
GasSecure offers the world's first truly wireless IR gas detector for demanding industrial applications. The GS01 is used to detect the presence of hydrocarbon gases and warn operators of the risk of fire or explosion. Its ultra-low power design and small integrated battery pack enables up to two years of continuous operation.* Customers have seen up to 60 – 80% savings on total project costs because of dramatically reduced installation cost and time. The wireless communication is based on the open ISA100 Wireless™ standard – which means simplified integration with other commercially available field wireless devices.

Features
- truly wireless, no cables
- no recalibration required
- fail-safe IR detection with triple wavelength including heated optics
- suitable for SIL 2 systems – 3rd party verification of detector and wireless communication for safety applications
- fast gas detection response of ≤5 seconds
- hazardous area intrinsically safe design
- low power, lightweight gas detector with intrinsically safe field replaceable battery pack
- up to 2 years battery life (depending on environmental conditions)

Benefits
Adding capacity or upgrading facilities often entails expansion or modernization of existing gas detection systems. Wireless is a perfect solution since it can be integrated into legacy systems without the need to install new or additional cabling and increase plant uptime.

Features
- Significant cost and time savings when compared to wired detection system
- No cabling means hugely improved installation flexibility
- Reduced maintenance overheads due to lifetime calibration
- Easily transferrable between projects (eg. shutdowns, maintenance)
- No sensor drift due to lifetime calibration – therefore no false alarming
- Rapid response times mean early warning and increased plant safety

Applications
The GS01 is proven in the field to be a flexible and cost efficient solution for plant expansions, revamps, upgrades and new greenfield projects. Just some of the applications include:
- Oil & gas production platforms
- Oil & gas exploration rigs
- Storage tank farms
- Shutdown and end of life operations – Petrochemical plants & refineries
- Gas terminals & processing plants – FPSO / FLNG vessels

Technology
Infrared sensor technology is taken to the next level using patented MEMS (Micro Electromechanical System) optical filters. The device filters, focuses and switches light continuously, thereby establishing the gas and reference measurement. GS01 technology achieves fast and ultra-low power operation with life-long zero point stability. The innovative hardware design is supported by GasSecure's patented SafeWireless™ communication system that meets the requirements of reliability, fast response times, availability and power efficiency – all with full control of network traffic.

TECHNICAL SPECIFICATIONS

Detection method	Single beam, triple wavelength IR
Detectable gases	Hydrocarbons, 0 to 100% LEL - Available configurations: Methane, Propane

GS01 Hydrocarbon IR Detector

Calibration	Factory-set, no field calibration
Response time	≤5 sec.
Accuracy	±3% LEL or ±10% of reading (whichever is greater) - Refers to Methane
Zero-point stability	±3% LEL (lifelong)
Operating temperature	-30 to +50ºC (extended range to +65ºC on request, contact GasSecure)
Storage temperature	-40 to +65ºC
Humidity	0 to 100% RH
Ingress protection	IP66 and IP67
Dimensions	300 × 110 × 170 mm
Weight	2.8 kg (incl. battery)
Mounting	With bracket for 8 mm or 5/16" bolts
Approvals	ATEX, IECEx: II 2G Ex ib IIC T4 Gb (-40 to +65ºC)
	Safety level: SIL 2 certified to IEC 61508 Ed.2.0
Battery type	Lithium-Thionyl Chloride
Average power	5 mW
Battery lifetime	Up to 2 years
RF power	10 dBm (10 mW)
Communication type	IEEE802.15.4 in 2.4 GHz ISM band
Communication protocol	ISA100 Wireless™
Communication gateway output	Standard: Modbus TCP/RTU, OPC
	Optional: PROFINET (SIL2)

ORDER INFORMATION

Description	Unit Sales	Articlenr
GS01 Hydrocarbon IR Detector	1	On request

Dräger Regard® 3000

Monitor various gases and vapours with the modular Dräger REGARD® 3000 control system. Its multi-coloured status light signals the status of your gas detection system. The controller allows you to combine three different modules: Input, Relay and Gateway module. You can connect up to four analogue transmitters and eight relays in combination.

Dräger Regard 3000
Especially well visible and audible from a distance

Especially well visible and audible from a distance

In the event of an alarm, every second counts - but it is also useful to be able to see the status of the gas detection system at a glance. The Dräger REGARD 3000 makes this possible with its status light. Different colours clearly indicate whether everything is in order (blue), whether there are malfunctions (yellow) or whether alarms are pending (red). In addition, it can be seen immediately whether the alarm is active (flashing red) or has been acknowledged (continuous red light). This way, everyone on site is informed about the system status and daily checks are also made easier. The integrated horn and the SIL2-capable contacts of the REGARD 3000 provide even more safety.

Access the gas warning system more centrally

Often gas transmitters are installed in areas that are difficult to access or are far away from each other and the associated control unit. The REGARD 3000's 4 – 20 mA HART® input module gives you central access to all diagnostic information in the event of an alarm or fault. The transmitter configurations can also be read out and transferred conveniently in this way. The intuitive touch display gives you an overview of the status of your gas detection system at all times.

Flexible options for expansion

If the range of functions or the size of the gas detection system changes: The REGARD 3000 can be expanded by an additional relay or gateway module, depending on the requirements. This way, the system remains flexible and grows with the plant without having to shut down the production process for a longer period of time. A REGARD 3000 can be equipped with a maximum of one input module, one relay module and one gateway module.

Networking individual systems with each other

Do you have several gas detection systems with REGARD 3000 and REGARD 7000? You would like to have all systems in view and control and configure them centrally? Then connect the REGARD 7000 as client to the REGARD 3000 systems via an Ethernet cable connection. Networked in this way, the client can detect, control and configure the REGARD 3000 units as satellites.

Flexible options for mounting

You already have a control cabinet or control station for your production process control system and would like to integrate the gas warning system there? Or you need a small gas detection system that can be easily integrated into your building? With the Dräger REGARD 3000, you have the option of integrating the docking station directly into a control cabinet and mounting the operating unit (display module) in the control cabinet door. Or you can use the smart, compact wall-mounted housing. You can choose between the colours telegrey and black.

TECHNICAL SPECIFICATIONS

Download the datasheet for technical specifications

Dräger Regard® 3000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Regard 300 Base Unit - Black	1	3705684
Dräger Regard 3000 Display Unit - Black	1	3709719
Dräger Regard 3000 Slotcover	1	3705672

Dräger Regard 2400 and 2410

Dräger Regard 2400 and 2410 are flexible small control units for detection of toxic gases and oxygen as well as combustible gases and vapours. Combined with the Dräger transmitters or sensing heads Dräger Regard 2400 or 2410 forms a low-maintenance gas detection system for reliable protection.

Dräger Regard 2400 and 2410
Flexible and small control units for detection of a.o. toxic gases

Flexibel control unit

Dräger REGARD 2400 and 2410 are suitable for 4 transmitters. 4 to 20 mA transmitters as well as Dräger Polytron SE Ex sensing heads can be connected. The Dräger REGARD 2400 with wall-mounted enclosure is pre-installed including terminals, 2.5 A power supply units and fuses. It can be mounted directly onto a wall. The Dräger REGARD 2410 has been designed for easy set-up, low-cost mounting onto DIN rails in existing switching or wall cabinets. The units are ATEX approved.

Customized configuration

Dräger REGARD 2400 and 2410 can be freely configured. Two internal relays for gas alarm thresholds or gas alarm groups can be allocated to the respective measuring channels. Additional relays are available for acoustic alarm and fault status. Additionally, the Dräger REGARD 2400 and 2410 are equipped with two digital inputs - e.g. for horn reset or flow control. Finally Dräger REGARD 2400 and 2410 can be connected to external

modules such as an input-output module and a relay module via its built-in Modbus interface. Initial configuration of the Dräger REGARD 2400 or 2410 is done via a PC. The necessary interface connection cable and software are available as accessories.

Details

- wall-mounted (2400) or small rail mounted (2410) control unit
- up to 4-channel control for toxic and combustible gases, and oxygen, can be easily configured
- 2 gas alarm relays, 1 acoustic alarm relay and 1 fault relay
- flexible gas and alarm evaluation
- easy to operate
- configuration via PC/laptop
- ATEX approval
- via Modbus 12 additional relays (optional)
- via Modbus 6 digital inputs and 6 analogue (4 to 20 mA) outputs (optional)

TECHNICAL SPECIFICATIONS

Central unit	Independent 4-channel wall-mounted (2400) or rail-mounted (2410) control unit in accordance with DIN EN 50022
Power supply	24 VDC +/– 10 % (2410) 24 VDC / 110 to 230 VAC 50 to 60 Hz (2400)
Inputs	2-wire/3-wire 4 to 20 mA transmitter or Dräger Polytron SE Ex sensing heads via signal converter (optional)
Outputs	Potential-free relay contacts of the 2 gas alarm relays plus one acoustic alarm relay and one failure relay each for 250 VAC, 2 A (2400 DPCO and 2410 SPCO)
Temperature	– 20 ℃ to + 60 ℃
User interface	3-pushbutton operation, Dot-matrix display, LEDs, RS 232 for configuration software, Modbus interface
Dimensions	105 x 86 x 72 mm (W x H x D) (2410) 185 x 213 x 118 mm (W x H x D) (2400)
Ingress protection	IP20 (2410), IP54 (2400)
Approvals	EMC (89/336/EWG), Low voltage (73/23/EWG and 93/68/EWG), Ex II (2) G according to TPS 04 ATEX 1 001 X

Dräger Regard 2400 and 2410

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron Regard 2410	1	SC00011
Dräger Polytron Regard 2400	1	SC00014
Internal converter module SE Ex (only Dräger REGARD 2400), one required per SE Ex channel	1	SC00016
Power Supply 5A, DIN Rail Mounting	1	4208746

Dräger Regard 3900

The devices of the Dräger REGARD® 3900 series can be used as standalone controllers. You can configure up to 16 measuring channels. In addition, the modular setup enables you to customise the control units to the demands of your plant. You can also embed further features to existing alarms.

Dräger Regard 3900
Standalone controller for up to 16 measuring channels

Input modules
You can connect up to four 4 to 20 mA transmitters with 2 or 3-core cables to an input module. Up to a total of four input modules per controller can be installed. Each module is populated with three relays. These relays offer common "Fault", "Alarm 1" and "Alarm 2" SPOC outputs. In addition, the two alarm levels are fully configurable and can be set as rising or falling and latching or non-latching. A third alarm is possible by using the relay module.

Relay module
You can add two relay modules to the controller of the REGARD 3900 series. Each module is populated with eight relays. The first relay is dedicated as a "Fault" relay and cannot be reconfigured. The remaining seven relays can be configured as "Single", "Common" or "Voting" alarms. An additional "Alarm 3" is offered by the relay module along with a second fault threshold. You acknowledge the alarm relays via the push buttons on the front panel. The relays work with open-circuit current or close current.

Output module (Repeater module)
Each 4 to 20 mA output repeats the signal of up to eight inputs. This allows indication or recording of gas levels by other control units. You can install up to two analogue output modules.

Configuration
You configure your control unit quickly and easily with the configuration software Config 3900 via laptop or PC. For new installations the configuration is prepared offline and uploaded during the commisioning. For maintenance you can download the system configuration for a check. You can get the neccessary cable as an accessory. By using the push buttons on the front panel, the REGARD 3920 can be easily adjusted. The configuration menu is easy to understand.

Mounting and installation
The robust housing of REGARD 3900 and 3920 is dust-tight and protected against water jets (IP 65). Thus these control units can be installed in safe area. The REGARD 3910 is equipped with built-in display and backplane. You can easily mount it into a cabinet. The modules can be intalled there as well.

Gateway solution
The REGARD 3900 Modbus Gateway is an interface that converts a CAN bus protocol into a Modbus RTU protocol. Due to this factor, the gateway allows the communication between the control unit of the REGARD 3900 series (CAN bus) with RVP 3900 (Remote Visualisation Panel) or other systems (Modbus RTU). Other possible gateways are: Modbus TCPIP and PROFIBUS® Gateway. You can use these to transfer data to third party control systems.

TECHNICAL SPECIFICATIONS

Type	Control unit for location in a non-hazardous area
Gas and ranges	Toxic, oxygen and combustible gases with user definable measuring ranges. Refer to transmitter type for ranges, name and engineering units. All configurations by Laptop computer.
Inputs	2 or 3 wire 4-20 mA transmitters, remote reset, 24 VDC supply
Outputs	Alarm 1, Alarm 2 and Fault as standard
	Warning and inhibit relays on optional relay module
	Single, common or voted alarms on optional relay module
	Acknowledgeable relays on optional relay module
	Repeat 4-20 mA via optional Repeat Board

Dräger Regard 3900

Display	4 line, 40 character back-lit LCD
	Active, Fault, Alarm 1 and Alarm 2 LED's per input
	DC and AC power LED's
	Inhibit LED
Power supply	External 24 VDC
	Internal 2.5 A, 5 A or 10 A power supply @ 110/240 VAC
Weight	3 kg / 6.6 lbs, depending upon installed power supply
Dimensions	420 x 300 x 190 mm / 16.5" x 11.8" x 7.5" (W x H x D)
Temperature	0 to 55 ℃ / 32 to 130 ℉
Ingress Protection	IP 65, ABS – OV material of construction
Approvals	ATEX, II (2)G Acc. to Directive 94/9/EC, CE Mark, Electromagnetic compatibility (directive 89/336/EEC), Low voltage directive (72/23/EEC, 93/68/EEC)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGARD 3900 Basic Unit	1	4208780
Dräger REGARD® 3900 (1x 4 to 20 mA Input Module + 1x Relay Module)	1	4208810
Dräger REGARD® 3900 (1x 4 to 20 mA Input Module + 2x Relay Module)	1	4208811
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 0x Relay Module)	1	4208812
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 0x Relay Module)	1	4208813
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 2x Relay Module)	1	4208814
Dräger REGARD® 3900 (3x 4 to 20 mA Input Module + 0x Relay Module)	1	4208815
Dräger REGARD® 3900 (3x 4 to 20 mA Input Module + 1x Relay Module)	1	4208816
Dräger REGARD® 3900 (4x 4 to 20 mA Input Module + 0x Relay Module)	1	4208817

Dräger Polytron® 5100 EC

The Dräger Polytron® 5100 EC is a cost-effective explosion-proof transmitter for the detection of toxic gases or oxygen in standard applications. It uses a high performance plug-and-play electrochemical DrägerSensor® to detect a specific gas. A 2- or 3-wire 4 to 20 mA output with relays makes it compatible with most control systems.

Dräger Polytron 5100
A cost-effective explosion-proof transmitter

Toxic Gases and Oxygen Detector
- Sensor: Electrochemical Sensor
- Installation: with Increased Safety or flameproof
- Interface: 4-20 mA, Relays
- IP class: IP 65/66/67
- Special: displays

Durable, intelligent and sensitive – the DrägerSensor®
With the unique electrochemical Dräger sensors, the Polytron 5100 covers a total of 15 typical gases in various measuring ranges. These long-life sensors provide continuous detection even under the harshest conditions. DrägerSensors offer the industry's widest temperature range between -40 ℃ to +65 ℃ (-40 ℉ to +150 ℉). The built-in memory contains all the necessary calibration and configuration information. The sensors are calibrated ready for immediate operation. The sensor's intrinsically safe connection dispenses with the need for a flame arrestor giving you a faster response time and higher sensitivity.

Same design, same operating principle
Polytron 5100 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The backlit display shows status information clearly with quick access to functions using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

Three relays for controlling external equipment
The Dräger Polytron 5100 can also be supplied with three integrated relays upon request. This enables you to use it as an independent gas detection system with two adjustable gas concentration alarms and one fault alarm. Audible alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application
The Polytron 5100 features a Class I, Div. 1 rated explosion-proof enclosure made of aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station enabling installation in hazardous atmospheres without running conduit (where approved) and this also facilitates pre-assembly.

Make the impossible possible with remote sensor
The remote sensor connection housing allows you to install the sensor separately from the transmitter. This allows you to simply place the sensor closer to the gas cloud in hard-to-reach locations. The display remains visible at eye level. Since the sensor is connected via an intrinsically safe connection, no conduit cabling is required. The connection also allows 'hot replacement' of the sensor in the hazardous area.

TECHNICAL SPECIFICATIONS

Type	Explosion-proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Toxic gases and oxygen depending on the sensor used
Measuring range	For customised adjustment, see sensor data sheet
Display	Backlit 4 digit LCD; 3 Status LEDs (green/yellow/red)
Performance Characteristics	see sensor datasheet
Power supply	10 to 30 V DC, 3-wire, 18 to 30 V DC, 2-wire
Temperature	-40 to 65 ℃ (-40 to 149 ℉) without relay, -40 to 65 ℃ (-40 to 149 ℉) with relay

Dräger Polytron® 5100 EC

Dimensions (H x W x D), approx.	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm (w/o docking station)
	11.0" x 7.1" x 7.5" / 280 x 180 x 190 mm (w docking station)
Weight, approx.	6.6 lbs / 3.0 kg (w/o docking station, aluminum)
	11.0 lbs / 5.0 kg (w/o docking station, SS316 L stainless steel)
	9.9 lbs / 4.5 kg (w/ docking station, aluminum)
	14.3 lbs / 6.5 kg (w/ docking station, SS316 L stainless steel)
Approvals	UL, CSA, IECEx, ATEX, CE-ATEX (see datasheet for specifications)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 5100 EC e A (incl. dockingstation), ETR 0201	1	8344124
Dräger Polytron 5100 EC e A relais (incl. dockingstation), ETR 0201	1	8344125
Dräger Polytron 5100 EC d A, ETR 0200	1	8344860
Dräger Polytron 5100 EC d S, ETR 0300	1	8344862

Dräger Polytron® 6100 EC WL

The Dräger Polytron 6100 EC WL is a wireless transmitter for continuous monitoring of toxic gases and oxygen. The instrinsically safe and SIL2-rated transmitter features completely wireless signal transmission and power supply. The internal battery pack allows the transmitter to operate continually for up to 24 month. This makes the Polytron a flexible and cost efficient solution for plant expansions, upgrades or new installations.

Dräger Polytron 6100
Signal antenna with a range of up to 500 m

Wireless reduces your efforts

Is the financial, technical or temporal effort of wiring a transmitter too high? Then the Dräger Polytron 6100 EC WL is the ideal addition to your fixed gas detection system. The challenging measuring tasks in the loading or revision areas really play to the advantages of the wireless gas detection transmitter. The Polytron 6100 EC WL is also well applied in the plant areas, which require mobile solutions, are difficult to reach or do not provide any infrastructure. Wireless detection reduces your planning effort required whilst retaining the same safety levels provided by a wired transmitter. The Polytron 6100 EC WL is SIL2-capable.

Choose your radio standard: ISA100 WirelessTM or WirelessHART®

You can choose between two radio standards depending on your needs. The industrial radio standard ISA100 WirelessTM ensures the safe transmission of the measured values. Together with the PROFIsafe protocol, it ensures the SIL2 capability of your system. The widely used, secure wireless standard WirelessHART® offers you the flexibility to easily integrate the transmitters into an existing WirelessHART® network, if one exists.

No compromises with the proven Dräger sensor technology

The Polytron 6100 EC WL uses the proven Dräger sensors optimised for industrial applications. They cover a spectrum of 140 different sample gases in a temperature range of up to -40 °C to +65 °C.

Access to the transmitter via Bluetooth®

The PolySoft software solution allows you to access the Polytron 6100 EC WL conveniently via Bluetooth® interface - using an explosion-proof tablet, laptop or desktop PC in the workshop. The transmitter data, measured values and the event memory can be easily transferred in a data record and evaluated if required. All settings and maintenance work can also be carried out via this. There are various accessories for the

Polytron 6100 EC WL - from pipe mounting sets to weather protection. This results in a wide range of installation and application options. The integrated LEDs, visible from a distance, indicate the status of the life signal, fault, alarm and Bluetooth® interface. In this way, you can see the status of the device at any time.

Cost-effective in maintenance

The intrinsically safe design of the Wireless Gas Detector allows all maintenance work, such as battery replacement or sensor replacement, to be carried out in the hazardous area. You do not need to take any additional measures for this, such as declassifying the area. This saves you time and allows you to carry out maintenance work even more safely. The pre-calibrated DrägerSensors ensure quick commissioning and offer a wide range of measurable gases and vapours.

External power supply possible

With the Polytron 6100 EC WL you can also cover applications in long-term operation without a battery. For this purpose, the wireless transmitter is supplied with 24 volts - directly in the safe area and via a suitable supply isolator in the hazardous area. You can continue to do without a measuring line to the control unit.

Transmission of signals even over long distances

You can realise transmission distances of up to 500 metres with the Polytron 6100 EC WL. The additional repeater function of the transmitter allows the radio signal to be forwarded. This allows you to bridge even greater distances with additional wireless transmitters or create alternative communication paths (redundancies). If you do not need additional gas detection points in the application, the Polytron Repeater is used. Operation and installation are identical to the Polytron 6100 EC WL.

Dräger Polytron® 6100 EC WL

TECHNICAL SPECIFICATIONS

Type	Toxic gases and Oxygen, see sensor data sheet. All DrägerSensors are supported.
Gases	Toxic gases and oxygen depending on the sensor used
Measuring range	500 m in free area
Dimensions	320 x 150 x 170 mm (with 2dBi aerial)
Housing material	Stainless steel 316
Temperature	-40 to +65 °C (-40 to +149 °F)
Weight, approx.	Ca. 3.2 kg
Approvals	ATEX / IECEx: I M1 / II 1GD Ex ia I Ma, Ex ia IIC T4 Ga, Ex ia IIIC T135 °C Da, -40 °C ≤ Ta ≤ +65 °C CE-Directive: ATEX directive 2014/34/EU RED directive 2014/53/EU RoHS directive 2011/65/EU Safety Integrity Level: SIL2 PROFINET® is a registered trademark of PROFIBUS and PROFINET International (PI). The ISA100 WirelessTM is a registered trademark of ISA100 Wireless Compliance Institute. Wireless HART® ist ein eingetragenes Warenzeichen der FieldComm GroupTM Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron® 6100 EC WL	1	8327000

Dräger Polytron® 8100 EC

The Polytron® 8100 EC is Dräger's top of the line explosion-proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug and play electrochemical DrägerSensor to detect a specific gas. Besides having a 3-wire 4 to 20 mA analog output with relays, it also offers HART®, Modbus and Fieldbus protocol, making it compatible with most control systems.

Dräger Polytron 8100
Explosion-proof transmitter for the detection of toxic gases or oxygen

Toxic Gases and Oxygen Detector
- Sensor: Electrochemical Sensor
- Installation: Increased Safety or flameproof
- Interface: 4-20 mA, Relays, Bus, HART ®
- IP class: IP65/66/67 and SIL2
- Special: Display

Durable, intelligent and sensitive – the DrägerSensor®
With unique electrochemical DrägerSensors, Polytron 8100 can detect over 100 toxic gases and oxygen. These long life sensors provide continuous detection even under the harshest conditions. DrägerSensors offer the industry's widest temperature and humidity range between -40 ℃ to +65 ℃ (-40 ℉ to +150 ℉). The built-in memory contains all calibration and configuration information: therefore the sensor ships pre calibrated and is ready for immediate operation. An intelligent sensor self-test function allows for predictive maintenance. The intrinsically safe connection of the sensor eliminates the need for a flame arrestor, giving you faster response times and higher sensitivity.

Easy device management via digital communication
The Dräger Polytron 8100 is equipped with digital interfaces allowing for quick and easy remote interrogation of the transmitter's state. Integration with existing asset management systems such as PACTware™ is possible via DTM. In addition to the common HART® communication system, the fieldbus interfaces with PROFIBUS® PA, FOUNDATION fieldbus™ H1, and Modbus RTU are also available.

Same design, same operating principle
The Dräger Polytron 8100 belongs to the Polytron 8000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The large graphic backlit display shows status information clearly and in an easy to use format. The measured gas concentration, selected gas type, and measuring unit are displayed during normal

operation. Colored LEDs (green, yellow and red) provide additional alarm and status information. The Polytron 8100 is operated by means of a magnetic wand over contact surfaces.

Three relays for controlling external equipment
Upon request, the Dräger Polytron 8100 can also be supplied with three integrated relays. This enables you to use it as an independent gas detection system with two arbitrarily adjustable concentration alarms and one fault alarm. Audible alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application
Polytron 8100 features a Class I, Div. 1 rated explosion proof enclosure made from aluminium or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station which allows installation in hazardous atmospheres without running conduit (where approved) and this also facilitates pre-assembly.

Remote sensor option does not require conduit
The remote sensor enclosure allows you to install the sensor separately from the transmitter. This 'external' installation makes it easier to use if the sensor has to be installed in a difficult to access or unfavourable position.

More functions through dongles
With different software dongles, additional functions can be added to the Polytron 8100. The data logger dongle comes as standard and continuously records gas readings and events. A sensor test dongle is available for additional sensor self-test functionality. A third dongle is available for advanced sensor diagnosis. These dongles indicate the sensor's vitality, giving you an estimate of the sensor's remaining service life.

Dräger Polytron® 8100 EC

TECHNICAL SPECIFICATIONS

Type	Explosion-proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Toxic gases and oxygen depending on the sensor used
Measuring range	For customised adjustment, see sensor data sheet
Display	Backlit 4 digit LCD; 3 Status LEDs (green/yellow/red)
Performance Characteristics	see sensor datasheet
Power supply	0 tot 30 V DC
Temperature	-40 to 65 °C (-40 to 149 °F) without relay, -40 to 65 °C (-40 to 149 °F) with relay
Dimensions (H x W x D), approx.	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm (w/o docking station)
	11.0" x 7.1" x 7.5" / 280 x 180 x 190 mm (w docking station)
Weight, approx.	6.6 lbs / 3.0 kg (w/o docking station, aluminum)
	11.0 lbs / 5.0 kg (w/o docking station, SS316 L stainless steel)
	9.9 lbs / 4.5 kg (w/ docking station, aluminum)
	14.3 lbs / 6.5 kg (w/ docking station, SS316 L stainless steel)
Approvals	UL, CSA, IECEx, ATEX, CE-ATEX (see datasheet for specifications)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 8100 EC d A 4-20/HART, ETR 0400	1	8344403
Dräger Polytron 8100 EC d A 4-20/HART relay, ETR 0401	1	8344404
Dräger Polytron 8100 EC d S 4-20/HART, ETR 0500	1	8344412
Dräger Polytron 8100 EC d S 4-20/Hart Relay, ETR 0501	1	8344413

Dräger Polytron® 7000

The Dräger Polytron® 7000 is a gas detector that can satisfy many toxic and oxygen gas measurement applications on a single platform. It meets the requirements of the compliance market as well as the high specification requirements of customised solutions.

Dräger Polytron 7000
Detection of toxic gases and oxygen

Easy operation
Dräger developed the simple and structured software menu of the Polytron 7000 in collaboration with its customers. The big graphic display shows status information with the help of icons and plain text, and guides the user through calibration and configuration.

Communication interfaces
The wide range of outputs, 4 to 20 mA, HART®, LON, PROFIBUS® or FOUNDATION Fieldbus™, enables the use of the Polytron 7000 on either a control system from the Dräger Regard family, or third party control systems. The modular design allows for the subsequent retrofit onto any of the mentioned interfaces.

Remote Sensor
With the Polytron 7000 remote sensor adaptor and lead it is possible to mount the sensor up to 30 metres from the polytron 7000 transmitter. This enables the user to read and operate the transmitter from a safe area, or detect toxic gasses and oxygen levels in difficult to reach areas, whilst still being able to view and configure the Polytron 7000 from a convenient location. A duct mount kit enables the remote sensor to be mounted direct in elevated pipe work.

Relay module
The Dräger Polytron 7000 can be equipped with a relay module. With two gas alarm relays, and one fault alarm relay, the transmitter can either be used as a stand alone gas detector with no need for a controller; or alarm devices can be activated locally saving costs in cabling to and from a controller. The analogue signal can still be transmitted back to a controller if desired. (Not suitable for use in hazardous areas)

Intelligent sensors
The Dräger Polytron 7000 can detect over 100 different gases. DrägerSensors are specifically designed for the demands of 24 hours per day, 365 days per year operation. The large DrägerSensor size gives them their renowned long life. The built-in sensor data memory containing all the relevant gas and calibration information, together with on board temperature and pressure compensation gives the DrägerSensor its unsurpassed measurement performance. This also allows the Polytron 7000 to accept pre-calibrated sensors, with minimal operator intervention, the Dräger Polytron 7000 is a virtually maintenance free transmitter.

Software options
With three different software dongles, a range of functions are incorporated into the transmitter adjusting it to user or application specific requirements. With the sensor test dongle, the Dräger Polytron 7000 performs many different patented sensor tests that ensure the reliability and functionality of the sensor and gas detection system. With the new sensor diagnosis function (including the sensor test), operational demands and the remaining sensor life time is estimated so that maintenance and exchange schedules can be created. A data and event saving option is integrated into the data dongle. This saves the measured values and events such as alarms and warnings. The data can be downloaded onto a PDA m515-Ex via an IR interface and evaluated on a PC with the Dräger GasVision software or at the push of a button, a 15 minute concentration history is shown on the transmitter display.

Pump module
The inclusion of a pump module enables the Polytron 7000 to draw gas samples from difficult to reach areas, the gas sample is then passed across the DrägerSensor for detection. The pump unit, like all accessories in the Polytron 7000 range is modular, and can be retrofitted into existing transmitters. (Not suitable for use in hazardous areas)

Dräger Polytron® 7000

TECHNICAL SPECIFICATIONS

Type	Intrinsically safe transmitter for electrochemical sensors
Gases and ranges	Toxic gases and oxygen, ranges user adjustable, see sensor data sheet
Display	Large graphic display, 34 x 62 mm, 64 x 128 pixel 1.3" x 2.4"
	Menu structure and messages in real text, 3 button navigation
Output	Analog: 4 to 20 mA
	Digital: HART®, LONWORKS®, PROFIBUS PA, FOUNDATION fieldbus™
	Warning signal, configurable: default - warning signal every 10s for 1s
	Maintenance signal, configurable: 3.4 mA constant or 4 mA ± 1 mA, 1 Hz modulation
	Fault signal: < 3.2 mA
Power supply	16,5 to 30 VDC 2-Wire, 3-Wire for Pump module* and relay module*
Pump module*	Tubing up to 30 m / 100 ft. @ 0.5 l/min with 4 mm / 3/16" inner diameter
Relay Module*	Two alarm relays, one fault relay, SPDT, user programmable
	Rating 5 A 240 VAC, 5 A 24 VDC
Ambient Conditions	Transmitter only, for sensors see separate sensor data sheet
	Temperature: -40 to +65 °C / -40 to +150 °F
	Pressure: 700 to 1,300 hPa / 23.6 to 32.5 inch Hg
	Humidity: 0 to 100 % RH, non condensing
Enclosure	GRP, IP 66/67, NEMA 4, M20 cable gland
Size (H x W x D)	166 x 135 x 129 mm, 6.54" x 5.32" x 5.08" ft.
Weight	Approx. 900 g / 2 lbs.
SIL Level	SIL 2 verified
Approvals	ATEX:
	II 1G Ex ia IIC Ga T4/T6 -40 °C to +65/+40 °C
	II 3G Ex ic IIC Gc T4/T6 -40 °C to +65/+40 °C
	II M1 Ex ia I Ma -40 °C to 65 °C
	O2 measuring function for protection against explosion (measurement of inertisation)
	IECEx:
	Ex ia IIC Ga T4/T6 -40 °C to +65/+40 °C
	Ex ic IIC Gc T4/T6 -40 °C to +65/+40 °C
	I M1 Ex ia I Ma -40 °C to 65 °C
	In accordance with IEC 60079-27, FISCO
	UL:
	Class I, Div 1, Group A, B, C, D, Class II, Div 1, Group E, F, G
	CSA:
	Class I, Div 1, Group A, B, C, D / Ex ia IIC T6/T4, -40 to 40/+65 °C
	CE mark:
	Electromagnetic compatibility (2004/108/EEC)
	Low Voltage (Directive 2006/95/EC)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 7000 Transmitter Display 4-20mA	1	8317610

Dräger Polytron® 5720 IR

The Dräger Polytron® 5720 IR is a cost-effective explosion proof transmitter for the detection of carbon dioxide in volume percentage or ppm. It uses a high-performance infrared Dräger PIR 7200 sensor that can be submerged in water without damage. A 3-wire 4-to-20 mA analogue output with relays makes it compatible with most control systems.

Dräger Polytron 5720
To detect carbon dioxide

Same design, same operating principles

The Polytron 5720 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The backlit LCD display shows status information clearly with quick access to functions, using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

Three relays for controlling external equipment

The Dräger Polytron 5720 can also be supplied with three integrated relays on request. This enables you to use it as an independent gas detection system with two adjustable concentration alarms and one fault alarm. Audio alarms, signal lights or similar devices can thus be controlled locally without

an additional cable between the transmitter and central controller.

Safe, robust housing for every application

The Polytron 5720 features a Class I, Div. 1-rated explosion proof enclosure made from aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station enabling installation in hazardous atmospheres without running conduit (where approved).

Make the impossible possible with the remote sensor

An available remote sensor condulet housing allows the PIR sensor to be installed up to 30 metres away from the Polytron transmitter. A special Flow Cell accessory allows one person to perform the full calibration of a remote sensor from the transmitter.

TECHNICAL SPECIFICATIONS

Type	Explosion proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Carbon dioxide
Measuring range	0 to 10 Vol. -% (standard) 0 to 2000 ppm ... 30 Vol.-% (configurable)
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)
Signal output analogue	Normal operation: 4 to 20 mA
Power supply	10 to 30 V VC, 3-wire
Temperature	-40 to 77°C without relay
Dimensions (H x W x D), approx.	280 x 150 x 130 mm (w/o docking station) 280 x 180 x 190 mm (w docking station)
Weight, approx.	3.9 kg (w/o docking station, aluminum) 5.7 kg (w/o docking station, SS316 L stainless steel) 5.2 kg (w/ docking station, aluminum) 7.1 kg (w/ docking station, SS316 L stainless steel)
Approvals	UL, CSA, IECEx, ATEX, CE-ATEX

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 5720 IR d A	1	8344200

Dräger PIR 7200

The Dräger PIR 7200 is an explosion proof point infrared gas detector for continuous monitoring of carbon dioxide. Designed for the industrial use, the transmitter offers drift-free optics. And due to its robust product design the PIR 7200 can be operated even in harsh environments.

Dräger PIR 7200
An explosion proof point infrared gas detector for continuous monitoring of carbon dioxide

Advanced signal stability

Almost two decades after launching the first fixed infrared gas detector – followed by a great market success with more than 100,000 units sold – Dräger now introduce the Dräger PIR 7200 which encompasses the latest in revolutionary technology. Based on patented innovations, the Dräger PIR 7200 combines a maximum light collecting construction with a 4-beam signal stabilising system. The total optical system uses no light beam split, simply a set of various reflectors. This double-compensating optical system is very resistant towards known influences such as dust, fog or insects frequently found in the measuring cuvette or by dirt accumulation on the optical surfaces. Due to its non-imaging construction, the measuring signal is not affected by a partial beam block. This innovative optical system ensures that the Dräger PIR 7200 fulfils the customer requirements in industrial applications of "no false alarms", longer service intervals and a drift-free signal output.

Fast response

Equally important is being informed about a potential hazard as early as possible. An early and reliable gas alarm allows for safety measures to be initiated on site. To support this, the Dräger PIR 7200 offers a configurable response mode which allows the end user to choose between "normal" or "high speed" response subject to the application. Using the "high speed" option, and combining it with the lowest feasible alarm threshold, the Dräger PIR 7200 shortens the reaction time in case of an alarm. Leakages can be detected at the earliest stage of their existence.

Multiple configuration capabilities

The Dräger PIR 7200 is delivered with the optimum default settings, but remains fully flexible to meet with the customers demands on an application-by-application basis. Whether it be reduced or increased measuring ranges or configurable special signals (fault, beam block warning, maintenance) – these features of the Dräger PIR 7200 offer the possibility to set up every

device exactly to the customer's needs and preferences.

Maximum reliability – SIL 2 certified

Years of experience in manufacturing gas detectors using infrared technology lead to a continuously enhanced product quality. Now, the Dräger PIR 7200 is further advanced as the total product has been developed inline with the Functional Safety standard EN 61508. This is applicable to both the devices hardware and software. Furthermore, the excellent parameters as detailed in the SIL 2 (Safety Integrity Level) certificate, issued by the German TÜV, show that only 2 % from the entire SIL 2 budget is allocated to the field device, thus providing flexibility to choose control systems and actuators. This is a new understanding of reliability – not only fulfilling but exceeding the SIL 2 requirements significantly.

Functions

- linearised response characteristics for carbon dioxide
- multiple configuration capabilities of all special signals (in accordance with NAMUR NE 43)
- precise and stable measurement
- fastest response of less than 1 second
- beam block warning signal in the case of contaminated optics for predictive maintenance
- long maintenance intervals
- extended temperature range of up to +77 °C / + 170 °F
- double-compensating and non-imaging optics (with 4-beam technology)
- single cable multidrop capability using HART® communication
- conventional 4 to 20 mA analogue signal output
- Hhrmetically sealed stainless steel 316L enclosure
- no moving parts
- resistant towards shock and vibration up to 4 G
- continuous self-testing in the context of the IEC/EN 61508 standard
- developed and manufactured according to the SIL guidelines, SIL 2 certified by TÜV

Dräger PIR 7200

- Ex approvals for worldwide application:
  ATEX, IECEx, UL, CSA
- dust ex approval for zone 21 and 22
- typical lifetime greater than 15 years

TECHNICAL SPECIFICATIONS

Type	Explosion proof gas transmitter with infrared sensor technology
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology
Gases and ranges	Carbon dioxide (CO2) - 0 to 10 % vol. (default)
	0 to 2,000 ppm … 30 % vol. (configurable)
Output signals	4 to 20 mA, HART®
Temperature	40 to +-77 °C (operating)
Material	Stainless steel SS 316 L
Dimension	160 mm × Ø 89 mm
Ingress protection	IP66 and IP67, NEMA 4X
Approvals	ATEX, IECEx, UL, Safety Integrity Level, CE mark

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PIR 7200 (NPT) HART	1	6811572
Dräger PIR 7200 M25 HART, complete set	1	6812290

Dräger PEX 3000

The transmitter Dräger PEX 3000 detects flammable gases and vapours in concentrations below their lower explosive limit. Its DD-sensor provides a long-term stable measuring signal and responds to gas within a few seconds.

Dräger PEX 3000
Detects flammable gases and vapours in concentrations

Six variants of transmitters
You can choose between two measuring ranges (0 … 100 or 0 … 10 %LEL) and two different junction box sizes. The larger junction box provides optional horizontal or vertical cable entry. Where the application asks for the sensor to be mounted remote from the junction box then it is possible to use the remote cable assembly combined with the sensing head of type Polytron SE Ex.

Simple installation
The three core screened cable from the control system terminates within the junction box of the Dräger PEX 3000 by means of three Ex-approved spring terminals. The sensor connects to three different Ex-approved spring terminals. Ex-approved spring terminals are not selfloosening and are inherently more reliable then standard screw terminals, therefore self-loosening is no longer an issue!

One-man Calibration
Owing to the state-of-the-art design of the Dräger PEX 3000 it is possible to open the Ex e junction box in the hazardous area to perform maintenance and calibration. Using the two internal push buttons and the internal seven segment digital display you can perform many different activities including one-man calibration. No additional hardware is required, e.g. a hand held terminal.

Explosion Protection
The Dräger PEX 3000 is approved according to the EU-Directive 94/9/EC to be operated at ambient temperatures ranging from - 40 up to + 65 °C. This applies to both explosive gas atmospheres and explosive dust atmospheres (Zones 1, 2, 21, and 22).

Low gas concentrations
For applications where it is necessary to detect low concentrations then the transmitters Dräger PEX 3000 type XTR 0010 or XTR 0011 with their special low-drift LC sensor are very suitable. These transmitters reliably detect gas leaks of concentrations up to 10 %LEL.

Newly developed: DD sensor
The new DD sensor is based on the well-known catalytic bead technology from Dräger and is designed and manufactured by Dräger for long term stability and resistance against sensor poisons. Furthermore, the new DD sensor uses an innovative non-sintered disc gas inlet therefore the reaction time towards the target gas in now only a few seconds. This fast speed of detection allows for countermeasures to be initiated earlier, therefore guarding against the formation of an explosive atmosphere.

TECHNICAL SPECIFICATIONS

Type	4-to-20-mA-transmitter with catalytic bead sensor
Gases and vapors	Flammable gases and vapors in the ambient air such as acetone, acetylene, ammonia, benzene, 1.3-butadiene, n-butane, n-butyl acetate, diethyl ether, dimethyl ether, ethanol, ethyl acetate, ethylene (ethene), ethylene oxide, n-hexane, hydrogen, methane, methanol, methyl ethyl ketone (MEK), methyl methacrylate, nnonane, n-octane, n-pentane, petrol 065/095, propane, i-propanol, propylene (propene), propylene oxide, toluene and o-xylene
Measuring range	Typ XTR 0000, XTR 0001: 0 to 100 %LEL Typ XTR 0010, XTR 0011: 0 to 10 %LEL
Power supply	12 to 30 V d.c. (nominal 24 V d.c.), max. 110 mA at 24 V
Signal output	Normal operation 4 to 20 mA - Maintenance 3.4 mA - Fault condition < 1.2 mA
Cabling	3-core, shielded, core cross-section 0.75 to 1.5 mm2, outer diameter 7 to 12 mm
Max. cable length (at 24 V, 250 Ohms)	2400 m at 3 x 1.5 mm2, 1600 m at 3 x 1.0 mm2, 1200 m at 3 x 0.75 mm2

Dräger PEX 3000

Response time (at 25℃, methane)	Type XTR 0000, XTR 0001: t50: 3 … 5 s, t90: 8 … 10 s
	Type XTR 0010, XTR 0011: t50 < 9 s, t90 < 20 s
Ambient conditions	Temperature: - 40 to + 65 ℃ (depending on temperature class)
	Pressure: 700 to 1300 hPa
	Humidity: 5 to 95 % r. H.
Housing material	glass fiber reinforced polyester (GRP)
Ingress Protection	IP 66
Dimensions (W x H x D)	Type XTR 00x0: ca. 80 x 130 x 55 mm
	Type XTR 00x1: ca. 135 x 110 x 55 mm
Weight	ca. 600 g
Expected sensor lifetime	typical > 3 years
Explosion protection	except XTR 009x: II 2G Ex de IIC T6/T5/T4 Gb, II 2D Ex t IIIC, T80/95/130 ℃ Db IP6X, - 40 ≤ Ta ≤ + 40 / 55 / 65 ℃
	XTR 009x: II 2G Ex de IIC T6 Gb, II 2D Ex t IIIC T80 ℃ Db IP6X, - 40 ≤ Ta ≤ + 65 ℃
Performance approval	acc. to EN 60079-29-1 for the a.m. gases and vapors (100 %LEL variants only)
Functional Safety (100 %LEL variants only)	Average probability of failure on demand (TP = 1 year), PFD = 5.56E-04
	Safe failure fraction (HFT = 0, Type B), SFF = 90.4 %

ORDER INFORMATION

Description	Unit Sales	Articlenr
PEX 3000, Type XTR 0001, medium-sized housing, 0 … 100 %LEL	1	8318360
PEX 3000 transmitter, Type XTR 0000, small housing, 0 to 100 %LEL	1	8318280
PEX 3000, Type XTR 0090, small housing, remote transmitter without sensor	1	8318380
Dust filter for DrägerSensor PR M DD (PE-disks, 10 pieces)	1	6810537

Dräger Polytron® 5700 IR

The Dräger Polytron® 5700 IR is a cost effective explosion-proof transmitter for the detection of flammable gases in the lower explosive limit (LEL). It uses a high performance infrared Dräger PIR 7000 sensor that will quickly detect most common hydrocarbon gases. A 3-wire 4 to 20-mA analogue output with relays makes it compatible with most control systems.

Dräger Polytron 5700 IR
For the detection of flammable gases in the lower explosive limit

Same design, same operating principles
Polytron 5700 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The backlit display shows status information clearly with quick access to functions using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

Three relays for controlling external equipment
The Dräger Polytron 5700 can also be supplied with three integrated relays upon request. This enables you to use it as an independent gas detection system with two adjustable concentration alarms and one fault alarm. Audio alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application
Polytron 5700 features a Class I, Div. 1 rated explosion proof enclosure made from aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station which allows installation in hazardous atmospheres without running conduit (where approved).

Make the impossible possible with the remote sensor
An available remote sensor condulet housing allows the PIR sensor to be installed up to 30 metres away from the Polytron transmitter. A special calibration flow cell accessory enables one person to perform a full calibration of a remote mounted sensor from the transmitter.

The Dräger PIR 7000 is efficient, stable and robust
With its stainless steel 316L enclosure and drift-free optics, the Dräger PIR 7000 is built to withstand the harshest industrial environments, offshore installations for example. The unique 4 beam signal stabilizing system makes the sensor resistant to dust or dirt deposits on the optical surfaces. Environmental and ageing effects ensure a long term, drift-free operation. The integrated gas library with up to 100 gases provides a high degree of application flexibility. Each of the listed gases can be picked from a menu and automatically crosscalibrated with a standard calibration gas such as methane or propane. No need to consult the factory when applications change.

TECHNICAL SPECIFICATIONS

Type	Explosion-proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Flammable gases and vapours
Measuring ranges	Methane, propane, ethylene: 0 to 20.... 100 %LEL
	Methane: 0 to 100 vol. %
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)
Signal output analogue	Normal operation: 4 to 20-mA
Temperature	-40 to 77°C without relay
Dimensions	w/o docking station: 280 x 150 x 130 mm
	w/ docking station: 280 x 180 x 190 mm
Weight	Aluminium w/o docking station: 3.9 kg
	SS316 L w/o docking station: 5.7 kg
	Aluminium w/ docking station: 5.2 kg
	SS316 L w/ docking station: 7.1 kg

Dräger Polytron® 5700 IR

Approvals	UL, CSA, IECEx, ATEX, CE marks

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron® 5700 IR 334 d A	1	8344220
Dräger Polytron® 5700 IR 334 d A relay	1	8344221
Dräger Polytron® 5700 IR 334 e A (incl. Docking Station)	1	8344224
Dräger Polytron® 5700 IR 334 e A relay (incl. Docking Station)	1	8344225
Dräger Polytron® 5700 IR 340 d A	1	8344240
Dräger Polytron® 5700 IR 340 d A relay	1	8344241
Dräger Polytron® 5700 IR 340 e A (incl. Docking Station)	1	8344244
Dräger Polytron® 5700 IR 340 e A relay (incl. Docking Station)	1	8344245

Dräger Polytron® 8200 CAT

The Dräger Polytron® 8200 CAT is an advanced explosion-proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses a catalytic bead DrägerSensor® Ex that will detect most flammable gases and vapours. In addition to a 3-wire 4 to 20-mA analogue output with relays it also offers HART®, Modbus and Fieldbus protocols, making it compatible with most control systems.

Dräger Polytron 8200 CAT
For the detection of flammable gases in the lower explosive limit

Fast and stable – the DrägerSensor® Ex
The built-in DrägerSensor® Ex is based on the proven catalytic bead measuring principle. It has excellent long-term stability with outstanding poison resistance. And this is the reason for its durability. Due to the novel gas inlet opening, the sensor responds to gas in only a few seconds. This allows you to react immediately with countermeasures and prevent the development of a flammable atmosphere.

Easy device management via digital communication
The Dräger Polytron 8200 is equipped with digital interfaces allowing for quick and easy remote interrogation of the transmitter's state. Integration with existing asset management systems such as PACTware™ is possible via DTM. In addition to the common HART® communication system, the fieldbus interfaces PROFIBUS® PA, FOUNDATION fieldbus™ H1, and Modbus RTU are also available.

Same design, same operating principle
The Dräger Polytron 8200 belongs to the Polytron 8000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The large graphic backlit display shows status information clearly and in an easy to use format. The measured gas concentration, selected gas type, and measuring unit are displayed during normal operation. Colored LEDs (green, yellow and red) provide additional alarm and status information.
- The Polytron 8200 is operated by means of a magnetic wand over contact surfaces.

Three relays for controlling external equipment
Upon request, the Dräger Polytron 8200 can also be supplied with three integrated relays. This enables you to use it as an independent gas detection system with two arbitrarily adjustable concentration alarms and one fault alarm. Audible alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application
Polytron 8200 features a Class I, Div. 1 rated explosion proof enclosure made from aluminium or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station which allows installation in hazardous atmospheres without running conduit (where approved) and this also facilitates pre-assembly.

Make the impossible possible with the remote sensor
The remote sensor connection housing allows you to install the sensor separately from the transmitter. This allows you to simply place the sensor closer to the gas cloud in hard-to-reach locations. The display remains visible at eye level. Since the sensor is connected via an intrinsically safe connection, no conduit cabling is required. The connection also allows 'hot replacement' of the sensor in the hazardous area.

Data logger
The Polytron 8200 has a data logger, which records measuring and event data from prior years.

TECHNICAL SPECIFICATIONS

Type	Explosion-proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Flammable gases and vapours

Dräger Polytron® 8200 CAT

Measuring ranges	DQ: 0 to 100 % LEL
	LC: 0 to 10 % LEL
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)
Signal output analogue	See datasheet
Temperature	See datasheet
Dimensions	w/o docking station: 280 x 150 x 130 mm
	w/ docking station: 280 x 180 x 190 mm
Weight	Aluminium w/o docking station: 2.2 kg
	SS316 L w/o docking station: 4.0 kg
	Aluminium w/ docking station: 3.5 kg
	SS316 L w/ docking station: 5.4 kg
Approvals	UL, CSA, IECEx, ATEX, CE marks, see datasheet for complete list

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 8200 CAT DD d A 4-20/HART	1	8344439
Dräger Polytron 8200 CAT d S 4-20/HART	1	8344448
Dräger Polytron 8200 CAT e A 4-20/HART relay	1	8344458

Dräger Polytron® 8700 IR

The Dräger Polytron® 8700 IR is an advanced explosion proof transmitter for the detection of combustible gases in the lower explosion limit (LEL). It uses a high performance infrared Dräger PIR 7000 sensor, which will quickly detect most common hydrocarbon gases. Besides a 3 wire 4 to 20 mA analogue output with relays, it also offers HART®, Modbus and Fieldbus making it compatible with most control systems.

Dräger Polytron 8700 IR
For the detection of flammable gases in the lower explosive limit

Efficient, stable and robust – the Dräger PIR 7000

The Dräger PIR 7000 is efficient, stable and robust. With its stainless steel SS 316L enclosure and drift-free optics, the Dräger PIR 7000 is built to withstand the harshest industrial environments, offshore installations for example. The unique double compensated 4 beam measuring system makes the sensor resistant to dust or dirt deposits on the optical surfaces, environmental or ageing effects and long term drift. In combination with the Polytron 8700 it offers a gas library with up to 100 gases providing a high degree of application flexibility. Each of the listed gases can be picked from a menu and automatically cross-calibrated with a standard calibration gas such as methane or propane. No need to consult the factory when applications change.

Easy device management via digital communication

The Dräger Polytron 8700 is equipped with digital interfaces allowing for quick and easy remote interrogation of the transmitter's state. Integration with existing asset management systems such as PactWare is possible via DTM. In addition to the common HART® communication system, the fieldbus interfaces PROFIBUS PA, FOUNDATION Fieldbus H1, and Modbus RTU are also available.

Same design, same operating principle

The Dräger Polytron 8700 belongs to the Polytron 8000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The large graphic backlit display shows status information clearly and in an easy to use format. The measured gas concentration, selected gas type, and measuring unit are displayed during normal operation. Colored LEDs (green, yellow and red) provide additional alarm and status information. The Polytron 8700 is operated by means of a magnetic wand over contact surfaces.

Three relays for controlling external equipment

Upon request, the Dräger Polytron 8700 can also be supplied with three integrated relays. This enables you to use it as an independent gas detection system with two arbitrarily adjustable concentration alarms and one fault alarm. Audible alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application

Polytron 8700 features a Class I, Div. 1 rated explosion proof enclosure made from aluminium or stainless steel, making it suitable for a wide range of environmental conditions. A protection type "e" version includes a convenient docking station which allows installation in hazardous atmospheres without running conduit (where approved) and this also facilitates pre-assembly.

Make the impossible possible with the remote sensor

The remote sensor connection housing allows you to install the sensor separately from the transmitter. This allows you to simply place the sensor closer to the gas cloud in hard-to-reach locations. The display remains visible at eye level. Since the sensor is connected via an intrinsically safe connection, no conduit cabling is required. The connection also allows 'hot replacement' of the sensor in the hazardous area.

Data logger

The Polytron 8700 has a data logger, which records measuring and event data from the past years.

Dräger Polytron® 8700 IR

TECHNICAL SPECIFICATIONS

Type	Explosion proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")
Gases	Flammable gases and vapours
Measuring ranges	Methane, propane, ethylene 0 to 20 … 100 % LEL
	Methane 0 to 100 % vol.
	Other substances and measuring ranges on request
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)
Performance Characteristics	See datasheet
Temperature	See datasheet
Dimensions	See datasheet
Weight	Aluminium w/o docking station: 2.2 kg
	SS316 L w/o docking station: 4.0 kg
	Aluminium w/ docking station: 3.5 kg
	SS316 L w/ docking station: 5.4 kg
Approvals	UL, CSA, IECEx, ATEX, CE marks, MED, see datasheet for complete list

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 8700 IR 334 d A 4-20/HART	1	8344601
Dräger Polytron 8700 IR 334 d S 4-20/HART	1	8344610

Dräger PIR 3000

The Dräger PIR 3000 is an explosion proof infrared gas detector for continuous monitoring of combustible gases and vapors. Based on a stainless steel SS 316 enclosure as well as on a good measuring performance, this transmitter offers an excellent price-performance-ratio.

Dräger PIR 3000
Explosion proof infrared gas detector

Failsafe infrared technology and low cost of ownership
The superior performance characteristics of infrared technology (such as poison immune and "fail-safe" operation) have been known and valued in gas detection for many years. The PIR 3000 now offers these performance benefits more affordably, combined with low maintenance costs and a long life time of more than 15 years, cost of ownership is significantly reduced.

Smart and flexible
The PIR 3000 offers a gas library with three gas categories: methane, propane and ethylene. Therefore, nearly all hydrocarbons are detectable. In addition, temperature-compensated linearisation curves allow for signal output for individual substances.

Through optional accessories – e.g. the process adapter or the duct mount set – a multitude of measuring tasks can be performed professionally.

Suitable for the harshest conditions
Based on its exceptional product quality, the PIR 3000 offers high reliability and excellent measuring performance, in relation to long-term stability. With GRP junction box and 316 stainless steel enclosure, a temperature range of - 40 to + 65 ℃ (- 40 to + 149 ℉) and heated measurement optics driving off compensation from the lens, the PIR 3000 is suitable for all the worlds climate zones.

TECHNICAL SPECIFICATIONS

Type	Explosion proof gas detector with infrared sensor technology
Working principle	Temperature-compensated infrared absorption
Gases and ranges	Methane, propane, ethylene: 0 to 100 %LEL (further substances on request)
Measuring performance (Methane)	Digital resolution: 0.5 %LEL, Repeatability: appr. 2 %LEL, Response time t0…90: < 30 seconds (with splash guard and calibration adapter)
Output signal	4 to 20 mA
Temperature	– 40 ℃ to + 65 ℃
Material	Stainless steel, SS 316
Dimensions	170 mm x Ø 37 mm
Ingress protection	IP 65, IP 66 and IP 67
Approvals	ATEX, IECEx, UL, CSA, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PIR 3000 (M25)	1	6810810
Dräger PIR 3000 complete set e	1	6811160
Dräger PIR 3000 complete set d	1	6811180

All transmitters are equipped with splash guard and calibration adapter. The complete set contains a junction box, already pre-assembled.

Dräger PIR 7000

The Dräger PIR 7000 is an explosion proof point infrared gas detector for continuous monitoring of flammable gases and vapours. With its stainless steel SS 316L enclosure and drift-free optics this detector is built for the harshest industrial environments, e.g. offshore installations.

Dräger PIR 7000
Explosion proof point IR detector

Dräger PIR 7000
Two models of the Dräger PIR 7000 are available – type 334 and type 340. Each model works with a different measuring wavelength, thus giving the broadest possible range of detectable substances with superior accuracy.

Advanced signal stability
Following the success of the most stable point infrared gas detector worldwide – the Dräger Polytron IR – Dräger now introduce the Dräger PIR 7000 which encompasses the latest in revolutionary technology. Based on patented innovations, the Dräger PIR 7000 combines a maximum light collecting construction with a 4-beam signal stabilising system. The total optical system uses no light beam split, simply a set of various reflectors. This double-compensating optical system is very resistant towards known influences such as dust, fog or insects frequently found in the measuring cuvette or by dirt accumulation on the optical surfaces. Due to its non-imaging construction, the measuring signal is not affected by a partial beam block. This innovative optical system ensures that the Dräger PIR 7000 fulfils the customer requirements of ›no false alarms‹, longer service intervals and a drift-free signal output.

Fast response
Equally important is being informed about a potential hazard as early as possible. An early and reliable gas alarm allows for safety measures to be initiated on site. To support this, the Dräger PIR 7000 offers a configurable response mode which allows the end user to choose between ›normal‹ or ›high speed‹ response subject to the application. Using the ›high speed‹ option, and combining it with the lowest feasible alarm threshold, the Dräger PIR 7000 shortens the reaction time in case of an alarm. Leakages can be detected at the earliest stage of their existence.

Multiple configuration capabilities
The Dräger PIR 7000 is delivered with the optimum default settings, but remains fully flexible to meet with the customers demands on an application-by-application basis.

Whether it be reduced measuring ranges, configurable special signals (fault, beam block warning, maintenance), adjustable LEL values (values which are different across regions) all coupled with the configurable gas library (for other substances to be monitored) – all these features of the Dräger PIR 7000 offer the possibility to set up every device exactly to the customer's needs and preferences.

Maximum reliability – SIL 2 certified
After almost two decades of experience with infrared technology, leading to a continuously enhanced product quality, the Dräger PIR 7000 is further advanced as the total product has been developed in line with the Functional Safety standard EN 61508. This is applicable to both the devices hardware and software. Furthermore, the excellent parameters as detailed in the SIL 2 (Safety Integrity Level) certificate, issued by the German TÜV show that only 2 % from the entire SIL 2 budget is allocated to the field device, thus providing flexibility to choose control systems and actuators. This is a new understanding of reliability – not only fulfilling but exceeding the SIL 2 requirements significantly.

Features
- configurable gas library – methane, propane and ethylene fixed, up to 10 additional substances can be uploaded
- multiple mounting and configuration capabilities (signals acc. to NAMUR NE 43)
- precise and stable measurement
- fastest response of less than 1 second
- beam block warning in case of dirty optics for preventive maintenance
- long maintenance intervals
- extended temperature range of up to + 77 °C / + 170 °F
- double-compensating, non-imaging optics (using 4-beam technology)
- single cable multidrop capability using HART® communication
- conventional 4-to-20-mA analogue signal output
- hermetically sealed SS 316 L enclosure
- integrated tag holder for individual labelling
- no moving parts

Dräger PIR 7000

- resistant towards shock and vibration up to 4 G
- continuous self-testing in the context of the IEC/EN 61508 standard
- developed and manufactured according to the SIL guidelines, SIL 2 certified by TÜV
- ex approvals for worldwide application: ATEX, IECEx, UL, CSA
- dust approval for zone 21 and 22
- typical lifetime greater than 15 years

TECHNICAL SPECIFICATIONS

Type	Explosion proof gas transmitter with infrared sensor technology
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology
Gases and ranges	Methane, propane, ethylene: 0 to 20...100 %LEL Methane: 0 to 100 % vol. Further substances and measuring ranges on request
Measuring performance (type 334, methane, 0 to 100 %LEL)	Digital resolution: 0.5 %LEL Repeatability: ≤ ± 1 %LEL Response time: t- 0...90 - ≤ 4 seconds ("normal response"), < 1 second ("fast response") Long-term drift: ≤ ± 1 %LEL after 12 months
Electrical data	Output signals: 4 to 20 mA, HART® Fault signal: ≤ 1.2 mA (configurable) Beam block warning signal: 2 mA (configurable) Maintenance signal: 3 mA (configurable) Power supply: 13 to 30 V DC, 3-wire Power consumption: 5.6 W (typical)
Ambient conditions	Temperature: − 40 to + 77 ℃ / − 40 to + 170 ℉ (operating), − 40 to + 85 ℃ / − 40 to + 180 ℉ (storage) Humidity: 0 to 100 %RH Pressure: 700 to 1300 hPa / 23.6 to 32.5 inch Hg
Enclosure	Weight: 2.2 kg (without accessories) Dimensions: 160 mm x Ø 89 mm / 6.3 " x Ø 3.5 " Ingress protection: IP 66 and IP 67, NEMA 4X
Approvals	ATEX, IECEx, UL, SIL2, CE Mark

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PIR 7000 type 334 (M25) HART®	1	6811550
Dräger PIR 7000 type 334 (M25) HART®, complete set	1	6811817
Dräger PIR 7000 type 340 (M25) HART®, complete set	1	6811819
Dräger PIR 7000 334 NPT HART gasdetector	1	6813035

Dräger Pulsar 7000 series

The Dräger Pulsar 7000 Series are stationary open path gas detectors for the detection of explosive hydrocarbons in gases and vapours. The robust design and the extremely rapid response time make the Dräger Pulsar 7000 Series a dependable solution for your requirements in the oil and gas industry, as well as the chemical industry.

Dräger Pulsar 7000 series
Reliable and quick measuring

Reliable and quick measuring
The Pulsar 7000 Series detects a wide range of gaseous hydrocarbons. These include methane, propane and ethylene. An accumulation of these gases in critical concentration can be measured at a distance of up to 200 metres within two seconds. Status LEDs in the transmitter and receiver indicate the operational readiness of the respective device. The continuous self-monitoring offers additional safety. If the signal strength is insufficient, due to dirty optics or other non-operationally critical impairments, a configurable alarm signal will be issued to indicate the need for maintenance. However, the system remains ready for use and can continue to detect gases. In addition to increased operational readiness, there is the benefit of being able to plan maintenance and thus avoid unexpected downtime. The Pulsar 7000 Series is suitable for safety-related applications up to SIL 2.

Reliable even in adverse weather conditions
Reliability is guaranteed not just under ideal weather conditions. For fog, mist, heavy rain or snow, the Pulsar 7000 Series has a mode with increased flash rate and light intensity. Thus, increased IR absorption caused by environmental factors is compensated for. In addition, the heated optics prevent condensate or ice from forming on the lens.

Easy to align, configure and commission
The alignment of the transmitter and receiver and the subsequent commissioning of the system can be easily done by a single person, without the need for an additional telescope or alignment mirror. After an initial rough alignment by eye, the exact alignment of transmitter and receiver is carried out using the fine adjustment screws and a handheld terminal. The alignment is displayed either in a coordinate system with target optics or in the form of numeric coordinates. The built-in calibration feature in the Pulsar 7000 Series does not require manual adjustment or test gas. After alignment, an automatic zero point adjustment with system check starts, which completes the commissioning of the system. All parameters are stored and later used to detect misalignments or deposits on the lenses.

On site diagnostics
A handheld terminal can be used for predictive maintenance and on-the-spot troubleshooting. In addition to alignment and zeroing support, this interface also provides configuration and diagnostic features. Comprehensive diagnostics are possible with the PC software program Dräger PolySoft.

Documented security – protocol and integrated data
An integrated data logger stores the most recent errors, warnings and events. These include, for example, events such as blockages of the signal path, gas alarms, warning signals and any problems with the alignment or with the supply voltage. The data logger is supplemented by an hourly log of the values measured in this time. This includes essential data such as gas reading, signal strength and temperature, which are available for the last ten weeks of operation. Even after that, information is available as a weekly summary of the last ten years of operation.

The right model for any job
The Pulsar 7000 Series offers suitable models for the most diverse applications. The offshore models are equipped with stainless steel junction boxes and cable glands. This makes them particularly robust and able to withstand the harsh environmental conditions. You can use the duct mount model to detect gas buildup in supply or exhaust ducts. The system is specially designed for shaft installations.

Dräger Pulsar 7000 series

TECHNICAL SPECIFICATIONS

Type	Explosion-proof open-path gas detector based on infrared absorption spectroscopy
Gases	Wide range of hydrocarbons, including the alkane series from methane to hexane, propylene
Measuring range	Min. 0 to 4 LEL m, max. 0 to 8 LEL m
Gas category	IEC, NIOSH or PTB; selectable
Factory calibration	Methane, propane or ethylene, selectable
Operating range	4 to 60 m, 30 to 120 m or 100 to 200 m (distance between transmitter and receiver)
Power consumption	< 5 W receiver, < 9 W transmitter
Operating voltage	18 to 32 VDC (24 VDC nominal)
Response time t90	< 2 s (under normal operating conditions when using the digital link)
Skew tolerance	+/- 0.6°; +/- 1,6° with Tx S
Material	Stainless steel AISI 316L "Marine Grade"
Protection class	P66/IP67
Dimensions (approx.)	430 x 670 x 170 mm, incl. cable bend with vertical mounting plate 735 x 410 x 170 mm, incl. cable bend with horizontal mounting plate
Weight (approx.)	9 kg (19.84 lbs), each transmitter and receiver incl. backplate and weather shield
Temperature	-40 to + 60 ℃, -40 to +140 ℉
Pressure	800 to 1,100 hPa
Air humidity	0 to 100% rel. humidity, non-condensing
Approvals	Ex II 2(1) G Ex db [ia Ga] IIC T6/T5 Gb Ex II 2(1) D Ex tb [ia Da] IIIC T80 ℃/T95 ℃ Db ATEX / IECEx Tamb* = -55 ℃ to +40 ℃/+60 ℃ EN/IEC 60079-29-4 FM Class 6325 Performance approval ANSI/ISA-12.13.04 Det Norske Veritas (DNV) American Bureau of Shipping (ABS) Shipping Approvals Lloyd's Register (LR) Safety Integrity Level SIL 2 SC3 Certification by TÜV Nord (EN 61508)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pulsar 7000 Tx S Range JB Ex e	1	6851700
Dräger Pulsar 7000 Tx L Range JB Ex e	1	6851701
Dräger Pulsar 7700 Rx S Range JB Ex e	1	6851702
Dräger Pulsar 7900 Rx S Range JB Ex e	1	6851704
Dräger Pulsar 7000 Tx S Range JB Ex e HD	1	6851718
Dräger Pulsar 7000 Tx L Range JB Ex e HD	1	6851719
Dräger Pulsar 7700 Rx S Range JB Ex e HD	1	6851720

Dräger Flame 1350 (UV/IR)

The Dräger Flame 1350 combines UV and IR sensors to detect hydrocarbon-based fires. These powerful sensors and complex algorithms provide increased safety and fewer false alarms.

Dräger Flame 1350 (UV/IR)
To detect hydrocarbon fires

Fast and safe detection
The Dräger Flame 1350 combines a UV and an IR sensor to safely and reliably detect hydrocarbon-based fires. Due to its reliability and performance, it meets IEC 61508 safety integrity requirements according to SIL2, as well as the high performance requirements of EN54-10 and FM3260. The flame detector also features HART® and RS-485 interfaces and has low power consumption.

Prevention of false alarms
With its two sensors, the Flame 1350 detects electromagnetic radiation in the short-wave UV range and in the IR spectrum. Frequency, intensity and duration of the measuring signals are analysed. An alarm is only triggered if the response criteria of both sensors are met. In this way, the Flame 1350 avoids false alarms. In addition, the sensitive detection ensures that the detector does not falsely report fire from other zones.

Robust and durable
The housing is very robust and weatherproof. The window can be heated automatically to protect it from icing and fogging. This allows you to operate the Flame 1350 reliably even under extreme environmental conditions, e.g. in temperatures from -60 °C to +85 °C.

Simple verification
The built-in self-test "Advanced Optical Verification" (AOV) automatically checks the electronics and optics of the Flame 1350. The three-colour LED on the front allows you to quickly recognise the device status. Green stands for normal operation, yellow indicates a fault and red signals a fire alarm.

Maximum flexibility
If required, the Dräger Flame 1350 can be used as a combined UV/IR detector, as a pure IR detector or as a pure UV detector, e.g. to detect metal fires, as these are only visible in the UV spectrum. The individual sensors can be easily switched on or off using the software supplied.

TECHNICAL SPECIFICATIONS

Type	Explosion-proof UV/IR flame detector
Spectral range	0.18 to 0.2 µm and 3 to 5 µm
Field of view	Horizontal 90°, vertical 90°
Response time	5 seconds (typical)
Sensitivity settings	Low (10 m), Standard (20 m) and High (30 m)
Measuring range*	n-Heptane/Petrol (30 m (100 ft)
	* Fire pan 0.1 m² (1ft²), flare 0.6 m (3 ft)
Relay	Alarm and fault
Signal output	0 to 20 mA
Communication	RS485, HART® 7
Supply voltage	24 VDC nominal (18 to 32 VDC)
Power consumption	Minimum 3 W / maximum 12 W with heating
Material housing	Aluminium or stainless steel, powder-coated
Cable gland	Dual M25 or ¾"NPT
Weight	2.5 kg (5.5 lbs.) aluminium or 6 kg (13.2 lbs.) stainless steel
Protection class	IP66, NEMA 4X
Temperature	-60 to +85 °C (-76 to +185 °F)

Dräger Flame 1350 (UV/IR)

Approvals	ATEX Ex II 2 G Ex db IIC T4 Gb IP66
	IECEx Ex II 2 G Ex db IIC T4 Gb IP66
	FM/FMC Class 1 Zone 1 AEx db IIC T4, Class 1 Div. 1, Groups B, C, D T4
	EAC TR CU Pending
	CCCF Pending
	INMETRO, PESO, etc. On request
	Functional Safety SIL2 (IEC 61508-1-3)
	Certificate of conformity of the measuring functionality EN 54-10 (VdS)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Flame 1500, aluminum, 2 x M25	1	3724440
Dräger Flame 1500, aluminum, 2 x 3/4" NPT	1	3724441
Dräger Flame 1500, stainless steel, 2 x M25	1	3724442
Dräger Flame 1500, stainless steel, 2 x 3/4 NPT	1	3724443
Dräger flame simulator FS-5000	1	4209307
Dräger flame simulator FS-5000	1	3701298
Sealing kit detector - metric	1	3701303
Sunshield - Flame 1x00/3x00/5x00	1	3701299
Mount kit - 2" pole	1	3701300
Mount kit - 3" pole	1	3701301
Mount kit - 4" pole	1	3701302

Dräger Flame 1500 (IR3)

The Dräger Flame 1500 flame detector uses its triple IR sensor to detect hydrocarbon fires even at great distances. It offers you high reliability against false alarms.

Dräger Flame 1500 (IR3)
To detect hydrocarbon fires

Fast and reliable flame detection
The Dräger Flame 1500 is equipped with three infrared sensors. They enable it to detect hydrocarbon-based fires even at a great distance. This reliability allows it to meet IEC 61508 requirements for safety integrity according to SIL2. The flame detector also has a HART® interfaces via which it can be connected directly to the fire alarm system, for example. In addition, the Flame 1500 has a low power consumption.

Prevention of false alarms
The Flame 1500 measures infrared radiation in three different wavelengths and compares them with the reference value of CO2, which is produced during the combustion of hydrocarbons. In combination with the analysis of the flame's flickering, the complex algorithm identifies a fire and excludes sources of interference. In this way, the Flame 1500 reliably prevents false alarms caused by possible fault sources such as welding work or black body radiation.

Robust and resistant
The powder-coated housing made of stainless steel or aluminum is very robust and weatherproof. The viewing window is heated to protect against icing and fogging. This allows you to operate the Flame 1500 reliably under a wide range of environmental conditions.

Simple check
The Optical Verification Test (OVT) automatically checks the electronics and optics of the Flame 1500 without affecting the field of view. The three-colour LED on the front lets you quickly see the status of the unit. Green stands for normal operation, yellow indicates a fault and red signals a fire alarm.

TECHNICAL SPECIFICATIONS

Type	Explosion-proof multi-spectrum (triple) IR flame detector
Spectral range	Three wavelengths in the range from 3 μm to 8 μm
Field of view	Horizontal 90°, vertical 90°
Response time	4 seconds (typical)
Sensitivity settings	Low 15 m, Medium 30 m (standard) and High 60 m
Measuring range*	n-Heptane/gasoline 60 m (200 ft) Methanol 42 m (136 ft) Methane 50 m (165 ft) *Fire pan 0.1 m² (1ft²), flaring fire 0.6 m (3 ft)
Relay	Alarm and fault
Signal output	0 to 20 mA
Communication	RS485, HART® 7
Supply voltage	24 VDC nominal (18 to 32 VDC)
Power consumption	Minimum 3 W / maximum 12 W with heating
Material housing	Aluminium or stainless steel, powder-coated
Cable gland	Dual M25 or ¾"NPT
Weight	2.5 kg (5.5 lbs.) aluminium or 6 kg (13.2 lbs.) stainless steel
Protection class	IP66, NEMA 4X
Temperature	-60 to +85 ℃ (-76 to +185 ℉)

Dräger Flame 1500 (IR3)

Approvals	ATEX Ex II 2 G Ex db IIC T4 Gb IP66
	IECEx Ex II 2 G Ex db IIC T4 Gb IP66
	FM/FMC Class 1 Zone 1 AEx db IIC T4, Class 1 Div. 1, Groups B, C, D T4
	EAC TR CU Requested
	CCCF Requested
	INMETRO, PESO, etc. On request
	Functional Safety SIL2 certified

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Flame 1500, aluminum, 2 x M25	1	3721519
Dräger Flame 1500, aluminum, 2 x 3/4" NPT	1	3721517
Dräger Flame 1500, stainless steel, 2 x M25	1	3721518
Dräger Flame 1500, stainless steel, 2 x 3/4 NPT	1	3721519
Dräger flame simulator FS-5000	1	4209307
Sealing kit detector - metric	1	3701303
Sunshield - Flame 1x00/3x00/5x00	1	3701299
Mount kit - 2" pole	1	3701300
Mount kit - 3" pole	1	3701301
Mount kit - 4" pole	1	3701302

Dräger Flame 1750 H2 (IR3)

h its triple IR sensor, the Dräger Flame 1750 H2 detects hydrogen based fires. It offers you high reliability against false alarms and its good measurement performance remains even at extreme temperatures.

Dräger Flame 1750 H2 (IR3)
To detect hydrogen fires

Fast and safe detection
The Dräger Flame 1750 H2 is a triple IR flame detector. It detects hydrogen-based fires even at a greater distance. In just five seconds, it notifies you of a hydrogen fire (1-metre flame) at a distance of up to 40 metres. Due to its certified reliability, the Flame 1750 H2 meets the IEC 61508 requirements for safety integrity according to SIL 2.
The flame detector also has HART® and RS-485 interfaces and has low energy consumption.

Developed for hydrogen
The Dräger Flame 1750 H2 was specially developed for the detection of hydrogen fires. Its three IR sensors measure only in the 2 to 4 µm range relevant to hydrogen flames, guaranteeing high performance and a low false alarm rate. Common sources of false alarms, such as hot CO_2 or welding work, are no longer a problem for you.

Robust and durable
The housing is very robust and weatherproof. To protect against icing and fogging, the window can be heated automatically. This allows you to operate the Flame 1750 H2 reliably even under extreme environmental conditions, e.g. in temperatures from -60 °C to +85 °C.

Simple verification
The built-in self-test "Advanced Optical Verification" (AOV) automatically checks the electronics and optics of the Flame 1750 H2. The three-colour LED on the front allows you to quickly see the device status. Green stands for normal operation, yellow indicates an error and red signals a fire alarm.

TECHNICAL SPECIFICATIONS

Type	Explosion-proof IR flame detector
Spectral range	Three wavelengths in the range from 2 µm to 4 µm
Field of view	Horizontal 90°, vertical 90°
Response time	4 seconds (typical)
Sensitivity settings	Standard (30 m) and High (40 m)
Measuring range*	Hydrogen 40 m (131 ft)
	n-Heptane 12 m (30 ft)
	Methane 30 m (100 ft)
	*Fire pan 0.1 m^2 (1ft^2), flare 0.6 m (3 ft)
Relay	Alarm and fault
Signal output	0 to 20 mA
Communication	RS485, HART® 7
Supply voltage	24 VDC nominal (18 to 32 VDC)
Power consumption	Minimum 3 W / maximum 12 W with heating
Material housing	Aluminium or stainless steel, powder-coated
Cable gland	Dual M25 or ¾"NPT
Weight	2.5 kg (5.5 lbs.) aluminium or 6 kg (13.2 lbs.) stainless steel
Protection class	IP66, NEMA 4X
Temperature	-60 to +85 °C (-76 to +185 °F)

Dräger Flame 1750 H2 (IR3)

Approvals	ATEX Ex II 2 G Ex db IIC T4 Gb IP66
	IECEx Ex II 2 G Ex db IIC T4 Gb IP66
	FM/FMC Class 1 Zone 1 AEx db IIC T4, Class 1 Div. 1, Groups B, C, D T4
	EAC TR CU Requested
	CCCF Requested
	INMETRO, PESO, etc. On request
	Functional Safety SIL2 certified
	Certificate of conformity of the measuring functionality EN 54-10 (VdS)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Flame 1750 H2, Aluminium, 2 x M25	1	3724447
Dräger Flame 1750 H2, Aluminium, 2 x ¾" NPT	1	3724445
Dräger Flame 1750 H2, Stainless steel, 2 x M25	1	3724446
Dräger Flame 1750 H2, Stainless steel, 2 x M25	1	3724444
Mount kit - 2" pole	1	3701300
Mount kit - 3" pole	1	3701301
Mount kit - 4" pole	1	3701302

Dräger Polytron® 8900 UGLD

The Dräger Polytron® 8900 UGLD transmitter is an early warning area monitor for detecting high-pressure gas leaks in outdoor industrial process environments. Thanks to an ultrasonic acoustic sensor, it responds earlier than conventional gas detectors because it registers the sound of leaking gas instead of measuring the concentration of accumulated gas clouds. As gas escapes, leaks are immediately detected in the surrounding area, regardless of the wind direction.

Dräger Polytron 8900 UGLD
Early warning area monitor

Ultrasonic sensor technology – the early warning system for gas leaks

Typical gas detection systems used to monitor pressurised gas pipes or containers in industrial environments only detect a gas leak if the gas is in the immediate vicinity of the gas sensor. Environmental influences such as wind can delay or prevent a gas cloud from being detected by gas sensors. However, the Dräger Polytron® 8900 UGLD is not affected by these environmental factors and detects a high-pressure gas leak as soon as gas escapes. Effective early gas leak warnings can prevent unnecessary shutdowns, saving time and money.

A perfect complement to your gas detection system

The Dräger Polytron 8900 extends the Polytron 8000 series family with acoustic gas leak detection. All transmitters in this series have the same design and an identical user interface. A common user interface ensures that little training or maintenance is required for existing users. The Polytron 8900 UGLD perfectly complements existing flame and gas detection systems with reliable early gas leak warnings.

Delivers results that are easy to understand

For an easy interpretation of results, the measured values on the display of the Polytron 8900 UGLD are shown from 0 to 100 percent of the full scale decibel sensitivity range. The ultrasound level is immediately displayed and transmitted and allows for an easy interpretation. Alarms are configured at a specific level above a predetermined background noise level. Additionally, a time delay of up to 30 seconds can be set in the control system.

Can even detect gas leaks in loud industrial environments

Loud process areas generate noise which is mostly in the audible spectrum. Gas leaks from pressurized vessels above 10 bar generate both audible sound and inaudible ultrasound. Since Polytron 8900 is tuned to measure in the ultrasound spectrum, it can easily identify gas leaks with a leak rate of 100 g/sec in a 20 meter radius circle.

Robust design and fully-sealed sensor

The Polytron 8900 UGLD is an explosion-proof transmitter with a sensor housed in a galvanically-isolated, intrinsically-safe enclosure. The sensor is an ultrasonic microphone that is completely sealed in PVCC, making it impervious to water and dirt. It provides reliable readings without the need for an additional environmental protection baffle. Regular calibration is not necessary, but unlike some other UGLDs on the market, calibration is possible and easy with the offered calibration kits. The expected lifespan of the ultrasonic sensor is more than 10 years.

TECHNICAL SPECIFICATIONS

Type	Explosion proof / flameproof enclosed transmitter ("d")
Gases	Hydrogen, methane, ethylene, propane, carbon dioxide, nitrogen, hydrogen sulphide and many other pressurised gases.
Measurement ranges	0-100% equivalent to 55-110 dB; typical alarm setting 10% UGLD signal above background
Display	Back-lit graphic LCD display; 3 status LEDs (green/yellow/red)
Analogue signal output	Normal operation: 4 to 20 mA Maintenance: Constant 3.4 mA or 4 mA ±1 mA, 1 Hz modulation; (adjustable) Fault: < 1,2 mA
Power supply	10 to 30 V DC, 3-wire

Dräger Polytron® 8900 UGLD

Housing	Transmitter housing: Stainless steel SS316L
	Sensor housing: Polyamide 6
Temperature	-40 to +65 ℃ (-40 to 149 ℉) with relays
Ambient Conditions	Pressure: 700 to 1,300 mbar
	Humidity: 0 to 100 % relative humidity
Size (H x W x D)	280 x 150 x 130 mm
Weight	5.0 kg
Approvals	UL:
	Class I, Div 1, Groups A, B, C, D;
	Class I, Zone 1, Group IIC;
	T-Code T4
	CSA:
	Class I, Div 1, Groups A, B, C, D;
	T-Code T4
	IECEx:
	Ex db [ia] IIC T4 Gb,
	-40 ≤ Ta ≤ +70 ℃
	ATEX:
	II 2G Ex db [ia] IIC T4 Gb,
	-40 ≤ Ta ≤ +70 ℃
	CE Markings:
	ATEX (Directive 2014/34/EU)
	Electromagnetic compatibility (Directive 2014/30/EU)
	Low voltage (Directive 2014/35/EU)
	Marine approval:
	DNV-GL
	SIL 2:
	Certificate TÜV Süd

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron® 8900 UGLD d S 4-20/HART® Relay	1	8328030

Dräger Alcotest 5000

The Dräger Alcotest® 5000 is a professional breath-alcohol tester which detects the presence of alcohol. The high-speed breathalyser lets you perform numerous tests in no time. Its special funnel reduces the back-flow of expired air to a minimum, preventing the risk of infection to subsequent test subjects.

Dräger Alcotest 5000
Professional alcohol testing device

Maximum control in minimum time with our fastest ever breathalyser

With the Alcotest® 5000, you can test up to 12 people a minute to determine whether they have consumed alcohol or not. Especially for police and private security professionals, testing large numbers of people for intoxication in a short period of time presents a major challenge: for example, during large-scale operations, entrance checks at work sites, and stadiums, entry points to public transport and airport security checks. In the case of a positive test result, exact blood-alcohol levels can be calculated if necessary using Dräger alcohol screeners or court-approved evidential devices.

High-precision rapid alcohol testing with hygienic funnel design

The alcohol test takes place without the need for bodily contact with the test subject. There is no need to attach and detach mouthpieces, because testing requires the subjects simply to blow into a funnel. With its unique design, this special Dräger Alcotest 5000 funnel prevents the back-flow of the subject's own expired air and the inhalation of any pathogens from previous test subjects. After use, the funnel attachment is easily exchanged, providing assurance of a hygienic solution.

Alcohol testing with simple operation and convenient oversight

With its easy-to-use, single-button operation via the OK button, the Alcotest 5000 is the latest generation of Dräger's proven, simple-to-operate alcohol testing devices. Using its two additional arrow buttons, you can navigate easily and for example: view the latest test results, reset the test counter, check for the next scheduled calibration date, or set the menu to a different language. The instructions for the test process are languageneutral and easy to understand, thanks to symbols on the display.

Breath-alcohol testing at a distance

Where the tester and the test subject are not adjacent (for example, a driver seated in the cab of a lorry), the Alcotest 5000 features a ¼" thread on the back of the device where a standard selfie stick can be attached. This speeds up the breath-alcohol testing process. With just one change of batteries, the Alcotest 5000 can perform over 5,000 tests, whether actively (the test subject actively blows into the funnel attachment) and / or passively (for example, measuring alcohol in ambient air or suspicion of alcohol in beverages).

Innovation born out of tradition

With over 65 years of experience, Dräger is the global market leader in the field of breath-alcohol testing. Police in many countries use devices from the Alcotest product series in everyday traffic monitoring. The Alcotest 5000 is made in Germany and meets the highest standards of quality. It uses the same, professional EC sensor technology, ensuring precise test performance and secure results.

TECHNICAL SPECIFICATIONS

Measuring range	0 to 0.029 mg/L - → "Tick mark" symbol on the display screen means "No Alcohol Detected", visually supported by a green LED. From 0.030 mg/L - → "X" symbol on the display screen means 'Alcohol Detected', visually supported by a red LED. From 2.5 mg/L - → Measuring range exceeded (↑↑↑)
Standard sampling	Sampling starts automatically when the minimum volume or predefined blowing time is reached. Passive sampling can be done with or without a funnel. Sampling can be triggered manually while the test subject blows into the funnel.
Start-up time	Ready to use approx. 4 sec. after switching on

Dräger Alcotest 5000

Display of the measurement results	After approx. 2 sec. (at 0 to 0.029 mg/L); after approx. 6 sec. (at e.g. 0.5 mg/L, at room temperature).
Measurement basis	Electrochemical DrägerSensor®, alchohol-specific
Display	Graphic LCD display with backlight 32 x 22 mm (128 x 64 pixel)
LEDs	Two-colours, for supporting test results and warning messages on the display
Acoustic signals	Various signal tones for supporting display and warning messages
Memory	Stores the latest 500 test results with test number, date and time
Energy supply	3x AA batteries, charge status shown on display; with the battery life from 3x AA batteries, more than 5,000 tests can be performed.
Funnel intake	Click adapter for funnel
Funnel	Hygienic, individually packaged with air outlets for minimising back-flow of expired air
Operating design	Test functions are started with the "OK" button; two arrow buttons are used to navigate through the menu.
Calibration	Wet- or dry-gas calibration with the Alcotest 5000 calibration adapter
Exterior	Impact-proof ABS/PC
Dimensions (W x H x D), Weight	Approx. 63 x 219 x 41 mm; approx. 245 g incl. funnel and batteries
Vibration and impact resistance	EN 60068-2-27, EN 60068-2-6; EN 60068-2-64
CE marking	EMC Directive
Standards	Contactless breath-alcohol testing devices are currently not subject to any standards
Internal clock	Warning 30 days before service interval expires
Service interval	24 months
Operating temperature	-15 ℃ to +50 ℃
Air humidity	10 to 100 % relative humidity (not condensed and in operation)
Ambient pressure	600 to 1,300 hPa

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest® 5000 - including 3 blow funnels, wrist belt, 3x alkaline battery and cover	1	8327701
Alcotest® 5000 funnels, 10 pc., individually hygienically packaged	1	8327718

Dräger Alcotest 6000

The Dräger Alcotest® 6000 allows the professional user to perform a breath alcohol test with speed and precision. The measuring technology of this small and user-friendly portable measuring device has already been proven worldwide and has been sold over 1,000,000 times.

Dräger Alcotest 6000
Professional alcohol testing device

Breath alcohol testing made easy

The device is ready to use within seconds. This means that you can perform an (active) test on a subject at any time. It is also possible to measure alcohol in the ambient air (passive), in which case a mouthpiece isn't required.
All functions required for a measurement are activated with the convenient blue OK button, while two menu buttons are used for navigation

Versatile and tough

The tried and tested electro-chemical Dräger sensor in the Alcotest 6000 is distinguished by its very fast response times and a long service life. It operates with extreme precision and reliability. The analysis is reliable even at temperatures of -5 to +50 °C / 23 to 122 °F. The sensor also delivers reliable results quickly in case of a high alcohol content, for both active and passive measurements.

Convenient to use

Dealing with intoxicated people requires a high degree of attention and concentration. An intuative operation of the device is an important aspect for ease of use and smooth breath testing procedures.
All measurement functions can be operated with just one button to make it easier for you to perform the test. The large back-lit display is easy to understand due to its full-text messages which guide you securely through the alcohol test. An LED and audible signal complement the display and indicate the end of a measurement process. Two menu buttons are used to navigate through the menu, enabling you to perform functions such as reviewing the last test results and optional printing.

Simply hygienic: the Slide'nçlick mouthpiece

The sophisticated product design meets the requirements for performing the breath alcohol test quickly, easily and hygienically: The shape of the Slide'n'click mouthpiece allows you to intuitively fit it correctly, even in the dark. The Alcotest 6000 is ready to use again immediately after changing the mouthpiece. Furthermore, attempts at obstruction are consistently rejected by the device: The air outlet cannot be closed, foiling any attempts to manipulate the device when giving a breath sample.
A spacer on the mouthpiece keeps the lips of the person being tested from coming into contact with the device's housing. The spacer can also be used as a mouthpiece ejector if necessary. Mouthpieces with return valve are also available upon request.

The Alcotest Hygiene Plus

Hygiene is an increasingly important part of our everyday lives. Dräger Alcotest breath-alcohol detection devices use non-invasive measuring technologies with a high degree of hygiene – for the user as well as the test subject – thanks to the following features:
- During testing, the exhaled air is directed past rather than through the device
- There is a 90° angle between the user and the test subject during testing
- Disposable mouthpiece is individually packaged

Benefits of the Slide 'n' Click mouthpieces

- safe, hygienic distance between user and test subject
- spacer prevents direct contact between lips and device
- mouthpiece is easy to remove
- the non-return valve prevents inhalation of air through mouthpiece

Innovation born out of tradition

With over 65 years of experience, Dräger is the global market leader in the field of breath-alcohol testing. Police in many countries use devices from the Alcotest product series in everyday traffic monitoring. The Alcotest 6000 is made in Germany and meets the highest standards of quality. It uses the same, professional EC sensor technology, ensuring precise test performance and secure results.

Dräger Alcotest 6000

TECHNICAL SPECIFICATIONS

Measuring principle	Electrochemical Dräger sensor for 1/4" technology, alcohol specific
Measuring range	0 to 2.5 mg/L; if measurement range limit is exceeded, a message is displayed
Sampling	Standard: automatic sampling when minimum volume resp. defined blow time is reached; Passive sampling without mouthpiece or manual initiation of sampling possible
Ready for use	Approx. 2 s after switching on
Display of the measurement results	After approx. 3 s (at 0 mg/L, room temperature)
Operating temperature	-5 to +50 °C / 23 to 122 °F
Relative humidity	10 to 100 % relative humidity (non-condensing and in operating state)
Ambient pressure	600 to 1,300 hPa / 17.7 to 38.4 inch Hg
Display	Graphic backlit LCD display; 32 x 22 mm / 1.3" x 0.9" (128 x 64 pixels)
LED	2-colour, to support display of results and warning messages
Audible signal	Different signal tones to support display messages and warnings
Datalogger	Storage of last 500 tests with test numbers
Power supply	1 x CR123A-Battery, charge level indicator in display, with one battery approx. 1,500 breath tests can be done.
Mouthpiece adaption	Improved Slide'n'click mouthpiece attachment; can be fitted for right or left orientation
Mouthpiece	Hygienically, individually packaged, with tamper-proof, tamperproof air outlet, mouthpiece ejector and spacer between mouth and instrument housing
Operating concept	Measurement functions can be performed using just one button; menu navigation is via two menu button
Calibration	Wet gas or dry gas calibration
Housing	Impact resistant ABS/PC
Dimensions (W x H x D), weight	Approx. 50/60 x 141 x 31 mm / 2"/2.4" x 5.6" x 1.2"; approx. 150g / 0.33 lbs, incl. battery
Instrument configuration	Direct menu-guided configuration of instrument settings (PIN required) No additional PC software needed
Vibration and shock	EN 60068-2-27, EN 60068-2-6; EN600-2-64
CE marking	CE conform
Norms	EN 15964, NHTSA, FDA Conformity, depending on configuration
Internal clock	Warning or deactivation after end of service interval
Protection type	IP54
Bluetooth* (optional)	For the communication with the Dräger Mobile Printer BT

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest® 6000 - configurator - with Bluetooth	1	3706320
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 100 pieces	1	6810690
Mouthpieces 'slide'n click', 250 pieces per unit	1	6810825
Mouthpieces 'slide'n click', 1,000 pieces per unit	1	6810830
Protection bag, black	1	8324999
Protection bag, yellow	1	8327811
Lithium battery (CR123A)	1	4543808
Dräger Mobile Printer BT	1	3700421

Dräger Alcotest 7000

The Dräger Alcotest® 7000 sets new standards in alcohol test devices. Its benefits include a wider temperature- and measuring range, low maintenance requirements and various networking options. In addition, the device can perform alcohol tests via both a mouthpiece and a funnel. Reliable alcohol tests have never been so fast, simple and efficient.

Dräger Alcotest 7000
Fast, simple and efficient

Only one calibration per year
Typically alcohol testing devices have to be calibrated every six months. Thanks to its exceptional measurement stability, the Dräger Alcotest® 7000 only needs calibrating every 12 months. As a result, you only have to collect, send off and then re-issue your alcohol testers once a year. This saves time and, above all, money.

Two measurement methods in one device
Alongside the classic test using a mouthpiece, with the Alcotest 7000 you can also carry out tests using a funnel attachment. This enables you to complete a large number of alcohol tests in a very short span of time: time-saving, cost-effective and hygienic. The funnel-based test gives you an initial indication as to whether or not alcohol is present in the subject's breath. If the answer is yes, you simply press a button to switch over to the mouthpiece-based test mode. The following test then shows you the actual level of alcohol in the subject's breath.

Wide temperature range
With the Alcotest 7000 you can take reliable measurements even in extreme temperatures. The alcohol tester's patented heating system and high-quality materials ensure dependable results in temperatures ranging from -10 °C to +55 °C.

Network-connected solutions
The built-in Bluetooth® Low Energy technology offers you energy-saving, digital connectivity for the device and its data. This has many advantages: For example, the wireless connection of the alcohol tester to the Dräger BT Mobile Printer enables you to print out test results from a distance of up to 15 meters. In addition, our software solution "Dräger add" facilitates a range of processes for you, such as precise location mapping and the on-site digitalisation of personal data and test results. Dräger's Service Connect software enables you to download measurement data and much more. You can also connect the Alcotest 7000 directly to a computer with a USB-C cable to read out just the test results.

High alcohol-detection limits
The increased performance capacity of the Alcotest 7000 also includes its measurement range. The maximum blood-alcohol limit that can be set with this alcohol testing device is as high as 3 mg/l. If this measurement range limit is exceeded, the display will tell you.

The Alcotest Hygiene Plus
Hygiene is an increasingly important part of our everyday lives. Dräger Alcotest breath-alcohol detection devices use non-invasive measuring technologies with a high degree of hygiene – for the user as well as the test subject – thanks to the following features:
- during testing, the exhaled air is directed past rather than through the device
- there is a 90° angle between the user and the test subject during testing
- disposable mouthpieces and funnel attachments are individually packaged

Benefits of the Slide 'n' Click mouthpieces:
- safe, hygienic distance between user and test subject
- spacer prevents direct contact between lips and device
- mouthpiece is easy to remove
- the non-return valve prevents inhalation of air through mouthpiece

Benefits of the replaceable funnel attachment:
- no body contact with the test subject
- blocks backflow of the test subject's own exhaled air, which prevents intake of potential pathogens from previous test subjects

Innovation born out of tradition
With more than 65 years of experience, Dräger is a market leader in the field of breath-alcohol testing. Law enforcement in many countries use devices from the Alcotest product series in everyday traffic monitoring. The Alcotest 7000 is manufactured in Germany and meets the highest quality standards.

Dräger Alcotest 7000

TECHNICAL SPECIFICATIONS

Detection basis	Electrochemical DrägerSensor®, 1/4" technology, alcohol-specific
Measurement range	Breath alcohol concentration: 0 to 3.0 mg/l;
	(Ethanol mass per minimum volume at 34 °C and 1,013 hPa)
	Blood alcohol concentration: 0.00 to 6.00 ‰ (Ethanol mass per
	blood volume or mass at 20 °C and 1013 hPa)
	Visual signal when measuring limits are exceeded
Sample collection	Default: Automatic sample collection when minimum volume or predefined blowing time is reached;
	Passive sampling or manual triggering of sampling possible
Start-up time	Approx. 3 seconds after switching on (depending on configuration)
Display of test results	After approx. 3 seconds (at 0.0 mg/l)
	After approx. 10 seconds (at 0.5 mg/l, at room temperature)
Ambient operating conditions	-10 °C to +55 °C; 10 to 100 % relative humidity
	(non condensing); 600 to 1,300 hPa
Ambient conditions during storage	-20 °C to +60 °C; 15 to 75 % relative humidity
	(10 to 100% relative humidity <48 h); 600 to 1,300 hPa
Display	QVGA TFT colour display 320 x 240 2.4"
LEDs	tricolour LEDs to help display results and warning messages
Acoustic signals	Various signal tones to support display and warning messages
Memory	Storage of the last 30,000 tests (minimum information) or 10,000 tests (high-detail information)
Energy supply	Lithium-ion battery (rechargeable via USB-C connection) or alkaline version (3 x 1.5 V alkaline type or
	3x NiMH or 3x lithium primary cell (Mignon, LR06, AA), Charge status shown in display; one charge is
	sufficient to perform approx. 5,000 breath test (lithium version) or 1,500 breath tests (alkaline
	version).
Mouthpiece receptacle	The Slide 'n' Click mouthpiece or Alcotest funnel mounts on either side
Mouthpiece	Hygienic, individually packaged with tamper-proof, unclosable air outlet
	Mouthpiece ejector and spacer between mouth and device housing
Funnel	Hygienic, individually packaged with air outlets for minimising back-flow of expired air
Operating design	Measuring functions can be performed with one key; Navigation in menu with two menu keys
Calibration	Wet gas or dry gas calibration;
	Recommended calibration interval of 12 months
Casing	Impact-resistant ASA/PC
Dimensions (W x H x D), weight	61 mm x 172 mm x 36 mm;
	A7000 LI: 275 g
	A7000 AA: 285 g
Device configuration	Configuration of device settings direct via device menu (PIN required)
	No additional PC software required
Vibration and impact resistance	EN 60068-2-27, EN 60068-2-6; EN600-2-64
CE mark	Electromagnetic compatibility
Standards	EN 15964, NHTSA, FDA-conformity, depending on configuration
Internal clock	Warning or switch-off after expiry of calibration period (depending on configuration)
Protection type	IP54
Interface	USB-C
Bluetooth®	Bluetooth® Low Energy 5.0
GPS	Options

Dräger Alcotest 7000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 7000 – including 3 mouthpieces, hand strap	1	3700400
Dräger Alcotest 7000 charging cradle	1	3700420
Mouthpieces – package of 100	1	6810690
Mouthpieces – package of 250	1	6810825
Mouthpieces – package of 1000	1	6810830
Transport/storage bag 'S', (LxWxH = 195 x 134 x 60 mm), with space for the Alcotest 7000 and mouthpieces	1	3714803
Transport/storage bag 'M' (LxWxH = 230 x 195 x 75 mm) with space for the Alcotest 7000, Mobile Printer BT, nozzles, printer paper, etc.	1	3714802

Dräger DrugTest 5000 analyzer

The Dräger DrugTest® 5000 system comprising two main components: the Dräger DrugTest® 5000 Test Kits and the Dräger DrugTest® 5000 Analyzer. The system is a fast, accurate means of testing oral fluid samples for drugs of abuse, such as amphetamines, designer amphetamines, opiates, cocaine and metabolites, benzodiazepines and cannabinoids, as well as precise diagnostic evaluation and data management.

Dräger DrugTest 5000 analyzer
Easy, fast, reliable and safe drug detection

Features
Reliable and easy to use, the Dräger DrugTest® 5000 Analyzer is a mobile measurement device for providing qualitative detection of drugs in the oral fluids collected using the Dräger DrugTest® 5000 Test-kits.

Reliable and easy to use
Providing reliable and precise analysis of the Test Kit sample within just few minutes, this state-of-the-art optoelectronic system weighs less than 4.5 kg.

Display
Featuring a user-friendly, menu-driven, illuminated display which can be easily read, even at acute angles. Eliminating the possible misinterpretation of results by ensuring that the only result visible is an accurate one, the full colour, user display interface can show one of five installed languages at any one time, this selection can be customized. The analyzer's integral data memory allows for up to 500 individual measurements to be stored.

Data management
The Dräger DrugTest® 5000 Analyzer, with its simple three-key operation, can also be easily linked to a wide variety of data recording devices such as a PC, printer or barcode scanner. In addition to data management, a built-in self-test capability controls temperature, optics and general operation such divers photo- and tilt sensors. With easily configured software, the flexible menu can also be quickly configured to meet the needs of different applications.

Accessories
With its carry bag and transportation box, this mobile system is suitable as complete "substance abuse monitoring" setting for on-the-spot measures, supplied with Mobile Printer, keyboard, DrugTest® 5000 test kits, breath alcohol testing device, mouthpieces, system documentation among other supplies.

TECHNICAL SPECIFICATIONS

Supply voltage	12 V DC (11 TO 15 V DC)
Current consumption	typically 3 A
Dimensions	200 x 250 x 220 mm
Weight	4.5 kg
Temperature	Operation: 5 to + 40ºC
	Storage/transport: – 20 to + 60ºC
Moisture range	5 to 95 %rh, non condensing
Interfaces	optical IRDA (printer), PS/2, USB Slave
Duration of one measurement	5 to 10 minutes, depending on the type of test
Storage capacity	500 data sets

Dräger DrugTest 5000 analyzer

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger DrugTest 5000 Analyzer, including power and connection cable	1	8319900
Dräger DrugTest Kit (6-panel), set for 20 testkits, for detection of amphetamine (AMP), cocaine (COC), methamphetamine (METH), opiates (OPI), cannabis (THC) and benzodiazephene (BENZO's)	1	8319830
Keyboard "Compact" (PS/2, size appr. 28,2 x 13,2 x 2,4 cm) "QWERTY"- US international	1	8315497
Dräger Saliva Confirmation Kit	1	8323880
Dräger DrugTest 5000 carry bag, with extra space for Drugtest testkits, Dräger Alcotest 6510/6810, mouth pices and mobile printer	1	8322675
Vehicle cable 12V	1	8312166
USB connection cable	1	AG02661

Dräger DrugCheck 3000

Use the Dräger DrugCheck® 3000 to find out within minutes if a person has drugs in his or her system. The compact and quick saliva-based drug test yields reliable results cheaply and easily. The device does not require electricity and can be used anywhere.

Dräger DrugCheck 3000
Easy, fast, reliable and safe drug detection

Drug test - obtain samples easily and safely
The Dräger DrugCheck 3000 consists of two components: an absorbent collector for obtaining a saliva sample and a test cassette for the analysis. The test cassette contains the buffer liquid and a window with two teststrips, which displays the control and test lines. The drug test itself is performed in three easy steps: swab thesaliva sample, shake the test kit, wait for a brief incubation period, and then start the test. A colour indicator onthe swab disappears as soon as it has absorbed enough oral fluid for a test.
As soon as the control lines appear in the window, you can read the results. If the test result is negative, a linewill appear alongside the respective substance class (drug). This means that none of the target substance wasdetected in the sample. If a line fails to appear next to one of the substance classes, then the result for this substance is positive.

Fast and sensitive drug analysis
Check individuals for up to six substance classes simultaneously with Dräger DrugCheck 3000: cocaine, opiates, amphetamine, methamphetamines/designer drugs (e.g. Ecstasy, MDMA), benzodiazepines(e.g. in prescription medicines) and cannabis (THC). Of all the substance classes listed, cannabis is thedrug consumed most frequently and also the most difficult of all compounds to identify (THC =

delta-9-tetrahydrocannabinol). This is why the Dräger DrugCheck 3000 was optimised to detect THC, and now offerstwo measurement options: depending on the chosen waiting time (pre-incubation) of the test there is a fastoption with a higher or sensitive option with a low THC cut-off. The entire drug test only takes 3 – 5 minutes.

Unambiguous on-the-spot drug screening
Its compact pocket sized design makes the DrugCheck 3000 easy to transport. It can be made ready for usequickly and easily, and is suitable for flexible use applications such as roadside checks and testing in safety-relevant workplaces*. The test kit has no electrical parts, which makes the drug tester safe to use in hazardousareas and even as point-of-care-testing (POCT).

Additional benefits
Dräger has decades of experience in alcohol measuring equipment and drug detection methods. For theDrugCheck 3000, Dräger employed the testing principle of the proven Dräger DrugTest® 5000 system, whichreliably detects even minute traces of THC. The disposable DrugCheck 3000 test kit cannot be manipulatedand is hygienic to use.

*The DrugCheck 3000 is sold only for law enforcement purposes in the USA.

TECHNICAL SPECIFICATIONS

Dimensions (w x h x d)	32 x 111 x 57 mm
Weight	< 30 g
Operating range	Operation: 5 ℃ to 40 ℃ (41 ℉ to 104 ℉) at 5 % to 95 % relativehumidity
Storage / transportation	4 ℃ to 25 ℃ (39 ℉ to 77 ℉)
Time of measurement	Fast measurement: analysis < 3 minutes Sensitive measurement: analysis < 5 minutes
Selecting the measurement mode	Depending on the selected pre-incubation time and the desired THC cut-off fast or more sensitive reading.
Licenses / standards	Licensed as a medical product within the EU in accordance with Directive 98/79/EC on in vitro diagnostic medical devices (IVD). Outside of the European Union for non-medical use (Non-IVD) or for forensic use (only USA).

Dräger DrugCheck 3000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger DrugCheck® 3000 STK 6 IVD, 20 testkits in one package	1	8327960

Dräger PSS® AirBoss

The Dräger PSS® AirBoss offers best in class ergonomics and is one of the lightest weight breathing apparatus for firefighting. Lessons learned from firefighters around the world as well as latest innovations in technology have led us to design an even safer and cleaner SCBA system to enable you to breathe more easily and for longer.

Dräger PSS® AirBoss
Best in class ergonomics

Excellent fit
The PSS® AirBoss ergonomics significantly reduce the physical strain associated with carrying SCBAs. Some key features include height-adjustment, a pivoting and sliding waist belt, and easily adjustable harness to fit every shape and size of firefighter. The durable space frame design offers you a low weight and low profile all the while maintaining the SCBA's centre of gravity in an optimum position for greater weight distribution. Due to its low weight and class leading ergonomics, you benefit from reduced stress and fatigue which leads to lower air consumption. Moreover, the PSS® AirBoss offers different routing options for the LDV, gauge, and rescue hoses over each shoulder and waist belt to provide you with your preferred fit. The easy to connect reducer handwheel simplifies cylinder removal and fitting. A cylinder Quick Connect option further shortens the time for cylinder changeouts. Our universal cylinder strap allows single or twin cylinder configurations. For a fast cylinder exchange, we developed a new universal cylinder strap and buckle which also keeps your SCBA in a secure position. This conveniently offers you the option of single and twin cylinders using a single system for extended duration operations.

Enhanced safety
The PSS® AirBoss comes with large reflective surfaces, thus increasing firefighters' visibility as well as making it easier to locate team members in distress. When you equip the PSS® AirBoss with a Personal Alert Safety System (PASS), it further increases this effect. It positions buddy lights at the front and back of the SCBA. Furthermore, the PASS draws attention to firefighters in distress by generating distinctive visual and acoustic alert signals – e.g. after a fall or impact, when motionless, when reaching low-air, experiencing high thermal stress or activating the manual distress signal. Next to the wearer's position, the buddy lights can also indicate the remaining pressure of the air cylinder by emitting different colours, giving team members critical information at a glance. The PASS' automatic switch on feature

activates upon cylinder opening – so its activation cannot be forgotten. To improve your safety, we also designed an integrated anti-entanglement system to help prevent wires and cables from getting snagged between the cylinder and backplate. In addition, the PSS® AirBoss is equipped with grab handles for firefighter extraction and rescue. The PSS® AirBoss can additionally be equipped with a Heads-up display. Always within the field of view – the Heads-Up-Display gives firefighters continuous hands-free information of air consumption, therefore enabling you to have an uninterrupted operation.

Automatic Accountability System
Our state-of-the-art automatic accountability system, Dräger FireGround, supplies the incident commanders (IC) with live information from SCBA wearers –making sure that all SCBA wearers are accounted for at every incident. The Dräger FireGround gives ICs, an additional, non-verbal means of communication with their team. The PSS® AirBoss can be equipped with a built-in radio for data transmission – connecting each wearer to the Dräger FireGround. To find more detailed information about our automatic accountability system, please see our separate Dräger FireGround brochure or the infographic below.

Data logging
The PSS® AirBoss' PASS devices are equipped with a data logger that automatically logs alerts, air pressure, battery status and other vital information. Furthermore, this data as well as the entry control officer's notes and other information are logged in Dräger FireGround. This multi-stage data logging makes it simple for you to record and access post incident reviews in all circumstances.

Bluetooth capability
Driven by forward-thinking technology, we have engineered the PSS® AirBoss Connect with a Bluetooth interface, in order to ensure that the foundations are set for future compatibility to upcoming Dräger innovations.

Dräger PSS® AirBoss

Easy to clean

The PSS® AirBoss uses low-absorbent and liquid repellent harness materials which takes on less contaminants. Its overall streamlined design minimises dirt traps – making the SCBA extremely easy to clean. Furthermore, the complete SCBA is machine washable, and the Dräger cleaning process is backed up by Dräger's warranty. For you it means a significant decrease in equipment downtime.

Simplified processes

All key components are equipped with RFID tags to help the workshop technician maintain asset management and support quick turnarounds. The key components of the PSS® AirBoss are quickly and easily disassembled for service without the need to use tools due to its Plug & Play design. To save you time prior to operations, we included a new electronic high-pressure leak test that ensures operational readiness and reduces air consumption during daily checks.

Flexible battery logistics

Depending on the type of PASS device you choose to add, the PSS® AirBoss is powered by primary power cells or rechargeable batteries. In stand-alone operation, the primary power cells have a one-year lifetime and should be exchanged with every annual SCBA test. If the automatic accountability system FireGround is used, the battery life goes down to approx. 6 months. The rechargeable batteries can be charged while the SCBA is mounted inside the fire engine or separately in a desk-top charger.

Available in three standard configurations

- PSS® AirBoss Active with a mechanical gauge gives you the lowest weight and simplicity.
- PSS® AirBoss Agile with an integrated PASS device offers you increased safety features.
- PSS® AirBoss Connect with advanced sensors and compatibility with Dräger FireGround offers you maximum situational awareness.

TECHNICAL SPECIFICATIONS

Weight of complete set	Dräger Airboss Active: 11.9 kgs Dräger Airboss Agile: 12.3 kgs Dräger Airboss Connect: 12.6 kgs Weight of complete set with Dräger FPS® 7000 facemask, lung demand valve and 6.8 litre Dräger NANO cylinder
Input pressure (bar)	0 - 300 bar for all three models
Normal 1st stage output pressure	7.5 for alle three models
1st stage output flow (l/min)	> 1.000
Download the datasheet for more Technical Information	

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Airboss Active, SCS	1	3709501

Dräger PSS® 3000

The Dräger PSS® 3000 is a high performing breathing apparatus for firefighters. Combining comfort with exceptional pneumatic performance, it is designed for applications where simplicity and ease of use are key essentials. Lightweight yet robust, and easy to don, this advanced breathing apparatus provides realible breathing protection.

Dräger PSS 3000
Lightweight, robust and easy to don

Light, robust and simple to use

Dräger PSS 3000 is one of the lightest self contained breathing apparatus carrying system to date. We have applied the same advanced technology and design philosophy which was derived from our class leading range of short and extended duration professional breathing apparatus. The extremely durable carrying system features our new and innovative ultra lightweight, high strength carbon composite carrying frame which exhibits outstanding thermal, impact and chemical resistance properties. Suitable for use in all conditions easy and quick to don, the lightweight harness has been specially designed to retain its form over a wide range of environmental temperatures. Utilizing materials that have good chemical and abrasion resistance and also meeting the heat and flame requirements of EN137:2006 (Type 2).

Proven air supply technology

Versatility is the foundation of the Dräger PSS series of products. The breathing apparatus PSS 3000 enables the wearer to benefit from leading edge breathing protection technology incorporating, the same advanced pneumatic system used in our class leading breathing apparatus.

Easy to maintain and service

Quick and uncomplicated to service, the breathing apparatus PSS 3000 incorporates a number of unique design features to ensure that downtime, and therefore costs, are kept to a minimum during maintenance. All the major components are simple and quick to remove and re-assemble. The harness is attached to the carrying frame by a single-piece retention method. In addition the first stage pressure reducer, integrated into the carrying frame for added protection, can be readily removed.

Options for every eventuality

- choice of lung demand valves
- full FPS 7000 facemask configuration options
- electronic voice communications
- steel or carbon composite cylinders
- secondary supply hose connections for rescue and decontamination

Enhanced carrying system

By utilising the state-of-the-art pressure mapping technology, we have developed a carrying system which follows the natural contours of the body and therefore provides improved stability and reduced back strain, stress and fatigue. The contoured carrying harness provides maximum comfort at both the shoulders and the waist, but optimizes load distribution comfortably and securely, in line with the body's centre of gravity. Despite this emphasis on wearing comfort, you can rest assured that we have not compromised on the choice of the most rugged and durable materials available, in order to minimize the impact of the most hostile of environments.

Integrated hoses

Both the medium pressure air supply and gauge hoses are integrated into the carrying-frame to reduce the risk of snagging and entanglement, which results in improved security and safety whilst entering and working in confined spaces. With the ability to re-route these hoses from one side to the other in order to suit customer preferences for gauge access, this design feature also facilitates the easy replacement of each hose.

TECHNICAL SPECIFICATIONS

Weight	Backplate and harness: 2.7 kgs
Dimensions	590 x 290 x 160 mm
Input pressure	0 - 300 bar
Nominal 1st stage output pressure	7.5
1st stage output flow	> 1000 l/min

Dräger PSS® 3000

LDV output flow	> 400 l/min
Whistle activation pressure	50/60 bar
Whistle sound level	>90 dBA
Approvals	EN 137 2006 Type 2, vfdb 0802

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 3000 - with pressure gauge	1	3357794

Dräger PSS® 4000

The Dräger PSS 4000 one of the lightest professional self-contained breathing apparatus for firefighters. Combining comfort with exceptional pneumatic performance, this SCBA is designed for applications where simplicity and ease of use are crucial. Lightweight yet robust, and easy to don, the PSS 4000 provides outstanding breathing protection.

Dräger PSS 4000
Light, robust and simple to use

Light, robust and simple to use
The Dräger PSS 4000 is one of the lightest professional self-contained breathing apparatus on the market and contains the same advanced technology and design philosophy as seen in our leading range of standard and extended duration professional breathing apparatus. Supported by a carrying harness with a quick release fastener and simple pull forward mechanism you can quickly and easily adjust the carrying harness.

Enhanced carrying system
The extremely durable carrying system features our ultra-lightweight, high strength composite carrying space frame, which provides outstanding thermal, impact and chemical resistance properties. The professional carrying system of the harness follows the natural contours of the body, improving stability and reducing back strain, stress and fatigue. The system offers optimal comfort for the wearer's shoulders and waist with an even load distribution, which is comfortably and securely in line with the body's centre of gravity. Aside from maximum comfort, the Dräger PSS 4000 also uses the most rugged and durable materials available in order to minimize the impact of even the most hostile of environments.

Maximum performance harness material
The Dräger PSS 4000 utilizes state-of-the-art harness materials, which have been designed to withstand the high wear and tear fire fighters face every day, while providing an enhanced level of comfort. By incorporating hardwearing stainless steel buckles and long-life blend webbing made from aramid fibre, it is ideally suited for extended wear and frequent use.

Easy to maintain and service
Aside from being quick and easy to service, the Dräger PSS 4000 comes with various, innovative design features that help reduce downtime and unnecessary maintenance costs. This can be seen in all major components, which are simple and quick to remove and re-assemble. The harness is attached to the carrying frame by an innovative single-piece retention method. For added convenience, the first stage pressure reducer is integrated into the carrying frame. The closed, single piece harness and waist pad design prevents excessive water absorption, which reduces cleaning and drying time, whilst optimising energy efficiencies.

Integrated hoses
The medium pressure air supply and gauge hoses are completely integrated into the carrying-frame in order to reduce the risk of snagging and potential entanglement. This substantially improves security and safety while entering and working in confined spaces. An additional benefit is the ability to re-route the hoses from one side to the other in order to suit customer preferences for gauge access. This design feature also facilitates the easy replacement of each hose.

Wireless option
Enhance your safety in the field with the Dräger Bodyguard 1500, an advanced personal alert safety system (PASS). This breathing protection control and non-motion-detector generates visual and acoustic alert signals if you are in distress. Furthermore the system provides a wireless data transmission between the pass and the monitoring devices. The backlit Tx Gauge wirelessly transmits its pressure data to the Bodyguard 1500 and also to the Dräger FPS 7000 Head-Up-Display (HUD) if being used. This feature provides automatic visual notification from the Tx Gauge and acoustic notification from the PASS when the air supply drops below user-defined limits.

Additional options
The flexible, user-friendly high performance system combines both new and proven innovative technology. The Dräger PSS 4000 guarantees a lifetime of dependable service simultaneously minimizing the costs of ownership, while offering a broad choice of options for every eventuality.

Dräger PSS® 4000

TECHNICAL SPECIFICATIONS

Weight	PSS4000 Pneutmatic gauge: 3 kgs
	PSS4000 Tx gauge: 3.15 kgs
Dimensions	590 x 290 x 160 mm
Input Pressure	0 - 300 bar
Normal 1st stage output pressure	7.5 bar
1st stage output flow	> 1000 l/min
LDV output flow	> 400 l/min
Whistle activation pressure	50 - 60 bar
Whistle sound level	>90 dBa
Approvals	EN 137:2006 Type 2, ATEX 94/9/EC (I M1/II 1GD EEx ia I/IIC T4) (Ta = -30 ℃ to +60 ℃), EN 61000-6-2, EN 61000-6-3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 4000 BA Set, c/w Gauge w/o LDV S Plus	1	3363988
Dräger PSS4000 SCS fixed LDV Pneum. Gauge	1	3363989
This is a modulair product, ask our Sales department for support: telephone +31 (0)10 - 295 2740.		

Dräger PSS® 7000

Developed by professionals for professionals the new Dräger PSS 7000 represents a major leap forward in the evolution of breathing apparatus for the professional fire fighter.

Dräger PSS 7000
For professional fire fighting

Complete, state-of-the-art personal safety system solution
Highlights include:
- Ready for telemetry operation with PSS Merlin system
- Available with standard mechanical gauge or Bodyguard 7000 electronic monitoring
- Comfortable yet highly durable shoulder and waist belt padding featuring a secure, high-friction surface to reduce slippage
- Sliding and pivoting waist belt assembly
- 3-point height adjustment
- Breathing hoses integrated in the backplate
- Reflective and photo-luminescent hose sleeves for improved visibility
- Quick release pneumatics, shoulder and waist belt assemblies for easy service and maintenance
- Optional Quick-Connect cylinder system for rapid exchange in the field and in the workshop

Height-adjustable carrying system
The PSS 7000 has been designed for maximum comfort and stability during use in harsh fire fighting environments. Incorporating a rigid harness connection to a 3-point-height adjustment backplate, advanced harness materials and a pivoting waist belt, the PSS 7000 remains firmly in position regardless of the task in hand.

Maximum performance harness material
The PSS 7000 utilizes new state-of-the-art harness materials which have been specially designed to withstand the high level wear and tear fire fighters subject them to on an almost daily basis. Incorporating sturdy stainless steel buckles and long-life Aramid blend webbing, it is well suited to extended wear and frequent use.

Service friendly, low maintenance
To keep both downtime and costs to a minimum during service and maintenance, the PSS 7000 incorporates a number of unique design features:
- Dräger's innovative "slide and lock" harness mechanism facilitates fast and simple harness and waist pad connection/removal from the backplate without the need for tools.

- The first stage reducer snap fit connection allows the pneumatics to be fitted or removed quickly and easily from the SCBA.
- "Push in and out" hose clips allow rapid removal of hoses from the harness pads for cleaning without the need to remove the clip itself.
- Closed, single piece harness and waist pad design to prevent excessive water absorption, reducing cleaning and drying time.

Versatile integrated hose routing
To minimize the risk of snagging and to protect against physical damage, both gauge and air supply hoses are run through integrated channels in the PSS 7000 backplate. The LDV, gauge and rescue hoses can now be routed over the left and/or right shoulders (2 hoses per side), allowing the PSS 7000 to be configured to any standard. Conventional waist mounted hoses can also be fitted, making the PSS 7000 one of the most versatile SCBA's available.

Wide variety of system configurations and accessories
Dräger has revolutionized the use of breathing systems by creating a range of optional components that can be selected in combination to meet the fire fighter's specific needs regardless of the task. In addition to the standard features of the PSS 7000, it is also possible to add:
- Dräger Bodyguard 7000 electronic monitoring system
- Twin cylinder configuration
- Quick-Connect (QC) cylinder connection
- Chargair quick filling
- Secondary supply connections for rescue, decontamination and/or airline use
- PSS Merlin Modem for telemetry applications
- PSS Rescue Hood
- and many more

The Dräger Quick-Connect is a revolutionary, fast-action cylinder exchange system which features a dual mechanical and pressure seal safety mechanism designed to prevent accidental cylinder disconnect from the SCBA.

Dräger PSS® 7000

- The pressure seal locks the cylinder to the SCBA while the system is pressurized.
- The mechanical seal requires a dual action, twisting push motion to remove the cylinder from the reducer.

With Quick-Connect, a cylinder can be securely attached to the reducer with a simple push down action. Exchange times can be reduced from minutes to seconds which can make all the difference in an emergency situation. The danger of cross threading or thread stripping is eliminated, and workshop maintenance is greatly facilitated.

Electronic monitoring with the Dräger Bodyguard 7000

The PSS 7000 has been designed to be fully compatible with the globally established Dräger Bodyguard 7000 electronic signal and warning unit as well as the PSS Merlin telemetry system. The Dräger Bodyguard 7000 features an integrated design concept which integrates both power supply and pressure sensor modules within the backplate. This not only creates a balanced weight distribution, but also provides maximum component protection. Real-time monitoring of essential information such as time to whistle (based on current air consumption) and cylinder pressure is communicated via a lightweight, handheld electronic gauge and display
- and/or by a facemask-mounted head up display (HUD).

TECHNICAL SPECIFICATIONS

Weight of complete set	approx 11.9 kgs, for Dräger PSS 7000 pneumatic gauge Complete with Dräger FPS 7000 facemask, lung demand valve and Dräger 6.8 litre 300 bar carbon composite cylinder (20 year design life)
Input Pressure	200 or 300 bar
Normal 1st stage output pressure	8 bar
1st stage output flow	> 1000 l/min
High pressure whistle activation pressure	50 - 60 bar
Whistle sound level	>90 dBa
Whistle frequency range	2000 - 4000 Hz
Bodyguard sound level	N/A
Operating temperature range	-32°C up to + 70°C
Approvals	EN137; 2006 Type 2 vfdb 0802 Atex I M 1 / II 1 GD IIC T6 (Ta -30°C to +60°C): for the Dräger PSS 7000 and Dräger Panorama Nova masks with triplex visor Atex I M 1 / II 1 GD IIB T6 (Ta -30°C to +60°C): for Dräger PSS 7000 with all other Dräger Safety breathing apparatus masks

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 7000 with standard cylinder strap	1	3355068
Dräger Lung demand valve S Plus	1	3338700
Lung Demand Standard type P	1	3357527

Dräger PAS Lite

For use in industrial applications where a simple, robust and easy to use breathing apparatus is required, the Dräger PAS® Lite Self-Contained Breathing Apparatus (SCBA) combines reliability with comfort and performance, as well as excellent service life and easy to maintain.

Dräger PAS Lite
Reliable and constant performance

Advanced technology
With a proven design and using the same high quality pneumatics as found in professional firefighter breathing apparatus, the Dräger PAS Lite ensures consistent high performance and reliability over the lifetime of the apparatus with minimal maintenance. The carrying system features an ultra lightweight, high strength carbon composite space-frame having excellent impact, heat and chemical resistance, as well as outstanding durability.

Integrated hose design
Both the air supply and gauge hoses are mounted into the space-frame, thus reducing the risk of snagging and entanglement. This enables the user to change the hose position from one side to another to suit individual preference. The fully integrated hose design also means that hoses can be replaced easily and cost effectively.

Efficient load distribution
Incorporating new materials that are shaped and formed to provide maximum comfort at both the shoulders and the waist, the carrying system has been developed to reduce back strain, stress and fatigue. The innovative harness design ensures an excellent weight distribution at the shoulders. The inclusion of durable rubber coated fabric provides excellent wearing comfort and chemical resistance, whilst also performing well during the flame engulfment test in line with EN137 Type 2.

Service friendly
A number of unique design features ensure that downtime and costs are kept to a minimum during repair and maintenance. All major components of the Dräger PAS Lite are quick and easy to assemble and disassemble, including the harness which is attached to the space-frame by a simple single-piece retention method. The reducer is contained in the space-frame for added protection and can easily be removed with simple tools. The harness is also highly resistant and impervious to chemicals, making decontamination and cleaning a simple, straightforward task.

Proven, robust and flexible
In line with other Dräger breathing apparatus, the Dräger PAS Lite allows users to take advantage of the tried and tested systems that lie behind the best breathing apparatus in the world. Developed as a result of years of research and extensive user consultation, these benefits include the use of the same advanced pneumatics as used in the whole professional firefighting range of Dräger.

The Dräger PAS Lite can be further adapted to suit specific industrial applications. As well as standard fit easy to clean harness, integrated Lung Demand Valve (LDV) and pneumatic gauge complete with high pressure whistle warning unit at the base of the space-frame, electronic monitoring (Bodyguard II) or airline ready options such as the Dräger PAS ASV can be specified. Integrating easily with all Dräger PAS Airline equipment, this flexible breathing apparatus is also fully compatible with Dräger Panorama and FPS 7000 Face Mask ranges. Our SCBA is designed for use with single steel or carbon composite cylinders rated at 4 to 9 L, 200 and 300 bar. A number of secondary supply connections are available for use in rescue, decontamination or airline applications. The Dräger PAS Lite can also be fitted with a variety of electronic voice communication options.

TECHNICAL SPECIFICATIONS

Weight	2.7 kgs
Dimensions	590 x 290 x 160 mm
Input Pressure	0 - 300 bar
Nominal 1st stage output pressure	7.5
1st stage output flow	> 1000 l/min

Dräger PAS Lite

LDV output flow	> 400 l/min
Whistle Sound Level	> 90 dBA
Approvals	EN 137 2006 Type 2, EN 14593 pt1 (for PAS ASV), MED, SOLAS II-2, can be used in hazardous areas.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Lite - A	1	3357774
Dräger FPS 7000 M2-PC-CR	1	R56200
Dräger PAS Lite: LDV with hose	1	3338702

Dräger REGIS® 300 and 500

Hands-free monitoring of respiratory protection of emergency and rescue teams: The boards REGIS® 300 and 500 enable the incident manager to keep track of respiratory equipment wearers and their deployment time. Thanks to an automatic intermediate alarm, monitoring can be combined with other tasks. In co-usage with the external tracer, distances of up to 40 m are possible.

Dräger REGIS® 300 and 500
Hands-free monitoring of respiratory protection

Simultaneous monitring of three teams
With Dräger REGIS, the incident manager is able to monitor up to three teams simultaneously, with up to three wearers per team. Easy to read displays with countdown timers inform about the remaining deployment time. The displays of both boards are illuminated with the touch of a button to ensure all important data is easy to see even in difficult conditions.

More safety with intermediate alarms
A continuous beep is emitted once the deployment time of a team is over. To aid with assigning the right alarm with the right team, the corresponding LED flashes. The acoustic and visual alarm tracer also emits an alert after 1/3 and 2/3 of the deployment time has expired.

External tracer for more ease of movement
Some incidents require that the person performing the monitoring must leave the vicinity of the board. In these cases, a highly visible external tracer can be combined with the board as an additional module. The built-in transmitter reliably relays any alarm signals emitted by the monitoring board to the external tracer for a distance of up to 40 meters.

Full deployment monitoring with simple documentation
Name of the equipment wearer, cylinder pressure at the beginning of the deployment, air supply, start and end of deployment time, as well as location: A clip attached to the board holds a sheet for entering all necessary data. The person performing the monitoring can later detach and file this sheet as needed.

Name tags can be attached with snap hooks to the lower end of the board for help in visualizing the team members. The color of the tags also provides information about the type of respirators used.

REGIS 500: Coding plugs for different applications
The deployment time may be shorter or longer depending on the type of respirator used. With the coding plugs for standard and short time respiratory protective devices, extended time respiratory protective device, or closed-cycle respiratory protective devices, the monitoring board panel can adjust automatically to a specific deployment time between 25 and 120 minutes. Simply insert the coding plugs into the corresponding slots and the countdown starts automatically.

Other advantages of the REGIS 300
- three backlit displays
- digital clock for real-time display
- customisable deployment time
- deployment time with negative sign starting at 0 minutes on display
- made from durable plastic
- corner protectors madeof rubber
- labeling field with intuitive symbolsn
- clip to hold sheets and pen

Other advantages of the REGIS 500
- integrated Digital clock for real-time display
- additional intermediate alarm at deployment halftime and remaining time of 10, 5, and 0 minutes
- large backlit display
- rubber edge protectors on side and pen holdery

TECHNICAL SPECIFICATIONS

Dräger REGIS® 300: Size (h x w x d)	40 x 34,5 x 4,5 cm
Dräger REGIS® 300: Weight	1,5 kgs
Dräger REGIS® 500: Size (h x w x d)	24 x 23 x 5,8 cm
Dräger REGIS® 500: Weight	0,9 kgs

Dräger REGIS® 300 and 500

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGIS® 300	1	R55950
Dräger REGIS® 500	1	R54993

Dräger Panorama Nova Standard P

The Panorama Nova full-face mask has been successful in the market worldwide for decades and provides reliable and secure protection. In combination with a compressed air breathing apparatus or rebreather it is used as a tried and tested face piece by firefighters and in mining.

Comfortable fit combined with double sealing line
Features a double sealing line for maximum safety which adapts well to different head and face shapes.

Many different uses
With the different connection piece options, the Panorama Standard can be used as a standard mask for filters, compressed air breathing apparatus, airline systems as well rebreathers for firefighters, mining or, in industrial applications.

Robust and durable
For decades the mask has fared well in any extreme and rough condition in which the different target groups and user groups (industry, firefighters and mining) operate and has withstood many different impacts.

System integration
With the option to choose a mask with different connections and wearing systems, as straps or helmet adapters, it will fit perfectly into the system, consisting of helmet, mask and respiratory system (compressed-air breathing apparatus, closed-circuit breathing apparatus or filter).

Dräger Panorama Nova Standard P
Meets the highest demands for reliability

TECHNICAL SPECIFICATIONS

Material of mask body	Highly resistant and hypoallergenic EPDM
Weight	Approx. 550 gr - 650 gr (depending on visor/frame)
Visor	PC
Connection	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Approvals	EN 136 Class 3 (CE mark), NIOSH, AS/NZS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Panorama Nova Standard P	1	R54450
Anti-fog agent, for all visors	1	R56542
Panorama Nova: spectacle kit	1	R51548
Transportbox Mabox II	1	R54610

Dräger Panorama Nova P

If the oxygen content drops below 17% by volume during hazardous duties, the Panorama Nova P mask, e.g. in connection with our compressed-air breathing apparatus, supplies its carrier quickly and safely with vital breathing air.

Dräger Panorama Nova P
Can be used over a wide range of applications

Applications
Special accessories, the simple maintenance of all mask parts and possible adaptation to the Dräger HPS 6100 fireman's helmet mean that the Panorama Nova P full mask can be used over a wide range of applications.

Features
If less than 17% by volume oxygen (depending on regional regulations) is available at the workplace or the hazardous substances and/or their concentrations are unknown or to high, the Panorama Nova full face mask is deployed. A special harness ensures that the mask is particularly easy to don.

Quickly and comfortably a lung demand valve is then connected by means of the mask's plug-in connector. The mask is immediately supplied with air from compressed-air cylinders or stationary compressed-air systems (both positive pressure).

Safety
The double sealing frame of the Panorama Nova P ensures a particularly comfortable and tightly sealed fit. Furthermore the positive pressure in the mask prevents hazardous substances from penetrating.

User safety is therefore distinctly increased. To match the specific type of duty and requirements, the mask body is made either of silicone or EPDM, the visor is either made of polycarbonate or triplex.

TECHNICAL SPECIFICATIONS

Mask body material	Either EPDM or silicone
Visor material	Either impact-resistant polycarbonate, coated polycarbonate or particularly chemical-resistant triplex glass
Connection	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Weight	Approx. 550-650 g (depending on the visor)
Approvals	in accordance with EN 136 (CE symbol) and NIOSH

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Panorama Nova P EPDM	1	R52972
Dräger Panorama Nova P Triplex	1	R52992

Dräger FPS 7000

The Dräger FPS 7000 full-face mask series sets new standards in terms of safety and wearing comfort. Thanks to its enhanced ergonomics and the availability of multiple sizes, it offers a large, optimized field of vision and a very comfortable, secure fit.

Dräger FPS 7000
Large field of vision

Field of vision and mask body

The modern full-face mask Dräger FPS 7000 has a large distortion-free polycarbonate visor, which provides you with an exceptional wide field of vision, even in difficult situations. The visor does not mist due to a well thought-out air circulation and is available with different coatings. The mask body made of either hypoallergenic Silicone or EPDM provides an especially comfortable fit.

Fit

The full-face mask Dräger FPS 7000 has an outstanding head and face fit. The ergonomic head harness and the double sealing line ensure a secure and comfortable fit on all face shapes and contours. The head harness of the Dräger FPS 7000 also ensures that the mask can be donned and doffed easily and quickly.

Mask-helmet combination

For those who use mask-helmet combinations the newly developed adapter offers a new level of safety. For example, when combining the Dräger HPS 6200 / 7000 with the new full-face mask, the newly developed and patented Dräger Q-fix connection prevents

the unintentional release of the attachment. Integrated accessories The newly developed communication system Dräger FPS-COM optimally adapts to the design and ergonomics of the mask. Depending on what is required, it can be chosen with different modules and offers the optimal solution for each communication in the field. Whether radio, voice, amplifier or head-up display, everything can be directly integrated into the mask and is easy to use.

Modularity

Naturally, Dräger Safety pays close attention to our customers needs. The full-face mask Dräger FPS 7000 is not only safer and more comfortable; it also has more flexible options than previous models. Whatever may be needed during operation: It is quickly attached and ready for use.

Maintenance

The special accessories and simple maintenance of all mask parts make the Dräger FPS 7000 not only very economical and easy to service, but also flexible and versatile in its use.

TECHNICAL SPECIFICATIONS

Mask body	Convenient, hypoallergenic and flexible silicone or EPDM (dermatologically tested)
Harness	5-point connection with a large contact surface area at the back of the head, alternatively a hairnet
Mask-helmet combination	2-point connection for Dräger HPS 7000 either with Dräger Q-fix (with safety button) or with Dräger S-fix (without safety button) connection
Size	Mask body in 3 sizes (S, M and L) compatible with inner mask in 3 different sizes
Visor	polycarbonate visor available with different coatings
Connector	P, RA, ESA, PE and RP
Weight	approx. 600 gr (varies according to version)
Approval	EN 136 Class 3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS 7000 P-EPDM-M2-PC-CR	1	R56200
Dräger FPS 7000 M2-PC-Q-fix, size M	1	R56850
Dräger FPS 7000 S1-PC-CR	1	R56400C
Dräger FPS 7000 L2-PC-CR	1	R56300

Storage covers and boxes for full face masks

Dräger offers several storage boxes and covers for all types of full-face masks.

Storage covers and boxes
For all types of full-face masks

Mask bag blue
- storage bag for full face masks
- protects against scratches

Mask bag Protex
- storage bag for full-face masks made of flame-retardant cotton
- protects the mask from scratches
- pack of 4

Storage bag
- storage bag for full face masks made of polyethylene
- protects against ultraviolet light
- package of 100 pieces

Storage canister Wikov
- strong plastic
- impact resistant down to -30ºC
- ergonomically shaped including length-adjustable carrying strap
- for full face masks

Storage box Mabox
- strong plastic impact-resistant up to -30ºC
- stackable
- ergonomically shaped
- including length-adjustable carrying strap
- for full face masks with head strap or brackets
- mask can be stored including filter that is screwed in

Storage box Mabox II
- strong plastic
- impact-resistant up to -30ºC
- stackable
- ergonomically shaped
- including length-adjustable carrying strap
- for Panoroma Nova or X-plore 6000 full-face mask
- for full face masks with head harness and brackets

ORDER INFORMATION

Description	Unit Sales	Articlenr
Mask bag blue	1	AH00091
Mask bag Protex	1	R54939
Storage bag	1	3863371
Storage canister Wikov	1	R51019
Storage box Mabox	1	R53680
Storage box Mabox II	1	R54610

Wikov carrying case for full face masks

Wikov carrying case for easy and accessible storage of full face mask and filter.

Features
- made out of tough plastic
- shockproof to -30°C

- ergonomic shape
- including adjustable belt
- designed for full face masks

Wikov storage box
For full face masks

TECHNICAL SPECIFICATIONS

Material	Plastic
Shelf life	gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	CE-marked in accordance with EN 14387 and/or EN 143:2000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Wikov carrying case for full face masks	1	R51019

Dräger Breathing Apparatus Set:
PAS Lite, Panaroma Nova mask and Cylinder

This breathing apparatus set consists of:
- Dräger: PAS Lite SCBA
- Dräger: Panaroma Nova EPDM-PC-P facemask
- Dräger: Cylinder steel 6 liter 300 bar c/w in-line G5/8" EFV Valve

Dräger PAS Lite SCBA

For use in industrial applications where a simple, robust and easy to use breathing apparatus is required, the Dräger PAS® Lite Self-Contained Breathing Apparatus (SCBA) combines reliability with comfort and performance, as well as excellent service life and easy to maintain.

Dräger Panorama Nova EPDM-PC-P facemmask

The Panorama Nova full-face mask has been successful in the market worldwide for decades and provides reliable and secure protection. In combination with a compressed air breathing apparatus or rebreather it is used as a tried and tested face piece by firefighters and in mining.

Dräger Cylinder steel 6 liter 300 bar
- comes with in-line G5/8" EFV valve

TECHNICAL SPECIFICATIONS

Dräger PAS Lite	
Weight	2.7 kgs
Dimensions	590 x 290 x 160 mm
Input Pressure	0 - 300 bar
Nominal 1st stage output pressure	7.5
1st stage output flow	> 1000 l/min
LDV output flow	> 400 l/min
Whistle Sound Level	> 90 dBA
Approvals	EN 137 2006 Type 2, EN 14593 pt1 (for PAS ASV), MED, SOLAS II-2, can be used in hazardous areas.
Panaroma Nova	
Mask body material	Either EPDM or silicone
Visor material	Either impact-resistant polycarbonate, coated polycarbonate or particularly chemical-resistant triplex glass
Connection	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Weight	Approx. 550-650 g (depending on the visor)
Approvals	in accordance with EN 136 (CE symbol) and NIOSH
Dräger Cylinder 6 liter 300 bar	
Fill pressure	300 bar
Wire type cylinder neck	M 18 x 1.5
Valve connection	5/8"G conform DIN 477

Dräger Breathing Apparatus Set: PAS Lite, Panaroma Nova

Capacity	6 liter
Weight	7.1 kgs
Dimensions	510 x 140 mm
Colors	Yellow with black and white patches on cylinder
Approval	CE-0045

ORDER INFORMATION

Description	Unit Sales	Articlenr
This set contains:	1	SETNEMAD3
- Dräger: PAS Lite SCBA (3357774)		
- Dräger: Panaroma Nova EPDM-PC-P facemask (R54450)		
- Dräger: Cylinder steel 6 liter 300 bar c/w in-line G5/8" EFV Valve (3355002)		

Dräger Breathing Apparatus Set:
PAS Lite and Panorama Nova Mask

This breathing apparatus set consists of:
- Dräger: PAS Lite SCBA
- Dräger: Panorama Nova EPDM-PC-P facemask

Dräger PAS Lite SCBA

For use in industrial applications where a simple, robust and easy to use breathing apparatus is required, the Dräger PAS® Lite Self-Contained Breathing Apparatus (SCBA) combines reliability with comfort and performance, as well as excellent service life and easy to maintain.

Dräger Panorama Nova EPDM-PC-P facemmask

The Panorama Nova full-face mask has been successful in the market worldwide for decades and provides reliable and secure protection. In combination with a compressed air breathing apparatus or rebreather it is used as a tried and tested face piece by firefighters and in mining.

Dräger Cylinder steel 6 liter 300 bar

- comes with in-line G5/8" EFV valve

TECHNICAL SPECIFICATIONS

Dräger PAS Lite	
Weight	2.7 kgs
Dimensions	590 x 290 x 160 mm
Input Pressure	0 - 300 bar
Nominal 1st stage output pressure	7.5
1st stage output flow	> 1000 l/min
LDV output flow	> 400 l/min
Whistle Sound Level	> 90 dBA
Approvals	EN 137 2006 Type 2, EN 14593 pt1 (for PAS ASV), MED, SOLAS II-2, can be used in hazardous areas.
Panaroma Nova	
Mask body material	Either EPDM or silicone
Visor material	Either impact-resistant polycarbonate, coated polycarbonate or particularly chemical-resistant triplex glass
Connection	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Weight	Approx. 550-650 g (depending on the visor)
Approvals	in accordance with EN 136 (CE symbol) and NIOSH
Dräger Cylinder 6 liter 300 bar	
Fill pressure	300 bar
Wire type cylinder neck	M 18 x 1.5
Valve connection	5/8"G conform DIN 477

Dräger Breathing Apparatus Set: PAS Lite and Panorama Nova

Capacity	6 liter
Weight	7.1 kgs
Dimensions	510 x 140 mm
Colors	Yellow with black and white patches on cylinder
Approval	CE-0045

ORDER INFORMATION

Description	Unit Sales	Articlenr
This set contains:	1	SETNEMAD2
- Dräger: PAS Lite SCBA (3357774)		
- Dräger: Panaroma Nova EPDM-PC-P facemask (R54450)		

Dräger X-plore® 8000 Helmets

Dräger X-plore® 8000 helmets provide effective mechanical head protection combined with maximum comfort. Regardless of whether you are dependent on ambient air or working independently, the helmets are an integral part of our Dräger X-plore® 8000 powered air-purifying respirator systems and Dräger X-plore® 9300 compressed air line device.

Dräger X-plore® 8000 Helmets
Mechanical head protection combined with maximum comfort

The Dräger X-plore 8000 system: Designed for full compatibility

No matter how tough the conditions, the X-plore 8000 system from Dräger provides maximum respiratory protection without increased breathing resistance, even during long periods of time. Depending on the system configuration, it can also offer protection for the head, face including eyes, and hearing.

The system consists of either an X-plore 8500 or 8700 powered air-purifying respirator for applications dependent on the ambient air or the X-plore 9300 compressed air line system for working with an independent air supply. Both are combined with a headpiece such as an X-plore 8000 helmet, faceshield, visor, hood or X-plore mask (X-plore 9300: only for loose fitting headpieces). The components can easily be combined for different use cases.

No matter which product combination you choose, you can always rely on your equipment for maximum performance.

Dräger X-plore 8000 helmets: Tough on the job

Robust and versatile, with a modern design: X-plore 8000 helmets are made for use in the harsh environment of day-to-day industrial operations. They all protect your head, face and eyes against mechanical impacts, and some models also protect against chemical exposure. Face seals are available in different lengths and materials, giving you a tailor-made helmet for any job.

When working in highly contaminated environments or when high chemical resistance is required, Dräger offers the innovative approach of combining a helmet or bump cap with an additional hood. The hood offers protection against contamination. This saves time and money, because contaminated hoods can simply be replaced.

Easy and comfortable

The helmet and breathing unit are easily and intuitively connected by a hose. The helmet can be individually adjusted: First, you can adjust the head harness for the perfect fit in terms of size and height; second the direction of the breathing air outlet near the forehead can be adjusted to make it even more comfortable. In addition, the padding on the forehead and head ensure maximum comfort. For optimal vision on the job, the helmet is fitted with a panoramic visor which includes an anti-fog and anti-scratch coating. All helmet versions can also be combined with hearing protection.

Overview of versions

Dräger X-plore 8000 helmet with visor
- The helmet with visor can be combined with five different face seals. You can choose between Zytec® and Tychem® material in short (Zytec® only), medium or long designs, resulting in dedicated respiratory protection classes (see technical data).

Dräger X-plore 8000 helmet/bump cap and hood combination
- This combination means wearing an additional hood over the head protection. You can combine the hood with either a helmet or a bump cap (both without visor). This keeps the high value head protection from becoming contaminated. Thanks to the Tychem® material used for the hood, this combination also provides a high level of chemical resistance, which is even higher if Tychem® 4000 with taped seams is used.

TECHNICAL SPECIFICATIONS

Length - Helmet seal	Short (L1Z), middle (L2Z), long (L3Z)
Material - helmet seal	Zytec: Zytec® FR Tychem: Tychem® 2000 / Tychem® 4000
Material - Visor	PC

Dräger X-plore® 8000 Helmets

Material - Helmet	PA
Material - Visor frame	ABS
Material - Comfort padding	Foam material (EVA) with Lycra
Material - Rigid foam shell	PS
Visor size	26 x 17 cm
Temperature range (operation)	-5 ℃ to +50 ℃
Head harness	Ratchet, adjustable (52 – 60.6 cm)
Air inlet	Hose connector at the back
Air distribution	Airduct over the head, adjustable at the outlet
Air outlet	Permeable, width adjustable textile cuff in the chin/neck area
Colour	Grey (Helmet seal: grey)
Weight	L1Z: 942 g
	L2Z: 1012 g
	L3Z: 1152 g
	L2T2: 962 g
	L3T4: 997 g
Max. storage	5 years
Max. usage	3 years
Approvals	With X-plore® 8500/8700: NEN-EN 12941 - klasse TH1 (L1Z) / TH3 (L2Z/L3Z)
	With X-plore® 9300: NEN-EN 14594 - klasse 4A (L1Z/L2Z)/ 3B (L3Z)
	NEN-EN 397 (-30ºC LD MM AC 440 V)
	ANSI Z89.1 (type 1 klasse G)
	1 BT 9 3 - NEN-EN 166
	ANSI Z87+

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore® 8000 helmet with PC-visor L1Z	1	3710775
Dräger X-plore® 8000 helmet with PC-visor L2Z	1	3710780
Dräger X-plore® 8000 helmet with PC-visor L3Z	1	3710785
Dräger X-plore® 8000 sweat pads for helmets	10	3710789
Dräger X-plore® 8000 helmet with PC-visor L2T2	1	3710790
Dräger X-plore® 8000 helmet with PC-visor L3T4	1	3710795
Dräger X-plore® 8000 Helmet for hood	1	3710800
Dräger X-plore® 8000 Bumper for hood	1	3710805

Dräger X-plore® 8000

Challenging workplace conditions demand reliable solutions. The Dräger X-plore® 8000 powered-air purifying respirator offers a new level of intuitive handling combined with intelligent electronics that provide the high degree of safety your people need to focus on the task at hand.

Dräger X-plore® 8000 PAPR
Can be used for cleaning and maintance applications

Robust: Designed for daily use in tough environments, even in explosive atmospheres

Let's face it: for your workplace, only the most rugged design will do. The Dräger X-plore 8000 features heavy-duty design with rubber protectors and high ingress protection (IP65) against dust and water jets from any direction. Two battery versions incorporating the latest Li-ion battery technology provide power for at least 4 h (standard version) or 8 h (high-capacity version), respectively. The air inlets are protected from frontal moving debris, ensuring that sparks or water do not come into direct contact with the filter.

In work areas requiring explosion protection, the special Dräger X-plore 8700 model provides optimal support. It is ex-approved and can be used in ex-zones 1, 2, 21 and 22.

Comfortable: Let the user focus on the task

The Dräger X-plore 8000 lets your employees do their job and forget about the PAPR they need for proper personal protection. The advanced carrying system ensures optimal distribution of the weight. The system provides a tight and stable connection between the belt and the unit through a special adaptor plate; a comfort pad is also available as an option. The hose connector features a 360° click adaptor. New headpieces are designed for optimal airflow and maximum comfort to avoid unpleasant eye irritation.

Safe: Self-explanatory operation minimises user error

The unit recognises connected headgear and automatically selects the correct minimum flow rate, avoiding leakages caused by insufficient flow rates. An optical sensor prevents use without the filter and supports the right display of the saturation of the particle filter at any time. The filter system features plug-and-go exchange. In addition to the optical and acoustical alarm, the unit is also equipped with a vibration alarm. The entire system features uniform colour codes on all exchangeable elements and an error-proof hose connector.

Easy to maintain: Efficient cleaning together with secure operation

The Dräger X-plore 8000 was designed to be practically maintenance-free, leading to low cost of ownership. The self-check and self-adjustment systems feature advanced temperature and pressure sensor technology to ensure the right flow rate for any environment. The simple and efficient charging system allows rapid charging (under 4 h for an empty battery). The unit is designed for fast and easy disassembly for cleaning.

Modular: A wide range of components for every application

The Dräger X-plore 8000 offers a number of user-friendly standard and specialised carrying systems for standard and decontamination applications. Dräger has also developed a wide range of tight- and loose-fitting headgear such as half and full-face masks, short and long hoods and helmets with visor and protective visor. Standard and enhanced flexibility hoses are available and compatibility is ensured. Components and accessories can be combined to best fit your application, and system upgrades are possible at any time.

TECHNICAL SPECIFICATIONS

Ingress Protection	IP65 (dusttight and resistant to water jets from all sides)
Battery technology	Lithium-ions: 12.6 V / 3.4 Ah (standard battery), 12.6 V 6.8 V Ah (high-capacity battery)
Operating time	Standard battery: 4-8 hours, high-capacity battery: 8-20 hours.
	Dependent upon the adjusted flow, the facepiece is use and the type of filter.

Dräger X-plore® 8000

Weight	Dräger X-plore® 8500 incl. standard battery and splash guard lid: approx. 1,400 g
	Dräger X-plore® 8700 incl. standard battery (EX) and splash guard lid: approx. 1,500 g
Belt length	Adjustable between 700 mm and 1,400 mm (standard and decontamination version)
Approvals	See datasheet

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore® 8700 (EX)	1	R59550
Dräger X-plore® 8700 Long-life accu (EX)	1	R59595
Dräger X-plore® 8000 Standard charger	1	R59780
Dräger X-plore® 8000 Standard belt	1	R59700
Dräger X-plore® 8000 Comfort pad	1	R59730
Dräger X-plore® 8000 Shoulder carrying system	1	R59740
Belt extension for Dräger X-plore® 8000 Standard belt, 35 cm	1	R59750
Dräger X-plore® 8000 Flexible hose (for half and full face masks)	1	R59610
Dräger X-plore® 8000 Prefilter	1	6739730
Dräger X-plore® 8000 Filter A1B1E1K1 Hg P R SL	1	6739555
Dräger Full face mask FPS 7000 EPDM-M2-PC-CR	1	R56310
Dräger X-plore® 8000 Hose cover, spark proof	1	R59660
Dräger X-plore® 8000 Storage box, empty	1	R59690

Dräger NANO cylinder (NLL), type 4

Designed using leading technology and advanced materials, you can use our Dräger cylinders in any application where breathing protection is needed. We offer you a broad range, from carbon composite to steel cylinders. You especially benefit from their lightweight and Non-Limited Life (NLL) performance.

Minimise weight

The Dräger NANO, Type 4 full composite cylinder is specifically engineered to minimise the weight you carry during hazardous firefighting operations. Thus, it reduces fatigue and increases your agility. It is currently one of the lightest gas cylinders in the market with a shell weight of 2.8 kg (6.8 l of air/300 bar including impact-resistant caps). Designed with PET liner and carbon nanotube technology, it offers weight reduction by more than 47 % when compared to steel type 1 cylinders. Equipped with a lighter cylinder, you also benefit with a longer duration of air consumption and an increase of air supply if using a twinning option. The combination of lightweight sturdy cylinder material with impact-resistant caps ensures high durability and solid robustness.

Configurators offer options
- label and IFU language selection
- customised labelling
- filled or empty
- RFID

Valves offering options
- in-line, right angle / cross flow
- with or without safety ratchet handwheel
- EN144:2005 or NEN144:2018
- with or without excess flow valve
- with or without gauge indicator

Dräger NANO cylinder (NLL), type 4
 full composite cylinder

TECHNICAL SPECIFICATIONS

Water capacity	6.0 liter, 6.8 liter, 9.0 liter
Service pressure (bar)	300
Free air capacity (liter)	6.0 liter: 1620, 6.8 liter: 1826, 9.0 liter: 2430
Working duration (minutes) **	6.0 liter: 41, 6.8 liter: 46, 9.0 liter: 61
Nominal duration (minutes) **	6.0 liter: 32, 6.8 liter: 37, 9.0 liter: 49
Thread	M18 x 1.5
Design life (years)	non limited life
Shell weight (kg) (painted /natural)	6.0 liter: 2.8 / 2.6, 6.8 liter: 3.1 / 2.8, 9.0 liter: 3.9 / 3.75
Valved Cylinder weight empty (kg)*	6.0 liter: 3.31 / 3.11; 6.8 liter: 3.61 / 3.31; 9.0 liter: 4. 41 / 426
Valved Cylinder weight filled (kg)*	6.0 liter: 5.29 / 5.09, 6.8 liter: 5.85 / 5.55, 9.0 liter: 7.37 / 7.22
Approval	NEN-EN 12245:2009
*	weight includes top and bottom caps
**	based on breathing rate of 40 l per minute

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger NANO cylinder, type 4, 6.8 liter, 300 bar	1	3712916
Dräger NANO cylinder, type 4, 9.0 liter, 300 bar	1	3712917
Dräger Test pressure gauge 0-400 BAR 5/8" DIN connection	1	R50874

Dräger Marine Air Cylinder Steel EFV

Steel, seamless cylinder complete with Excess Flow Valve (EFV) and protective cap.

Excess flow valve (EFV)

An excess flow valve (EFV) is an option available for air cylinders. When fitted, the excess flow valve is a safety device which prevents uncontrolled release of high-pressure air in case of cylinder valve or high-pressure air pipe damage. The excess flow valve also activates if the cylinder valve is opened when the cylinder valve outlet is open to atmosphere. Cylinder valves containing an excess flow valve have a grey hand wheel in most countries.

Safe transport

Furthermore we advise to fit a protective valve cap when cylinders are strored or transported. When carrying the cylinder, you can hold it at the bottom of the valve. Do not carry the cylinder by holding the hand wheel.

Dräger Marine Cylinder Steel EFV
Designed for 300 bar

TECHNICAL SPECIFICATIONS

Fill pressure	300 bar
Wire type cylinder neck	M 18 x 1.5
Valve connection	5/8"G conform DIN 477
Capacity	6 liter
Weight	7.1 kgs
Dimensions	510 x 140 mm
Colors	Yellow with black and white patches on cylinder
Approval	CE-0045

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Marine Cilinder Steel EFV, 6 liters, 300 bar	1	3355002
Dräger Test pressure gauge 0-400 BAR 5/8" DIN connection	1	R50874

Dräger Marine Air Cylinder Composite EFV

Designed using leading technology and advanced materials, Dräger's range of Composite Cylinders can be used in any application where breathing becomes difficult or impossible.

Features
Through continuous product improvement and investment in technology, Dräger provides the highest quality pneumatics, carrying systems and high performance, ultra lightweight, carbon composite cylinders. Because Dräger manufacture all elements of the breathing apparatus system – masks, carrying systems, pneumatics and cylinders – you can be assured of the highest quality and maximum performance.

Dräger cylinders are manufactured and tested using automated, computer controlled processes. Continuous re-investment in plant and equipment ensures that Dräger cylinders are manufactured and tested in accordance with the most technologically advanced processes available. Automatic data collection ensures full traceability of materials used and the effective monitoring of critical process parameters.

Aluminium liner
These ranges of cylinders are manufactured from a seamless aluminium liner, which is subsequently over wrapped with carbon and glass fibres. The aluminium liner is cold drawn from AA 6061 aluminium plate and then wrapped with carbon fibre in an epoxy matrix, using a computer controlled 4 axis wrapping machine.

Glass fibre
An external layer of glass fibre in an epoxy matrix is then wrapped onto the cylinder. This external layer of glass fibre is applied to enhance the resistance of the cylinder to impact and abrasion in service. Following a high temperature curing of the epoxy matrix, an external gel coat is applied to the surface of the cylinder. This coating provides a smooth, easily cleaned surface for the cylinder. Every batch of 200 cylinders is subjected to exhaustive testing in accordance with the legislative design and manufacturing codes (EN 12245 and 97/23/EC), under the supervision of a Notified Body. All relevant production data is retained electronically for the full working life of the cylinder.

Dräger Composite Air Cylinders
Can be used in any application where breathing becomes difficult or impossible

TECHNICAL SPECIFICATIONS

Water Capacity	6 liters
Free Air Capacity	1.636 liters
Working Duration	41 min
Nominal Duration	31 min
Service Pressure	300 bar
Weight	3.7 kg
Dimensions	492/495 x 152.5/154.0 mm
Design Life	20 years
Thread	M18 x 1.5
Approval	EN12245:2002

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Composite Air Cylinder, 6 liters, 300 bar	1	3353732
Dräger Cylinder KSF 6.8 liter, 300 bar	1	3353733
Dräger Cylinder KSF 9.0 liter, 300 bar, STD	1	3353734
Dräger Cylinder Carbon Composite, 9 liter, 200 Bar	1	3354631
Dräger Test pressure gauge 0-400 BAR 5/8" DIN connection	1	R50874

ZICO bracket for Air Cylinder

The EZ-OUT SCBA Bracket is a SCBA bracket that is suitable for use inside a crew cab. The simplistic design allows the bracket to work with many different makes and models of 30/45 Minutes SCBA with minimal set up time. The triangular strap and adjustment buckles combine for an easier stowing process and tighter grip around the SCBA.

Features
- 30-45 minutes SCBA
- suitable for all steel and synthetic cylinders
- all bracket components are coated with a specially formulated thermoplastic material. The coating prevents the steel surfaces from rusting and minimizes wear to SCBA cylinders.

- the firm plastic stalk around the pull release lanyard holds it rigidly in place, away from the seat, preventing it from being sat upon and making it easier to locate in a hurry
- backplate, footplate, and seats are thermoplastic-coated steel
- third party tested to exceed the 11G standard

ZICO bracket
 For Air Cylinder

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger: ZICO bracket	1	4058643

Dräger Cover for Air Cylinder

Dräger Nomex cover for air cylinder.

Features
- nomex cover with Kevlar closing cord
- retro reflective striping for better visibility
- protects air cylinder against mechanical and heat stress

Dräger Cover for Air Cylinder
Protection against mechanical and heat stress

TECHNICAL SPECIFICATIONS

Material	Nomex
Color	Blue

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Cover for Air Cylinder for 6 liter	1	3811016
Dräger Cover for Air Cylinder for 6.8 liter	1	3811017

Dräger FPS-COM 7000

The Dräger FPS®-COM 7000 provides hands-free communication for all wearers of respiratory protection devices during a mission. Excellent voice quality is achieved by removing interfering noises.

Dräger FPS-COM 7000
Flexibel, robust and easy operation

For missions under the harshest conditions
For missions requiring respiratory protection you have to expect extreme conditions: thick smoke and noiseobstacles that not only cause stress but also significantly hinder any form of communication. This is even more difficult if a chemical protective suit is required: these suits restrict movement and suppress your voice. The Dräger FPS-COM 7000 in connection with the proven full-face mask Dräger FPS 7000 was developed especially for these applications. Each word is transmitted clearly and intelligibly to the members of the team.

Noise suppression for optimum voice quality
The newly developed digital noise reduction automatically suppresses ambient noises and only transmits your voice. In particular, breathing noise is filtered out preventing it from being transmitted to the voice amplifier or the radio. The integrated loudspeakers, with which you can interact directly with the injured people and team members without radio equipment, also have this function.

Wireless connection to the incident commander
Each Dräger FPS-COM 7000 has an integrated PTT button (push-to-talk) to operate a radio that can be connected as an option. You can communicate using a tactical radio by pressing just one button. The tactical radio can be connected with a cable or Bluetooth. The latter means that there are no cables that could become entangled; reducing the risk of snagging.

Hands-free team communication
The Dräger FPS-COM 7000 allows fast and efficient communication within one group or among different ones. And it works without pressing a single button. This improves your safety by not distracting you from your task. The voice-activated function also provides full-duplex communication. This means that you can talk and listen at the same time – as if you were on the phone. If there is only one radio for the entire group, the system allows the automatic transfer of the received instructions for up to ten group members via short-range radio. This means that only one member of

the group needs a tactical radio while everyone is still informed immediately.

Easy operation and individual setup options
The Dräger FPS-COM 7000 was developed with a focus on ergonomic handling and intuitive operation. The set radio group is announced via the earphones. In addition, different alarm tones warn of low battery status or if you are out of range from the team communication. An optional software allows numerous setting options with which you can adapt the system to your precise operation. You can, for example, define the number of groups. With the integrated switch you can switch between up to seven groups during the mission.

Robust and balanced
The robust communication unit adapts seamlessly to the Dräger FPS 7000. The robust design of the Dräger FPS-COM 7000 can resist even strong shocks and impacts. It is resistant to extreme temperatures and has protection class IP67. This means the Dräger FPS-COM 7000 is waterproof and can be easily cleaned after the operation. In addition, the balanced weight distribution prevents neck muscles from straining and increases wearing comfort – without restricting movement or limiting your field of view.

Flexibility before, during and after the mission
Thanks to its click connection that is easy to operate, the Dräger FPS-COM 7000 can be attached and removed in only a few steps – within seconds and without special tools. This allows greater flexibility to interchange between different face masks which can quickly be ready to operate by simply removing the protective cap. Therefore, you do not require a separate communication unit for every face mask. The device is easy to clean and maintain due to its easy assembly and distanced position between microphone and face seal.

Dräger FPS-COM 7000

TECHNICAL SPECIFICATIONS

Weight	depending on variant 340 to 400 g (without battery)
Battery types	2 x AA
Operation time	approx. 8 hours (dependent on talk activity)
Ambient conditions for storage	-15 ℃ to +25 ℃, 700 to 1,300 hPa, 10 to 95% relative humidity
Protection class	IP67
Approvals	EN 136 class 3 EN137 type 2
	ATEX: Ex II 1 G, Ex ia IIC T4/ T3 Ga (Ta = -30 ℃ … +50 ℃)
	IECEx: Ex ia IIC T4/ T3 Ga (Ta = -30 ℃ … +50 ℃)
	CAN/CSA: Class I, Div. 1, Groups A-D T3/T4
	CE 2004/108/EC, 1999/5/EC, 94/9/EG

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS®-COM 7000, without mask, incl. universal connector	1	R61100

Dräger FPS-COM 5000

Because there is no time for misunderstandings in an emergency: The Dräger FPS®-COM 5000 communication unit has been specifically developed for the full-face mask Dräger FPS® 7000 and ensures clear communication through a voice amplifier unit or radio device – even under extreme conditions.

Dräger FPS-COM 5000
For clear audibility by voice amplifier or radio

Voice only - nothing else
The Dräger FPS-COM 5000 allows you to communicate without any interference, even in the loudest environment. The digital noise reduction technology filters out any interference that may reach the microphone inside the mask or any acoustic feedback that may occur. In particular, breathing sounds are not transmitted to the voice amplifier or the radio. This prevents any misunderstanding so you can fully concentrate on your mission.

Open to different communication channels
Use the attached jack to connect the Dräger FPS-COM 5000 to more than 350 different radio sets via the external Dräger C-C440 push-to-talk button or the Dräger C-C550 remote speaker microphone. Alternatively, you can connect the Dräger FPS-COM 5000 directly to the radio and use the built-in, push-to-talk button. To reduce the risk of snagging, the device can also be connected to specified radio sets via Bluetooth.

High reliability, low costs
Did you forget to turn off the Dräger FPS-COM 5000 after work? No problem: the communication unit shuts off automatically if there is no breathing sound for ten minutes (after a pre-alarm). This increases the battery life, lowers maintenance costs, and ensures

that your equipment is ready for use when needed.

Communication lasts several hours
In combination with the Dräger PSS BG 4 plus, which can supply you with breathing air for up to four hours, the Dräger FPS-COM 5000 also keeps you in contact with your colleagues during extended missions. Even during complex tasks, you can discuss the subsequent procedure with your mission leader without having to interrupt your task.

Assembly without special tools
With the newly developed click-lock system, the Dräger FPS-COM 5000 is attached and removed in just a few steps. Nevertheless, the communication unit does not need to be removed for manual cleaning as it is protected against the ingress of water or humidity according to IP67.

Perfect fit for clear speech
The earpiece must fit as closely as possible to make sure important information is not lost and that no radio messages need to be repeated during a mission. The flexible gooseneck earpiece of the Dräger FPS-COM 5000 can therefore be adapted individually to suit your head shape – for a perfect fit and excellent audio quality.

TECHNICAL SPECIFICATIONS

Weight	depending on variant 250 to 320 g (without battery)
Battery types	2 x AAA
Operation time	approx. 32 hours (dependent on talk activity)
Ambient conditions for storage	-15 ℃ to +25 ℃, 700 to 1,300 hPa, 10 to 95% relative humidity
Protection class	IP 67
Approvals	CE, EN 136, EN 137 Type 2, EN 145, IEC 60079-11: Ex I 1 M1 ia IIC T4/Ex ia IIC T4 Ga T=-30 ℃ … +50 ℃ UL913: Class I, II, III, Div 1 Group A-G

Dräger FPS-COM 5000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS®-COM 5000, without mask, incl. universal connector	1	R62700/BASIC
Dräger FPS®-COM 5000 with FPS 7000 facemask P	1	R62702/BA-SIC+

Dräger HPS-COM Communication unit

The Dräger HPS®-COM is a robust, easy-to-install communication unit for firefighting helmets. Thanks to the latest technology, it delivers excellent audio performance. You can choose between two different base units and four microphone options, suitable for a wide range of application scenarios.

Dräger HPS-Com
Robust, easy-to-install communication unit for firefighting helmets.

The first choice for firefighting and rescue operations
The Dräger HPS®-COM was specially developed for firefighting helmets as a reliable communication unit for use in extreme conditions, especially firefighting and rescue operations. Together with the Dräger HPS® 7000 full-shell helmet, this headset is approved as a system according to EN 443. The headset also has an IP67 protection class for resistance against dust and splash water and meets the requirements of European Directive 2014/34/EU for explosion protection (ATEX).

Excellent speech quality
The HPS®-COM has the best audio performance in its class. The integrated speaker delivers excellent speech quality with a PESQ value of 4.2. By comparison, transmitted speech is significantly higher than with the GSM mobile radio standard with a PESQ value between 3.1 and 3.5. The HPS®-COM offers outstanding performance across the entire frequency spectrum of human speech, so that every radio call is reproduced optimally.

Modular system, individually configurable
Thanks to its modular concept, you can choose between two different base units: the Dräger HPS®-COM or the Dräger HPS®-COM dual. You can also individually configure these units with different microphones as desired:
- The HPS®-COM Boom microphone delivers the best speech comprehensibility even in loud environments. This directional premium gooseneck microphone facilitates communication reliably thanks to its noise cancelling function. Disruptive noise from your surroundings (for example, from fire ventilators or vehicle pumps) is automatically filtered out, so that only your voice is transmitted. It enables you to give and receive clear instructions even in stressful firefighting operations.
- The HPS®-COM Short microphones gives you maximum freedom of movement. The short omnidirectional gooseneck microphone easily picks up your voice from

outside of visual range and transmits it reliably to the wireless device. This allows you to communicate with ease even in confined space conditions (such as when entering containers or confined spaces).
- Two different types of bone conduction microphone (skull/throat mic) enable speech transmission that is entirely independent from the environment. Due to its position on the head or next to the throat, a receiver mechanically absorbs the sound of your voice directly via bone conduction.

Respond as the situation demands
With the Dräger HPS®-COM dual you are always instantly ready to respond as the situation demands. You can switch between the connected microphone and the integrated skull microphone during operation, by simply pushing the front boom microphone to the parking position. The audio signal from the skull microphone is then automatically transmitted. Thanks to this feature, the HPS®-COM dual combines the benefits of airborne sound and bone conduction microphones in one unit. This offers you extensive flexibility and freedom of movement, all while transmitting speech regardless of what is going on around you.

Safe and protected with one easy movement
The parking position of the HPS®-COM gives you freedom to move when you need it. For undisturbed work when not using the boom or short microphone, simply push the microphone to the parking position in the helmet. This mutes the microphone and secures it for safe keeping until the next time it is needed. The microphone is fully ready for use again with just one easy movement. With the HPS®-COM dual, the additional skull microphone is activated when the boom microphone is moved to this position. The robust design (IP67 and 2014/34/EU – ATEX) of the HPS®-COM and the protection provided by the intelligent positioning inside the helmet ensure that the unit has a high durability.

Dräger HPS-COM Communication unit

Fast and easy to attach (click & go)

Thanks to the integrated clip made of robust steel, you can simply click the Dräger HPS®-COM into our Dräger HPS® 7000 firefighting helmet with no tools needed. Then just insert the four-pin Nexus plug into your control unit (Dräger C-C440 / C-C550). Equipping yourself on the way to a firefighting operation is therefore fast and easy. The time-saving attachment and removal also make it easy to exchange HPS®-COM units between different users. The unit itself is designed to be low maintenance. No batteries are needed thanks to passive electronics. Removing the unit is fast and simple, and no tools are needed. This saves valuable time when cleaning the helmet. Soiling on the HPS®-COM can be fully removed with a moist cloth and a mild cleaning agent.

Compatible with your radio and helmet system

The four-pin Nexus plug makes the Dräger HPS®-COM communication unit universal. The standardised interface to the Dräger C-C440 (push-to-talk) and C-C550 (speaker/ microphone unit with push-to-talk) control units allows for virtually any option in terms of what radio device is used: more than 350 different models can be connected – giving you a flexible range of choices. The communication unit connects perfectly to the Dräger HPS® 7000 firefighting helmet.

TECHNICAL SPECIFICATIONS

Operating temperature	-30 to +60°C
Storage temperature	-30 to +60°C
Maximum humidity	80%
Audio performance	PESQ value 4,2
Weight speaker housing	105 g with cable
Material speaker housing	Polyamide
Lenght cable	480 mm (spiral cable)
Attachment	Steel clip
Approvals	2014/34/EU, EN 60079-11, EN61000-6-2, IP67, EN 443

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger HPS®-COM Boom Mic	1	3703820
Dräger HPS®-COM Skull Mic	1	3703822
Dräger HPS®-COM dual: Skull-/Boom Mic	1	3703830

Dräger C-C440

Control unit with large Push-To-Talk button for easy handling of the radio transmitter. Tough and robust design according to IP67 / MIL-STD-810G standards. Specially designed for deployments using chemical protective suits. ATEX versions available.

Dräger C-C440
Easy to operate

Push-To-Talk button
The large pressure area enables secure voice transmission in any situation, even when the C-C440 is operated via the equipment or worn under protective clothing.

Sturdy connection socket
As a sturdy and robust quick-connect socket, the C-C440 can be combined with any of the upper units allowing connection to different types of radio devices.

Robust and water-repellent
The C-C440 has been designed to be particularly sturdy and robust for many different applications as well as being watertight, complying with IP67 / MIL-STD-810G requirements.

ATEX approved
Should the system need to be used in environments where there is a potential explosion hazard, the C-C440 is designed in such a way that it meets ATEX requirements and has ATEX approval.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Savox: C-C-440 / DP4000 Com-Control, requires Molex adapter R35137	1	R35126
Dräger: C-C440 PPT (Motorola GCAI)	1	R35141
Dräger: C-C440 Motorola MTP 3100/XIR P66	1	R35170

Dräger C-C550

Control unit for the tactical transmitter with integrated loudspeaker and microphone. Can be hooked up to a number of receiver models. Its strong and robust design is IP67 / MIL-STD-810G approved. Allows for independent deployments with the radio receiver (also without attached headset). User-friendly with two PTT buttons. ATEX versions available (regardless of radio transmitter type).

Integrated microphone and speaker
The integrated microphone and the integrated speaker enable the use of the C-C550 without the upper unit.

Sturdy connection socket
As a sturdy and robust quick-connect socket, the C-C550 can be combined with any of the upper units allowing connection to different types of radio devices.

Robust and water-repellent
The C-C550 has been designed to be particularly sturdy and robust for many different applications as well as being watertight, complying with IP67 / MIL-STD-810G requirements.

ATEX approved
Should the system need to be used in environments where there is a potential explosion hazard, the C-C550 is designed in such a way that it meets ATEX requirements and has APEX approval.

Two large Push-To-Talk buttons
The two large push-to-talk buttons enable secure voice transmission whether the C-C550 is operated via the equipment or worn under protective clothing.

Dräger C-C550
Transmitter with integrated loudspeaker and microphone

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger: Savox C-C550 MTP 3000 for Motorola	1	R35133
Dräger: C-C550 PD795 EX / PD715 EX Hytera	1	R35168

Dräger Saver CF - Compressed Air Escape Device

The Dräger Saver CF constant flow Emergency Escape Breathing Apparatus (EEBD) allows safe, effective and uncomplicated escape from hazardous environments. Simple to put on and featuring automatic operation, this hood-based, constant flow breathing device can be used with minimal training.

Dräger Saver CF with storage box
Compressed aire escape device

When time is of the essence
In emergency situations, conditions can deteriorate rapidly. The air is suddenly filled with smoke or toxic fumes and rapid escape is the only available option. The Dräger Saver CF is highly visible and was designed to be suitable even for people with spectacles or facial hair. When opened, the Saver CF is automatically activated and begins feeding a continuous supply of breathing air to the hood. The Saver CF gives the wearer the precious additional time needed to exit the area safely.

Highly visible, even under adverse conditions
Available with either a soft bag or hard case, the Saver CF can be easily wall-mounted in strategic locations in potentially hazardous areas. Both black anti-static cases or bright orange bags feature photoluminescent panels and reflective stripes for enhanced visibility, even under low lighting conditions. The Saver CF is compact and lightweight and can be worn either as a chest bag or over the shoulder. Made from highly resistant materials, it is washable, flame retardant and allows water to drain freely.

Up to 15 minutes of lifesaving air
The Dräger Saver CF utilizes a simple, fail-safe reducer system with excellent flow characteristics, providing a consistent rate of air flow until the cylinder is completely empty. An alarm whistle sounds before the air supply is exhausted. It can be equipped with cylinders which can hold either a 10 or 15 minute supply of air. The flame-retardant hood incorporates a large visor for maximum peripheral vision.

New options for added safety and durability
The SE version includes a newly developed neck seal which offers unparalleled resistance to the effects of high temperatures, ozone and diesel fumes, which are often found in places such as engine rooms. This translates to years of reliable, worry-free service, even under adverse conditions. Standard Dräger Saver CF15 units can also be retrofitted with the SE option.

Low-maintenance protection
The Dräger Saver CF requires very little service or maintenance. A transparent window on both the soft bag and hard case lets you check the cylinder pressure gauge easily without unpacking the unit. You know the Saver CF is there for you when you need it.

Conforms to relevant standards and norms
The Dräger Saver CF complies with the essential health and safety requirements of the PPE Regulation (EU) 2016/425 and is tested and designed in accordance with EN1146 (2005), DNV GL Certificate of Fire Approval and DNV GL Certificate of Type Approval. It also complies with SOLAS Chapter II-2, the Marine Equipment Directive, the Pressure Equipment Directive and ISO 23269-1:2008. Anti-static versions are also suitable for use in explosive atmospheres (zone 0).

Optional: storage box
Single unit storage box.

TECHNICAL SPECIFICATIONS

Dräger Saver CF10/CF15

Dimensions	260 x 510 x 190 mm (h x l x t)

Dräger Saver CF - Compressed Air Escape Device

Weight	CF10: 5.9 kg (hard case)
	CF10: 4.2 kg (soft case)
	CF15: 6.9 kg (hard case)
	CF15: 5.2 kg (soft case)
Cylinder charging pressure	200 bar
Airflow to the hood	35 - 37 L/min
Operating temperature	-15°C to 60°C
Approvals	EN1146:2005, ISO 23269-1:2008, ISO 23269-4:2011, SOLAS Chapter II-2, Marine Equipment Directive, Pressure Equipment Directive, the Dräger Saver CF hard case and anti-static soft bag versions are suitable for use in explosive atmospheres (zone 0).
Storage box	
Dimensions	740 x 280 x 220 mm (l x w x d)
Weight	1.3 kgs

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Saver CF15: soft bag version	1	3359735
Dräger Saver CF15 (SE) Anti-Static: soft bag version	1	3359743
Dräger Saver CF15: hard case version	1	3359740
Wall cabinet for Dräger Saver escape set	1	3351823
Saver CF15 SE: Anti-static bag	1	3360341
Saver hood and hose assembly	1	3350441
Saver CF: Valve Assy	1	3350484
MediClean Forte, refill 5 liter	1	3708063
It depends on the country which article number you need to order. Ask our Sales department for advise.		

Dräger Saver PP15

The Dräger Saver range of Emergency Escape Breathing Apparatus has been designed using the latest technologies available whilst still bearing in mind our three leading principles; reliability, quality and ease of use. The Dräger Saver PP provides breathing air for 10 or 15 minutes, according to cylinder size.

Dräger Saver PP15
Positive pressure emergency escape equipment

Safe
The Dräger Saver PP is a positive pressure Emergency Escape Breathing Apparatus (EEBA), incorporating a Panorama Nova facemask. Developed with safety in mind it has been especially designed to be used in conjunction with other forms of Personal Protective Equipment like safety helmets and ear protectors, with little or no encumbrance.

Compact
The Dräger Saver PP is extremely compact in design providing greater freedom of movement and ease of storage. The unit is contained in an instantly recognisable orange carrying bag, incorporating photoluminescent panels. This allows the unit to be seen at very low ambient light and visibility levels.

The carrying bag is interchangeable for either chestbag or bandolier wearing positions. It's also washable, flame retardant and waterproof.

Activation
Activation and donning are made as uncomplicated as possible to allow for a safer escape. Simply open the carrying system and the Dräger Saver PP is instantly activated. It can be easily re-set in the event of false alarm.

The Dräger Saver PP comes equipped with the Panorama Nova facemask, part of the Dräger product portfolio. The elasticated

head harness on the Dräger Panorama Nova means the escape set is easier and quicker to don in emergency situations.

Features
- the Dräger Panorama Nova positive pressure face mask offers a higher level of protection, providing low exhalation resistance
- a close and comfortable fit
- self demisting visor for clear vision

Warning whistle
During an escape situation a warning whistle sounds when the unit is nearing the end of its air supply, this is to help ensure the user knows when they need to be in a safe breathing environment.

The proven reliability of the pneumatic principles used on the Dräger PA90 and Dräger PA90 Plus, have been adapted for use throughout the Dräger Saver range.

This design provides extremely low breathing resistance and a consistent air flow rate at all cylinder pressure levels.

Low cost of ownership
- no mandatory routine service is required for a period of 10 years
- the cylinder can be charged using standard charging connectors with no special tools or adaptors to national regulations

TECHNICAL SPECIFICATIONS

Dimensions	490 x 160 x 250 mm
Weight	6.18 kgs
Cylinder Free Capacity	600 liters
Cylinder Water Capacity	3 liter
Maximum Working Pressure	200 bar
Medium Pressure	6-9 bar
Airflow to Hood	Potentially 500 liters per minute
Operating Temperature Range	-15ºC to +60ºC
Approvals	EN402, Lloyd's Register Certificate of Fire Approval and Lloyd's Register Certificate of Type Approval. The Dräger Saver PP also complies with SOLAS Chapter I I-2, The Marine Equipment Directive and The Pressure Equipment Directive

Dräger Saver PP15

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Saver PP15 - soft bag version	1	3359747
Dräger Saver PP15 15 min.- anti-static - soft bag version	1	3359749
Wall cabinet for Dräger Saver escape set, IP54	1	3351823
MediClean Forte, refill 5 liter	1	3708063
It depends on the country which article number you need to order. Ask our Sales department for advise.		

Dräger Oxy SR

The Dräger Oxygen Self Rescuers are easy and fast to handle, even under extreme conditions. The devices are service-free for up to 10 years while being worn. The unique safety eye provides you the ability to check the device without additional tools. The Oxy series provides breathing protection according to the highest standards since decades - made in Germany.

Dräger Oxy SR
High level of safety and comfort

High level of safety and comfort

The quick, uncomplicated visual inspection of the exterior shell, the Safety Eye and the optional temperature indicator provide certainty about the functionality of the device to the user.

The self-rescuers are equipped with a comfort bite mouthpiece offering high wearing comfort. The devices offer low breathing resistance values. Furthermore, the self-rescuers are anti-static.

For your safety training, we offer a training device to get used to the donning procedure. Optionally, it can simulate the increased temperature of the inhaled air as well as the breathing resistance.

30 and 60 minutes

The availability of a 30 minute and a 60 minute device provides more options for your emergency planning concept. The donning of both devices is similar which allows you to be familiar with the function and use of these devices allowing for a combination of units.

Less maintenance, lower costs

Two lifetime options are available: 5 or 10 years. So thanks to their robust construction, the devices can be used maintenance-free for up to 10 years - no costs of ownership as no additional tools or testing is required.

Our services for you

We dispose for you damaged, opened, used and expired oxygen self-rescuers.

TECHNICAL SPECIFICATIONS

Temperature	For transport and storage: -30 °C to +50 °C
	Worn device (carried): -5 °C to +50 °C 2
	Used device (in deployment/escape): -20 °C to +70 °C 1
	Ambient pressure: 700 to 1,300 hPa
Temperature of the inhalation air (dry, breathable air)	max. +50 °C[2]
Relative humidity	up to 100 %
Breathing bag volume	> 10 litres
Usage period	At a breathing minute volume of 35 L/min 30 min 60 min
	At rest (10 L/min breathing minute volume)[2] 90 min 180 min
Inhalation / exhalation resistance at 35 L/min	Max. individual exhalation resistance +9.8 hPa or -9.8 hPa +7.5 hPa or -7.5 hPa
	At the end of the usage periode Σ 16 hPa Σ 13 hPa
Weight	SR 30
	Self rescuer: 2.6 kg
	Self rescuer in use (functional unit): 1.7 kg
	Support ring: 180 g
	Abrasion protetion: 220 g
	Shoulder strap: 130 g
	SR 60
	Self rescuer: 3.5 kg
	Self rescuer in use (functional unit): 2.4 kg
	Support ring: 190 g
	Abrasion protetion: 280 g
	Shoulder strap: 130 g

Dräger Oxy SR

Dimensions	SR 30
	without support ring & abrasion protection: 220 x 190 x 110 mm
	in use (functional unit): 170 x 200 x 80 mm
	with support ring & abrasion protection: 230 x 200 x 110 mm
	SR 60
	without support ring & abrasion protection: 250 x 215 x 125 mm
	in use (functional unit): 190 x 240 x 100 mm
	with support ring & abrasion protection: 260 x 230 x 130 mm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Oxy SR 30 – 5 year version incl. mouth piece, nose clip, glasses and RFID-tag excl. carrier ring and bump protection excl. heat-indicator and robust mounting strap	1	3720627
Oxy SR 30 – 5 year version incl. mouth piece, nose clip, glasses and RFID-tag excl. carrier ring and bump protection incl. heat-indicator and robust mounting strap	1	3720646
Oxy SR 30 – 5 year version incl. mouth piece, nose clip, glasses and RFID-tag incl. waist carrier ring and bump protection excl. waist belt, heat-indicator and robust mounting strap	1	3720626
Oxy SR 30 – 10 year version incl. mouth piece, nose clip, glasses and RFID-tag incl. waist carrier ring, bump protection, heat-indicator and robust mounting strap excl. waist belt (to be ordered seperatly)	1	3720673
Oxy SR 30 – 10 year version incl. mouth piece, nose clip, glasses and RFID-tag incl. shoulder carrier ring, shoulder belt, bump protection and robust mounting strap excl. heat-indicator	1	3720678
Oxy SR 60 – 5 year version incl. mouth piece, nose clip, glasses and RFID-tag excl. carrier ring and bump protection excl. heat-indicator and robust mounting strap	1	3720683
Oxy SR 60 – 5 year version incl. mouth piece, nose clip, glasses and RFID-tag excl. carrier ring and bump protection incl. heat-indicator and robust mounting strap	1	3720700
Oxy SR 60 – 10 year version incl. mouth piece, nose clip, glasses and RFID-tag excl. carrier ring and bump protection excl. heat-indicator and robust mounting strap	1	3720705
Oxy SR 60 – 10 year version incl. mouth piece, nose clip, glasses and RFID-tag excl. carrier ring and bump protection incl. heat-indicator and robust mounting strap	1	3720724
Oxy SR 60 – 10 year version incl. mouth piece, nose clip, glasses and RFID-tag incl. shoulder carrier ring, shoulder belt and robust mounting strap incl. heat-indicator and bump protection	1	3720713

Dräger Oxy SR

Description	Unit Sales	Articlenr
Oxy SR 60 – 10 year version	1	3720714
incl. mouth piece, nose clip, glasses and RFID-tag		
incl. shoulder carrier ring, shoulder belt, bump protection and robust mounting strap		
incl. heat-indicator		
Bump protection SR 30	1	3715554
Bump protection SR 60	1	3715584
Waist belt SR	1	3715595
Shoulder/wrist belt SR	1	3715590
Wall mounting SR	1	3715599
Also suitable for mounting in vehicles		

Dräger PARAT® 3100 en 3200

When hazardous substances are present at a work place it has to be taken into account that these substances can suddenly leak out into the air in concentrations that cause severe health impairment or even death. Packed in a robust and ergonomic case, the unit is compact and easy to carry. Approved to the only recognized standard for filtering industrial escape devices (DIN 58647-7), it provides users a minimum of 15 minutes escape time.

Dräger PARAT 3100 and 3200
Protects the user from harmful gases and smokes

Proven protection for at least 15 minutes
The Dräger PARAT 3100 and 3200 reliably protect the user from a wide range of toxic industrial gases for at least 15 minutes.They are approved in accordance with DIN 58647-7.

Various carrying options
The escape device is standardly equipped with a belt clip. There are four additional carrying options available: a grip clip, slip guard carabiner, shoulder strap and hand strap, keeping the PARAT 3000 series secure during daily tasks. With the exception of the grip clip, the devices can be attached together with the existing belt clip. The grip clip can be assembled after removing the belt clip from the unit.

Robust and ergonomic packaging
The ergonomic design with traction grip areas on the housing allows for easy and safe handling. The robust case provides stability and protection even under extreme working conditions.

Transparent backplate
The backplate of the PARAT 3100 and 3200 is transparent and offers a clear view of the device. Service intervals are easy to keep track of as the expiration date is printed on the filter and can be easily read. Pictograms show the correct donning procedure and remain protected under the backplate against abrasion.

Low cost of ownership
The device has a 12 year overall lifetime provided that the filter is replaced every 4 years, ensuring minimal operational costs.

PARAT 3100 - Half mask with 2-point harness
The escape device consists of a half mask with 2-point harness and an integrated ABEK15 filter. The half mask can easily be donned, which is especially important in an emergency situation. Additionally, it allows for reliable communication.

PARAT 3200 - Mouthpiece with nose clip
The escape respirator consists of a mouthpiece with nose clip and an integrated ABEK15 filter. It is easy and safe to don, even for bearded wearers. It provides very low leakage values. The small and compact size makes it easy to carry.

TECHNICAL SPECIFICATIONS

Filter performance	ABEK 15 gas filter for protection against organic and anorganic gases and vapours, approved in accordance to DIN 58647 part 7
Dimensions	Dräger PARAT 3100: 170 x 110 x 90mm Dräger PARAT 3200: 170 x 110 x 60mm
Weight	Dräger PARAT 3100: approx. 360 g Dräger PARAT 3200: approx. 330 g
Duration of use	At least 15 minutes
Shelf life	4 years free of service, filterexchange every 4 years, total shelf life 12 years
Approvals	Approved in accordance to DIN 58647 part 7 (CE mark 0158)

Dräger PARAT® 3100 en 3200

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT 3100	1	3704476
Dräger PARAT 3200	1	3704478
Dräger PARAT 3260	1	3704479

Dräger PARAT® 4700

The Dräger PARAT® 4700 industrial escape hood was developed in cooperation with users – always with the focus on offering the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested ABEK P3 filter guarantee that the wearer of the Dräger PARAT® 4700 is protected from toxic industrial combustion gases, vapours and particles for at least 15 minutes while escaping.

Dräger PARAT 4700
Industrial escape hood

Ready for escape in only 3 steps
Exceptionally innovative and intuitive: When opening the packaging, the filter plug is automatically released from the filter. The filter is then deployed into operational position and the hood can be immediately donned. Thanks to the self-adjusting internal head harness, no additional tightening is required. All you have to do is: open the packaging, remove and don the hood – and leave the danger zone.

Reliable protection
The high-performance combination filter reliably protects against a wide range of toxic industrial gases, vapours and particles. The ABEK P3 filter is approved according to the DIN 58647-7 for filtering escape devices; additionally, the filter is tested in accordance with the EN 14387:2004 for gas and combined filter (s). Particularly convenient: The security seal on the packaging shows if the unit has been opened. In addition, the filter is tightly sealed with two filter plugs.

16 years of service life
Replacing the filter after 8 years will extend the service life of the Dräger PARAT Escape Hood to 16 years in total. For this, Dräger offers filter replacement service or an expert training for your employees.

Sturdy and ergonomic at once
Both, ergonomics and wearing comfort were considered when designing the packaging of the Dräger PARAT Escape Hoods. The escape hood can be carried with a belt, shoulder strap, grip clip or belt clip. The PARAT Hard Case can also be mounted on the wall using a wallholder. Additionally, the robust packaging of the Dräger PARAT Escape Hoods protects the device from damage.

Different packaging types
You can select between two packaging types: The Hard Case provides splash water protection (IP54) – the Soft Pack provides dust protection (IP5). Both packaging types have a viewing window to check the filter expiration date and the condition of the device.

TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 4720: 245 x 160 x 110 mm (l x w x h)
	PARAT® 4730: 249 x 156 x 115 mm (l x w x h)
Weight	PARAT® 4720: 675 g
	PARAT® 4730: 740 g
Filter performance	ABEK P3 combination filter against toxic industrial gases, vapours and particles
Approved duration	At least 15 minutes
Approvals	according to DIN 58647-7 (filter additionally tested in accordance with EN 14387:2004)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 4730, Hard Case	1	R59431

Dräger PARAT® 5500

The Dräger PARAT® 5500 fire escape hood was developed in cooperation with users – always with the focus on offering the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested CO P2 filter guarantee that the wearer of the Dräger PARAT® 5500 is protected from toxic fire-related gases, vapours and particles for at least 15 minutes while escaping.

Dräger PARAT 5500
Fire escape hood

Ready for escape in only 3 steps
Exceptionally innovative and intuitive: When opening the packaging, the filter plug is automatically released from the filter. The filter is then deployed into operational position and the hood can be immediately donned. Thanks to the self-adjusting internal head harness, no additional tightening is required. All you have to do is: open the packaging, remove the and don hood – and leave the danger zone.

Reliable protection
The high-performance combination filter reliably protects against a wide range of toxic fire-related gases, vapours and particles.The CO P2 filter is approved according to the EN standard 403:2004. In addition, the filter is tested for use against H2S (at 2500 ppm) in accordance with DIN 58647-7. Particularly convenient: The security seal on the packaging shows if the unit has been opened. In addition, the filter is tightly sealed with two filter plugs.

16 years of service life
Replacing the filter after 8 years will extend the service life of the Dräger PARAT Escape Hood to 16 years in total. For this, Dräger offers filter replacement service or an expert training for your employees.

Sturdy and ergonomic at once
Both, ergonomics and wearing comfort were considered when designing the packaging of the Dräger PARAT Escape Hoods. The escape hood can be carried with a belt, shoulder strap, grip clip or belt clip. The PARAT Hard Case can also be mounted on the wall using a wall holder. Additionally, the robust packaging of the Dräger PARAT Escape Hoods protects the device from damage.

Different packaging types
You can select between three packaging types: The Hard Case provides splash water protection (IP54) – the Soft Pack provides dust protection (IP5) – or select the Single Pack with the standard filter plug system. Both, the Hard Case and the Soft Pack have viewing windows to check the filter expiration date and the condition of the device.

TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 5510: 190 x 135 x 90 mm (l x w x h)
	PARAT® 5520: 215 x 155 x 105 mm (l x w x h)
	PARAT® 5530: 241 x 143 x 107 mm (l x w x h)
Weight	PARAT® 5510: 590 g
	PARAT® 5520: 660 g
	PARAT® 5530: 720 g
Filter performance	CO P2 combination filter against toxic fire-related gases, vapours and particles
Approved duration	At least 15 minutes
Approvals	according to EN 403:2004, additionally tested for the use against H2S (at 2,500 ppm) in accordance with DIN 58647-7

Dräger PARAT® 5500

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 5510, Single Pack	1	R59415
Dräger PARAT® 5520, Soft Pack	1	R59425
Dräger PARAT® 5530, Hard Case	1	R59435

Dräger PARAT® 5550

The Dräger PARAT® 5550 is a fire escape hood packaged in a flame-retardant holster. It was specifically developed for fire rescue teams for use in victim rescue. The main advantage: The PARAT® 5550 is system approved together with Dräger breathing apparatus according to EN 137:2006, Type 2.

Dräger PARAT 5550
Escape hood

"Ready to act" increases safety

With its EN 137:2006, Type 2 and EN 403:2004 approved combination of breathing apparatus, fire escape hood and holster, Dräger is going one step further in victim rescue. The fire escape hood can be carried along (e.g. on the breathing apparatus) without restricting the rescuer's freedom of movement. When it is needed, it is there. The fast deployment of the Dräger PARAT 5550 contributes to the safety of the person being rescued.

Always available, always ready

As it is not always clear in advance whether or not people are inside the burning object, it is recommended to carry a fire escape hood at all times. For at least 15 minutes, a fire escape hood protects against highly toxic fire-related gases, like CO, as well as vapors and particles. Carried at all times, the PARAT 5550 can also save lives in a respiratory protection emergency, for example in the event of a disconnected air supply.

Easy opening, intuitive use

The Dräger PARAT 5550 system solution keeps carrying, opening and donning the fire escape hood simple: The wearer opens the holster, removes the foil pouch containing the escape hood, opens it along the perforation

— with ease, even when wearing gloves — and helps the person being rescued to don it. A clearly visible pictogram further illustrates the donning procedure.

More than just an accessory

With its reflective stripes, the holster is clearly visible from a distance. The material used is suitable for cleaning in washing machines. The inner label can also be used for personalization, meaning that the holster can be marked with an individual's identification. The holster can be attached to the breathing apparatus using the integrated belt loop with emergency release or the approved accessories like the shoulder harness or the carabiner hook. Optional accessory pockets (small and large) for further equipment like wedges or loops can be ordered separately.

Cost efficiency through long service life

The PARAT 5550 has an eight year service life time and the filter is well protected through the filter plugs during this time. So it is uncritical if the unit is stored for some time before use. The filter expiration date is visible from the outside of the foil pouch enabling cost-effective maintenance. Due to the filter plugs, the product can still be used in the event the foil pouch is punctured.

TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 5550: 201 x 160 x 130 mm (h x w x d)
Weight	706 gr
Filter performance	CO P2 combination filter against toxic fire-related gases, vapours and particles
Approved duration	At least 15 minutes
Approvals	NEN-EN 137:2006, type 2 NEN-EN 403:2004

Dräger PARAT® 5550

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 5550 escape hood with flame-retardant softpack packaging, including watertight packed escape hood, weight 706 g	1	R59445
Dräger PARAT® 5550 Holster (without fire escape hood or accessory pockets)	1	R59490
Dräger PARAT® 5550 Accessory Pocket large	1	R59491
Dräger PARAT® 5550 Accessory Pocket small	1	R59492
Dräger PARAT® 5550 Shoulder Strap	1	R59462
Dräger PARAT® 5550 Refill Pack (fire escape hood enclosed in a perforated foil pouch)	1	R59476
Carabiner Hook (10 pcs.)	1	R55573

Dräger PARAT® 7500

The combined fire and industrial escape hood Dräger PARAT 7500 was developed in cooperation with users – always with the focus on offering the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested ABEK CO P3 filter guarantee that the wearer of the Dräger PARAT® 7500 is protected from toxic industrial and fire-related gases, vapours and particles for at least 15 minutes while escaping.

Dräger PARAT 7500
Combined fire and industrial escape hood

Ready for escape in only 3 steps
Exceptionally innovative and intuitive: When opening the packaging, the filter plug is automatically released from the filter. The filter is then deployed into operational position and the hood can be immediately donned. Thanks to the self-adjusting internal head harness, no additional tightening is required. All you have to do is: open the packaging, remove and don the hood – and leave the danger zone.
- .

Reliable protection
The high-performance combination filter reliably protects against a wide range of toxic industrial gases, vapours and particles. The ABEK P3 filter is approved according to the DIN 58647-7 for filtering escape devices; additionally, the filter is tested in accordance with the EN 14387:2004 for gas and combined filter (s). Particularly convenient: The security seal on the packaging shows if the unit has been opened. In addition, the filter is tightly sealed with two filter plugs.

16 years of service life
Replacing the filter after 8 years will extend the service life of the Dräger PARAT Escape

Hood to 16 years in total. For this, Dräger offers filter replacement service or an expert training for your employees.

Sturdy and ergonomic at once
Both, ergonomics and wearing comfort were considered when designing the packaging of the Dräger PARAT Escape Hoods. The escape hood can be carried with a belt, shoulder strap, grip clip or belt clip. The PARAT Hard Case can also be mounted on the wall using a wallholder. Additionally, the robust packaging of the Dräger PARAT Escape Hoods protects the device from damage.

Different packaging types
You can select between two packaging types: The Hard Case provides splash water protection (IP54) – the Soft Pack provides dust protection (IP5). Both packaging types have a viewing window to check the filter expiration date and the condition of the device. There is an additional version of the PARAT 7500: A hood which has an elastomeric neck seal – for an even higher level of protection.

TECHNICAL SPECIFICATIONS

Dimensions	PARAT® 7520: 235 x 160 x 115 mm (l x w x h)
	PARAT® 7530: 249 x 156 x 115 mm (l x w x h)
Weight	PARAT® 7520: 770 g
	PARAT® 7520e: 850 g
	PARAT® 7530: 830 g
	PARAT® 7530e: 900 g
Filter performance	ABEK CO P3 combination filter against toxic gases, vapours, particles and fire-related gases
Approved duration	At least 15 minutes
Approvals	According to EN 403:2004 and DIN 58647-7 (filter additionally tested in accordance with EN 14387:2004)

Dräger PARAT® 7500

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT® 7520, Soft Pack	1	3721329
Dräger PARAT® 7530, Hard Case	1	R59437

Personal Grab Bag

Grab bag with personal escape aid to abandon the installation in case of a fire. The personal grab bag is mostly used on offshore platforms. To be used in the event of a fire.

Personal Grab Bag
Personal escape aid

Contents
- grab bag with carrying strap and photo luminescent identification strip
- Dräger Parat 5510 smoke hood
- heat resistant gloves
- cyalume light stick

Dräger PARAT 5510
A fire along with the hazardous smoke and fumes it gives off, can take you by surprise. The Dräger PARAT 5510 Fire Escape Hood is designed to help you escape the fire safely by filtering out the toxic smoke and fumes in the fire, allowing you to breathe easily while getting to safety. The Dräger PARAT 5510 has been successfully proven in use and public building and with fire departments, helping to rescue others, giving you minimum 15 minutes of escape protection in fire situations.

Light stick
The 6'' EASY-LIGHT is a pure European product. Thanks to its elegant design, it is a good alternative to the 6'' GLOWSTICK. The "alligator" hook helps to clip this light sticks on many supports. Combine the 6'' EASY-LIGHT with a lanyard and it becomes a glowing pendant. On special events, imprint the 6'' EASY-LIGHTS to adapt more personally.

TECHNICAL SPECIFICATIONS

Dräger PARAT 5510	
Dimensions	Dräger PARAT 5510 single pack: 19,5 x 14 x 9 cm (H x L x W)
Weight	approx. 600 gr
Filter performance	Combination cartridge (gas & particle filter) provides protection against smoke, gases and particles, Filter Type CO-P2
Approved duration	minimum of 15 minutes
Approval	EN 403:2004, additionally tested against H2S (at 2.500ppm) in accordance with DIN 58647-7. CE mark.

Light stick	
Dimensions	150 x 11 mm
Weight	0.0133 kg
Color	Green
Duration of use	up to 12 hours
Approval	EN 71 1-2-3

Heat restistant gloves	
Operating temperature	150ºC
Approval	EN388 CAT-1

ORDER INFORMATION

Description	Unit Sales	Articlenr
Grab bag (empty)	1	SG06154
Dräger PARAT 5510, single pack	1	R59415
Heat resistant gloves	1	SG06152
Cyalome stick	1	SG06153

Dräger X-plore® 1300

The Dräger X-plore® 1300 combines proven and reliable respiratory protection with intelligent new ideas ensuring a high level of comfort and ease of use.

Dräger X-plore® 1300
Respiratory protection

Efficient particle protection

Dräger X-plore 1300 is the new generation of pre-formed particle filtering face pieces for effective protection against fine dust as well as solid and liquid particles. For use in applications where exposure to dust is unavoidable the X-plore 1300 is available in all three EN protection classes FFP1, FFP2 and FFP3. Odour stopping versions equipped with an activated carbon layer are ideal for users that battle with unpleasant nuisance odours.

CoolSAFE™ filter material

The specially developed CoolSAFE™ filter material combines various high-performance filter media to achieve an excellent filter performance. Coarse and fine particles are effectively stopped in the various filter layers. At the same time, the breathing resistance remains very low, allowing the user to work easily and without tiring for longer periods. In addition, the face pieces were subjected to the increased requirements of the (optional) dolomite dust test. Their resistance to clogging under high exposure to dust was successfully tested. During activities with high exposure to dust (e.g. mining), this gives the face pieces a longer service life and reduces costs for the user, while maintaining a high degree of wearing comfort.

VarioFLEX™ head harness with EasyStop

Easy to don/doff and adjust with a pressure-free fit. The continuous-looped tear-proof textile strap eliminates the need for clips – preventing uncomfortable pressure and allergic reactions. EasyStop allows the wearer to individually adjust the harness as required, while ensuring ease of use and a secure, comfortable seal. Experience ultimate comfort with the extra-wide slip-proof harness of the Dräger X-plore 1330.

CoolMAX™ exhalation valve (optional)

Small details, big effect: Breathe easy and comfortably, thanks to the extremely low breathing resistance. The valve directs humid and warm exhaled air away from the user and out of the mask – preventing heat build-up and keeping them cool.

A secure seal

Alongside the filter performance, a secure seal, without leakage, is decisive in how effective the masks' protection really is. The X-plore 1300 is the ideal combination of an ergonomic mask body combined with an integrated nose seal and nose clip. This gives the wearer a tailor-made fit and a secure seal. Additionally, the good seal keeps safety glasses from fogging.

Colour coding for fast recognition of the protection class

Fast recognition without confusion: the colour coded nose clip and valve classify the three EN protection levels dark-blue (FFP1), light-blue (FFP2) and white (FFP3). Providing easy recognition when selecting the right mask.

Special features of X-plore 1330

- practical and comfortable: The VarioFLEX™ head harness with a four-point adjustment and extra-wide textile straps ensures the best possible fit.
- quick and easy to use: The straps are arranged for fast donning. An integrated safeguard prevents straps from slipping out of place.
- secure and comfortable: Integrated, all-around comfort sealing.
- clean and hygienic: Each face piece is individually packaged in its own plastic bag.
- individually adjustable: Available in two different sizes S/M and M/L – the right size for different face shapes.

TECHNICAL SPECIFICATIONS

Filter material	CoolSAFE™ for protection against solid and liquid non-volatile particles
Odour versions	With additional activated carbon layer against nuisance organic odours below the limit value
Marking D	Successfully passed the dolomite dust test against clogging
Marking NR	The mask can only be used for a maximum of one work shift

Dräger X-plore® 1300

Approvals	All versions meet the conditions of the EU guideline 89/686/EWG and are permitted as particle filtering half masks in accordance to the increased requirements of the revision of EN 149:2001+A1:2009 (test of filter performance for aerosol exposure with 120 mg paraffin oil). Australian Standard AS/NZS 1716:2003 certified (SAI Global)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 1310 FFP1 NR D	1	3951211
Dräger X-plore 1310 FFP1 NR D V (with valve)	10	3951212
Dräger X-plore 1320 FFP2 NR D V (with valve)	10	3951214
Dräger X-plore 1330 FFP3 NR D V size M/L (with valve)	5	3951217

Dräger X-plore® 3300

A perfect combination of durability, protection and comfort. For harsh conditions and long duration use, the Drager X-plore 3300 half mask is the first choice.

Dräger X-plore 3300
Durability, protection and comfort

Flexible nose area for nose fit
The special design of the nose sealing strip ensures leak free sealing and an optimal fit with safety glasses. Three sizes (S,M, L) ensure a perfect fit for every type of face.

Low profile design
The swept-back position of the filters guarantees a wide field of vision free from obstruction and ensures optimal fit for use under protective visors. Furthermore, the comfortable design leads to the highest level of user acceptance.

FlexiFit head harness
The new smooth material provides an excellent fit to your head without hair entanglement. You won´t even notice it under your hard hat.

Easily adjustable head harness
The innovative X-guided (cross over) strap system is easy to adjust and ensures an even weight and pressure distribution resulting in increased wearer comfort.

Innovative DrägerFlex material
Specially developed for the mask body of the Dräger X-plore® 3500, the "DrägerFlex" material combines hypoallergenic properties with excellent chemical resistance and protection.

Drop down harness
Allows you to remove the mask without removing a hard hat or faceshield. By simply opening the neck clips the respirator slides down from your face. While in the drop-down position, the mask sits close to your body, protected from dirt and grime.

Versatile use
The Dräger X-plore® 3500 is equipped with two lateral bayonet connections for use with the comprehensive Dräger X-plore® bayonet filter series.

TECHNICAL SPECIFICATIONS

Material of mask body	Soft-TPE – friendly to the skin, comfortable to wear, lightweight, translucent grey
Sizes	Small (S), medium (M), large (L)
Filter connection	Two side-positioned bayonet connectors for use with the Dräger X-plore® filter range
Weight	Approx. 95 gr
Maintenance	Spare parts available for Dräger X-plore® 3500
Extras	Drop down harness system and resealable storage bag (with Dräger X-plore® 3500)
Approvals	CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 3300 half mask, (size S)	1	R55331
Dräger X-plore 3300 half mask, (size M)	1	R55330
Dräger X-plore 3300 half mask, (size L)	1	R55332

Dräger X-plore® 3500

A perfect combination of durability, protection and comfort. For harsh conditions and long duration use, the Dräger X-plore 3500 half mask is the first choice.

Dräger X-plore 3500
Excellent chemical resistance and protection

Flexible nose area for secure fit
The special design of the nose sealing strip ensures leak free sealing and an optimal fit with safety glasses. Three sizes (S, M, L) ensure a perfect fit for every type of face.

Low profile" design
The swept-back position of the filters guarantees a wide field of vision free from obstruction and ensures optimal fit for use under protective visors. Furthermore, the comfortable design leads to the highest level of user acceptance.

"FlexiFit" head harness
The new smooth material provides an excellent fit to your head without hair entanglement. You won't even notice it under your hard hat.

Easily adjustable head harness
The innovative X-guided (cross over) strap system is easy to adjust and ensures an even weight and pressure distribution resulting in increased wearer comfort.

Innovative "DrägerFlex" material
Specially developed for the mask body of the Dräger X-plore 3500, the "DrägerFlex" material combines hypoallergenic properties with excellent chemical resistance and protection.

"Drop down" harness
Allows you to remove the mask without removing a hard hat or faceshield. By simply opening the neck clips the respirator slides down from your face. While in the drop-down position, the mask sits close to your body, protected from dirt and grime.

Versatile use
The Dräger X-plore 3500 is equipped with two lateral bayonet connections for use with the comprehensive Dräger X-plore® bayonet filter series.

TECHNICAL SPECIFICATIONS

Material of mask body	Soft-TPE – friendly to the skin, comfortable to wear, lightweight, translucent grey
Sizes	Small (S), medium (M), large (L)
Filter connection	Two side-positioned bayonet connectors for use with the Dräger X-plore® filter range
Weight	Approx. 95 gr
Maintenance	Spare parts available for Dräger X-plore® 3500
Extras	Drop down harness system and resealable storage bag (with Dräger X-plore® 3500)
Approvals	CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 3500 (size S)	1	R55351
Dräger X-plore 3500 (size M)	1	R55350
Dräger X-plore 3500 (size L)	1	R55352

Dräger X-plore® 4740

The Dräger X-plore® 4700 is the robust half mask which offers excellent comfort and outstanding leak tightness for demanding applications. Thanks to the wide range of filters available for protection against gases, vapours and particles, it is ideally suited for use in a variety of industries.

Dräger X-plore 4740
Excellent comfort

Flexible nose area for secure fit

The combination of soft mask body, specially shaped nose seal and a sturdy plastic frame offers key advantages during long term use: a perfect fit on different face shapes and sizes, superior leak tightness, and virtually no pressure points. The ergonomic FlexiFit head harness makes the mask easy to don and doff without hair entanglement or unnecessary pressure. The mask can be removed simply by releasing the neck hook, without taking off the safety helmet ("drop down" strap system). The exhalation valve is positioned low and reliably removes moisture, maintaining a dry and pleasant atmosphere inside the mask. Two high quality materials are available to choose from: TPE or extremely comfortable silicone, especially good for sensitive skin.

The silicone version is also available in two sizes. Two different connectors can be ordered, either for use with Dräger X-plore® Rd40 filters (as per EN 148-1), or Dräger X-plore® Rd90 filters (Drägerspecific). A wide range of gas, particle and combination filters are available for both connectors.

Benefits
- outstanding comfort
- excellent fit
- virtually no pressure points
- TPE version is free of paint-affecting substances
- choose between two different sizes and filter connectors
- wide range of filters

TECHNICAL SPECIFICATIONS

Material of mask body	Soft-TPE – friendly to the skin, comfortable to wear, lightweight, translucent grey
Sizes	Small (S), medium (M), large (L)
Filter connection	Standard thread connection Rd40 (RA) as per EN 148-1 (Dräger X-plore® 4740)
	Dräger-specific thread connection Rd90 (Dräger X-plore® 4790)
Weight	Dräger X-plore® 4740: 160 g bzw. 175 g
	Dräger X-plore® 4790: 180 g bzw. 195 g
Head harness	Flexible and robust neoprene strap (CR/NR), two adjustment points, FlexiFit TPE head harness, drop-down option
	EH-version: elastic harness made of sturdy, chemical resistant neoprene
Spare parts	Available
Approvals	CE certified (EN 140), AS/NZS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-Plore 4740 RA M/L Silicones	1	R55874

Dräger X-plore® 5500

Whether in the chemical, metal, or automotive industries, ship building, maintenance, supplies, or disposal: The Drager X-plore® 5500 full face mask is the right solution for environments where not only increased respiratory protection is required, but also a clear vision is mandatory.

Dräger X-plore® 5500
Safe and comfortable fit

Safe and comfortable fit
A double sealing frame with threefold sealing edges offers safe protection and a secure fit for almost all face shapes. The mask body from durable EPDM ensures a great level of wearing comfort even during prolonged use.

5-point harness
The harness allows quick and easy donning and doffing of the mask without hair entanglement. Additionally, the wide strap design prevents the development of pressure points on the head.

Large field of view due to 180° from PC or Triplex
The distortion-free lens with 180° wide angle guarantees a large field of view with excellent peripheral vision. There is a choice of impact-proof polycarbonate material (with plastic frame) or scratch-proof and chemical-resistant Triplex glass (with extra stable stainless steel frame).

Easy recording, servicing and management
One universal size simplifies logistics and storage. An inside barcode allows for ease of recording and servicing the mask inventory.

Efficient ventilation system
The efficient ventilation system with separate interior half mask ensures a fog-free lens and unobstructed view.

Large field of vision
The swept-back position of the filters guarantees the user's field of vision is free from obstruction.

Versatile use
The Dräger X-plore® 5500 is equipped with two lateral bayonet connections for use of the comprehensive Dräger X-plore® bayonet filter series.

TECHNICAL SPECIFICATIONS

Material of mask body	EPDM with high ageing resistance, extremely hypoallergenic
Visor	Polycarbonate with wide field of vision
Filter connection	Two side-positioned bayonet connections for use of the X-plore® Bayonet Filter range
Weight	Approx. 540 gr
Maintenance	Spare parts available
Approvals	EN136 Cl.2 with CE mark and NIOSH

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 5500 EPDM / PC full face mask, (universal size)	1	R55270
Wikov carrying case for full face masks	1	R51019

Dräger X-plore® 6300

The Dräger X-plore® 6300 is the efficient yet low-cost full face breathing mask intended for price-conscious users not wishing to compromise on comfort or quality. This full face mask is the successor to the Panorama Nova Standard, a mask which has proven itself over decades of use worldwide – redesigned and improved with fresh colours and an integrated bar code.

Dräger X-plore 6300
Meets the highest demands for reliability

Applications
The Dräger X-plore 6300 is designed for use by professionals in industry, and meets the highest demands for reliability, fit and comfort.

Together with the respiratory filters from Dräger's comprehensive range, it has proven suitable for a wide range of different applications. Versatile in use, this mask can be used either in combination with Dräger X-plore Rd40 filters or together with the Dräger powered air purifying respirators (e.g. X-plore 7300 or 7500 series).

Features
The mask body, which is made of robust and hypoallergenic EPDM, features a double-layer face seal with triple sealing action for a secure and comfortable fit on just about any shape of face. The mask comes in a universal "one size fits all", making logistics and storage easy. The comfortable five-point head harness

not only ensures that the mask can be donned easily and quickly, but is wide enough to prevent any pressure points on the wearer's head.

The scratch-proof and distortion-free PMMA Plexiglas visor with 180° wide-angle guarantees a large field of vision with panoramic view. The robust frame is made of extra-light plastic, and the intelligent ventilation system ensures that the visor remains fog-free.

Maintenance
A barcode inside the mask makes checking inventories and carrying out mask maintenance easy. Valves can even be serviced without tools. A full range of accessories and spare parts are available. High quality materials and careful workmanship ensure mask longevity, making the masks highly cost effective.

TECHNICAL SPECIFICATIONS

Material of mask body	Highly resistant and hypoallergenic EPDM
Weight	Approx. 500 gr
Visor	Scratch-proof PMMA (Plexiglas) with 180° wide-angle
Connection	Sturdy plastic with inhalation and exhalation valve, standard thread connection Rd 40x1/7" as per EN 148-1
Approvals	EN 136 Class 2 (CE mark), NIOSH, AS/NZS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore 6300 RA	1	R55800
Wikov carrying case for full face masks	1	R51019

Dräger X-plore® 6530 Full Face Masks

The Dräger X-plore® 6530 is the most widely used full face mask from professionals in a wide variety of applications. It meets the highest demands for quality, reliability, secure fit and comfort. This full face mask is the successor to the Panorama Nova masks, a range which has proven itself over decades of use worldwide.

Dräger X-plore® 6530 EPDM/PC
With PC visor and plastic frame

Safe and comfortable fit
A double sealing frame with threefold sealing edges offers safe protection and a secure fit for almost all face shapes. The mask body made from durable EPDM ensures a great level of wearing comfort even during prolonged use.

Large field of vision
The distortion-free lens with 180° wide angle guarantees a large field of vision with excellent periphial vision. You have the choice between a lens made from impact-proof polycarbonate (with either a plastic or stainless steel lens frame) or an extremely scratch-resistant Triplex lens with high chemical resistance (with stainless steel lens frame).

Efficient ventilation system
The efficient ventilation system with separate inner half mask ensures a fog-free lens and unobstructed view.

Versatile use
The X-plore 6530 is equipped with an Rd40 connection in accordance with EN 148-1 for use of the Dräger Xplore ® Rd40 filter series.

5-point harness
The comfortable five-point head harness not only ensures that the mask can be donned easily and quickly, but is wide enough to prevent any pressure points on the wearer's head.

Simple servicing and logistics
One universal size simplifies logistics and storage. An inside barcode allows for ease of recording and servicing the mask inventory.

Clear voice communication
An integrated stainless steel voice diaphragm facilitates good communication.

TECHNICAL SPECIFICATIONS

Material of mask body	Highly resistant and hypoallergenic EPDM
Weight	Approx. 550 – 650 g (depending on visor/frame)
Visor	Choice of impact-resistant polycarbonate or extremely temperature- and chemical-resistant triplex
Connection	Sturdy plastic with inhalation and exhalation valve, standard thread connection Rd 40x1/7" as per EN 148-1
Approvals	EN 136 Class 3 (CE mark), NIOSH (PC), AS/NZS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore® 6530 EPDM/PC, with PC visor and plastic frame	1	R55795
Dräger X-plore® 6530 EPDM/Triplex, with triplex visor and stainless steel frame	1	R55810
Wikov carrying case for full face masks	1	R51019
Protex mask bag, set of 4 pieces	1	R54939
Anti-fogging gel "klar-pilot" (50 ml)	1	R52560
Lens covers (set of 25), self-adhesive	1	4055092
Mask spectacles kit	1	R51548
Welding shield	1	4053437
DAISYquick cleaning cloths (pack of 10)	1	R54134

Dräger X-plore® 6570 Full Face Masks

The Dräger X-plore® 6570 is the high comfort silicone full face mask used by professionals in a wide variety of applications. It meets the highest demands for quality, reliability, secure fit and comfort. This full face mask is the successor to the Panorama Nova masks, a range which has proven itself over decades of use worldwide.

Dräger X-plore® 6570 Full Face Masks
With PC visor and stainless steel frame

Silicone mask body for safety and wearing comfort
A double sealing frame with threefold sealing edges offers safe protection and a secure fit for almost all face shapes. The mask body is made of durable and hypoallergenic silicone (blue or yellow colour) which provides non-compromising wearing comfort - even during prolonged use.

Large field of vision
The distortion-free lens with 180° wide angle provides a large field of view with excellent periphial vision. The lens is made from impact-proof polycarbonate with either a plastic or stainless steel lens frame available.

Efficient ventilation system
The efficient ventilation system with separate inner half mask prevents the visor from misting up and provides a clear view.

Versatile use
The X-plore 6570 is equipped with an Rd40 connection in accordance with EN 148-1 for use of the Dräger Xp lore ® Rd40 filter series.

5 point harness
The comfortable five-point head harness not only ensures that the mask can be donned easily and quickly, but is wide enough to prevent any pressure points on the wearer's head.

Simple servicing and logistics
One universal size simplifies logistics and storage. The inside barcode allows for ease of recording and servicing the mask inventory.

Clear voice communication
An integrated stainless steel voice diaphragm facilitates good communication.

TECHNICAL SPECIFICATIONS

Material of mask body	Particularly skin-friendly silicone, which is highly flexible at high/low temperatures
Weight	Approx. 520 – 620 g (depending on visor/frame)
Visor	Choice of impact-resistant polycarbonate or extremely temperature- and chemical-resistant triplex
Connection	Sturdy plastic with inhalation and exhalation valve, standard thread connection Rd 40x1/7" as per EN 148-1
Approvals	EN 136 Class 3 (CE mark), NIOSH (PC), AS/NZS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-plore® 6570 SI/PC, with PC visor and stainless steel frame	1	R51535
Wikov carrying case for full face masks	1	R51019
Protex mask bag, set of 4 pieces	1	R54939
Anti-fogging gel "klar-pilot" (50 ml)	1	R52560
Lens covers (set of 25), self-adhesive	1	4055092
Mask spectacles kit	1	R51548
Welding shield	1	4053437
DAISYquick cleaning cloths (pack of 10)	1	R54134

Dräger X-plore® Half-mask Filters

Experience a new dimension of comfort and safety in respiratory protection: the Dräger X-plore® Twinfilter series. It sets the benchmark in comfort and use. The utilization of modern materials coupled with an attractive design guarantees maximum comfort and user acceptance.

Dräger X-plore half-mask filters
High level of user safety

Innovative and comfortable
The extensive X-plore Bayonet filter series is an innovative line of twin filter respiratory protection products for all major applications which combines modern design with enhanced wearer comfort. The off-center arrangement of the bayonet connections enables a wide and unobstructed field of view. The filters are suitable for use with Dräger X-plore 3300/3500 half masks and Dräger X-plore 5500 full face masks with Dräger bayonet connection.

Easy and secure attachment
The filters are equipped with a secure and quick-release bayonet catch which provides easy guidance until they click into place. The P3 particle filters have a white housing for easy identification.

Many possibilities
The gas cartridges can be upgraded to operate as combination cartridges by using various pad attachments or Dräger X-plore® Pure with an adapter. The additional particle filters can be replaced independently from the gas cartridge. An optional course particulate prefilter prevents premature clogging of to the combination cartridge with grit or spray paint.

Durable plastic housing
All bayonet filters are equipped with a robust plastic housing.

CE marking
All filters are CE-marked in accordance with EN 14387 and/or EN 143.

Supporting cartridge selection
The Dräger VOICE database of hazardous substances offers comprehensive support for selecting cartridges (www.draeger.com/voice).

ORDER INFORMATION

Filter Type	Weight	Order Ordernr.
Particle Filters		
P3 R**	35 gr/pc	6738011
Pure P2 R**	20 gr/pc	6738353
Pure P3 R**	20 gr/pc	6738354
Pad Retainer	20 gr/pc	6738038
Pad Base	20 gr/pc	6738039
Pre-filter for combination filter	0,2 gr/pc	6738159
Pre-filter cap	12 gr/pc	6737576
Gas Filters		
A2	90 gr/pc	6738873
A2B2	120 gr/pc	6738775
A1B1E1	110 gr/pc	6738778
A1B1E1K1	110 gr/pc	6738816
Combination Filters		
A2B2 P3 R D**	150 gr/pc	6738016
A1B1E1K1Hg P3 D**	140 gr/pc	6738817
A2B2E2K2Hg P3 D* **	210 gr/pc	6738819

* only for use with full face mask

** labelling "R": certified for reuse (more than one shift)

   labelling "D": successfully passed dolomite test

Dräger X-plore® Rd40-filters

Whether used in chemical industry or automobile industry, shipbuilding, metal processing industry or by public utility services – for decades Dräger respiratory protection filters have been a synonym for experience and safety worldwide. They clean breathable air from contaminants in a low-cost and effective manner.

Dräger X-plore filters
Clean breathable air from contaminants in a low-cost

Broad filter range
The X-plore Rd40 filter series offers various filter types for major applications and protects against many hazardous substances – from phosphine to tear gas to particulates.

Long life
The gas filters and combination filters have a shelf-life of 6 years and the particle filters a shelf life of 12 years from date of manufacture.

Resealable individual packaging
The filters are packed individually to ensure optimum protection of the unused filter. For storage, the packaging is resealable.

Aluminium housing
The aluminium housing ensures that any damage to the filter is easily detected, therefore providing extra security.

CE marking
All filters are CE-marked in accordance with EN 14387 and/or EN 143.

Rd40 thread connection
The filters are suitable for use with half and full face masks with standard thread connection Rd40 according to EN 148-1.

Supporting filter selection
The Dräger VOICE database of hazardous substances offers comprehensive support for selecting filters (www.draeger.com/voice).

TECHNICAL SPECIFICATIONS

Material	ABS plastic housing
Shelf life	Gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	EN 14387, EN 143:2000/A1:2006

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger filter 680 P3 Rd40	25	6732974
Gas filter 105 AX	1	6738863
Gas filter 940 A2	1	6738855
Gas filter 940 K2	1	6738856
Gas filter 940 A2B2	1	6738779
Gas filter 940 A2B2E2K1	1	6738802
Gas filter 1140 A2B2E2K2	1	6738804
Gas filter 1140 AX	1	6738782
Combination filter 1140 A2B2-P3 RD	1	6738783
Combination filter 1140 A2B2E2K2 Hg-P3 RD	1	6738797

Dräger X-plore® Rd90-filters

Clean air for tough jobs. The filters of the Dräger X-plore® Rd90 series protect from hazardous gases and vapors, have a long life and can be used for many different masks.

Dräger X-plore filters
Clean air for tough jobs

Extensive filter range
The X-plore Rd90 filter series offers an extensive range of various filter types for all major applications and protects against many gases and vapors.

Universal fit
The filters have been designed for use in the Dräger half masks, X-plore® 4390 and 4790. With the 40/90 filter box adapter they can also be used for any mask with a Rd40 connection in accordance with EN 148-1.

Long life
The gas filters and combination filters have a shelf-life of 6 years and the particle filters a shelf life of 12 years from date of manufacture.

Individual packaging
The filters are packed individually to ensure optimum protection of the unused filter.

Aluminium housing
The aluminium housing ensures that any damage to the filter is easily detected, therefore providing extra security.

CE marking
All filters are CE-marked in accordance with EN 14387 and/or EN 143.

Supporting filter selection
The Dräger VOICE database of hazardous substances offers comprehensive support for selecting filters (www.draeger.com/voice).

Rd40 thread connection
The filters are suitable for use with half and full face masks with standard thread connection Rd40 according to EN 148-1.

TECHNICAL SPECIFICATIONS

Material	ABS plastic housing
Shelf life	gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	CE-marked in accordance with EN 14387 and/or EN 143:2000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Partikel filter 990 P3 R	5	6737190
Gas filter 990 A1B1E1K1	5	6738810
Combination filter 990 A2B2-P3 RD	5	6738773
Combination filter 990 A1B1E1K1-P2 RD	5	6738811
Combination filter 990 A1B1E1K1Hg-P3 RD	5	6738812

Wikov carrying case for full face masks

Wikov carrying case for easy and accessible storage of full face mask and filter.

Features
- made out of tough plastic
- shockproof to -30℃

- ergonomic shape
- including adjustable belt
- designed for full face masks

Wikov storage box
For full face masks

TECHNICAL SPECIFICATIONS

Material	Plastic
Shelf life	gas and combination filters 6 years, particle filters 12 years, pads 3 years
Approvals	CE-marked in accordance with EN 14387 and/or EN 143:2000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Wikov carrying case for full face masks	1	R51019

Dräger PAS Colt - EN 402

Combining versatility, ease of use and the latest in breathing apparatus design, Dräger's PAS Colt is among the most technologically advanced short duration and emergency escape units available.

Ergonomically designed harness
The PAS Colt is a hip-mounted unit with a distinctive, sophisticated harness design which retains its form, making it easy for the wearer to don the apparatus simply and quickly. The procedure for donning the apparatus is evident at first glance, even to the inexperienced user.

Modular Drop-down facility
Equipped, as an option, a unique 'drop down' feature, whereby the cylinder can be un-clipped from the waistbelt, makes the PAS Colt ideal for use in confined space entry applications.

Machine washable harness
The PAS Colt is machine washable and easy to maintain.

Dräger PAS Colt - EN 402
Sophisticated harness

TECHNICAL SPECIFICATIONS

Minimum dimensions	790 x 500 x 70 mm
Maximum dimensions	950 x 500 x 70 mm
Weight	2 kgs
Input pressure cylinder	200 or 300 bar
Input pressure airline	6 - 9 bar
Nominal 1st stage output pressure	7 bar
1st stage output flow	>600 bar
LDV output flow	>400 bar
Whistle activation pressure	4 - 5 bar
Whistle soundlevel	>90 dBA
Whistle frequency range	2000 - 4000 Hz
Operating temperature range	-32ºC to +70ºC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Colt EN 402	1	3352744
Dräger: Cylinder Composite 3.0 Liter 300 Bar	1	3353811

Dräger PAS Colt - EN 137

Combining versatility, ease of use and the latest in breathing apparatus design, Dräger's PAS Colt is among the most technologically advanced short duration (PAS Colt 402) and emergency escape units available.

Ergonomically designed harness
The PAS Colt is a hip-mounted unit with a distinctive, sophisticated harness design which retains its form, making it easy for the wearer to don the apparatus simply and quickly. The procedure for donning the apparatus is evident at first glance, even to the inexperienced user.

Modular Drop-down facility
Equipped, as an option, a unique 'drop down' feature, whereby the cylinder can be un-clipped from the waistbelt, makes the PAS Colt ideal for use in confined space entry applications.

Machine washable harness
The PAS Colt is machine washable and easy to maintain.

Dräger PAS Colt - EN 137
Sophisticated harness

TECHNICAL SPECIFICATIONS

Minimum dimensions	550 x 500 x 70 mm
Maximum dimensions	640 x 500 x 70 mm
Weight	2.5 kgs
Input pressure cylinder	200 or 300 bar
Input pressure airline	6 - 9 bar
Nominal 1st stage output pressure	7 bar
1st stage output flow	>600 bar
LDV output flow	>400 bar
Whistle activation pressure	55 - 60 bar
Whistle soundlevel	>90 dBA
Whistle frequency range	2000 - 4000 Hz
Operating temperature range	-32°C to +70°C

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Colt EN 137		3352634
Dräger: Cylinder Composite 3.0 Liter 300 Bar	1	3353811

Dräger PAS Airpack 1 Trolley

Designed using leading technology and materials, Dräger's range of heavy-duty airline apparatus is ideal for use where an extended duration of breathing air is called for. Chemical tank cleaning, toxic spillages or certain tasks when working on offshore installations are all made easier and more comfortable when using the Dräger PAS® AirPack 1.

Dräger PAS AirPack 1
Extended duration breathing apparatus at its best

Increased freedom of movement
Uninterrupted air supply is provided by the trolley-mounted cylinder(s) to the wearer via a hose reel. As the PAS AirPack can be easily re-located and therefore positioned in a safe zone which is in close proximity to working area, the user need only wear a lightweight harness, such as Dräger's PAS Colt, during operation. This allows the wearer a greater freedom of movement, and less stress and fatigue than they would be subjected to if wearing a conventional self-contained breathing apparatus unit.

A well thought trough system
The Dräger PAS AirPack 1 is able to accommodate up to four compressed air cylinders of up to 12 litres in capacity and is constructed from an anti-static powder coated steel material.
A 50 metre length of hose is supplied with the PAS AirPack 1 as standard, this can be extended to a length of 100 metres with a range of extension hoses. The trolley hose reel connector is protected with a cover to minimise inadvertent damage being caused. The hose reel is equipped with a winding handle to allow the hose to be easily re-wound onto the reel after use. Outgoing hose distribution is also controlled with a braking system in order to prevent unnecessary unwinding and potential entanglement.
The Dräger PAS AirPack 1 benefits from the world renowned, tried and tested, pneumatics system used on Dräger's successful PSS range of compressed air breathing apparatus. The system incorporates a safety pressure relief valve and the pressure reducer is shrouded in a protective plate for additional safety.
The PAS AirPack has been ergonomically designed to facilitate ease of operation, general handling and mobility.
The Module comprises of:
- Robust welded durable steel frame coated, for corrosion protection, with a tough black anti-static polymeric powder coating.
- Stainless steel fittings.

Pneumatics
The Dräger PAS AirPack 1 Trolley module incorporates the following pneumatic elements;
- pressure reducer suitable for connecting breathable quality air at an input pressure of either 200 or 300 bar.
- pressure reducer suitable for supplying breathable quality air at an outlet medium pressure of 8 bar nominal. (6 to 10 bar)
- vent valves, to allow for the independent charging if an individual cylinder.
- high Pressure (HP) gauge, indicating cylinder pressure.
- medium Pressure (MP) gauge, indicating cascade system or ring main pressure.

Safety features
- pressure relief valve, to relieve medium pressure from air hoses.
- whistle Warning Unit – High pressure (HPWWU), indicating cylinder pressure to a volume of approximately 55 bar
- whistle Warning Unit – Medium pressure (MPWWU) for use with independent air line source. Indicating cascade system or ring main pressure at approximately 4.5 bar.
- suitable for use in explosive atmospheres (ATEX zone 1)

Performance
The high performance pressure reducer assembly of the Dräger PAS AirPack 1 is incorporated in the main pneumatic manifold assembly located behind the control panel. Functioning at inlet pressures of 200 or 300 bar the reducer provides a controlled outlet operating medium bar-pressure supply of 8 bar nominal. (6 to 10 bar).
A pressure relief valve, incorporated into the manifold, ensures that any 'over pressure' (possible failure of the reducer) will not enter the mediumpressure airline system.

Dräger PAS Airpack 1 Trolley

TECHNICAL SPECIFICATIONS

Input Pressure Cylinder	200 or 300 bar
Input Pressure Airline	6 - 9 bar
Airline Whistle Activation Pressure	4 - 5 bar
Whistle Sound Level	>90 dBA
Operating Temperature Range	-32ºC to +70ºC

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Airpack 1, including 50 meter hose	1	3352228

Dräger PAS Airpack 2 Trolley

Designed using leading technology and materials, Dräger's range of heavy-duty airline apparatus is ideal for use where an extended duration of breathing air is called for. Chemical tank cleaning, toxic spillages or certain tasks when working on offshore installations are all made easier and more comfortable when using the Dräger PAS® AirPack 2.

Dräger PAS AirPack 2
Extended duration breathing apparatus at its best

Increased freedom of movement
Uninterrupted air supply is provided by the trolley-mounted cylinder(s) to the wearer via a hose reel. As the PAS AirPack 2 can easily be relocated and therefore positioned in a safe zone which is in close proximity to working area, the user only needs to wear a lightweight harness, such as Dräger's PAS Colt, during operation. This allows the wearer a greater freedom of movement, and less stress and fatigue than they would be subjected to if wearing a conventional self-contained breathing apparatus unit.

A well thought through system
The Dräger PAS AirPack 2 is able to accommodate one or two compressed air cylinders of up to 50 litres in capacity and is constructed from an anti-static powder coated steel material.
The unit can be supplied with a fully approved lifting eye, enabling safe transfer when elevated working areas may be unavoid able. The rear wheel of the trolley also incorporates an easy to administer foot brake, which prevents any inadvertent movement of the unit during operation.
It is available with either one or two pre s sure reducers and two hose reels allowing joint use of the system or for two completely independent systems to run concurrently. A 50 metre length of hose is supplied with Dräger PAS AirPack 2 as standard, this can be extended to a length of 100 metres with a range of extension hoses.
The trolley hose reel connector is protected with a cover to minimise inadvertent damage being caused. The hose reel is equipped with a winding handle to allow the hose to be easily rewound onto the reel after use. Out going hose distribution is also controlled with a braking system in order to prevent unnecessary unwinding and potential entanglement.
The Dräger PAS AirPack 2 benefits from the world renowned, tried and tested pneumatics system used on Dräger's successful PSS range of compressed air breathing apparatus. The system incorporates a safety pressure relief valve and the pressure reducer is shrouded in a protective plate for additional safety.

Pneumatics
The Dräger PAS AirPack 2 Trolley module incorporates the following pneumatic elements:
- pressure reducer suitable for connecting breathable quality air at an input pressure of either 200 or 300 bar.
- pressure reducer suitable for supplying breathable quality air at an outlet medium pressure of 8 bar nominal (6 to 10 bar).
- vent valves, to allow for the indepen dent charging of an individual cylinder.
- high Pressure (HP) gauge, indicating cylinder pressure.
- medium Pressure (MP) gauge, indicating cascade system or ring main pressure

Safety features
- pressure relief valve, to relieve medium pressure from air hoses.
- whistle Warning Unit – High pressure (HPWWU), indicating cylinder pressure to a volume of approximately 55 bar
- whistle Warning Unit – Medium pressure (MPWWU) for use with independent air line source. Indicating cascade system or ring main pressure at approximately 4.5 bar.
- suitable for use in explosive atmospheres (ATEX Zone 1).

Performance
The high performance pressure reducer assembly of the Dräger PAS AirPack 2 is incorporated in the main pneumatic manifold assembly located behind the control panel. Functioning at inlet pressures of 200 or 300 bar the reducer provides a controlled outlet operating medium bar-pressure supply of 8 bar nominal (6 to 10 bar).
A pressure relief valve, incorporated into the manifold, ensures that any 'over pressure' (possible failure of the reducer) will not enter the mediumpressure airline system.

Dräger PAS Airpack 2 Trolley

TECHNICAL SPECIFICATIONS

Weight	Depending on pneumatics
	Hose reel and lifting eye 57.5 to 83.5 kg
Input Pressures Cylinder	200 - 300 bar
Output Pressures Airline	6 - 9 bar
Airline Whistle Activation Pressure	4 - 5 bar
Whistle Sound Level	>90 dBA
Operating Temperature Range	-32°C to +70°C

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Airpack 2 Trolley, including 2x hose reel and 2x 50 meter hose and lifting eye	1	3352236

Dräger PAS® Filter series - Airline System

The Dräger PAS® filters reliably clean air, e.g. from an existing high-pressure network, from liquid and solid particles, including oil vapour and smell.

Dräger PAS Filter serie - Airline System
For reliable clean air

Wall-mounted or portable
The PAS filters can be mounted to the wall or placed on the floor. The connections of the wall-mounted versions are located at the bottom. This enables users of breathing apparatus to move in all directions without kinking the hoses. The portable version with carrying handle and side connections has three legs which prevent it from becoming dirty. They also ensure a firm hold on uneven surfaces.

Manually adjustable air pressure
The primary pressure from the line can be easily adjusted at the filter using a key. This means that you can connect compressed air breathing apparatus according to DIN EN 14593 and DIN EN 14594 for positive pressure and normal pressure masks. The set

pressure is displayed on the manometer directly at the filter.

Compatible with all Dräger breathing air systems
The PAS filters connected e.g. to a ring line, are the ideal complement for the entire airline system with Dräger components (e.g. ASV in conjunction with PAS Colt, etc.).

Further advantages
- two versions: for max. three (760 L/min) or max. five persons (1,080 L/min)
- included in the scope of supply: active carbon and particle filters for solid and liquid particles incl. humidity,
- oil droplets and smells
- optional: pre-filter for heavy soiling
- robust, stable housing made of polyethylene

TECHNICAL SPECIFICATIONS

Dimensions (H x W x D)	430 x 280 x 162 mm
Weight	4.5 kg - 6.5 kgs
Maximum capacity	760 / 1,080 L/min
Coalescing filter	Yes
Activated carbon filter	Yes
Maximum inlet pressure	16 bar
Inlet	F3000/3500: 1/4" BSP (female)
Outlet	3 / 5 x CEJN

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS F3500 P	1	3359922
760 (L/min) with pre-filter 3 x CEJN portable 6.0 kg		

Airline Hoses

For the new range of compressed line breathing apparatus you can choose from compressed air hoses of various lengths. The hoses are available with CEJN couplings and 1/4" external thread to alow other coupling systems to be used too.

Airline hoses
Flexible hoses, suitable for heavy work

Applications
These compressed hoses make for optimal conditions when working in confined spaces such as when cleaning the deck on a ship, tanks and working in sewers. Additionally, these hoses are well-suited to paint jobs because they are free of paint-affecting substances (e.g. silicone).

Flexibility and low weight
What is special about these hoses is their flexibility and low weight. In highly polluted environments where there is little oxygen, the wearer van work with a high degree of breathing comfort and little additional physical stress.

Benefits
- light, flexible hoses, suitable for heavy work
- electrical conductivity of the entire hose, including couplings (anti-static)

- the hose is free of paint-affecting substances (e.g. silicone)
- also suitable for use in difficult conditions: hoses do not kink and can withstand being stepped on and pulled
- for use at temperatures from -30ºC to +60ºC
- chemical resistant

Electrostatic properties
- Cover 1 KΩ /m – 100 MΩ/m
- Tube 1 KΩ /m – 100 MΩ/m

Hose coupling
- End 1 - Dräger standard Rectus 96KS series male coupling: Interchangeable with CEJN 341/342 series and Parker CJ series
- End 2 - Dräger standard Rectus 95KS series female coupling: Interchangeable with CEJN 341/342 series and Parker CJ series

TECHNICAL SPECIFICATIONS

Hose material	Reinforcement: PVA
	Inside: NBR
	Outside: NBR/PVC
Colour	Black
Inside diameter	7,0mm ± 0,4mm
Outside diameter	16,4mm ± 0,6mm
Concentricity	Max 0,5mm
Weight	0,218g/m
Operating pressure	10 BAR (30 Bar burst pressure)
Operating temperature	-30ºC to +100ºC
Tensile strength	1000N minimum
Bend radius	1000N minimum
Approvals	EN14593-1:2005, EN14594:2005

ORDER INFORMATION

Description	Unit Sales	Articlenr
Compressed airline hoses 3 meter, CEJN couplings	1	3352463
Compressed airline hoses 5 meter, CEJN couplings	1	AL01260

Airline Hoses

Description	Unit Sales	Articlenr
Compressed airline hoses 10 meter, CEJN couplings	1	AL01261
Compressed airline hoses 20 meter, CEJN couplings	1	AL01262
Compressed airline hoses 30 meter, CEJN couplings	1	3352467
Compressed airline hoses 45 meter, CEJN couplings	1	AL01263
Compressed airline hoses 50 meter, CEJN couplings	1	3352468

Dräger ABIL R Valve System

Simple, but effective protection: the compressed airline system ABIL-R offers comfortable respiratory protection during long-term stationary applications.

Dräger ABIL R
Low cost maintenance

Constant air inlet
Breathing resistance is low due to a constant air inlet.

Low weight
The ABIL-R weighs approximately 450 grams and is therefore especially light.

Can be combined with mask
The device can be combined with a full face mask or half mask and is particularly well-suited for the supply from stationary compressed air systems.

Optional output
The ABIL-R has an optional output for compressed-air tools.

Individually adjustable
Because the valve can be regulated, the air inlet of the device can be individually adjusted. At 8 bar operating pressure, 300 to 1000 liters per minute are supplied.

Without consumables
The compressed airline system is particularly cost-effective because it has a modular design and no consumables.

Suitable for narrow spaces
The device is well-suited for work in narrow spaces.

TECHNICAL SPECIFICATIONS

Compressed air supply hose	max. 50 m
Breathing air	according to EN 12021, do not use oxygen or oxygen-enriched air
Temperature	- 10ºC to + 60º C, in use
Operating pressure	7 to 10 bar
Air volume flow	300 L/min to 1000 L/min
Tensile strength	>1000 N
Approval	EN 139

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger ABIL-R-1	1	AL01265

Dräger Automatic Switch Over Valve

Fully automatic switching from external air to SCBA air and from SCBA air to external air. Provides an uninterrupted air supply to the wearer.

Warning device
A warning device warns that the wearer is now breathing from cylinder compressed air.

Uninterrupted air supply
If the external air supply fails, then the unit will automatically switch to the compressed air breathing apparatus for its supply of air.

During the switch over operation the Dräger ASV maintains positive pressure within the facemask at all times.

Low profile and light
Due to its compact design the Dräger PAS ASV can be used easily in confined spaces.

Dräger Automatic Switch Over Valve
Uninterrupted airsupply

TECHNICAL SPECIFICATIONS

Weight	350 gr
Dimensions	130 x 54 x 32 mm
Supply pressures	Compressed Air Breathing Apparatus - Nominal 7.5 bar
	External air source -6 to 10 bar
Switching pressures	From external source -4.0 to 5.0 bar
	To external air source -5.0 to 5.8 bar
Warning device volume	90dba
Operating temperature range	-30ºC to +70ºC
Approvals	Approved to prEN14593 pt1 and EN139
	For use with Compressed Air Breathing Apparatus approved
	to EN137 and EN402

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Automatic Switch Over Valve - PAS Colt	1	3354140
Dräger Automatic Switch Over Valve - Permanent fit Breathing Apparatus	1	3354142
Dräger Automatic Switch Over Valve - Occasional fit Breathing Apparatus	1	3354244
Dräger Automatic Switch Over Valve - with Quick Release Coupling (QRC)	1	3354405

Poseidon PE 100

The Poseidon edition stands for an excellent price/performance ratio at very high quality. This unit range has been developed for reliable operation combining proven core components from Bauer with a simple and robust chassis. The PE 100 is by far the smallest and lightest compressor unit of the PE range. With its three drive variants petrol, three-phase and single-phase alternating current it is suitable for a wide variety of applications, whether ashore, in vehicles or on the high seas.

Poseidon PE 100
Reliable operation

Mobile and versatile in application

Whether as a breathing air compressor for diving groups, fire brigades and on ships, or for filling cartridges for competition marksmen, the possible applications of the PE 100 are almost unlimited. Due to its low weight, compact design and small dimensions, the PE 100 is easy to transport and fits comfortably into almost any car trunk. The petrol driven version can be operated without an electric power supply even in the remotest places. With an alternating current drive it is suitable for the normal house mains.

Pure breathing air

In the new purification system P11, the sophisticated filter technology from Bauer is used to provide an air quality markedly better than the strict safety limits of the breathing air standards DIN EN 12021.

Quality and service

The compressor block of the PE 100 is manufactured by Bauer. Over 50,000 examples of this model have been sold over the last 15 years and perform their task worldwide with their legendary reliability. The sophisticated technology makes particularly long maintenance intervals possible. This is easy on the purse and helps to limit the annoying shutdown times of the compressor during necessary service works to a minimum.

TECHNICAL SPECIFICATIONS

Weight	Approx. net 44 kgs
Dimensions	660 x 350 x 420 mm
Pressure	200/300 bar
Drive	3-phase 200/300 bar 400 V, 60 Hz
F.A.D.	100 l/min
C.F.M.	3,5
Filling rate	2,0
Drive kW	2,2
Drive HP	3,0

ORDER INFORMATION

Description	Unit Sales	Articlenr
Poseidon PE 100-TE (200 bar)	1	84053201

Poseidon PE 250 HE

Horizontal design, for a space-saving installation. The PE 250 HE horizontal model is by far the most compact high pressure breathing air compressors in its class.

Poseidon PE250 HE
For space-saving installation

Space-saving
Owing to the space-saving arrangement of block and drive, the HE range requires a minimum of floor space in spite of its high throughputs. The standard version comes already equipped with automatic condensate drain and easy-to-use control.

Robust compressor block
- piston rings made of a newly developed hightech synthetic material offer outstanding wear values
- oil cooling in the final compression stage for minimal wear and tear and for a longer life
- interstage and afterstage coolers made of stainless steel against corrosion
- robust low pressure oil pump with oil filter for effective lubrication and extended oil change intervals

Automatic operation
- a control in conjunction with the final pressure cutout controls the independent switching-off of the compressor
- convenience in use is achieved by means of an automatic condensate drain: the condensate is drained when the unit is switched on and off, as well as at regular intervals during operation.
- elapsed time meter for reading off the pending maintenance and service intervals

P-Purification system
- a filter technology perfected over a decade guarantees breathing air of superior in quality to DIN EN 12021
- our original cartridges safely remove humidity, oil and pollutants from the compressed air

Control at a glance
- exclusive from BAUER and unique worldwide: the B-TIMER (optional) for monitoring required filter changes and maintenance intervals
- the minicomputer counts the operating hours and indicates reliably the remaining life time
- pending cartridge changes or maintenance intervals are conspicuously indicated

TECHNICAL SPECIFICATIONS

Weight	Approx. net 230 kgs
Dimensions	1100 x 690 x 990 mm
Drive	3-phase, 400 V, 50 Hz
F.A.D.	250 l/min
R.P.M.	1450 min.
Filling rate	0.8 min.
Drive kW	5.5
Drive HP	7.5
Purification system Triplex®	P31 / P42

ORDER INFORMATION

Description	Unit Sales	Articlenr
Poseidon PE 250 HE	1	BK0PEHE250

Poseidon PE 300 HE

Horizontal design, for a space-saving installation. The PE 300-HE horizontal model is by far the most compact high pressure breathing air compressors in its class.

Poseidon PE300 HE
For space-saving installation

Space-saving

Owing to the space-saving arrangement of block and drive, the HE range requires a minimum of floor space in spite of its high throughputs. The standard version comes already equipped with automatic condensate drain and easy-to-use control.

Robust compressor block

- piston rings made of a newly developed hightech synthetic material offer outstanding wear values
- oil cooling in the final compression stage for minimal wear and tear and for a longer life
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Automatic operation

- a control in conjunction with the final pressure cutout controls the independent switching-off of the compressor
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P-Purification system

- a filter technology perfected over a decade guarantees breathing air of superior in quality to DIN EN 12021
- our original cartridges safely remove humidity, oil and pollutants from the compressed air

Control at a glance

- exclusive from Bauer and unique worldwide: the B-TIMER (optional) for monitoring required filter changes and maintenance intervals
- the minicomputer counts the operating hours and indicates reliably the remaining life time
- pending cartridge changes or maintenance intervals are conspicuously indicated

TECHNICAL SPECIFICATIONS

Weight	Approx. net 250 kgs
Dimensions	1100 x 690 x 990 mm
Drive	3-phase, 400 V, 50 Hz
F.A.D.	300 l/min
R.P.M.	1800 min.
Filling rate	0.7 min.
Drive kW	7.5
Drive HP	10.0
Purification system Triplex®	P31 / P42

ORDER INFORMATION

Description	Unit Sales	Articlenr
Poseidon PE 300 HE	1	BK0PEHE300

Bauer Junior II - E Compressor

The most compact highly mobile one of our diving compressor range. Due to its toughness and reliability the Junior has become a global classic. The Bauer Junior II offers an even more compact design and numerous improvements in details. The patented TRIPLEX® filter system guarantees purest breathing air according to DIN EN 12021 (formerly DIN 3188).

Bauer Junior II Compressor
Uncompromising quality

Invest in Bauer Quality

The Bauer Junior II is a product based on more than 50 years of experience and strict Bauer. Quality Management according to DIN EN ISO 9001. This is the uncompromising quality down to the last detail that has made us the global market leader for breathing air compressor units.

Easy Handling

- due to symbolic figures it is child's play to operate the compressor
- comprehensive documentation facilitates maintenance work

Toughness

- durable, long-life compressor block
- new fan and pulley protection made of unbreakable
- UV-resistant special plastic, which improves cooling air flow for increased compressor efficiency
- filling device: stainless steel; filling hose: kevlar

Safe Handling

- moving parts such as v-belt, pulley and fan have optimal protection
- the GS-sign certifies the observation of all relevant safety regulations

TECHNICAL SPECIFICATIONS

Medium	Air
Intake Pressure	Atmospheric
Intake Temperature	+5°C to +45°C
Ambient Temperature	+5°C to +45°C
Setting of safety valve	225 or 330 bar
Filling pressure	200 or / and 300 bar
Capacity	100 l/min measured at bottle filling 0 to 200 bar
	Tolerance ± 5% at +20°C Ambient Temperature
Speed	2300 1/min
Number of Compression stages	3
Number of Cylinders	3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bauer Junior II-EH 325 B Compressor 400V 50Hz	1	BK0J3EH00

Bauer Oceanus

For a professional performance, which offers toughness, mobility and greater air capacity. Bauer Oceanus is designed to go on vessels, diving boats and expeditions.

Bauer Oceanus
Designed to go on vessels, diving boats and expeditions

Durable and extremely tough
- for best possible resistance to corrosion frame, handle and safety-filling device are made of stainless steel. Filling hose is made of kevlar. Inter- and after coolers are made of galvanized steel.
- piston rings made of a newly developed high-tech synthetic material offer outstanding wear values
- the new low-pressure lubrication guarantees an even higher life span of all moving parts

Extremely seaworthy
The large capacity of the oil sump allows operation in extreme inclinations of up to 30° 1).

Safe handling
Moving parts such as v-belt, pulley and fan are fully protected.

Resistance to corrosion
The use of stainless steel and kevlar for frame and filling device ensures extreme resistance to corrosion.

Weight
The light weight and compact unit is portable by a single person and fits in every boot.

1. Max. allowable inclination of petrol version 20° only due to Honda engine.
2. Available with switch over device 330 / 225 bar or 225 bar/330 bar alternatively.
3. With telescopic intake tube and HONDA motor with telescopic intake tube and HONDA motor.

TECHNICAL SPECIFICATIONS

Weight net	47 kgs
Dimensions	790 x 350 x 420 mm
Type max. 330 bar 2)	OCEANUS - B
Drive	4 - stroke petrol 3)
FAD l/min *)	140 *) cylinder filling from 0 to 200 bar
min -1	2300
Filling rate min **)	1.4 **) filling rate for 1 l cylinder capacity from 0 to 200 bar
Engine kW	4.0
Engine HP	5.5

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bauer Oceanus E Compressor	1	BK0OCE000

Bauer Mariner 320

With 320 l/min, the Bauer Mariner 320 is the most powerful portable compressor worldwide.

Bauer Mariner 320
High-pressure compressor for compressing air and breathing air

Applications
Suitable for use as a diving compressor, shipping compressor, for installation in yachts, as a fire service compressor, paintball compressor and in many other applications.

Very high charging rate, minimum space requirements
The number one seller in the PROFI-LINE II series.

One of the most powerful mobile compressors in the world
320 l/min charging rate.

Corrosion resistant
The incredibly durable block and corrosion-resistant components make this compressor suitable for use even under the toughest climate conditions.

Electric or Petrol version
Available in electric or petrol version and equipped with four filling hoses in the standard scope of supply. Version for up to 420 bar also available!

TECHNICAL SPECIFICATIONS

Weight	Approx. net 165 kgs.
	Weight may vary depending on accessoiries
Dimensions	1300 x 650 x 810 mm (L x W x H)
	Standard size, may vary depending on accessoiries
Charging rate	320 l/min
Drive motor	3-phase
Filter system	P31/350 or P41/420
Drive kW	7.5 kW
Bar	90-420 bar

ORDER INFORMATION

Description	Unit Sales	Articlenr
Bauer Mariner 320	1	MARINER320

Dräger Aerotest Simultan HP

Dräger Aerotest Simultan HP is used to determine the quality of respiratory air in high-pressure applications. In combination with the new Dräger Oil Impactor the system offers a unique quality level for the monitoring of compressed air.

Dräger Aerotest Simultan HP
All necessary components in one complete system

Monitored breathing air
By using the Dräger Aerotest Simultan HP, the quality of the breathing air from a compressor or a compressed air cylinder can be tested. The application of the test system ensures the reliable testing in accordance with the purification standard EN 12 021. The Aerotest product family is based on the well known Dräger-Tubes® - a reliable and quick test method to detect and measure possible toxic gases. The Dräger Aerotest Simultan HP enables the quantitative detection of various potentially harmful substances, e.g. carbon monoxide, carbon dioxide, water vapor and oil in dispersing compressed air. The values can either be determined individually or simultaneously.

Fast and simple application
Using normal tools, the measuring instrument can be connected via a G 5/8 connector to the high-pressure air network. It takes five minutes until the Aerotest displays an indication about the degree of contamination of the filled breathing air.

The Dräger Oil Impactor
The new Dräger Oil Impactor is especially designed to detect oil aerosols in compressed air. It is a system that, besides measurements of normal oils, enables the measurement of synthetic oils independent of the oil type and viscosity. Quantitative results are easily visible via a tiered structure.

Always ready for use
All components of the Dräger Aerotest Simultan HP are arranged in a carrying case and therefore always ready for use.

TECHNICAL SPECIFICATIONS

Dimensions (L x W x H)	350 x 300 x 85
Weight	approx. 3.0 kgs
Supply Pressure	200/300 bar
Connection	G 5/8
Flow	0.2 and 4.0 L/min

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Aerotest Simultan HP	1	6525951

Dräger SPC 4400 / 4800 / 4900

Light and comfortable to wear: Dräger SPC 4X00 liquid-tight splash suits offer reliable protection against the finest particles and powders, many concentrated inorganic acids and alkaline solutions, and are also resistant to a wide variety of organic liquid chemicals. They are CE-certified and classified as type 3, 4, 5 and 6.

Dräger SPC 4400 / 4800 / 4900
lLquid-tight splash suits for reliable protection

Reliable protection, yet light and comfortable
If you are at risk of coming into contact with solid and/or liquid chemicals while working, only a full-body protective suit can offer you optimal protection. To protect your skin from harmful substances, hazmat suits like the Dräger SPC 4X00 series are the right choice. They are made from coated CPM and CLF material and offer full protection against the finest particles and powders. Plus, the suits protect against many concentrated inorganic acids/alkaline solutions, and are highly resistant to a wide variety of organic chemicals in liquid form. They are CE-certified and classified as chemical protective suits, type 3, 4, 5 and 6. Common areas of application include decontamination tasks, maintenance, inspection or cleaning, decanting and filling, handling oil and many others.

No matter what your job requires, these suits offer suitable protection for any application
Choose from three different designs:
- SPC 4400 overall with hood: The suit opens in front and is ideal for convenient single use.
- SPC 4800 protective suit with facial cuff: This model is equipped with gloves and permanently integrated socks.
- SPC 4900* full-body protective suit with visor: This suit offers connected gloves and socks and is ideal for use with internal compressed air breathing apparatus worn inside the suit.

Dräger SPC 4400: The ideal protective suit for simple tasks
The one-piece overalls are available in two different materials (CPM and CLF). The ends of the hood, sleeves and legs are fitted with an elastic band and a thumb loop. The zip runs along the centre of the front and, in the version made from CPM, it is fitted with two cover panels, including adhesive strips. The CLF version is fitted with hook-and-loop fasteners instead of tape, enabling limited use. There is a cover panel in the throat area as well, for safely sealing off the suit. The overalls are designed for use with single-use dust masks, half- or full-face masks, compressed air breathing apparatuses or compressed airline devices.

Dräger SPC 4800: Advanced protection
What sets the Dräger SPC 4800 apart is its unique face cuff which is also built into the gas-tight Dräger CPS. It is soft, flexible and exceptionally easy to handle and wear. The one-piece overalls with liquid-tight bonded seams are equipped with permanently integrated gloves, socks with cuffs as well as a zip on the back. This makes it unnecessary to waste time taping up the suit. It is designed for use with full-face masks in combination with a compressed air breathing apparatus, an air purifying respirator or a compressed air hose device.

Dräger SPC 4900*: Total protection for workers and their equipment
Like the SPC 4800, the SPC 4900* features permanently integrated gloves and socks, and opens in the back. Instead of the hood with face cuff, the SPC 4900* features an extra-large hood with a visor. The suit is used with a full-face mask in combination with a compressed air breathing apparatus. The compressed air breathing apparatus is worn underneath the suit, protecting all the equipment against any contamination.*Approval pending

TECHNICAL SPECIFICATIONS

Material	CPM - coated barrier protection material
	CLF - carrier fleece
Storage life	SPC 4400 (CPM): 5 years
	SPC 4400 (CLF): 10 years
	SPC 4800 and 4900: 10 years

Dräger SPC 4400 / 4800 / 4900

Sizes	Size M: body height from 1.70 m to 1.76 m
	Size L: body height from 1.76 m to 1.82 m
	Size XL: body height from 1.82 m to 1.88 m
	Size XXL: body height from 1.89 m to 1.94 m
Usage frequency	Designed for limited use
	The SPC 4400 (CPM) is designed for single use only
Approvals	ISO 16602, EN 14605 Types 3 and 4, EN ISO 13982-1 Type 5, EN 13034 Type 6, EN 1073-2, EN 14126 EU, EN 1149

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger SPC 4400 CLF orange, size M: 168 - 176 cm	1	R63554
Dräger SPC 4400 CLF orange, size L: 174 - 182 cm	1	R63555
Dräger SPC 4400 CLF orange, size XL: 180 - 188 cm	1	R63556
Dräger SPC 4800 CLF, orange, antistatic, size M: 170 - 176 cm	1	R63418
Dräger SPC 4800 CLF, orange, antistatic, size L: 174 - 182 cm	1	R63419
Dräger SPC 4800 CLF, orange, antistatic, size XL: 182 - 188 cm	1	R63420
Dräger SPC 4900 CLF, orange, size M: 170 - 176 cm	1	R63454
Dräger SPC 4900 CLF, orange, size L: 176 - 182 cm	1	R63455
Dräger SPC 4900 CLF, orange, size XL: 182 - 188 cm	1	R63456

Dräger CPS 7900

Tailor-made for use under extreme conditions: The gas-tight Dräger CPS 7900 provides excellent protection against industrial chemicals, biological agents, and other toxic substances. Its innovative material qualifies the CPS 7900 equally well for work in explosive areas and for handling cryogenic substances.

Dräger CPS 7900
Gas suit, tailor-made for use under extreme conditions

Protection in a class of its own

The chemical protective suit Dräger CPS 7900 was developed to protect its wearer when handling toxic or hazardous materials and to provide much needed support for a variety of dangerous tasks. The suit material D-mex offers unique resistance to various substances as well excellent protection against mechanical effects, liquefied gases, and flash fires. The Dräger CPS 7900 meets and exceeds the requirements of international standards of fire departments, search and rescue organizations, and industry for reusable protection suits.

D-MEX: 5-Fold safety

The suit's innovative and unique material D-mex™ consists of five layers. An especially sturdy elastomer layer as well as a barrier layer resistant to chemicals is on the inside as well as the outside. This allows the suit to retain its full protective capacity even when the material on the outside becomes damaged. Its electrostatic properties make it possible to use the suit in all explosive areas. If a spark occurs in spite of this remarkable fabric, the flame-retardant and self-extinguishing material protects its wearer from serious burns. The flexibility of D-mex™ even makes it possible to handle liquefied gases such as ammonia at a contact temperature of -80ºC.

Outstanding wearing comfort

The chemical protective suit reduces the stress during the already difficult work in hazard zones and danger areas. With its new, ergonomic cut and five available sizes, the suit offers its wearers with a body height of 1.50 m to 2.10 m the highest degree of mobility during a wide variety of activities and tasks. Moreover, the clearly lighter weight and better drape of the suit material adjusts to the wearer's movements and offers the full range of flexibility.

Ready at any time

Innovative materials and new service concepts made it possible to significantly reduce time and expenses for regular testing and expenses. In addition, the suit can be easily cleaned and disinfected. This means the time and expense spent over the 15 years of service life of the suit is much less.

Ready for the extraordinary

Accessories are available to customize the chemical protective suit to meet your specific needs and requirements, thereby expanding your range of application options. Including pressure gauge holder, height adjustment, anti-fog visor and D-Connect.

Never again gasping for a breath

Breathing air is a scarce commodity when it comes to runs involving toxic materials or hazardous atmospheres. The route to the deployment location and the decontamination location must be bridged. The actual tasks must be completed. This is followed by a careful decontamination so that suits can be removed. The amount of air available in a compressed air breathing apparatus often is insufficient to cover both activities. For this reason the suit can be equipped with optional pass thrus.

Select the optimal protection suit with the CPS tool

Now find the optimal chemical protection suit to meet your requirements and us the CPS selection tool: http://cps-selectionapp.draeger.net/

Dräger CPS 7900

TECHNICAL SPECIFICATIONS

Sizes	Size S for body heights of 1.50 m to 1.65 m
	Size M for body heights of 1.60 m to 1.75 m
	Size L for body heights of 1.70 m to 1.85 m
	Size XL for body heights of 1.80 m to 2.00 m
	Size XXL for body heights of 1.95 m to 2.10 m
Color	Blue or orange
Zipper	Closes at top or bottom
	Cover flap with hook and loop fastener fastener or snaps
Integrated boots or socks	Safety boots in size 43 to 50
	Gas-tight socks in 3 sizes from 40 to 50
Gloves	Previous EN combination in size 9 to 11
	New EN combination in size 10 to 11
Approvals	EN 943-1:2002 EU, EN 943-2:2002, BS 8467, EN 1073-2, EN 14126, SOLAS (pending), EX-PROTECTION

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 7900, Blue or Orange	1	R29500

Dräger CPS 7800

The reusable gas-tight Dräger CPS 7800 (type 1b) provides excellent protection against gaseous, liquid, aerosol and solid hazardous substances even in explosive areas. Due to its innovative material and the new suit design it offers increased flexibility and comfort when entering confined spaces and working with cryogenic substances.

Dräger CPS 7800
Chemical protective suit for industrial use

Reliable protection
The Dräger CPS 7800 (Typ 1b) protects against a multitude of possible dangers when dealing with hazardous substances. The novel antistatic material D-mex™ offers excellent chemical resistance and protection against mechanical influences. The Dräger CPS 7800 exceeds the requirements of international industry standards for reusable protective suits.

D-mex™: 5-fold safety
D-mex™, the unique suit material, consists of five layers and its reliability has been proven during hazardous substance deployments by the fire service. Tear-proof textile forms the middle layer; on the inside and outside there is a particularly robust elastomer layer, as well as a chemically high-resistant barrier layer. With this design, the suit retains its full protection performance even if the outer material is damaged.

Fitted, flexible and comfortable
The Dräger CPS 7800 increases the wearing comfort even during difficult work in hazardous areas. With its ergonomic cut and five sizes to choose from it offers the highest degree of flexibility for wearers ranging from 1.50 m to 2.05 m in height. In addition, the light and soft suit material adapts ideally for a full range of movement. Offered as an option, individually adjustable braces provide even greater wearing comfort to the user and an improved fit of the suit. A newly designed fit means you don the Dräger CPS 7800 with more ease, can put on and remove the suit by yourself, and shut the zip fasteners without assistance.

Always ready
Time and expense for regular testing could be reduced significantly through innovative materials and new service concepts. The suit can also be cleaned and disinfected automatically without complications. This reduces the effort required to keep the suit ready for use over its lifetime of up to 15 years. An unused suit with face cuff can even be stored for five years without servicing. If repair or maintenance is required, this can be performed by the service technician. Of course, DrägerService is equally happy to perform these tasks.

Ready for the extraordinary
With optional accessories, the Dräger CPS 7800 can be adapted to be even more individual to meet your specific requirements and in turn extend your deployment options further. The suit is available with an integrated Panorama Nova full face mask or face cuff. Stress reduction, especially during prolonged use, can be achieved by equipping the suit with ventilation systems. The Dräger CPS 7800 features an optional ventilation system with the integrated regulating valve PT 120 L that can be connected to different breathing air sources. The suit can also be printed with a customer-specific design, if desired. The Dräger CPS 7800 training suit permits you to perform exercises in realistic scenarios outside contaminated areas with the same equipment characteristics.

TECHNICAL SPECIFICATIONS

Suit material	D-mex™
Sizes	Size S for body heights from 1.50 m to 1.65 m
	Size M for body heights from 1.60 m to 1.75 m
	Size L for body heights from 1.70 m to 1.85 m
	Size XL for body heights from 1.80 m to 1.95 m
	Size XXL for body heights from 1.90 m to 2.05 m
Color	Blue or orange
Integrated boots or socks	Safety boots in sizes 43 to 50
	Gas-tight socks in 3 sizes from 40 to 50

Dräger CPS 7800

Face connection	Face cuff (gas-tight)
	Integrated full face mask
Gloves	Previous EN combination (Viton) in sizes 9 to 11
	Previous EN combination (Viton/Butyl) in sizes 9 to 11
	New EN combination (Silvershield/Tricotril) in sizes 10 to 11
Weight	With face cuff and socks approx. 3.5 kg without ventilation system
	With face cuff and boots approx. 5.4 kg without ventilation system
	With full face mask and socks approx. 4.3 kg without ventilation system
	With full face mask and boots approx. 6.2 kg without ventilation system
Temperature	in use -30 ℃ tot +60 ℃
	in storage -30 ℃ tot +60 ℃
Approvals	EN 943-1:2002, EN 943-2:2002 (ET), EN 1073-1/2, EN 14126, EN 14593, vfdb 08/01:2006-11, BS 8467, SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 7800, Blue or Orange	1	R29650/L
Dräger CPS 7800, Blue or Orange	1	R29650/M
Dräger CPS 7800, Blue or Orange	1	R29650/XL
Dräger CPS 7800, Blue or Orange	1	R29650/XXL

Dräger CPS 6800

If you are looking for protection against cryogenic hazardous substances and low concentrations of acids and alkalis then the Dräger CPS 6800 chemical protective suit is the right choice. The new and innovative suit design is more flexible and allows you to comfortably enter confined spaces.

Dräger CPS 6800
Chemical protective suit for industrial use

Outstanding protection

With its external self-contained breathing apparatus the gas-tight Dräger CPS 6800 protects against gaseous, aerosol-based, liquid and solid hazardous substances. The Umex suit material guarantees mechanical strength and provides maximum wearing comfort. The outstanding flexibility of the material makes the reusable suit ideal for handling cryogenic media and working in cold environments.

Snug, flexible and comfortable

The Dräger CPS 6800 guarantees wearing comfort, even during difficult work in hazardous areas. The CPS 6800 provides maximum freedom of movement with its innovative ergonomic cut in five different suit sizes. In addition, the light and soft suit material adapts perfectly to your movements and offers outstanding flexibility. Optional individually adjustable braces provide the user with even more wearing comfort and ensure a better fit.

Perfectly adapted to your needs

The Dräger CPS 6800 is equipped with a radio pocket and has a gas-tight Polyurethane (PUR) closure system. Safety gloves and safety boots are connected to the suit in a gas-tight manner and can be easily replaced. As an alternative to the securely attached safety boots, the suit can also be equipped with securely attached and gas-tight socks. Alongside the integrated full face mask, the Dräger CPS 6800 also allows for the fitting of a flexible, gas-tight face cuff. This allows you to easily switch between full face masks for a single suit. The integrated PT 120 L control valve gives the Dräger CPS 6800 an optional ventilation system for easy connection to various air sources. This allows the wearers to cool themselves down in order to reduce humidity in the suit.

Always ready for use with low service expenses

Regular inspection expenses have been considerably reduced by the new service concept. Any repairs and maintenance work can of course be carried out by Dräger – but equally, be independently performed by your own service personnel. The suit can be easily cleaned and disinfected over its service life of up to ten years.

TECHNICAL SPECIFICATIONS

Suit material	Umex-material
Sizes	Size S for body heights from 1.50 m to 1.65 m
	Size M for body heights from 1.60 m to 1.75 m
	Size L for body heights from 1.70 m to 1.85 m
	Size XL for body heights from 1.80 m to 1.95 m
	Size XXL for body heights from 1.90 m to 2.05 m
Color	Red
Integrated boots or socks	Safety boots in sizes 43 to 50
	Gas-tight socks in three sizes from 40 to 50
Face connection	Face cuff (gas-tight)
	Integrated full face mask
Gloves	Butyl gloves in sizes 9 to 11
	Viton® / Butyl in sizes 9 to 11
	Viton® gloves in sizes 9 to 11
	Foil gloves with Tricotril® overgloves in sizes 10 and 11

Dräger CPS 6800

Weight	Size S for heights between 1.50 m and 1.65 m
	Size M for heights between 1.60 m and 1.75 m
	Size L for heights between 1.70 m and 1.85 m
	Size XL for heights between 1.80 m and 1.95 m
	Size XXL for heights between 1.90 m and 2.05 m
Temperature	in use -30 °C tot +60 °C (for short-term exposure up to - 80 °C)
	in storage - 5 °C to + 25 °C
Approvals	EN 943-1:2002, EN 1073-1:1998 / EN 1073-2:2002, EN 14126:2003, EN 14593-1:2005, EN 14594:2005, ISO 16602:2007, SOLAS

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 6800, size L, in transport bag:	1	R62021
Including face cuff, safety boots size 43 and gloves size 10		
Dräger CPS 6800, size XL, in transport bag:	1	R62022
Including face cuff, safety boots size 46 and gloves size 11		

Dräger CPS 5900

The Dräger CPS 5900 is the ideal disposable, gas-tight chemical protective suit for hazmat incidents. Where complete protection against hazardous gases, liquids and particles is of the utmost priority, this lightweight garment is the suit of choice.

Dräger CPS 5900
Disposable chemical protective suit

The right level of protection

The Dräger CPS 5900 provides excellent protection against a broad range of industrial chemicals as well as warfare agents. Specifically designed for low risk operations, it can be used in a variety of applications such as when taking measurements or transferring hazardous substances in non-explosive atmospheres. As the first chemical protective suit to be approved to NFPA 1994, class2 and EN 943 part 1&2 (ET), the Dräger CPS 5900 also complies with the requirements of the SOLAS convention (pending). As a result, it fulfills the most demanding international standards of fire fighters and industrial users for limited use, gas-tight protective suits. Where the potential risks might include mechanical stress and flash fire, the heavy duty Dräger CPS 7900 protective suit should be worn.

Offering even more comfort

Featuring the new Dräger cut, the Dräger CPS 5900 offers improved ergonomics and optimized compatibility with various types of personal protective equipment including the latest breathing apparatus, helmets and other forms of PPE. It can also be worn with twin cylinders or closed circuit breathing

apparatus. Available in 5 sizes, the suit is designed to fit both male and female users from 1.50 m to 2.10 m in height. Made of Zytron 500, the softest laminate material on the market, each seam has been sewn and then hot-air taped internally and externally. The material and production quality allow for a ten-year shelf life.

Meeting your needs

- Fully encapsulating suit for maximumprotection
- Wide front entry on left side for easy donning & doffing
- Zipper fastener (bottom up)
- Double flap zipper protection
- Flexible and foldable two-layer visor offers almost natural field of vision
- Integrated gas-tight socks with boot flaps for use with multiple boot sizes
- Fixed gloves combine butyl outer with laminate inner lining for increased protection against chemicals and punctures
- Kevlar over-glove for additional cut protection
- Integrated waist belt for size adjustment
- Optional with connector for external air supply to extend decontamination phase

TECHNICAL SPECIFICATIONS

Sizes	Size S: Body height from 1,50 m to 1,65 m
	Size M: Body height from 1,60 m to 1,75 m
	Size L: Body height from 1,70 m to 1,85 m
	Size XL: Body height from 1,80 m to 2,00 m
	Size XXL: Body height from 1,95 m to 2,10 m
Approvals	NFPA 1994: 2007, EN 943-1:2002, EN 943-2:2002 (ET), SOLAS II-2, Reg.19 (pending)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 5900, size M, 160 - 175 cm	1	R57782
Dräger CPS 5900, size L, 170 - 185 cm	1	R57783
Dräger CPS 5900, size XL, 180 - 200 cm	1	R57784

Dräger CPS 5800

The Dräger CPS 5800 is a limited-use chemical protective suit for industrial applications and operations on board that involve a gaseous, liquid or solid hazardous substance.

Dräger CPS 5800
Disposable chemical protective suit

Comprehensive Protection

For emergencies or for routine work such as maintenance, repairs and tank cleaning – appropriate protection is always required. With its external self-contained breathing apparatus the gas-tight Dräger CPS 5800 (type 1b) protects against a multitude of substances. The suit meets the highest international requirements of industry, fire departments and shipping. Therefore it fulfills EN 943-1+2:2002, and the SOLAS requirements, so that it is approved for the use on board ships. As a limited-use protective suit its resistance against mechanical influences and flames is not as high as the one from the reusable Dräger CPS 7800.

Comfortable to wear

With the proven Dräger design, this suit is very comfortable to wear and is equipped with the flexible Dräger face cuff. The suit is made

of Zytron® 500, a very soft laminate material. All seams are welded in- and outside. This high quality material and the manufacturing techniques provide a long service life of up to ten years.

Features

- large opening for donning / doffing (diagonally across the front); with no additional assistance required
- zipper with external chain and a downward direction of fastening
- double flap with continuous hook and loop fastener strap protects zip fastener soft Dräger face cuff
- integrated gas-tight socks with boot flaps for use with multiple boot sizes fixed gloves combine butyl outer with laminate inner lining for increased protection against chemicals and punctures
- Dräger pressure relief valve for discharging air from the suit

TECHNICAL SPECIFICATIONS

Temperature	- 30 ℃ to + 60 ℃	in use
	- 20 ℃ to + 25 ℃	in storage
Weight	2,2 kg	
Approvals	EN 943-1:2002	EU requirements for gas-tight protective suits for industrial applications
	EN 943-2:2002 (ET)	EU requirements for gas-tight protective suits for use by firefighters
	SOLAS II-2, Reg. 19	Requirements for use on seagoing vessels
	ISO 16602:2007	International requirements for chemical protective suits

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 5800, size M, 160 - 175 cm	1	R57787
Dräger CPS 5800, size L, 170 - 185 cm	1	R57788
Dräger CPS 5800, size XL, 180 - 190 cm	1	R57789

Aramid Fireman's Coverall

The Aramid Fireman's coverall is a navy dark blue or orange suit with reflective striping. The suit is manufactured from fire resistant natural fibre, It has a water repellent finish, which can withstand 50 washes without degradation.

Features
- one piece coverall
- front zipper extending to collar
- lace intake at waist. Snap hook in right pocket
- the coverall is provided with shoulder straps, microphone strap on right chest, loop fastener for name/logo on left chest and an extra layer of knitting on shoulders
- knee pad pockets with pads and pre-bent knees
- elastic intake at waist on the back part of trousers
- anti-wicking barrier at bottom of trouser legs

Aramid fireman's coverall
One piece fireman's coverall

TECHNICAL SPECIFICATIONS

Type	PS6581
Type of material	Aramid
Pockets	Two side pockets with flaps, one inside pocket and one radio pocket on each chest
	2 box pockets on thighs. Inverse pocket in both sides.
Color	Navy Dark Blue or Orange with reflective striping
Sizes	S / M / L / XL / XXL
Approvals	EN 469-L2, EN13688 and EN1149-5

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fireman's coverall Aramid, orange, size S	1	SG03761
Fireman's coverall Aramid, orange, size M	1	SG03762
Fireman's coverall Aramid, orange, size L	1	SG03763
Fireman's coverall Aramid, orange, size XL	1	SG03764
Fireman's coverall Aramid, orange, size XXL	1	SG03765
Fireman's coverall Aramid, royal blue, size S	1	SG03766
Fireman's coverall Aramid, royal blue, size M	1	SG03767
Fireman's coverall Aramid, royal blue, size L	1	SG03768
Fireman's coverall Aramid, royal blue, size XL	1	SG03769
Fireman's coverall Aramid, royal blue, size XXL	1	SG03770

Overall

Well protected at work in hazardous environments. The overall is chemical resistant. The safety boots need to be ordered separately.

Features
- fixed hood
- zip under double flap with snaps
- 100% waterproof
- windproof
- very strong
- raglan sleeves
- PVC coated
- unlined lining
- acid resistant
- impermeable

Washing instruction
- maximum wash temperature is 30ºC hand wash
- do not bleach
- tumble dry not possible
- no ironing allowed
- dry cleaning not possible

Chemtex Overall
Safe working at high-risk areas

TECHNICAL SPECIFICATIONS

Type	Botlek
Color	Green J40
Sizes	M - XXL
Material	ChemTex: double PVC coated polyester fabric; ± 360 g / m^2
Approvals	EN 465, EN 343 class 3/1

ORDER INFORMATION

Description	Unit Sales	Articlenr
Overall, size M	1	SG03332
Overall, size L	1	SG03331
Overall, size XL	1	SG03333

Safety helmets

For optimal protection of the head, a safety helmet should be adjusted to the size of the head of the user. The usefulness of the helmet duration is determined by, among others, cold, heat, chemicals, sunlight and incorrect use.

Safety helmet
For comfort, performance and style

EVO2® industrial safety helmet
EVO2® features a traditional 6-point polyethylene harness and OneTouch™ slip ratchet. The EVO2® offers the most economical top level protection. Conforms to EN397.

Tough HDPE shell
In tests the EVO2® proved far tougher than the EN397 standard required and far tougher than any of its competitors.

Harness
Traditional 6-point polyethylene harness.

Chamlon™ sweatband
Egyptian cotton core with porous PU coating for maximum sweat absorption. PH neutral, dermatologically tested.

3D precision fitting
Never before has such a precise fit been attainable on an industrial safety helmet, using the unique 1-2-3 point harness depth settings.

Adjustment
OneTouch™ Slip Ratchet.

Electrical insulation
Meets the EN50365 Class 0 10KV standard. This standard is applicable to electrically insulated helmets used for working live or close to live parts on installations not exceeding 1000Vac or 1500Vdc.

Universal slots
Enables firm fitting of a range of Surefit™ safety visors and ear defenders.

Optional: Branding
Extra large area for logos on the front, sides, and rear.

Instruction of use
- fit helmet on head and fasten strap to ensure fit
- for adequate protection this helmet must be worn with peak facing forward
- ensure the helmet is adjusted to the size of the user's head
- after use the helmet may be cleaned with the use of soap and warm water and dried with soft cloth

Limitations of use
Any helmet subjected to severe impact should be replaced immediately. Please check instruction of use from the manufacturer.

TECHNICAL SPECIFICATIONS

Type	Safety helmet JSP EVO2 / MK7
Size	53 to 63 cm
Color	White, yellow, red or blue
Ventilation	No
Weight helmet	350 gr
Material helmet	Polyethylene HPDE (High Density Polyethylene)
Inner system	6-point harness
Approval	Safety helmet: EN 397 (-30ºC, 440V, MM)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet JSP EVO2, red	1	SG03106
Safety helmet JSP EVO2, white	1	SG03104

Safety helmet with integral visor

For optimal protection of the head, a safety helmet should be adjusted to the size of the head of the user. The usefulness of the helmet duration is determined by , among others , cold, heat, chemicals, sunlight and incorrect use.

Safety helmet with integral visor
For comfort, performance and style

Features

Attachments
Universal slots enable firm fitting of Surefit Contour™ ear defenders and a range of Surefit™ safety visors for complete above the head protection, meaning all your protection is to hand and easy to deploy.

Comfort
Extremely comfortable terylene webbing moulds to the individual shape of the wearer's head. A rain channel directs rain away from wearer's face.

Short peak
Reduced peak available for better vision whilst working at heights.

Adjustment
Easyjust® slip ratchet.

Electrical Insulation
The Mk7 helmet is now available with the EN 50365 Class 0 10KV standard. This standard is applicable to electrically insulated helmets used for working live or close to live parts on installations not exceeding 1000Vac or 1500Vdc.

Retractaspec™
The helmet with integral visor ensures that eye protection is on hand when needed and never lost, whilst removing the need for additional eye protection. Protects to EN166.1.F.

Electrical insulation
Meets the EN50365 Class 0 10KV standard. This standard is applicable to electrically insulated helmets used for working live or close to live parts on installations not exceeding 1000Vac or 1500Vdc.

Optional: Branding
Extra large area for logos on the front, sides, and rear.

Instruction of use
- fit helmet on head and fasten strap te ensure fit
- for adequate protection this helmet must be worn with peak facing forward
- ensure the helmet is adjusted to the size of the user's head
- after use the helmet may be cleaned with the use of soap and warm water and dried with soft cloth
- not suitable for use over other eyewear

Limitations of use
Any helmet subjected to severe impact should be replaced immediately. Please check instruction of use from the manufacturer.

TECHNICAL SPECIFICATIONS

Type	Safety helmet JSP MK7
Size	53 to 64 cm
Color	Yellow or white
Ventilation	Yes
Weight helmet	390 gr
Material helmet	Polyethylene HPDE (High Density Polyethylene)
Inner system	6-point harness
Approvals	Safety helmet: EN 397 Safety visor: EN166.1.F

Safety helmet with integral visor

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet JSP MK7, white, including safety class	1	SG03105

Safety helmet with integrated goggle

Safety helmet made of polyamide, complete with PC safety glasses.

Features
Initial quality polyamide shaped helmet with built-in folding safety glasses. The helmet is equipped with comfortable 4-point interior and two knobs for size adjustment.

Optional
Your logo can be placed in the helmet.

Safety helmet
With integrated eye protection

TECHNICAL SPECIFICATIONS

Type	Safety helmet Iris 2
Size	53 to 63 cm
Color	White or Yellow
Weight helmet	410 gr
Material helmet	polyamide
Weight goggle	65 gr
Material goggle	transparant polycarbonate
Inner system	4-point with woven straps, with (2x) knob
Approvals	safety helmet: EN 397 (-20°C, 440V, MM)
	safety goggle: 2-1, 2 (OBX), 2 BKN 9-EN 166 389-B

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet with integrated goggle, transparant	1	SG03101

Safety Boots - Chemical resistant

Safety boots protect the feet during work in a hazardous environment.

Features
- with steel toe cap and steel midsole
- sole is oil-, grease-, lye and acid resistant
- anti-static and anti-slip sole

- remains flexible at low temperatures (down to -20 ° C)
- extra ankle protection
- reflective dot on the heel

Safety Boots
Chemical resistant

TECHNICAL SPECIFICATIONS

Type	Dunlop S5
Color	Black
Sizes	41 - 46

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Boots S5, size 40	1	SG03510
Safety Boots S5, size 41	1	SG03511
Safety Boots S5, size 42	1	SG03512
Safety Boots S5, size 43	1	SG03513
Safety Boots S5, size 44	1	SG03514
Safety Boots S5, size 45	1	SG03515
Safety Boots S5, size 46	1	SG03516
Safety Boots S5, size 48	1	SG03518
Safety Boots S5, size 50	1	SG03519

Safety Boots - Cherokee - S3

We operate in a world where getting the best value for money is in the DNA of the companies we deal with. There is a need for 'basic' footwear, stripped from all things that could be regarded as 'luxury', but with all major safety and comfort properties 'on board'.

Features
- ankle support
- slip resistance
- S3
- non-metallic
- lightweight

- fine leather quality
- extra rigid leather parts
- easy access zip
- anti-perforation textile Enigma T-system
- oil hydrocarbons resistant
- anti-static

Safety Boots Cherokee
Slip resistance, S3

TECHNICAL SPECIFICATIONS

Manufacturer / Type	Roots / Cherokee
Color	Black
Sizes	38 - 50
Boot height	22.8 cm (9")
Toecap	Multi-layer fiber glass 200J
Midsole	Texon anti-perforation midsole S3
Sole	Inner sole soft PU / outsole hard PU
Heat resistance sole	Up to 170ºC
Slip resistant modulus	0.41
Scuff cap	Direct injected PU
Weight (EU43 / UK9)	1.72 kgs
Kennedy grating (dry/wet)	0.78 / 0.43
Scaffolding board (dry/wet)	0.95 / 0.71
Approvals	EN ISO 20345:2011 S3, EN 12568:2010, EN ISO 20344/345 CSA-Z195-09, ASTM F2413-11

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Boot, size 38	1	07107138
Safety Boot, size 40	1	07107140
Safety Boot, size 41	1	07107141
Safety Boot, size 42	1	07107142
Safety Boot, size 43	1	07107143
Safety Boot, size 44	1	07107144
Safety Boot, size 45	1	07107145
Safety Boot, size 46	1	07107146
Safety Boot, size 47	1	07107147
Safety Boot, size 48	1	07107148
Safety Boot, size 50	1	07107149

Dräger Protective Eyewear x-pect 8000

State-of-the-art protective spectacles and goggles - this is the Dräger X-pect 8000 protective eyewear collection: combining the best possible wearer comfort, high safety and an attractive design, providing special protection for the most important sensory organ: your eyes.

Dräger X-pect 8000 protective eyewear
Avoiding irreparable damage

Avoiding irreparable damage
Our eyes are particularly prone to injury when working with liquids or in environments containing dust particles or fragments. Chemical burns, lacerations or invasive foreign bodies can often cause long term damage, as e.g. impaired vision or even the complete loss of vision in one or both eyes. In a matter of seconds, irreparable damage may occur, thus dramatically changing the rest of our lives.

A simple solution is available. Often all that is needed is to wear well-fitting, stable protective glasses or goggles which offer effective eye protection against injury. However, protective eyewear is only effective if used properly by the wearer.

Dräger X-pect 8000
In developing our Dräger X-pect 8000 protective eyewear collection, we focused on providing the best possible wearer comfort and high safety, combined with an attractive, modern design. Wearer comfort Dräger's X-pect 8000 protective eyewear is characterised by superior quality and ergonomically designed lightweight materials. Many models can be individually adapted to fit any face shape by adjusting the side arms. Part of the ergonomic design is the unrestricted field of vision. Excellent wearer comfort is also ensured in combination with other personal protective equipment such as ear protection or respiratory protection.

Safety
The Dräger X-pect 8000 collection is certified in accordance with EN 166:2001 and is CE compliant. This means that all spectacles meet high quality requirements. Additionally many models from the Dräger X-pect 8000 series offer the highest UV protection available and the best optical class for continuous work. Most models feature an anti-scratch and anti-fog coating to ensure clear vision in the most arduous of situations.

Design
What could be better? Effective protection combined with an attractive stylish or sporty design. Dräger's X-pect 8000 protective eyewear is characterised by a modern and sporty look, making them extremely popular among users in industry, trade or for private use.

A suitable model for each type of application
Whether in the laboratory, during grinding, machining or painting operations, or when working with gases, vapors or smoke – Dräger's X-pect 8000 protective eyewear collection provides effective protection for your eyes. A suitable model is available for all applications for professional or private use:
- cover spectacles (designed to be worn over corrective glasses)
- spectacles
- goggles

TECHNICAL SPECIFICATIONS

Model	8110 / 8120 / 8510
Lens material	PC / PC / PC
Frame material	PC / Nylon / PVC
UV	yes / yes / yes
Lens color	clear / clear / clear
Anti-scratch	- / yes /yes
Anti-fog	- / - /yes
Weight (g)	45 / 43 / 101

Dräger Protective Eyewear x-pect 8000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger X-pect 8110, Cover spectacles	1	R58247
Dräger X-pect 8120, Cover spectacles	1	R58248
Dräger X-pect 8510, Goggles	1	R58373

Dräger Protective Eyewear x-pect 8320, 8321 and 8340

The new generation: spectacle Dräger X-pect 83x0 serie. This safety goggle stands for fantastic design, ultra light and highest comfort for intensive use.

Dräger x-pect 8300 serie
Protective eyewear

Robust lightweight
The material of the X-pect 8300 goggles is very robust due to the applied polycarbonate material, but is also the lightest weight in its class. The break-resistant polycarbonate provides long life and high comfort when intens use.

Soft nose piece
Featuring a soft nose piece provides the X-pect 8300 goggles high wearing comfort - even in extreme conditions such as heat and cold.

Scratch and anti-fog
The X-pect 8300 goggles have a special scratch resistant coating and anti-fog coating to ensure clear vision in heavy use or harsh environments.

Flexible eyeglass legs
The X-pect 8300 spectacles has flexible legs for minimal pressure against the head and a high wearing comfort.

Large field of view
The panorama window of the X-pect 8300 goggles offers a wide field of view - comfortable and easy to use.

Sporty appearance
The "wrap-around" design of the Dräger X-pect 8300 and the optimal curve of 9.5 provide effective eye protection and high comfort. Also, the goggles have a distinctive modern and sporty look, which makes it very popular among users, both in industry and private.

UV resistant
The X-pect 8300 offers the highest UV protection available and the best optical class (class 1) for prolonged use. Also, the safety glasses according to EN 166:2001 and CE standards. This means that all glasses meet the highest quality standards.

TECHNICAL SPECIFICATIONS

Type	Dräger x-pect 8320
Lens material	PC, polycarbonate
Frame material	PC, polycarbonate
UV	yes
Lens color	clear
Anti-scratch	yes
Anti-fog	yes
Weight	21 gr

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger x-pect 8320 protective eyewear	1	R58268
Dräger x-pect 8321 protective eyewear - grey glass	1	R58269

Neox Handgloves

Medium-duty chemical protection.

Recommended Usage

- chemical plants
- agriculture

- petrol refining
- cleaning and maintenance
- soft, comfortable and absorbent

Neox hand gloves
Great protection

TECHNICAL SPECIFICATIONS

Dimensions	Length: 355 mm
	Thickness: 0.75 mm
Size	10
Color	Black
Approvals	Chemical restistant according to: EN388/EN374 & EN511

ORDER INFORMATION

Description	Unit Sales	Articlenr
Neox ® Handgloves, 36 cm	1	SG03182

Oxxa E-Green-W 52-100 gloves

Comfortable, finger-sensitive glove.

Features
- Soft Polyurethane coating on palm and fingers
- 62% Recycled polyester backing (13 gauge)
- Seamless glove
- Elastic knitted wrist cuff
- Very comfortable and finger-sensitive glove

- Ideal for dry precision (fine) work
- Very good back of hand ventilation keeping hands dry and cool
- Excellent dry grip
- Perfect for assembling small parts with screws, for example
- Sanitized® treated to inhibit bacteria, minimise odours and promote freshness

Oxxa E-Green-W 52-100 gloves
Comfortable, finger-sensitive glove

TECHNICAL SPECIFICATIONS

Size	7/S to 11/XXL
Fabric	Drager: RCS Recycled polyester
	Coating: Soft Polyurethaan
Manchet	Knitted cuff
Color	White
Approval	EN 388:2016
	EN 407

ORDER INFORMATION

Description	Unit Sales	Articlenr
Oxxa Handgloves	1	SG06152

Motorola DP4401 Ex Atex - Portable two way radio

The DP4401 Ex ATEX-certified portable delivers unrivaled voice and data communications with integrated GPS plus best-in-class audio that includes Intelligent Audio and customizable voice announcements.

Portable two way radio
Ex ATEX-certified portable

Application
Threats from explosive gas or combustible dust, on an oil rig or in an open mine, your workers confront them daily. Safe, reliable communication is absolutely critical in such dangerous environments. Available in UHF and VHF frequency bands, the DP4401 Ex digital portable two-way radio is easy to use and features up to 32 channel capacity, three programmable buttons, emergency button, mandown and lone worker functions and IP67 specifications for submersibility.

Best-in-class
Loud front-facing speaker and Intelligent Audio feature that automatically adjusts the radio volume according the environment's noise level.

Text messaging
Send preprogrammed update messages to team members when radio communications need to be delivered without interrupting workers or guests.

Integrated GPS
Locate mobile work teams using integrated GPS.

Emergency button
Orange button on the top of the radio can be programmed to send an alert to a supervisor or dispatcher during an emergency situation.

Security
Three levels of scrambling or encryption built-in for increased security: 16-bit Basic Privacy, 40-bit Enhanced Privacy or 256-bit AES256 encryption.

Transmit interrupt
Enables a user to interrupt another radio conversation to deliver critical communication exactly when and where it's needed.

TECHNICAL SPECIFICATIONS

Frequency band	VHF, UHF
Battery life (based on a 05 05 90 duty cycle)	19 hours in digital mode, 16 hours in analogue mode
1 Watt	yes
Repeater capable	yes
Standard battery chemistry type	Lithium Ion
Emergency button	yes
Display	no display
Dimensions (h x w x d) with standard battery	138.5 x 56.7 x 37.8 mm (5.45 x 2.23 x 1.49 in)
Keypad	none
Weight (with 1400mAh LiIon battery)	455.5g (16.1 oz)
Noise reduction software	yes
Approvals	IP67, ATEX IECEx

ORDER INFORMATION

Description	Unit Sales	Articlenr
Motorola: radio DP4401EX (VHF or UHF), including Li-Lion battery, charger and excluding programming	1	SG04909

Safety harness

The safety harnesses offer all the necessary elements for a complete fall protection system and allows the user to choose components based on personal preference and job constraints. In addition to offering economical compliance, these safety harnesses are built with quality and reliability, fall protection gear you can trust.

Features
- large back plate: for easy and efficient donning
- fall indicator: clear indicator which shows that the harness should be retired
- contrasting leg and shoulder straps: for easy and rapid donning

- covered identification labels: protects labels during the life of the harness

Applications
(maintenance) activities on board of a vessel or a rig.

Safety harness
D-rings at front and back

TECHNICAL SPECIFICATIONS

Brand	PROTECTA
Type	AB17511UNI / AB17711UNI
Size	Universal
D-ring locations	Back / Back & Front
Body belt	No
Leg strap buckle type	Pass through buckle
iSafe equipped	No
Physical weight	0.95 kg (2.1 lbs) / 1.05 kg (2.3 lbs)
Approvals	CE, EN361

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety harness, d-ring on back, universal size	1	SG04253

Rescue Tripod, aluminium

Aluminium rescue tripod with adjustable legs. This aluminium rescue tripod is designed for rapid set up to be used with a Bracket Assembly on the rescue tripod leg and a Pulley Wheel complete with karabiner, so an Fall Arrest Block can be used.

Rescue Tripod
Designed for rapid set up

Aluminium Rescue Tripod
Aluminium rescue tripod with adjustable legs to EN 795 Class B. This aluminium rescue tripod is designed for rapid set up to be used with a Bracket Assembly on the rescue tripod leg and a Pulley Wheel complete with karabiner, so an IKAR HRA Device can be used.

Maximum user rating 2 persons or 1 person and a load winch to 250 Kg SWL. The rescue tripod is adjustable in height from 1.44 to 2.42 m. The set up diameter of the legs ranges from 0.99 to 1.55 m. The weight of the rescue tripod is 19 kgs.

Fall Arrest Block
Fall Arrest Block HRA24 with an integral recovery mechanism, 15.0 m steel rope lifeline in an aluminium housing to EN360:2002 and EN1496

This aluminium housed fall arrest block is a sturdy, low maintenance device fitted with a steel rope lifeline, terminated with a steel double action hook. The attachment anchorage point on the fall arrest block is an open steel handle, suitable for connection via a Standard Karabiner type connector, or a Standard Karabiner type connector with an Anchorage Sling, or a Large Karabiner.

In addition to connecting the fall arrest block with recovery mechanism via the steel handle, it can also be used in conjunction with a DB-A2 aluminium tripod, to protect the user when ascending and descending a vertical shaft i.e. entry into a sewer system.

This fall arrest block also has a built in recovery mechanism, which is engaged by pulling a pin on the side of the block and engaging a winding handle. This then allows the device to be used to lift or lower a casualty post fall, or if they have become incapacitated in a confined space.

The lifeline in this fall arrest block has been tested in a simulated fall over an edge and passed the German draft amendment EN360. However, not all "edges" will react in the same way as the tested steel edge, so

when using this fall arrest block, every effort must be made to ensure that in the event of an arrested fall, the lifeline does not pass over an edge.

The dimensions of this block are: 630 x 275 x 110 mm. The weight of the block is: 16.0 kgs.

41-54 Mounting Bracket
Mounting bracket for attaching a load winch 41-Z7 onto an aluminium tripod. This mounting bracket is bolted onto one leg of the tripod and then allows the Load Winch to be attached to the tripod. The weight of the bracket is 1.0 kgs.

Pully Wheel
Swing cheek pulley and karabiner for attaching a HRA lifeline. This swing cheek pulley is clipped onto the eye bolt at the top of the tripod with the HRA lifeline passing through it. The pulley is made from stainless steel and comes complete with screw gate karabiner. The weight of the bracket is 1.1 kgs.

Standard Karabiner
Standard karabiner hook with screw gate for attaching fall protection equipment to a suitable anchorage point to EN362. This standard karabiner hook is made from heat treated steel and has a gate opening size of 19 mm. The weight of the karabiner hook is 0.16 kgs.

Rescue Tripod, aluminium

ORDER INFORMATION

Description	Unit Sales	Articlenr
Rescue Tripod, aluminium, basic	1	SG04201
Stopmax/Ikar Rescue block: length 24 meters, excluding holder/adapter	1	SG04205
Stopmax/Ikar Rescue block: length 12 meters, excluding holder/adapter	1	SG04204
Stopmax/Ikar Adapter: length 12 -33 meters	1	SG04206
Ikar Pulley, Model 41-Z20 for Tripod	1	07120047
IKAR: storage bag for tripod, 160 x 30 x3 0 cm, circa148 liter and 1,7 kgs	1	07120045

Emergency Tank Shower

Emergency Tank Shower incorporating a 1.200 litre tank with galvanised mild steel rectangular hollow section frame and White GRP outer casing.

General information
An integral immersion heater, controlled by a dual safety thermostat, maintains the water in the insulated tank at a constant temperature to deliver a guaranteed flow of warm water for up to 15 minutes even when the mains supply has been disrupted.

Usage of the shower
The shower is activated when the casualty stands on the optional Foot Panel or pushes the panic bar. A version is available with the Eye/Facewash Fountain mounted internally. Alternatively the Eye/Facewash can be omitted.

Available color
Also available with GRP casing in Green. Also available with stainless steel frame.

Types
Export Model EXP-MH-14K/1200. Insulated models available, without heating STD-J-14K/1200, EXP-J-14K/1200.

NOTE
An Earthquake proof version of this model is available which has been designed to conform to the California Building Code 1998 Chapter 16, Division 1.

Emergency Tank Shower
1.200 litre tank

TECHNICAL SPECIFICATIONS

Manufacturer / Model	STD-MH-14K/1200
Dimensions	3666 (H) x 1310 (W) x 1310 (D)
Tank size	1.200 litre
Weight	300 kgs, approx. dry weight
Water inlet	2" flange
Water pressure	2 bar G
Heating	optional to specs
Cooling	optional to specs

ORDER INFORMATION

Description	Unit Sales	Articlenr
Emergency Tank Shower	1	STDMH14K1200

Emergency Safety Shower with Eye/Facewash Fountain - indoor

An unheated emergency safety showers and eye/facewash modes designed specifically for export. With low level water inlet.

Features

The main shower valve is situated directly above the water inlet and is complete with bleed pipe to drain water from the standpipe to reduce overheating by solar radiation. Available in galvanised or stainless Steel.

Emergency safety shower with eye/facewash fountain
Indoor usage - unheated

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Hughes / EXP-18G/45G
Inlet connection size & type	1 1/4 inch BSP female
Piping and valve materials	Galvanised carbon steel piping, brass valves
Shower operation	Pull rod.
Eyebath operation	Lift lid or press optional foot treadle
Operating pressure	2 bar G minimum
Flow at operating pressure	Shower: 75 liters per minute
	Eyebath: 20 liters per minute
Dimensions	750 (d) x 340 (w) x 2300 (h) mm
Weight	18 kgs

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety shower with eyebath - indoor	1	SG04622

Emergency Safety Shower with Eye/Facewash Fountain - outdoor

Emergency Safety Shower with Eye/Facewash Fountain, trace tape heated and pre-insulated. Available in Galvanised or Stainless Steel. Available with extra heating.

Features

This shower is ideal for export and intended for use throughout industry where there is a possibility of water inside the shower freezing or overheating.

The shower is jacketed and pre-insulated and this models is suitable for usage in zone 1 & 2 as well in non-flameproof areas.

Emergency safety shower with eye/facewash fountain
Outdoor usage - heated

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Hughes / EXP-AH-5G/45G
Inlet connection size & type	1 1/4 inch BSP male
Piping and valve materials	Galvanised mild steel pipework, brass valves
Shower operation	Pull rod.
Eyebath operation	Lift lid or press optional foot treadle
Operating pressure	2 bar G minimum
Flow at operating pressure	Shower: 75 liters per minute
	Eyebath: 20 liters per minute
Dimensions	850 (d) x 340 (w) x 2310 (h) mm
Weight	34 kgs
Heating type	Chemelex trace tape
Heater load	57 watts
Optional electrical equipment suitable for use in areas classified as	non-flameproof or zone 1 & 2, gas groups IIA & IIB, temp class T3
Electric supply	240 or 110V, single phase, 50Hz

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety shower with eyebath - outdoor	1	SG04621

Barikos Eye Wash Bottle

The Barikos eye wash bottle is a maintenance-free wash bottle. In sealed state the eye wash fluid can be kept ready for use two years.

Properties
Eyewash bottle with 620 ml of water. The water is sterilized by gamma radiation. The contents of the bottle can be stored for two years, as long as the bottle is unopened. The expiry date is mentioned on the seal. After use the bottle is to be replaced by a new one.

The Barikos eye wash bottle is an easy to use squeeze bottle, specially designed for this purpose. The spray is soft, broad and effective. The used and polluted water exits through special openings in the bottle design.

Optional
There are special wall mounts available to have a clear and clean storage of the eye rinse bottles.

Barikos eye wash bottle
Low maintenance eye wash bottle

TECHNICAL SPECIFICATIONS

Dimensions	100 x 250 x 50 mm
Material	PVC wall container with transaprant cover.
Content	620 ml water
Approval	DIN12930

ORDER INFORMATION

Description	Unit Sales	Articlenr
Barikos eye wash bottle 620 ml	1	SG04604
Barikos holder for 1 bottle	1	SG04602
Barikos holder for 2 bottles	1	SG04603
Barikos wire wall bracket	1	SG04601

Tobin eyewash bottles

An eyewash should be quick, simple and safe to use. The unique shape of Tobin's eyewash bottle insures that even a temporarily blinded and confused person can identify it as a safe eyewash.

Tobin eyewash bottles
For a quick, simple and safe use

Applications
Suitable when space is a problem or where several eyewash stations are required in the same area. Supplied with bottles, wall screws etc.

Features
- provides 6 minutes washing time
- the bottle is made from blow-moulded plastic, filled with 1 liter of 0.9% saline, heat sealed, and then sterilised.
- it has a 3 year shelf life and remains sealed and sterile until use.
- the bottle hangs from a wall mounted rack by its cap. To open, simply break off the cap. An unopened bottle can be removed or replaced in the stand at will. An opened bottle cannot be replaced in the stand.
- the eye is washed by a soft flow consisting of six tiny streams. The gentle flow prevents chemicals or foreign bodies being driven further into damaged soft tissue

- the fact that the bottle is single use is a very important safety feature. Once the bottle has been opened, the liquid is no longer sterile. The round ended bottle is designed to prevent people saving unused liquid or refilling the bottle with other liquid. When empty the bottle has a hole at both ends, making it unsuitable for further use.
- tobins eyewash bottle has a round base and cannot stand alone. This is a particularly important safety feature that removes the temptation to take bottles from the stand and place them close to bottles with other contents. Mix-ups should never occur.
- it's important that everyone knows where the bottles are when an accident occurs.

Optional
Also available with a wall unit and two bottles of 1 liter each.

TECHNICAL SPECIFICATIONS

Contents	1 liter sterile saline solution of 0.9%
Dimensions	390 x 200 x 100 mm
Usage	Disposable, single use
Storage temperature	between 2 °C and 35°C
Shelf life	An unopened bottle has a shelf life of 3 years
Expiry date	Each bottle shows the recommended expiry date

ORDER INFORMATION

Description	Unit Sales	Articlenr
Tobin: two eye wash bottles, each 1 liter	1	SG04605
Tobin: wall display and two eye wash bottles of 1 liter each	1	SG04606

Disinfection of drinkwater in tanks and piping

The safety of drinking water cannot always be taken for granted. Hadex® is a safe, effective and easily applied product that keeps the drinking water in good condition. Drinking water treated with Hadex® remains fit for consumption.

Application
It is especially intended for disinfecting drinking water in tanks and piping.

Features
- Hadex® is a safe, effective and easily applied product:
- food grade
- it is easily stored
- it has a very long shelf life:at least eighteen months under normal conditions (t =25 ℃) and at least three years if stored cool (t = < 6 ℃)
- it facilitates swift and accurate dosing

- Hadex® starts disinfecting immediately
- available in 1, 2.5, 10 and 25 litre cannisters

Dosing
Hadex® is ready for immediate use as delivered. Because it is a very pure, stable and safe product, it facilitates swift and accurate dosing. As it is a liquid product it mixes quickly and easily with water. Hadex® can be dosed manually and automatically by use of the specially designed Hadex® Dosing Unit. Next to continuous dosing, Hadex® can also be used for shock treatment, cleaning all drinking water piping.

Disinfection of drinkwater
Especially suitable for tanks and piping

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Hadex
Available weight	1, 2.5, 10 and 25 liters cannisters
Approvals	Dutch Ministry of Health (Ctgb registration No. 9574N)
	Dutch Directorate General for Shipping and Maritime Affairs - Shipping
	Inspection, Division NSI (Netherlands)
	DOT (United Kingdom)
	Norwegian Institute of Public Health (NIPH)
	Norwegian Maritime Authority (NMD)
	Germanischer Lloyd (Gy)
	NATO

ORDER INFORMATION

Description	Unit Sales	Articlenr
Disinfection of drinking water, 1 liter	1	SG04671
Disinfection of drinking water, 2.5 liters	1	SG04672

Disinfectant detergent, Divodes FG VT29

Divodes FG a detergent disinfectant based on a mixture of propanols is specially formulated for use on surfaces that come into contact with food. It is also used on surfaces where contact with water is to be avoided.

A detergent disinfectant

A mixture of propanols

Features
- spray disinfectant for intermediate and final disinfection
- ready to use
- fast acting spray disinfectant with immediate and long-term effect
- no rinsing is necessary
- based on 1- and 2-propanol
- excellent microbiocidal action with a broad spectrum of activity
- DVG listed
- not foaming
- evaporates residue-free

- also applicable in moisture sensitive areas
- well suited for intermediate and transfer disinfection
- Divodes can be used on all common materials used in the food and beverage industry, provided the application instructions are followed
- do not use on polycarbonate and other plastics prone to stress cracking

IMPORTANT NOTE
Use disinfectant carefully. Always read the label and product information before use.

TECHNICAL SPECIFICATIONS

Manufacturer / Model	Diversey - Divodes FG VT29
Available size	750 ml per bottle
Approvals	Bactericide EN 1276, Fungicide EN 1650

ORDER INFORMATION

Description	Unit Sales	Articlenr
Disinfectant detergent - Divodes FG VT29	6	87048803

Heat Detector Testers SOLO 423/424 Series

Using the unique Cross Air Technology, air is heated and blown across the cup ensuring the heat source is directed at the sensor and not the plastic components or casing.

General
Available in both 110 / 120 and 220 / 240 volt versions the Solo 423 and 424 are the professionals' choice where cables and leads are acceptable. Unconstrained by energy availability they provide the quickest of test times and are, perhaps, most suitable for the highest temperature detectors.

Features
- suit Fixed temperature, up to 90ºC
- quickest activation times
- lightweight
- easy to use
- universal design suits the widest range detectors
- fur use at height, angles and low level
- supplied with 5 mtr cable

Heat Detector Testers SOLO 423/424 Series
Professionals' choice

TECHNICAL SPECIFICATIONS

Dimensions	115 x 115 x 80 mm
Frequency	50/60 Hz
Weight	1200 grams
Max height	9 meters
Power	~ 70 W

ORDER INFORMATION

Description	Unit Sales	Articlenr
Heat Detector Tester SOLO 424	1	SG04482

Smoke Detector Testers SOLO 330

Testing equipment must be proven to be safe for the engineer and the system, it needs to be cost-effective, versatile, portable, approved by all detector manufacturers and in compliance with international codes and standards. The Solo Range meets all of these requirements.

General

Codes and standards require functional tests to introduce (simulated) smoke through the detector vents and into the sensing chamber. The Solo 330 dispenser is the most popular device for achieving this, benefiting as it does, from a cup big enough for the great majority of detectors but still small enough not to be obstructive and unwieldy.

Features
- UL listed
- spring loaded mechanism for effective, economic aerosol delivery
- clear Cup for viewing detector led
- easy to use
- universal design suits the widest range detectors
- fur use at height, angles and low level
- lifetime Warranty

Smoke Detector Testers SOLO 330
Meets all of the requirements

TECHNICAL SPECIFICATIONS

Dimensions	115 x 115 x 80 mm
Frequency	50/60 Hz
Weight	1200 grams
Max height	9 meters

ORDER INFORMATION

Description	Unit Sales	Articlenr
Solo: Smoke Detector Tester SOLO 330 test cup	1	SG04483
Solo: A10S Smoke Detector Testgas 250ml	1	11120026

JEM ZR35 Fog machine

The JEM™ ZR35 is a mid-sized fog machine designed to deliver superior and uninterrupted performance in demanding professional applications. Via its powerful 1,500 W heat exchanger, the JEM ZR35 produces a fantastic peak output ideal for mid to large-sized venues.

JEM ZR35 Fog machine
The most specified fog machine in the world

General
The rugged yet weight optimized JEM ZR35 also features variable output control for more subtle effects and is fully up-to-date with digital remote, DMX and RDM. The entire JEM ZR range is compatible with a wide range of JEM Pro fog fluids. As machines designed and built to last, the JEM ZRs will continue to perform with great output and low consumption.

Features
- 1,500 W heat exchanger

- 50 ml in 30 seconds peak performance
- 800 m3/min fog output
- variable output control for subtle effects
- 8-9 minute warm-up time
- digital remote, DMX and RDM
- compatible with a wide range of JEM Prof fog fluids
- floor standing or truss mounting (bracket included)
- powerCON TRUE1
- 4-liter bottle (also compatible with a 5-liter bottle)

TECHNICAL SPECIFICATIONS

Dimensions	590 (l) x 395 (w) x 264 (h) mm
Weight, dry	15.5 kgs
Weight, filled	19.1 kgs
Coverage volume	800 m3 per minute
Fluid consumption	140 ml per minute
Control options	integrated digital remote control, DMX, optional: analog remote control
Control parameters	continuous or timer-controlled output
Fog	variabele output control, 0-100%
Installation	mounting: standing or hanging
AC power	220-240 V nominal, 50/60 Hz
Maximum ambient temperature	40° C
Construction	Housing: Steel & aluminium, color: black
Approvals	EN 60335-1+A15, EN 62233, EU EMC: EN 61000-6-3, EN 61000-6-1

ORDER INFORMATION

Description	Unit Sales	Articlenr
JEM ZR35 Fog machine	1	AT08-00-0

Cyalume lightstick

Easy to use safety lightstick.

General
The 6'0' EASY-LIGHT is a pure European product. Thanks to its elegant design, it is a good alternative to the 6'0' GLOWSTICK.

The "alligator" -hook helps to clip this lightsticks on many supports. Combine the 6'0' EASY-LIGHT with a lanyard and it becomes a glowing pendant.

Cyalume lightstick
Safety lightstick

TECHNICAL SPECIFICATIONS

Dimensions	150 x 11 mm
Weight	133 grams
Colour	Green
Approvals	EN 71 1-2-3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Cyalume stick	1	SG06153

GRP storage cabinet: DMO-01

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Fireman's equipment (5 complete sets incl. SCBA)
- Survival suits (up to 40 pcs depending on size)
- Life jackets (up to 70 pcs depending on type)
- Emergency response team equipment
- Helideck crash equipment (incl. ladder & grab hook)

Options
- Shelves / bulkhead / clothing bar
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-01
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	1835 x 800 x 2021 mm (WxDxH)
Aperture dimensions	1606 x 800 x 1746 mm (WxDxH)
Angle of door opening	90°
Weight	95 kgs
Material	GRP
Color	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-01	1	SG02010
Add. costs DMO-01: FE layout	1	SG02013
Add. costs DMO-01: Shelves / bulkhead	1	SG02012
Add. costs DMO-01: Fire retardent	1	SG02011
GRP FS Cabinet: DMO-01 - Roller Shutter	1	SG02035
Add. Costs DMO-01 (RS): Shelves / bulkhead	1	SG02037
Add. costs DMO-01 (RS): Fire retardent	1	SG02036

GRP storage cabinet: DMO-04

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Fireman's equipment (5 complete sets incl. SCBA)
- Survival suits (up to 40 pcs depending on size)
- Life jackets (up to 70 pcs depending on type)
- Emergency response team equipment
- Helideck crash equipment (incl. ladder & grab hook)

Options
- Shelves / bulkhead / clothing bar
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-04
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	1235 x 602 x 1830 mm (WxDxH)
Aperture dimensions	1056 x 602 x 1596 mm (WxDxH)
Angle of door opening	90º
Weight	95 kgs
Material	GRP
Color	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

GRP storage cabinet: DMO-04

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-04	1	SG02130
Add. costs DMO-04: Fire retardant	1	SG02131
Add. costs DMO-04: Shelves / bulkhead	1	SG02132
Add. costs DMO-04: Insulated	1	SG02133

GRP storage cabinet: DMO-05

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Fireman's equipment (2 complete sets incl. SCBA)
- Fireman's clothing (4 sets)
- Survival suits (up to 20 pcs depending on size)
- Life jackets (up to 35 pcs depending on type)
- Emergency response team equipment

- Helideck crash equipment (incl. ladder & grab hook)

Options
- Shelves / bulkhead / clothing bar
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-05
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	1035 x 800 x 2030 mm (WxDxH)
Aperture dimensions	819 x 800 x 1756 mm (WxDxH)
Angle of door opening	90°
Weight	57,5 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-05	1	SG02025
Add. costs DMO-05: Shelves	1	SG02002
Add. costs DMO-05: Fire retardent	1	SG02026
GRP FS Cabinet: DMO-05 Roller Shutter	1	SG02045

GRP storage cabinet: DMO-07

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- movable fire extinguisher (50 kgs DP / 45ltr F)

Options
- ventilation
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-07
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	1070 x 1050 x 1579 mm (WxDxH)
Aperture dimensions	821 x 1050 x 1450 mm (WxDxH)
Angle of door opening	90°
Weight	55 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-07	1	SG02075
Add. costs DMO-07: Fire retardent	1	SG02076
Add. costs DMO-07: Shelves	1	SG02002

GRP storage cabinet: DMO-09

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Fire hydrant cabinet (4 hoses / spray nozzles / spanners)
- Survival suits (up to 20 pcs depending on type)
- Life jackets (up to 30 pcs depending on type)
- Fireman's clothing (4 sets folded)
- SCBA storage (2 sets + spare cylinder)
- Chemical protection equipment
- Electrical safety kit
- Fall protection equipment / descent units (donut type)

Options
- Shelves
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-09
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	821 x 600 x 1277 mm (WxDxH)
Aperture dimensions	627 x 600 x 1034 mm (BxDxH)
Angle of door opening	110º
Weight	30 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-09, single door	1	SG02015
Add. costs DMO-09: Shelves	1	SG02002
Add. costs DMO-09: Fire retardent	1	SG02016

GRP storage cabinet: DMO-11

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Basket stretchers / Scoop stretchers
- First aid kit
- Stretcher blankets
- Safety torches
- Radio's
- Rescue materials

Options
- Shelves
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-11
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	800 x 600 x 2400 mm (WxDxH)
Aperture dimensions	615 x 600 x 2150 mm (WxDxH)
Angle of door opening	90°
Weight	50 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-11, single door	1	SG02020
Add. costs DMO-11: Shelves	1	SG02002
Add. costs DMO-11: Fire retardent	1	SG02021
GRP FS Cabinet: DMO-11 Roller Shutter	1	SG02040

GRP storage cabinet: DMO-12

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Basket stretchers / Scoop stretchers
- First aid kit
- Stretcher blankets
- Safety torches
- Radio's
- Rescue materials

Options
- Shelves
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lighting (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-12
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	800 x 300 x 2400 mm (WxDxH)
Aperture dimensions	647 x 300 x 2185 mm (WxDxH)
Angle of door opening	90°
Weight	40 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-12, single door	1	SG02050
Add. Costs DMO-12 (RS): Fire retardant	1	SG02056

GRP storage cabinet: DMO-21

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Personal grab bag

Options
- Shelve

- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-21
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	280 x 280 x 170 mm (LxWxH)
Aperture dimensions	525 x 225 x 260 mm (LxWxH)
Angle of door opening	90°
Weight	1.36 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-21	1	03120204

GRP storage cabinet: DMO-32

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Depending on the format and type of equipment, different kind of fire fighting, rescue and/of safety can be stored in the cabinet.

Options
- Shelve
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-32
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	700 x 305 x 950 mm (LxWxH)
Angle of door opening	90°
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-32	1	SG02208
Add. Costs DMO-32: Fire retardant	1	SG02210
Add. costs DMO-32: Insulated	1	SG02211
Add. costs DMO-32: Shelve	1	SG02212

GRP storage cabinet: DMO-33

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Eyewash bottles
- Safety torches
- Escape masks
- Descent units (donut type)

Options
- Shelve
- Ventilation
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-33
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	580 x 300 x 595 mm (WxDxH)
Aperture dimensions	439 x 300 x 442 mm (WxDxH)
Angle of door opening	90°
Weight	11 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-33 Single Door. Excluding stand and content.	1	SG02060
Add. costs DMO-33: Fire retardent	1	SG02061
Add. costs DMO-33:Insulated	1	SG02062

GRP storage cabinet: DMO-35

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Fire extinguisher (1 pcs DP/F/CO2)
- Survival suit (1 pcs)
- Life jacket (4 pcs inflatables)
- Escape masks (up to 10 pcs depending on type)
- Emergency Escape Breathing Apparatus

Options
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-35
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	470 x 250 x 980 mm (WxDxH)
Aperture dimensions	345 x 250 x 836 mm (WxDxH)
Angle of door opening	90°
Weight	12,5 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM storage cabinet: DMO-35, single door	1	SG02030
Add. costs DMO-35: Fire retardent	1	SG02031

GRP storage cabinet: DMO-36

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.
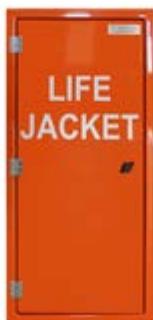
Room to store
- SCBA c/w cylinder and spare cylinder
- emergency Escape Breathing Apparatus (2pcs)
- survival suits (up to 2 pcs depending on type)
- life jackets (up to 4 pcs depending on type)
- chemical protection equipment
- fall protection equipment / descent units (donut type)

Options
- shelve
- ventilation
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-36
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	475 x 350 x 980 mm (WxDxH)
Aperture dimensions	345 x 350 x 830 mm (WxDxH)
Angle of door opening	90°
Weight	15 kgs
Material	GRP
Color	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-36 Single Door	1	SG02070
Size: 980 x 475 x 350 mm (h x w x d)		
Add. Costs DMO-36: Fire retardant	1	SG02071

GRP storage cabinet: DMO-37

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- fire extinguisher (1 pcs DP/F/CO2)
- survival suit (1 pcs)
- life jacket (4 pcs inflatables)
- escape masks (up to 10 pcs depending on type)

- emergency Escape Breathing Apparatus

Options
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-37
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	370 x 275 x 810 mm (WxDxH)
Aperture dimensions	249 x 275 x 670 mm (WxDxH)
Angle of door opening	89°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM storage cabinet: DMO-37, single door. Excluding stand.	1	SG02105
Add. costs DMO-37: Fire retardant	1	SG02106

GRP storage cabinet: DMO-40

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- Fire hoses

Options
- Flame retardant version
- Heaters (conventional / ATEX approved)
- Lettering

GRP storage cabinet: DMO-40
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	702 x 203 x 626 mm (WxDxH)
Aperture dimensions	534 x 203 x 455 mm (WxDxH)
Angle of door opening	89°
Weight	7 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM storage cabinet: DMO-40, single door	1	SG02134
Add. Costs DMO-40: Fire retardant	1	SG02135
Add. costs DMO-40: Insulated	1	SG02136

GRP storage cabinet: DMO-41

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.
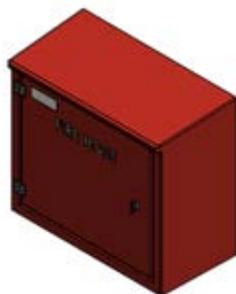
Room to store
- fire hoses

Options
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-41
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	720 x 344 x 636 mm (WxDxH)
Aperture dimensions	534 x 344 x 455 mm (WxDxH)
Angle of door opening	90°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM storage cabinet: DMO-41, single door	1	SG02137
Add. Costs DMO-41: Fire retardant	1	SG02138
Add. costs DMO-41: Insulated	1	SG02139

GRP storage cabinet: DMO-51

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- helideck crash equipment
- fall protection equipment
- life jackets
- immersion suits

Options
- ventilation
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-51
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	2450 x 1060 x 1000 mm (WxDxH)
Aperture dimensions	2400 x 950 x 950 mm (WxDxH)
Angle of door opening	90°
Weight	72 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-51 Hinged Lid	1	SG02108
Add. Costs DMO-51: Fire retardant	1	SG02109

GRP storage cabinet: DMO-55

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material, these cabinets are rated to IP56, certified by Lloyds. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- helideck crash equipment (excl. ladder/ rescue hook)
- fall protection equipment / descent units (donut type)

Options
- ventilation
- flame retardant version
- heaters (conventional / ATEX approved)
- lettering

GRP storage cabinet: DMO-55
IP56, certified by Lloyds

TECHNICAL SPECIFICATIONS

Dimensions	1024 x 525 x 600 mm (WxDxH)
Aperture dimensions	924 x 372 x 600 mm (WxDxH)
Angle of door opening	90°
Weight	20 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP56
Door catch	Nylon
Door handle	SS 316
Hinges	SS 316
Seal	EPDM
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-55 Hinged Lid	1	SG02110
Add. Costs DMO-55: Fire retardant	1	SG02111

GRP storage cabinet: DMO-131

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.
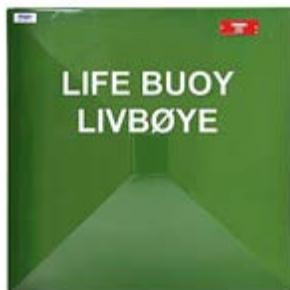
Room to store
- 2.5 kgs or 4.5 kgs lifebuoy
- throwing line
- safety light

Optional
- lettering

GRP storage cabinet: DMO-131
To store lifebuoy

TECHNICAL SPECIFICATIONS

Dimensions	125 x 900 x 900 mm (DxWxH)
Aperture dimensions	125 x 900 x 900 mm (DxWxH)
Angle of door opening	100°
Weight	27,5 kgs
Material	GRP
Color	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP55
Door catch	Stainless steel
Door handle	SS 316
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	TÜV

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-131. Excluding stand and content.	1	SG02085
Add. costs DMO-131, fire retardant	1	SG02086

GRP storage cabinet: DMO-132

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- PPE equipment
- breathing apparatus
- fire hoses and nozzles

Optional
- lettering
- straps
- shelve
- ventilator

GRP storage cabinet: DMO-132
To store PPE, BA, fire hoses and nozzles

TECHNICAL SPECIFICATIONS

Dimensions	285 x 485 x 810 mm (DxWxH)
Aperture dimensions	275 x 410 x 740 mm (DxWxH)
Angle of door opening	100°
Weight	12,5 kgs
Material	GRP
Color	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP55
Door catch	Stainless steel
Door handle	Protex fastener
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	TÜV

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-132	1	SG02090
Add. costs DMO-132, fire retardant	1	SG02091

GRP storage cabinet: DMO-133

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- PPE equipment
- electrical rescue kit
- BA set
- fire hoses and nozzles

Optional
- lettering
- shelve
- ventilator

GRP storage cabinet: DMO-133
To store PPE or BA sets

TECHNICAL SPECIFICATIONS

Dimensions	350 x 675 x 1075 mm (DxWxH)
Aperture dimensions	Not available
Angle of door opening	100°
Weight	20 kgs
Material	GRP
Color	Safety Green RAL 6002 Firefighting Red RAL 3000 Safety Orange RAL 2009 Lifesaving White RAL 9010
IP rating	IP55
Door catch	SS316
Door handle	SS 316
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	TÜV

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-133	1	SG02095
Add. costs DMO-133, fire retardant	1	SG02096

GRP storage cabinet: DMO-134

Dräger Marine & Offshore cabinets are designed for tough offshore conditions. Manufactured from durable GRP material. All cabinets are manufactured with stainless steel locks and hinges. The cabinets can be configured to suit different storage requirements.

Room to store
- PPE equipment
- escape masks
- life jacket
- survival suit

Optional
- lettering

GRP storage cabinet: DMO-134
To store PPE equipment, escape masks, life jacket or survival suit

TECHNICAL SPECIFICATIONS

Dimensions	245 x 385 x 535 mm (DxWxH)
Aperture dimensions	235 x 370 x 515 mm (DxWxH)
Angle of door opening	100°
Weight	7,5 kgs
Material	GRP
Color	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
IP rating	IP55
Door catch	SS316
Door handle	SS 316
Hinges	SS 316
Seal	Neoprene
Reinforcement	Core material
Lettering	White
Approvals	TÜV

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP storage cabinet: DMO-134. Excluding stand and content.	1	SG02100
Add. costs DMO-134, fire retardant	1	SG02101

T-card cabinet: DMO-123

The T-card cabinet is being used for evacuation purposes on board of a platform.

Features
- polyester laminate construction, 3 mm thick
- high gloss outside finish (RAL6002)
- inside fibre structure finish (RAL6002)
- 2 stainless steel hinges
- 2 stainless steel fasteners
- perspex window
- 148 card slots, excluding t-cards

Optional
- fire retardancy
- an other (RAL) colour
- EPDM seal

T-card Cabinet
148 slots excluding t-cards

TECHNICAL SPECIFICATIONS

Dimensions	983 x 453 x 120 mm (HxWxD)
Aperture dimensions	575 x 410 x 115 mm (HxWxD)
Angle of door opening	100°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
Door handle	Protex fastener
Hinges	SS 316
Reinforcement	Core material
Lettering	White
Approvals	IP56 BS EN 60529:1992 Lloyds

ORDER INFORMATION

Description	Unit Sales	Articlenr
T-card Cabinet: DMO-123, excluding t-cards	1	SG02003

Firehose Safety Cabinet, polyester: DMO-136

Safety cabinet to store fire hose, branch pipe and Storz coupling spanners. If quality, finish and design are important, the best choice is a polyester cabinet.

Features

Dräger has a diverse range of fire hose cabinets. The outside is finished to a high gloss (RAL 3000). The inside is finished fibre structure also in RAL 3000. All the cabinets are finished off with stainless steel hinges and fasteners.

Accessoiries

- Fire hose WHITE - MED approval (SG00551) or,
- Fire hose RED (SG00542)

- Spray nozzle (SG01011)
- Coupling (SG00727)
- Coupling spanner (SG00892)
- All accessories need to be ordered separately

Specific requirements

All the cabinets can be finished off to your own specific requirements. For example, rivets (aluminium\stainless) stainless nuts, bolts and other various hardware.

Safety Cabinet, polyester

Fire hose, branch pipe and spanner cabinet

TECHNICAL SPECIFICATIONS

Dimensions	645 x 540 x 180 mm (HxWxD)
Angle of door opening	100°
Weight	7 kgs
Material	GRP
Colour	Safety Green RAL 6002, Firefighting Red RAL 3000, Safety Orange RAL 2009, Lifesaving White RAL 9010
Door handle	Protex fastener
Hinges	SS 316
Reinforcement	Core material
Lettering	White
Approvals	TÜV

ORDER INFORMATION

Description	Unit Sales	Articlenr
GRP WM Cabinet: DMO-136, single door, IP56	1	03110007

Safety Cabinet for fireman's axe: DMO-137

Cabinet to store firemen's axe. Fireman's axe needs to be ordered separately.

Features
- outside finished to a high gloss ral 3000
- inside is finished fibre structure
- comes standard with perspex window
- bracket for fire axe
- 3 stainless steel hinges
- 2 stainless steel fasteners

Optional extras
- fire retardancy
- an other (RAL) colour
- EPDM seal

Safety Cabinet
To store fireman's axe

TECHNICAL SPECIFICATIONS

Dimensions	1020 x 420 x 100 mm (HxWxD)
Aperture dimensions	1000 x 380 x 90 mm (HxWxD)
Angle of door opening	100°
Weight	10 kgs
Material	GRP
Colour	Safety Green RAL 6002
	Firefighting Red RAL 3000
	Safety Orange RAL 2009
	Lifesaving White RAL 9010
Door handle	Protex fastener
Hinges	SS 316
Reinforcement	Core material
Approvals	TÜV

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Cabinet for fireman's axe, excluding axe	1	SG02005
Fireman's axe, 900 mm, Wood	1	SG03805
Leather pouch for fire axe 900 mm	1	SG03806

(Fire extinguishing) Equipment cabinet JBWE/A-70

These polyethylene cabinets can be used for multi purposes such as storage of fire or safety equipment. Deliverable in various sizes, with a green or red door.

Applications
- storage and transshipment
- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

Features
- truck or wall mounting

- suitable for 6 kg fire extinguishers
- rubber seal and polycarbonate windows
- left or right hinged mounting
- buckle web strap
- plastic toggles, lynch pins and hinge pins as standard
- fire extinguisher label supplied loose

Optional
- strap for securing the extinguisher

Fire Extinguisher Cabinet JBWE/A-70
Deliverable with red or green door

TECHNICAL SPECIFICATIONS

Type	Jonesco
Dimensions	300 x 700 x 253 mm
Color	Cabinet: Black,
	Door: Red or green

ORDER INFORMATION

Description	Unit Sales	Articlenr
Polyethylene fire extinguisher cabinet JBWE-70, red door	1	SG02423
Safety Cabinet JBWA-70, green door	1	SG02421

(Fire extinguishing) Equipment cabinet JBXE-83

These polyethylene cabinets can be used for multi purposes such as storage of fire or safety equipment. Deliverable in various sizes, with a green or red door.

Applications
- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

Features
- made from environmental friendly and fully recyclable PE
- strong and light weight design
- resistant to UV and most chemicals
- high impact strength

- cabinet suitable for all types of portable extinguishers up to 12 kg
- wall mounting
- fitted with poly carbonate window
- door seal rubber/epdm
- left or right hinged door
- plastic toggle, lynch pin and hinge pin as standard

Installation
Holes for fixation of the cabinet to be drilled during installation.

(Fire extinguishing) equipment cabinet JBXE-83
For dry powder, foam or CO_2 extinguishers

TECHNICAL SPECIFICATIONS

Type	Jonesco
Dimensions	830 x 330 x 265 mm
Color	Cabinet: Black, Door: Red or green

ORDER INFORMATION

Description	Unit Sales	Articlenr
Polyethylene fire extinguisher cabinet JBXE-83, red door	1	SG02432

(Fire extinguishing) Equipment cabinet JBDE/A-72

Wall cabinet to hold all sorts of safety equipment such as emergency escape masks, filters, protective clothing (helmets, gloves, overalls), first aid materials. The cabinets can be delivered with a red or green door.

Applications
- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

Features
- wall cabinet made from environmental friendly
- fully recyclable PE
- strong and light weight design

- resistant to UV and most chemicals
- high impact strength
- wall mounting
- fitted with poly carbonate window
- door seal rubber/epdm
- left or right hinged door
- plastic toggle, lynch pin and hinge pin as standard

Cabinet suitable for all sorts of safety materials

(Fire extinguishing) equipment cabinet JBDE-72
To store a fire extinguisher and hose with supplies

TECHNICAL SPECIFICATIONS

Dimensions	720 x 540 x 270 mm
Color	Cabinet: Black, Door: Red

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Extinguisher Cabinet JBDE-72, red door	1	SG02426
Safety Cabinet JBDA-72, green door	1	SG02425

(Fire extinguishing) Equipment cabinet JBDE/A-85

These polyethylene cabinets can be used for multi purposes such as storage of fire or safety equipment. Deliverable in various sizes, with a green or red door.

Applications
- (international) shipping
- inland shipping
- marine
- offshore
- petrochemical industry

Features
- transport and wall cupboard for 2 fire extinguishers to 12 kg or 1 and various extinguishing fire

- material color and UV resistant
- the cabinet is fitted with rubber seals
- equipped with 1 twist closure
- very strong and lightweight material
- resistant to most chemicals and oils
- made of (recyclable) PE
- very suitable for placing in the open
- provided with rubber seal

Optional
- strap for securing the extinguisher

(Fire extinguishing) equipment cabinet JBDE/A-85
For 12 kilo dry powder or 9 liter foam or fire hose and supplies

TECHNICAL SPECIFICATIONS

Type	Jonesco
Dimensions	Outside: 850 x 540 x 375 mm
	Inside: 760 x 530 x 300 mm
Color	Cabinet: Black,
	Door: Red or green

ORDER INFORMATION

Description	Unit Sales	Articlenr
Fire Extinguisher Cabinet JBDE-85, red door	1	SG02436
Safety Cabinet JBDA-85, green door	1	SG02435

Dräger Savina® 300 Classic

The Dräger Savina® 300 Classic (in this configuration) combines the independence and power of a turbine-driven ventilation system with a wide range of ventilation modes. The large colour touch screen and intuitive operating system that concentrates on essential features make configuration and operation very simple.

Dräger Savina® 300 Classic
High ventilation performance

Ease-of-use
- intuitive for simple operation and quick configuration
- Dräger-wide standardised user interface provides confidence in use and reduces training time
- quick operational readiness with an automatic device check
- intelligent alarm handling for a quick response to patient alarm situations
- smooth and sealed surfaces for easy cleaning and disinfection

High ventilation performance
- wide range of ventilation modes
- stress-free spontaneous breathing with excellent trigger response time thanks to the turbine
- free breathing with AutoFlow in volume constant ventilation at a minimum pressure level

- non-invasive ventilation (NIV) with a very quick response time to patient efforts – available in all modes
- no device change in case of altered ventilation therapy necessary: O2-therapy allows oxygen application with constant flow
- extended graphic capabilities with loops, trends and logbook

Independent from gas and power supply
- built-in-turbine with rapid response time and continuous high flow delivery of up to 250 l/min
- five hours of independent ventilation due to built-in and external batteries
- transport Supply Unit (TSU) can be quickly attached for ergonomic handling of gas cylinders
- bed coupling for quick connection between ventilator and patient bed
- low Pressure Oxygen (LPO) inlet for ventilation without central gas supply

TECHNICAL SPECIFICATIONS

MV low	0.2 … 40 L/min or off
VTi high	0.06 … 4 L or off; with Pediatric Plus 0.03 … 4 L or off
Apnea monitoring	15 – 60 s or off
Tdisconnect	0 … 60 s
Ti max	0 … 60 s
Leak compensation	optimized patient-ventilator synchrony adjusts the flow trigger and the inspiratory termination criteria for leaks. – tube application: up to 10 L/min – NIV VC-modes: up to 25 L/min – NIV PC-modes: not limited

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Savina® 300	1	savina300classic

Dräger Oxylog VE300

The straightforward and user-friendly Dräger Oxylog® VE300 is built to face your challenges in preclinical emergency services. With reliable ventilation technology, robustness and intuitive operation, it provides you with reliable and safe assistance in an emergency.

Dräger Oxylog VE300
Reliable ventilation during an emergency

Simple, ergonomic, robust – and economical

- reliable even under extreme operating conditions (-20 to +50°C)
- three step device start up, takes less than 10 seconds
- device check takes less than a minute
- preset parameters for fast ventilation start (adult, child, infant)
- replaceable and rechargeable battery for up to 9 hours of operation
- low oxygen consumption thanks to DuroFlow technology*
- clear user guidance with moderate training time
- easily accessible documentation with Bluetooth and USB interface: patient data, system test, screen shots
- wall mount permits flexible positioning
- practical extras available as options: belt, stretcher mounting, accessory bag, battery charger
- ergonomic carrying handle directly above the device's centre of gravity

Easy to carry, quick-start ventilation

- clear colour touch screen
- flip-screen button rotates the display 180°
- volume-controlled ventilation: VC-CMV / VC-AC, VC-SIMV
- pressure-controlled ventilation: PC-BIPAP**
- spontaneous breathing support: SPN-CPAP/PS with NIV
- pressure support: PS
- CPR mode can be selected with a single keystroke
- for patients with a tidal volume of 50 mL upward
- capnography: main-stream CO_2 measurement
- logbook supports documentation
- * DuroFlow technology: based on the "Venturi-Principle" without additional base flow
- ** trademark used under license

TECHNICAL SPECIFICATIONS

Dimensions main device	399 x 153 x 160 mm (w x h x d)
Dimensions main device, with carrier system	607 x 228 - 251 x 166 mm (w x h x d)
Weight main device, without battery	Approx. 3.3 kg
Weight main device, with battery	Approx. 3.6 kg
Weight main device, with battery and bag, with carrying system	Approx. 5.6 kg
Screen technology	TFT colour screen
Screen size	4.3 inch

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Oxylog VE300	1	oxylogve300

Dräger Medical Oxygen Resuscitation Device

The Dräger Medical Oxygen Resuscitation Unit is a quick-& easy to-use unit which will be of equal interest in emergency services, general practitioners and hospital personnel. The device concept drew on experience from all areas.

Dräger Medical Oxygen Resuscitation Device
Quick to use Medical Oxygen Resuscitation device

Features
Among the outstanding features are the 100% by volume Medical Oxygen delivery, the simultaneous operation of several professional components, the medical Oxygen Cylinder with an RPV and a handy small Oxygen Case.

Even from a distance, the robust, highly condensed polyethylene case is clearly visible thanks to its bright orange colour.

Equipment
Inside the device no space is wasted as all the contents are ergonomically arranged. The pack contains everything emergency ventilation requires.

The main component is a 2.0 L Medical Oxygen cylinder c/w a special Residual Pressure Valve (RPV) which provides the best protection against pollution. A compact pressure reducer with a 5 Bar outlet and an adjustable flow regulator (0-30) L/min. is included.

Additional components
- ambu resuscitator manual ventilation bag
- aero Suc Manual suction pump
- 2 pcs. inhalation masks
- 3 pcs Guedel Airway tubes
- cylinder bracket

TECHNICAL SPECIFICATIONS

Dimensions	480x360x170mm
Weight incl contents	Approx. 7 kgs
Pack material	Polyethylene, highly condensed
Capacity O2 cylinder	2 liter
Filling pressure O2 cylinder	200 bar
Material O2 cylinder	Steel
Valve type	RPV

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Oxygen Case Excl. 2 Ltr. Cylinder, RPV Valve / Pin Index	1	86073701
Cylinder O2: 2 Ltr. 200 Bar	1	SG04842

Dräger Polaris® 50

The Polaris® 50 is ideal for everyday hospital life, which is becoming more and more challenging. Whether it is in the examination room, in intensive care or in the OR-induction room – the Polaris® 50 always provides high contrast, colour-stable light. In addition, the treatment light is flexible to handle and easy to use so that you can make the right decisions more quickly.

Dräger Polaris® 50
Flexible to handle and easy to use

Main benefits

The Polaris® 50 meets the highest requirements for high-quality lighting in medical locations. LEDs of the newest generation generate a light intensity of up to 80,000 lux. With a colour temperature of 4,500 K in the neutral white range, the Polaris® 50 gives you a true-color view of the treatment area. The colour rendering index of Ra = 95 and R9 = 90 also guarantees high visibility of details. Colour nuances in the illuminated tissue therefore appear natural and rich in contrast so that you can easily focus on your work.

The Polaris® 50 is a powerful solution for everyday use. Thanks to its low maintenance requirements and high reliability, the light system guarantees many years of operation at minimal costs. For example: The LEDs reduce the heat intensity at the light head and thus increase its efficiency. They consume only a fraction of the energy compared to conventional halogen bulbs. The installed high-performance LEDs have a service life of up to 50,000 hours, enabling significant cost reductions.

"Versatile in its function and area of application" – this is the motto of the Polaris® 50 minor surgical light. You decide where and how you want to use the light: as a stand-alone ceiling, wall or mobile version or in combination with Dräger supply units at a central mounting. The numerous combination options enable you to save space and design workplaces from the treatment room via the OR to the intensive care unit exactly for their specific purpose.

Arm System

The Polaris® 50 arm system – consisting of axis and spring arm – enables you to position the light anywhere you want. In addition, three joints of the Polaris® 50 can be rotated a full 360°. This gives you freedom of movement and saves time. Thanks to its sophisticated mechanical system, the light can be easily operated or adjusted with one hand. Two adaptation options are available for different space requirements: the ceiling tube, which can be individually shortened, and an optional suspended ceiling adapter for installation on suspended ceilings.

Functional Design

The functional design of the Polaris® 50 convinces with its compact form and robust components. It enables quick and efficient cleaning. The handle can be removed and sterilised. Individual components and the LED module itself can be professionally serviced by a Dräger service technician if required. The light intensity is continuously adjustable via a dimming wheel which can be easily operated with one hand without accidentally changing the position of the light.

Workplace Design

The best light is useless if it is not where you need it. For this reason, the Dräger Polaris® 50 system is extremely flexible and can be mounted almost anywhere – as a stand-alone version on ceilings and walls (e.g. in treatment rooms) and suspended in combination with Dräger supply units (e.g. in the recovery room). Combination with a display (e.g. for emergency rooms) is also possible.
In addition, installing the Polaris® 50 on a three-arm mounting system enables you to make the most of confined spaces (e.g. in the intensive care unit). The Polaris® 50 is also available as a mobile version that can be used as an additional treatment light in general rooms, the OR section or operating rooms. The trolley of the mobile light is equipped with practical locking brakes and hooks for the power cable.

TECHNICAL SPECIFICATIONS

Illumination intensity (1m distance)	80,000 lux

Dräger Polaris® 50

Brightness adjustment	Continuous, 20 – 100 %
Light field diameter d10 (1 m distance)	18 cm
Light field diameter d50 (1 m distance)	10 cm
Colour temperature	4,500 K
Colour rendering index Ra	95
Colour rendering index R9	90
Depth of illumination L1+L2	240 cm
Power supply	100 – 240 V (AC)
Frequency	50 – 60 Hz
Power consumption	32 W (max. 80 VA)
Number of LEDs	7 LEDs
Service life of the LEDs	50,000 h
Max. total illumination intensity	320 W/m2
Classification	Protection class I
Degree of protection	IP20, IP43
Light head diameter	33 cm
Total weight of light and axis system	Polaris® 50 Ceiling: 14 kg
	Polaris® 50 Wall: 13.5 kg
	Polaris® 50 Mobile: 20 kg
	Polaris® 50 Supply Unit: 10 kg
Accessories	Sterilisable handle
	Suspended ceiling adapter

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polaris® 50	1	polaris50

Dräger Polaris® 100/200

In the operating room, the right illumination is essential for success. The Polaris® 100/200 surgical illumination systems provide cool light with natural colours and rich-contrast for thousands of hours of carefree operation without straining on your hospital's budget.

Dräger Polaris® 100/200
Compact design, simple operation

LED technology in the OR

LEDs are highly efficient light sources for surgical applications. Dräger has now combined the advantages of this innovative light source with a new, extremely compact, lightweight yet robust design that includes individual lens reflectors for enhanced output and shadow control. Even the little heat produced by the LEDs is regulated and dissipated by an integrated Thermal Management System. The maximum light head temperature (upper surface) will not exceed 35 °C*. With an average operational lifetime of 50,000 hours, this LED technology is as reliable as affordable.
* At a room temperature of 20 °C.

The Polaris 100

The all new, highly compact Polaris 100 features 48 LEDs with an output range of 40,000 to 120,000 lux. A special mode provides ambient light from a single LED to support minimal invasive procedures. The sleek yet very sturdy light head weights just 13 kg and makes positioning exremely easy and comfortable. Without any moving parts in the light head this system requires almost no maintenance. With a colour-rendering index Ra of 95 and a colour-rendering index R9 93, the Polaris system offers you a contrast-rich and natural illumination without compromising red tones. The Polaris 100/200 lighting system can be equipped with warm white, neutral white or cold white (4,400 K, 5,000 K or 5,600 K) LED lights.

The Polaris 200

Without changing the external dimensions or design, the Polaris 200 gives you additional 18 LEDs for a total of 66. This translates to a maximum output of 160,000 lux. The light intesity can be easily dimmed down to 40,000 lux. Color temperature and rendering index are identical to those of the Polaris 100. Each LED is equipped with its own lens reflector system. The homogenous light column of both lights provides the surgeon with a shadow-controlled, contour-rich, natural color view of the surgical field.

Compact design, simple operation

The classic round design includes integrated handles for nonsterile personnel and touch panel controls for easy handling and operation. Sterile personnel can position the Polaris 100/200 easily with the central sterile handle. You can either choose between the sterilisable or sterile handle, depending on your infection prevention concept. Each of the four clearly marked control buttons performs a single function, and an optional, wall-mounted control panel is also available. The smooth, seamless casing makes cleaning quick and simple, while its lightweight construction ensures practically effortless positioning.

The Polaris 100/200: Simply good light!

The Polaris 100/200 surgical illumination system is an economical, high-performance solution for your daily surgical routine. This workhorse is designed for years of carefree operation and minimal maintenance. Its exceptional reliability and price/performance ratio will help you reduce investment costs today as well as maintenance and operating costs tomorrow.

The mobile Polaris 100/200

The mobile Polaris light can be used as an additional single light in the OR – for example, for cardiovascular interventions where the patient has to undergo several procedures at the same time. Of course the high-quality mobile light can also be used in the ER or in treatment rooms. The mobile Polaris 100/200 is especially useful when it is not possible to install a fixed, ceiling-mounted light due to unsuitable infrastructure. The trolley features a fully closed cover, which ensures the light is easy to clean. The rear double castors are equipped with locking brakes.

With the Polaris light your hospital is equipped with state of the art, high performance LED technology combined with a functional, high quality design. The Polaris is approved as both a surgical light and a treatment light and is available with a choice of light intensity and colour temperature. With up to 160,000 lux and a smooth cardanic

Dräger Polaris® 100/200

mounting for exact positioning, the mobile version has no functional limitations. Height adjustment supported by pneumatic springs allows for effortless adaptation to transport and operating conditions. In the fully extended position a working height of 2,175 mm is reached under the light head – ideal also for tall surgeons. The transport height of the Polaris 100/200 Mobile, however, is only 1,850 mm.

In the event of a mains power failure, the integrated battery provides uninterrupted power to the light with at least three hours guaranteed supply. As soon as the battery falls below a charging state of 25 % – this equals a remaining operating time of approx. 45 minutes – you will be warned by an integrated, acoustic reminder message. LED status indicators on the trolley also show the status of the power supply and state of charge of the battery.

TECHNICAL SPECIFICATIONS

Light intensity in 1m distance	Polaris® 100: 40,000 – 120,000 lx
	Polaris® 200: 40,000 – 160,000 lx
Ee/Ec ratio	3,5 (mW/m2)/ lx
Ambient light intensity	300 lx
Depth of illumination L1 + L2 (20 %)	1,300 mm
Depth of illumination L1 + L2 (60 %)	750 mm
Colour temperature	4,400, 5,000 or 5,600 Kelvin
	Lights are produced with the desired colour temperature
Colour rendering index Ra	95
Colour rendering index R9	93
Number of LEDs	Polaris® 100: 48 LEDs in 8 modules
	Polaris® 200: 66 LEDs in 11 modules
Service life of LEDs	approx. 50,000 hours
Ergonomically shaped sterilisable handle	available
Ergonomically shaped sterile handle	available
Light head diameter	620 mm

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polaris® 100/200	1	polaris100200

Dräger Cylinder Medical Oxygen

The Dräger Cylinder Medical Oxygen, available in 2, 5, 10 and 40 Liters. Filled and including Protection Cap for transportation.

Content

Content of the Medical Oxygen Cylinder is in conformity with International regulations. Refills will take place under the regulation as described in the MFAG (Medical First Aid Guide) and the information provided in the IMDG Code (International Maritime Dangerous Goods Code), the IMSBC Code (International Maritime Solid Bulk Cargoes), the EmS (Emergency Procedures for Ships Carrying Dangerous Goods), IBC Code (Ships Carrying Dangerous Chemicals in Bulk) and IGC Code (Ships Carrying Liquefied Gases in Bulk).

Special Residual Pressure Valve (RPV) included

One of the strict demands to refill an oxygen cylinder with Medical Oxygen according to the above procedures, the GMP and International MFAG regulations is the following;
- Each Medical Oxygen Cylinder needs to be fitted with a Residual Pressure Valve (RPV),
- The Dräger Medical oxygen cylinder is in full compliance with the above regulations and will be supplied with a certificate under the auspices of an approved pharmacist,
- UN1072 CLASS 2.2/5.1.

Dräger Cylinder Medical Oxygen
200 bar

ORDER INFORMATION

Description	Unit Sales	Articlenr
Cylinder O2: 2 Ltr. 200 Bar c/w Bullnose 5/8" RPV	1	SG04841
Cylinder O2: 2 Ltr. 200 Bar c/w Pin-Index RPV	1	SG04842
Cylinder O2: 2 Ltr. 200 Bar c/w 3/4" RPV	1	SG04843
Cylinder O2: 5 Ltr. 200 Bar c/w Bullnose 5/8" RPV	1	SG04846
Cylinder O2: 5 Ltr. 200 Bar c/w Pin-Index RPV	1	SG04847
Cylinder O2: 10 Ltr. 200 Bar c/w Bullnose 5/8" RPV	1	SG04851
Cylinder O2: 10 Ltr. 200 Bar c/w Pin-Index RPV	1	SG04852
Cylinder O2: 10 Ltr. 200 Bar c/w 3/4" RPV	1	SG04853
Cylinder O2: 40 Ltr. 200 Bar c/w Bullnose 5/8" RPV	1	SG04861
Cylinder O2: 40 Ltr. 200 Bar c/w Pin-Index RPV	1	SG04862
Dräger: Oxygen case - RPV valve / Pin-Index:		
Dräger: Medical oxygen resuscitation case RPV valve / Pin-Index (w/o cylinder)	1	86073701
Cylinder O2: 2 Ltr. 200 Bar c/w Pin-Index RPV	1	SG04842
Dräger: Oxygen case - RPV valve / Bull-Nose:		
Dräger: Medical oxygen koffer RPV valve / Bull-Nose (w/o cylinder)	1	86073702
Cylinder O2: 2 Ltr. 200 Bar c/w RPV valve / Bull-Nose (filled and c/w protection cap)	1	SG04840

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