PRODUCT CATALOGUE

OUR FRS PRODUCTS

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 audience 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.

Hoogvliet, 2019

Your safety is our passion.

Supporting your safety culture since 1889 – FRS equipment, training and service from Dräger.

Dräger Pac® 3500

Accurate and easy to use, the Dräger Pac 3500 is ideal for industrial personal monitoring applications. Providing quick detection of carbon monoxide, hydrogen sulfide or oxygen, this robust single gas detector has a lifetime of 2 years and is made specifically to fit industrial safety requirements.

Dräger PAC 3500
Handy, reliable with large display

Small and robust housing

Dräger Pac 3500's impact-resistant housing features a protective rubber coating and is impervious to corrosive chemicals. Dräger Pac 3500 meets the requirements of IP 65 to ensure operation even when projected with water. A crocodile clip securely fastens the instrument to the user's clothing and can be adjusted to allow for individual preferences.

Safety first

To ensure continuous operation even when the gas inlet is accidentally covered, the instrument's sensor has been carefully positioned to allow gas intake from both the top and the front of the device.

Miniature sensor technology

Incorporating the latest miniature Dräger XXS sensor technology, the Dräger Pac 3500 has been specifically developed for use in personal monitoring and handheld applications. The robust and pressure compensated sensors reliably detect CO, H_2S and O_2 and because of the very low sensitivity drift, the Dräger Pac 3500 can be used over a 2 year period without calibration.

Clear display

Easily seen at a glance, the large display shows both the gas concentration and the measurement unit. Alternatively, the instrument can be configured to show only the gas detected. The concentration is then only displayed when the set alarm level has been exceeded.

Language-free to avoid any misunderstanding, this continuous numeric display can also be back-lit to improve readability in darker conditions. Colored labels are also available to distinguish the instrument at a distance.

Alarms and warnings

In addition to a vibrating alarm, the Dräger Pac 3500 emits an audible, multi-tone signal and a clear, 360° visual alarm via bright, flashing LEDs at the top and base of the instrument. The alarm threshold levels can be individually adjusted to adhere to company policy or standardized with the use of Dräger software.

Event logger

Complete with an infrared interface and able to store up to 60 events with dates and times, the Dräger Pac 3500 can be easily linked to a PC via a connecting cradle. This means that significant events such as switching on or off, gas and battery alarms, error codes, configuration changes, fresh air calibrations and bump tests can be downloaded, printed and stored centrally for future reference or reporting purposes.

Quick and reliable bump testing

Bump or function tests are necessary to check if the instruments are functioning correctly. Most national regulations require users to test equipment against a known gas concentration on a regular basis. Featuring adjustable bump test and calibration intervals, the Dräger Pac 3500 alerts the user when bump tests or calibration are required. If this warning is ignored or a test is unsuccessful, the instrument automatically displays an "out of order" error message.

Performed together with the Dräger Bump Test Station, a typical bump test takes between 8 and 15 seconds and requires no additional power so that the test can be performed on site. Each test result is automatically stored in the event logger and, should hard copies be required, an optional mobile printer can be used.

If necessary, a fresh air calibration can be carried out during the start-up sequence. All other calibration options are only accessible via a password-protected menu.

Dräger Pac® 3500

TECHNICAL SPECIFICATIONS

Dimensions	84 x 64 x 25 mm
Weight	120 gr
Temperature	-30 °C to +50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 90 % r. h.
Ingress protection	IP 65
Display	Language-free LCD display, continuous indication of concentration, remaining life and/or operating time, notice and alarm functions
Instrument life and guaranty	2 years
Battery life (typical at 25° C, 8 hours of use per day, 1 minute alarm per day)	CO, H2S > 2 years O2 > 12 months
Alarms	Visual (360° flashing LEDs at top and bottom), audible (multi-tone >90 dB at 30cm;1ft), vibrating
Event logger	Storage of up to 60 events including concentration levels, date and time
Approvals	CE-Sign (89/336/EEC, 94/9/EC) ATEX I/II M 1/1 G EEx ia I/IIC T4 UL: Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 cUL: Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 IECEx Ex ia II C T4 GOST 51330.0-99 (60079-0-98); 51330.10-99 (60079-11-99); Exial / 0ExialICT4

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAC 3500 CO	1	8322001
Dräger PAC 3500 O2	1	8322005
Dräger PAC 3500 H2S LC	1	8322003
Dräger PAC 3500 leather carrying case	1	4543822
Dräger PAC 3500 calibration adapter	1	8318588
Dräger Bump Test Station for Dräger PAC 3500, not including gas cylinder	1	8317410
Dräger Bump Test Station for Dräger PAC 3500, complete with one test gas cylinder 58L (gas and concentration variable), excluding PAC 3500	1	8318586
Connecting Cradle, complete with USB cable and Dräger PAC Vision software	1	8318587
E-Cal instrument module for connection of 4 Dräger PAC 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger PAC 3500 lithium battery: 3V CR 123A	1	4543808
Dräger PAC 3500 water and dust filter	1	8323615

Dräger Pac® 5500

Longer assignments are its speciality: the single gas instrument, Dräger Pac® 5500, has no lifetime limitation, and is ideal for fast and accurate personal monitoring and the detection of carbon monoxide, hydrogen sulphide or oxygen.

Dräger PAC 5500
Handy, reliable with large display

Tailor-made for tough industrial assignments

Dräger has specifically designed the Pac® 5500 to meet tough industrial requirements. The shock-proof rubber casing offers reliable protection against external, mechanical influences and corrosive chemicals. The device meets the requirements of IP68.

Large, language-free display

The large LCD display is particularly user friendly, and shows both the gas concentration and unit of measurement. It is also possible to activate the device's status display. In this case, the display only shows the concentration when the configured alarm threshold has been exceeded. Additional background lighting ensures that the display is always readable.

Reliable sensor technology featuring low operating costs

The Dräger Pac 5500 is equipped with the Dräger XXS sensor technology. These innovative sensors offer an extremely high performance, with fast reaction times of only ten seconds. The XXS sensors offer a long functional life of in excess of four years, including the Oxygen sensor, thus providing lower operating costs.

Event logger for 60 events

The Dräger Pac 5500 can store up to 60 events, along with their dates and times. Events such as activation and deactivation, gas and battery alarms, error modes, configuration adjustments, etc. can be loaded onto a PC via the infrared interface, and then can be analysed in detail.

Fast function test

Regular function tests are prescribed to ensure that the device always works flawlessly. Using the cost-efficient Dräger Bump Test Station, these tests can be performed within a matter of seconds.

Safety in any situation

Within the device, the sensor has been specially positioned to allow gas access at both the top and the front of the device. Even when the unit is placed in a pocket, or the gas entry has been accidentally covered, it is still possible to take a reliable reading.

Simple differentiation of the devices

The Pac 5500 is equipped as standard with a silver foil covering the keyboard. Foils in different colours help the users to distinguish the devices and therefore the measured gases easily and especially from a distance. You can choose the coloured foils directly with your order.

TECHNICAL SPECIFICATIONS

Dimensions	84 x 64 x 25 mm
Weight	120 gr
Temperature	-30 °C to +50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 90 % r. h.
Ingress protection	IP 65
Display	Language-free LCD display, continuous indication of concentration, notice and alarm functions
Instrument life	No lifetime limitation
Battery life (typical at 25°C, 8 hours per day, 1 minute alarm per day)	CO, H2S > 2 years O2 > 12 month
Alarm	Visual (360° flashing LEDs at top and bottom), audible (multi-tone >90 dB at 30cm;1ft), vibrating

Dräger Pac® 5500

Approvals	CE-Sign (89/336/EEC, 94/9/EC) ATEX I/II M 1/1 G EEx ia I/IIC T4 UL Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 cUL Class I, II Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 IECEx Ex ia II C T4 GOST 51330.0-99 (60079-0-98); 51330.10-99 (60079-11-99); Exial / 0ExialICT4

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAC 5500 CO	1	8322009
Dräger PAC 5500 O2	1	8322013
Dräger PAC 5500 H2S	1	8322011
Dräger Pac 5500 leather carrying case	1	4543822
Dräger Pac 5500 calibration adapter	1	8318588
Dräger Bump Test Station for Dräger Pac 5500, not including gas cylinder	1	8317410
Dräger Bump Test Station for Dräger Pac 5500, complete with one test gas cylinder 58L (gas and concentration variable)	1	8318586
Connecting Cradle, complete with USB cable and Dräger Pac Vision software	1	8318587
E-Cal instrument module for connection of 4 Dräger Pac 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger Pac 5500 lithium battery: 3V CR 123A	1	4543808
Dräger Pac 5500 water and dust filter	1	8323615

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 °C to +55 °C (briefly down to -40 °C 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_2S 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 °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, 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 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 6500 CO LC	1	8326331
Dräger Pac 6500 H_2S LC	1	8326330
Dräger Pac 6500 O_2	1	8326332

Dräger Pac® 7000

Safety at the workplace always takes priority: depending on the sensor selection, the single gas detector, Dräger Pac® 7000, provides a reliable warning against dangerous concentrations of 14 different gases. Unique: the optional 5-year warranty for the H2S, O2 and CO versions.

Dräger PAC 7000
High performance and unlimited use
MED approved

Features
The detector is an impressive instrument, offering a high level of reliability and rapid warning against harmful concentrations of CO, CO_2, Cl_2, HCN, H_2S, NH_3, NO_2, O_2, PH_3, SO_2.

Small and robust
With its compact, handy, pocket-sized design, Dräger Pac 7000 is tailor-made for personal monitoring in daily work activities. Dräger Pac 7000 was specially designed as a small and robust instrument to meet work requirements. The impact-resistant housing features a protective rubber coating and is resistant to corrosive chemicals. Dräger Pac 7000 meets the requirements of IP 65. What is more, protection against electromagnetic effects was specially optimized, while a stable and tightly locking crocodile clip made of stainless steel allows the instrument to be fastened securely to the wearer's clothing. To allow for individual preferences, the crocodile clip can be turned and the two alarm lights are positioned diagonally opposite at the corners of the instrument. Easy battery and sensor replacement are key factors to ensure a long instrument life.

Concentration display
The concentration display uses no written text (to avoid language problems), showing all information in the form of large numerals or symbols. In case of an alarm, or at the push of a button, the display can be backlit for better readability. The currently measured concentration is displayed continuously, as are notice and warning functions. In addition, the respective peak concentration, average concentration (TWA value) and short-term exposure limit (STEL) relating to the measurement period can be accessed.

New sensor technology "en miniature"
Dräger Pac 7000 boasts the latest in sensor technology. The small size of the sensor supports the application-oriented design of the instrument. Any gas hazards that may occur are displayed immediately thanks to the very short diffusion paths inside the instrument and the extremely quick electrochemical reaction times achieved by the new sensors. The sensor is positioned inside the housing such as to allow gas to reach it from above and from in front. This positioning minimizes the danger of the gas inlet opening being accidentally covered.

Alarm / warning functions
In conjunction with a vibration alarm, a visual and audible alarm is triggered if the two adjustable alarm thresholds are exceeded (or if oxygen levels fall below the set value). For optimum perception a two-tone alarm is used. Furthermore, Dräger Pac 7000 features an adjustable TWA alarm and STEL alarm. A warning is likewise given at the end of the battery capacity or in the event of a device error.

Bump test mode
The safety of personnel must always have the first priority. Their safety depends on measurement and warning equipment functioning perfectly, which is why national regulations demand regular testing of equipment function using a known gas concentration. Dräger Pac 7000 is equipped with a bump test mode. When a bump test (function test or challenge test) needs to be performed, a notice icon appears on the screen. The bump test interval can be set by the user. The result of the bump test is saved in the The instrument is equipped with an IR interface and can be linked to a PC via the connecting cradle or E-Cal system. Dräger Pac Vision or Dräger CC Vision software installed on the PC enables configuration of all functions, as well as calibration and download of the stored data.

Adjustable operating time
In addition, the instrument allows an individual operating time to be set (in days), e.g. a calibration interval, inspection interval or individual operating time end.

Data logger
The Pac 7000 features a data logger in which all concentrations and events are stored.

Dräger Pac® 7000

TECHNICAL SPECIFICATIONS

Dimensions	64 x 84 x 20 mm
Weight	120 gr
Temperature	-30°C to +50°C
Pressure	700 tot 1300 hPa
Humidity	10 to 90% r.v.
Ingress protection	IP 65
Display	Language-free LCD display, continuous indication of concentration, peak concentration, TWA- and STEL-concentration, operating time, notice and alarm functions
Battery life	5500 hours (O2 version: 2700 hours)
Data logger	Storage of concentration und events with date and time (120 hours @ 1 data set per minute)
Acoustic alarm	Two-tone-alarm, typical > 90 dB at a distance of 30 cm
Approvals	CE-Sign (89/336/EEC, 94/9/EC) ATEX II 1 G EEx ia IIC, T4 I M 1 EEx ia I, T 4 UL Class I, II, Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 cUL Class I, II, Div 1, Group A, B, C, D, E, F, G, Temp. Code T4 IECEx EEx ia IIC, T4 Marine Equipment Directive 96/98/EC Measurement Performance Certificate (acc. to ATEX) EN 45544 (CO, H2S), EN 50104 (02), EN 50271

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 7000 O2	1	8318675
Dräger Pac 7000 CO	1	8318676
Dräger Pac 7000 H2S	1	8318677
Dräger Pac 7000 PH3	1	8318974
Dräger Pac 7000 CO2	1	8318975
Dräger Pac 7000 SO2	1	8318976
Dräger Pac 7000 H2S LC	1	8321004
Dräger Pac 7000 leather carrying case	1	4543822
Dräger Pac 7000 calibration adapter	1	8318588
Dräger Bump Test Station for Dräger Pac 7000, not including gas cylinder	1	8317410
Dräger Bump Test Station for Dräger Pac 7000, complete with one test gas cylinder 58L (gas and concentration variable)	1	8318586
Connecting Cradle, complete with USB cable and Dräger Pac Vision software	1	8318587
E-Cal instrument module for connection of 4 Dräger Pac 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger Pac 7000 lithium battery: 3V CR 123A	1	4543808
Dräger Pac 7000 water and dust filter	1	8323615

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 gasses

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 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 8000 HCN	1	8326353
Dräger Pac 8000 NH_3	1	8326354
Dräger Pac 8000 PH_3	1	8326355
Sensorfilter 8x00 (sensor grid, silver), set of 4 pieces	1	8326852
Sensorfilter 8x00 (housing silver), set of 40 pieces	1	8326859

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.

Fast function test saves time and money

Dräger Pac® 8500

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 °C to +55 °C (briefly down to -40 °C for 1 hr, depending on sensor)
Approvals	cCSAus, IECEx, ATEX, CE

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Pac 8500 CO LC / H_2 LC	1	8326365
Dräger Pac 8500 CO LC / O_2	1	8326366
Sensorfilter 8x00 (sensor grid, silver), set of 4 pieces	1	8326852
Sensorfilter 8x00 (housing silver), set of 40 pieces	1	8326859

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 O2, CO, NO2, SO2 and H2S. 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
Dräger X-am 2500 Ex/O_2, exl. charger and incl. battery	1	8323900/2
Dräger X-am 2500 Ex/O_2/CO/H2S, exl. charger and incl. battery	1	8323900/3
Dräger X-am 2500 Ex/O_2/CO/H2S (LC), exl. charger, incl. battery	1	8323900/4
Charging kit - (NiHM battery T4, charger)	1	8318785

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 O2, CO, H2S, NO2 and SO2. 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	-20°C to +50°C
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, O2 1 (without charging equipment)	1	8328412
Dräger X-am® 3500 Ex, O2, CO LC, H2S 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	-20°C tot +50°C
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
Dräger X-am 5000 Ex/O_2, including battery / charger	1	8320000/2
Dräger X-am 5000 Ex/O_2/H2S LC, including battery / charger	1	8320000/3
Dräger X-am 5000 Ex/O_2/CO/H2S LC, including battery / charger	1	8320000/4
Sensors		
DrägerSensor Cat-Ex 125	1	6812950
DrägerSensor XXS CO LC	1	6813210
DrägerSensor XXS H2S LC	1	6811525
DrägerSensor XXS O2	1	6810881
DrägerSensor XXS CO	1	6810882
DrägerSensor XXS CO2	1	6810889

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 °C to +50 °C
Pressure	700 to 1300 hPa
Humidity	10 to 95 % r. h.
Ingress protection	IP 67
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 360°, 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
Dräger X-am 5600 Consisting of: basic instrument with an integrated data logger and manufacturer's and calibration certificates. A functional instrument must include up to 4 sensors and a power supply unit.	1	8321373
DrägerSensor Dual IR Ex/CO2	1	6811960
DrägerSensor IR Ex	1	6812180
DrägerSensor IR CO2	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
NiMH Power Pack T4	1	8318639
Dräger x-am 5600: Battery NIMH HC T4	1	8322244
Dräger E-Cal Module for Dräger X-am 5600	1	8318754
Dräger Bump Test Station for Dräger X-am 5600 (without testcilinder)	1	8319131
Dräger Bump Test Station for Dräger X-am 5600, (including testgas cilinder 58L)	1	8319130

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
Dräger x-am 7000 basic instrument, exclusive battery, including pump and datalogger	1	8317400
DrägerSensor XS 2 O2	1	6810375
DrägerSensor H2S	1	6810370
DrägerSensor CO	1	6810365
DrägerSensor IR EX	1	6810460
DrägerSensor Smart CatEx PR	1	6812980
DrägerSensor Smart PID	1	8319100
NiMH-power pack 4,8V/3,0Ah	1	8317408
Charging module	1	8316487
Single charger (worldwide) for E-Cal module, max. 1 charge module	1	8315635
Leather carrying case	1	8317683
5 meter extension hose and driver for Dräger X-am 7000	1	8318371

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 use

Dräger X-am® 8000

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 °C to + 50 °C
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-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 +40°C
Pressure	700 to 1,300 hPa
Humidity	10 to 95 % r.h.
Ingress protection	IP 67
Alarm	Visual 360° LED (illuminated ring) Audible 360°; > 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 (360°), 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 (Approval pending) 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
Dräger X-zone® 5500 with integrated pump, 868 MHz, 24 Ah battery with diffusion and pump cap	1	8324821

Dräger X-am® pump

The Dräger X-am® pump is an external pump for the portable gas detectors Dräger X-am® 2500, 5000, and 5600 – 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 and 5600

Easy to use

The pump is attached onto the X-am 2500/ 5000/5600 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 °C. 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 °C to 50 °C (briefly -40 °C)
Temperature when charging	0 – 35 °C
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 °C to 60 °C, otherwise -20 °C to 45 °C
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
Leather case for Dräger X-am® pump	1	8327103
Case for Dräger X-am® pump	1	8327104
CSE set Dräger X-am® pump, for remote measurement	1	8327105
Dräger X-am® 2500 CSE-Kit, for remote measurement	1	8327106
USB 10x multi-charger	1	8327113
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.

Dräger Bump Test Station
Reliable and accurate detection

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.

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	-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
Dräger mobile printer	1	8319310
Paper, thermal, 7 years shelf-life, 5 pieces	1	8319002
PC connection cable with mini USB	1	8318857
Netwerk adapter	1	8319348
Batteries		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 adapter	1	8321880
Dräger X-dock 5300 PAC 1/2/5, 3 test gas connections, limited to one module, including charger	1	8321881
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
X-dock Manager		
Dräger X-dock manager standard	1	8321860
Dräger X-dock manager professional, standard functions plus instrument handout and return function and reporting centre	1	8321870
Additional licence for Dräger X-dock managers (both versions)	1	8321857
5 additional licences for Dräger X-dock managers (both versions)	1	8321858

Dräger E-cal

Check, control and calibration of portable gas measuring devices at any time: Dräger E-Cal, the automatic test and calibration system is made for it.

Dräger E-cal
Optimum protection and performance

Reduce costs, expenditure & downtime
Dräger E-Cal, the automatic test and calibration system, can include up to ten different device modules. As the calibration and adjustment of the Dräger measuring instruments can be carried out simultaneously, the devices can be maintained and serviced effectively in terms of time and cost.

Modern instrument management
In addition to the device modules, the modular design of the Dräger E-Cal also includes a Master Station, this is the control center of the system and allows communication to the PC and switching between different gases.

Optimum protection and performance
Using the Dräger E-Cal for regular maintenance and servicing as well as for calibration tasks ensures that the Dräger measuring instruments function properly at all times. This ensures optimum protection and performance of the instruments.

Central database
A central database of calibrations, which is stored on the PC, provides the capability of analysing and documenting data at any time.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger E-cal Hoofd Stations (incl. Dräger CC Vision E-Cal, main dapter and accessories for connection of up to 10 modules)		
Master Station 6 USB (for up to 6 gases)	1	8316456
Master Station 12 USB (for up to 12 gases)	1	8316412
Modules (incl. accessories)		
E-Cal instrument module for connection of 4 Dräger Pac 1000 to 7000 to a Dräger E-Cal Master Station or to Module Adapter	1	8318589
Dräger PAC Ex 2 Module	1	8316539
Dräger X-am 1/2/5000 E-cal Module	1	8318754
Dräger X-am 7000 E-cal Module	1	8317705
Complete list of accessoires is available via our sales department		

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.

Calibration gas
Calibration of equipment will ensure safe operation and functionality of equipment

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.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Calibration gas 60 liter cylinder, 57% LEL CH4, 100 ppm CO, 15 PPM H2S, 17% O2, N2 58 L 24 months	1	6811130
Calibration gas 122 liter cylinder, 57% LEL CH4, 100 ppm CO, 15 PPM H2S, 17% O2, N2 116 L 24 months	1	6812375
Calibration gas 103 liter cylinder 2,2 VOL% CH4, 18 VOL% O2	1	3801411
Calibration gas 60 liter cylinder 2,2 VOL% CH4, 18 VOL% O2, 25 ppm H2S	1	3811126
Calibration gas 58 liter cylinder 2,2Vol% Ch4-18Vol% O2-25ppm H2S/N2	1	3810030
Calibration gas 112 liter VOL% H2	1	6810388
Calibration gas 60 liter 2,5 VOL% CO2	1	6810391
Calibration gas 60 liter 20 PPM H2S	1	6810393
Calibration gas 112 liter 99 VOL% N2	1	6810394
Calibration gas 60 liter 50 PPM NH3	1	6811352

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.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Accuro	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 °C (-4 to 131 °F)
Temperature during operation	5 to 40 °C (41 to 104 °F)
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 °C ≤ Ta ≤ + 40 °C Temp. Code T4 Ex ia cUL: Class I, Div. 1, Group A, B, C, D, Class II, Div. 1, Group F, G, 5 °C ≤ Ta ≤ + 40 °C 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	4523500
NiMH accu, T4 (rechargeable)	1	4523520
Alkaline Battery Pack, T4 w/o Batteries (6 batteries required)	1	4523525
Wall-Wart Charger 100 – 240 VAC (worldwide)	1	4523545

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.

Dräger Tubes
Fast and reliable measuring

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.

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	100-1000 ppm	5	10 per box	6726665
Dräger tube: Acetic acid 5/a	5-8 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	100-12000 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		10 per box	8103701
Activation tube for formaldehyde 0,2/a			10 per box	8101141
Dräger tube: Alcohol 100/a	100-3000 ppm	1,5	10 per box	8103761
Dräger tube: Alcotest 0.5 promille			10 per box	CH00222
Dräger tube: DT Methanol 25/a	20-5000 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 50-700 ppm	6 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	2.5-1500 ppm	10 s	10 per box	8101301
Dräger tube: Analine 0,5/a	0,5-10 ppm	4	10 per box	6733171
Dräger tube: Analine 5/a	1-20 ppm	3	10 per box	CH20401
Dräger tube: Arsine 0,05/a	0,05-3 ppm	6	10 per box	CH25001
Dräger tube: Benzene 0,5/a	0,25-3 ppm	15	10 per box	8103691
Dräger tube: Benzene 1/a	0,5-3 ppm	15	10 per box	8103641

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: DT 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 15/a	15-420 ppm	4	10 per box	8101741
Dräger tube: Benzene 5/b	5-50 ppm	8	10 per box	6728071
Dräger tube: Benzene prefilter			1 per box	8103511
Dräger tube: Butadiene 10/a-d	10-300 ppm		10 per box	8101161
Dräger tube: DS PRB N-Butanol 10/a	10-250 ppm 250-2.000 ppm		10 per box	8103861
Dräger tube: Carbon dioxide 0,1%/a	0,5-6 Vol.-%	30 s	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	100-3000 ppm	4	10 per box	8101811
Dräger tube: Carbon dioxide 5%/a	5-60 Vol.-%	2	10 per box	CH20301
Dräger tube: Carbon disulphide 3/a	3-95 ppm	2	10 per box	8101891
Dräger tube: Carbon disulphide 5/a	5-60 ppm	3	10 per box	6728351
Dräger tube: Carbon monoxide 2/a	2-60 ppm	4	10 per box	6733051
Dräger tube: Carbon monoxide 8/a	8-150 ppm	2	10 per box	CH19701
Dräger tube: Carbon monoxide 0,3%/b	0,3-7 Vol.-%	30 s	10 per box	CH29901
Dräger tube: Carbon monoxide 5/c	100-700 ppm	50 s	10 per box	CH25601
Dräger tube: Carbon monoxide 10/b	10-250 ppm	1,5	10 per box	CH20601
Dräger tube: Carbon preset tubes				CH24101
Dräger tube: Carbon tetrachloride 0,1/a	0,1-5 ppm	8	10 per box	8103501
Dräger tube: Carbon tetrachloride 1/a	1-15 ppm	6	10 per box	8101021
Dräger tube: Chlorine 0,2/a	0,2-3 ppm	3	10 per box	CH24301
Dräger tube: Chlorine 0,3/b	0,3-5 ppm	8	10 per box	6728411
Dräger tube: Chlorobenzene 5/a	5-200 ppm	3	5 per box	6728761
Dräger tube: Chlorodioxide 0,025/a	0,025-10 ppm	10	10 per box	8103491
Dräger tube: Chloroform 2/a	2-10 ppm	9	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	8	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 300-3000 ppm	75 15	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	3	10 per box	8103475
Dräger tube: Diethyl ether 100/a	100-4000 ppm	3	10 per box	6730501
Dräger tube: Dimethyl sulphate 0,005/c	0,005-0,05 ppm	50	9 per box	6718701
Dräger tube: Dimethyl sulphide 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/b	5-50 ppm	8	10 per box	6728111
Dräger tube: Ethyl acetate 200/a	200-3 000 ppm	5	10 per box	CH20201
Dräger tube: Ethyl benzene 30/a	30-400 ppm	2	10 per box	6728381
Dräger tube: Ethyl glycol acetate 50/a	50-700 ppm	3	10 per box	6726801
Dräger tube: Ethylene 0,1/a	0,2-5 ppm	30	5 per box	8101331
Dräger tube: Ethylene 50/a	50-2 500 ppm	4	10 per box	6728051
Dräger tube: Ethylene glycol 10/a	10-180 mg/m^3	7	5 per box	8101351

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
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	1,5	10 per box	6733081
Dräger tube: Formaldehyde 2/a	2-40 ppm	30 s	10 per box	8101751
Dräger tube: Formic acid 1/a	1-5 ppm	3	10 per box	6722701
Dräger tube: Petroleum Hydrocarbons 100/a	100-2500 ppm	30 s	10 per box	6730201
Dräger tube: Halogenated Hydrocarbons 100/a	100-2600 ppm	1	8 per box	8101601
Dräger tube: Hexane 10/a	10-200 ppm 300-2500 ppm	3	10 per box	8103681
Dräger tube: Hydrazine 0,01/a	0,01-0,4 ppm 0,5-6 ppm		10 per box	8103351
Dräger tube: Hydrazine 0,25/a	0,25-10 ppm	1	10 per box	CH31801
Dräger tube: Hydrocarbons 2/a	2-24 mg/m^3	5	10 per box	8103581
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		10 per box	8103571
Dräger tube: Hydrochloric/Nitric acid			10 per box	8101681
Dräger tube: Hydrochloric acid 0,2/a	0,2-3 ppm	2	10 per box	8103481
Dräger tube: Hydrochloric acid 1/a	1-10 ppm	2	10 per box	CH29501
Dräger tube: Hydrochloric acid 50/a	500-5000 ppm	30 s	10 per box	6728181
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 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	3	10 per box	8101041
Dräger tube: Hydrogen sulphide + Sulphur dioxide 0,2%/a	0,2-7 Vol.-%	2	10 per box	CH28201
Dräger tube: Hydrogen sulphide 0,2%/a	0,2-7 Vol.-%	2	10 per box	CH28101
Dräger tube: Hydrogen sulphide 0,2/a	0,2-5 ppm	5	10 per box	8101461
Dräger tube: Hydrogen sulphide 0,2/b	0,2-6 ppm	55	10 per box	8101991
Dräger tube: Hydrogen sulphide 0,5/a	0,5-15 ppm	6	10 per box	6728041
Dräger tube: Hydrogen sulphide 1/c	10-200 ppm 1-20 ppm	20 s 3,5	10 per box	6719001
Dräger tube: Hydrogen sulphide 1/d	10-200 ppm 1-20 ppm	1 10	10 per box	8101831
Dräger tube: Hydrogen sulphide 100/a	100-2000 ppm	30 s	10 per box	CH29101
Dräger tube: Hydrogen sulphide 2%/a	2-40 Vol.-%	1	10 per box	8101211
Dräger tube: Hydrogen sulphide 2/a	20-200 ppm 2-20 ppm	20 s 3,5	10 per box	6728821
Dräger tube: Hydrogen sulphide 2/b	2-60 ppm	30 s	10 per box	8101961
Dräger tube: Hydrogen sulphide 5/b	5-60 ppm	4	10 per box	CH29801
Dräger tube: Mercaptan 0,1/a	0,1-2,5 ppm, 3-15 ppm	10	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 vapour 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 0,2/a	0,2-2 ppm 2-8 ppm	5 2	10 per box	8103391
Dräger tube: Methyl bromide 0,5/a	5-30 ppm	2	10 per box	8101671
Dräger tube: Methyl bromide 5/b	5-50 ppm	1	10 per box	CH27301

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Methylene chloride 20/a	20-200 ppm	7	10 per box	8103591
Dräger tube: Natural gas test	qualitative	40 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	0.1-30 ppm	1	10 per box	8103631
Dräger tube: Nitrous fumes 0.2/a	0.5-6 ppm		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			10 per box	8101941
Dräger tube: Oil mist 1/a	1-10 mg/m^3	25	10 per box	6733031
Dräger tube: Olefine 0,05%/a -Propyleen -Butyleen	 0,06-3,2 Vol.-% 0,04-2,4 Vol.-%	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	3	10 per box	6724701
Dräger tube: Perchloorethyleen 0,1/a	0,5-4 ppm 0,1-1 ppm	3 9	10 per box	8101551
Dräger tube: Perchloorethyleen 2/a	20-300 ppm 2-40 ppm	30 s 3	10 per box	8101501
Dräger tube: Perchloorethyleen 10/b	10-500 ppm	40 s	10 per box	CH30701
Dräger tube: Petroleum hydrocarbons 10/a	10-300 ppm	1	10 per box	8101691
Dräger tube: Petroleum hydrocarbons 100/a	100-2500 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	0,1-1 ppm 0,5-3 ppm		10 per box	8103711
Dräger tube: Phosphine 1/a	20-100 ppm 1-20 ppm	2 10	10 per box	8101801
Dräger tube: Phosphine 50/a	50-1000 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: PRB i-Propanol 50/a	50-4.000 ppm 10-200 ppm		10 per box	8103741
Dräger tube: Prussic Acid 0,5/a	0,5-5 ppm 5-50 ppm	2,5 30 s	10 per box	8103601
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: Sulphur dioxide 0,1/a	0,1-3 ppm	20	10 per box	6727101

Dräger Tubes

Dräger tubes for shorttime measurements	Default measuring range [20°C, 1013 hPa]	Time of measurement [min.]	Unit Sales	Articlenr.
Dräger tube: Sulphur dioxide 0,5/a	1-25 ppm	3	10 per box	6728491
Dräger tube: Sulphur dioxide 1/a	1-25 ppm	3	10 per box	CH31701
Dräger tube: Sulphur dioxide 20/a	20-200 ppm	3	10 per box	CH24201
Dräger tube: Sulphur dioxide 50/b	400-8000 ppm 50-500 ppm	15 s 3	10 per box	8101531
Dräger tube: Sulphuric acid 1/a	1-5 mg/m^3	100	9 per box	6728781
Dräger tube: Tetrahydrothiophene 1/b	1-10 ppm	10	5 per box	8101341
Dräger tube: Toluene 100/a	100-1800 ppm	1,5	10 per box	8101731
Dräger tube: Toluene 5/b	50-300 ppm 5-80 ppm	1 5	10 per box	8101661
Dräger tube: Toluene 50/a	50-400 ppm	1,5	10 per box	8101701
Dräger tube: Toluene diisocyanate 0,02/a 50/a	0,02-0,2 ppm	20	9 per box	6724501
Dräger tube: Trichloroethane 50/d	50-600 ppm	2	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	2	10 per box	6718401
Dräger tube: Vinyl chloride 0,5/b	5-30 ppm 0,5-5 ppm	30 s 3	10 per box	8101721
Dräger tube: Vinyl chloride 100/a	100-3000 ppm	4	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 1-15 mg/L	20 s 40 s	10 per box	8101781
Dräger tube: Xylene 10/a	10-400 ppm	1	10 per box	6733161
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 18 -			1	9092086
Dräger: Aerotest Carbon dioxide 100/a-P	100-3000 ppm	10	10 per box	6728521
Dräger: Aerotest Carbon monoxide 5/a-P	5 -150 ppm	10	10 per box	6728511
Dräger tube: Aerotest Oil 10/a-p	0,1-1 mg/m^3	25	10 per box	6728371
Dräger: Aerotest Waterfog 20/A-P	20 -1500 mg/m^3	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 Aerotest: Holder			1	CH07000

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
Adapter Dräger Simultest, consisting of cutting holder and adapter	1	6400090
Spare parts set for Dräger accuro	1	6400220
Dräger tube: Ammonia 5/a	10 per box	CH20501
Dräger tube: DT 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: 1,2-Dichlorethane (using Dräger-Tube Methyl Bromide 0.2/a)	10 per box	8103391
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.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Gasvision 7 software - license key - software GasVision Download via Dräger website (free of charge during 45 days)	1	8325646
USB DIRA cable	1	8317409
Dräger CC Vision - free for download via www. draeger.com/software		

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 +50°C (extended range to +65°C on request, contact GasSecure)
Storage temperature	-40 to +65°C
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 +65°C) 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 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 °C to + 60 °C
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 °C / 32 to 130 °F
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 REGARD-1

The Dräger REGARD-1 is a standalone, self contained single channel control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable for a single input from either a 4 to 20 mA transmitter or a Dräger Polytron SE Ex measuring head.

Dräger REGARD-1
Standalone, self contained single channel

High flexibility

The Regard-1 can either be connected to a 4-20-mA transmitter or to Polytron-SE-Ex mV sensing heads. There are three fully configurable alarm relays: rising or falling, latching or non-latching. The alarm status is displayed via three LEDs. They will flash with a new alarm, light up continuously to display an acknowledged alarm situation or extinguish if there is no alarm. The gas concentration is displayed continually on a large LC display. If the alarm thresholds are exceeded or if a fault occurs, the integrated audible alarm will sound. To indicate a transmitter or system fault, a fault relay is provided, a separate fault led is provided on the panel which will flash under new fault condition, light continuously under acknowledged fault condition or will be extinguished under normal or healthy conditions. During maintenance, the maintenance or inhibit relay can be used to report this special status via a remote display.

Useful additions

The Regard-1 can be equipped with an optional TWA control module. This module enables the output of a TWA alarm as well as the repeat of a 4 to 20mA signal and the alarm states via a digital interface. To ensure the operation of the Regard-1 during a power failure, two batteries of 1.2 Ah each can be inserted into the integrated battery compartment. Depending on the transmitter used, they will enable an operating time from 30 minutes up to two hours. The batteries are re-charged by the Regard-1.

Robust enclosure

The robust IP65 enclosure enables the installation of the control system at virtually any location within safe areas.

Certifications

In accordance with the ATEX directive, the system is certified to EN 61779-1/4/5 and EN 50104 for explosion monitoring and oxygen measuring and, therefore, also suitable for applications which require the measuring function for explosion protection (primary measure in accordance with EN 1127-1, paragraph 6). In addition, the system was also tested independently to EN 45544 for the monitoring of toxic gases.

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 °C to + 60 °C
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-1

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger REGARD-1, 4 - 20 mA	1	4208585
Dräger REGARD-1, SE Ex	1	4208600
Rechargeable battery kit	1	4208586
Options board (4 to 20 mA repeater, RS 232, TWA alarm relays)	1	4208583
Display board with datalogger	1	4208636

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 Polytron® 7000

The Dräger Polytron® 7000 is a gas detector that can satisfy all toxic and oxygen gas measurement applications on a single platform. It is meeting the requirements of the compliance market as well as the high specification requirements of customized solutions.

Dräger Polytron 7000
To measure toxic and oxygen gas

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 softwareor 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

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 °C to + 60 °C
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

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron 7000, several variations possible, ask our sale department for support	1	Op aanvraag

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
- Hermetically 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	1	Op aanvraag

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°C, 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 °C (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 °C Db IP6X, - 40 ≤ Ta ≤ + 40 / 55 / 65 °C XTR 009x: II 2G Ex de IIC T6 Gb, II 2D Ex t IIIC T80 °C Db IP6X, - 40 ≤ Ta ≤ + 65 °C
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 0000, small housing, 0 to 100 %LEL	1	8318280
PEX 3000, Type XTR 0001, medium-sized housing, 0 ... 100 %LEL	1	8318360
PEX 3000, Type XTR 0010, small housing, 0 ... 10 %LEL	1	8318290
PEX 3000, Type XTR 0011, medium-sized housing, 0 ... 10 %LEL	1	8318370
PEX 3000, Type XTR 0090, small housing, remote transmitter without sensor	1	8318380
PEX 3000, Type XTR 0091, medium-sized housing, remote transmitter without sensor	1	8318390
Dust filter for DrägerSensor PR M DD (PE-disks, 10 pieces)	1	6810537
Calibration adapter (PE)	1	6806978
Process adapter (stainless steel) for PEX 3000 XTR 0000, XTR 0001	1	6812470
Process adapter (stainless steel) for PEX 3000 XTR 0010, XTR 0011	1	6812465

Dräger Polytron Pulsar 2

The Dräger Polytron Pulsar 2 is the latest infrared technology in open path gas detection. Equipped with all the same functions as the standard Dräger Pulsar, Pulsar 2 is fitted with an ABS moulded cover and is supplied with either a junction box or certified connector to provide complete flexibility during installation.

Dräger Polytron Pulsar 2
Open path gas detection

Easy adjustment and commissioning

Designed for one man installation and commissioning through use of a hand-held terminal the Pulsar 2 transmitter and receiver can be accurately aligned, gas level zeroed and commissioned with maximum efficiency. The factory calibration of the Polytron Pulsar 2 makes manual setting and test gas superfluous.

System stability

The detector is designed so that no fault remains undetected. During normal operation, the output signal is between 4 to 20 mA, depending on the measured gas concentration. A signal of < 1 mA represents a fault due to a constant beam block or hardware failure requiring immediate attention. However, a signal of 2 mA identifies a beam block and will go to fault if this persists for more than 60 minutes. The Pulsar will also output a 3.5 mA signal to indicate pre-warning where the optics may be dirty or miss-aligned. During the period which the Pulsar displays 'Pre-warning' it will still detect gas allowing the customer to schedule maintenance on the detector therefore reducing down time. With no unrevealed faults, the Pulsar 2 is SIL 2 capable.

In-built database

The receiver logs records and details a report of the last seven working days and a summary of the last 32 weeks. These reports contain important information such as measuring values, i.e. 'beam block', gas readings, warning signals, signal strength, adjustments, supply voltage and operating temperature.

Extensive access to data from safe areas

The optional Polytron Pulsar Software can provide easy access to configuration, current measured values and the internal data-logger from a non-hazardous area through Digital Communication. For large and complex installations, the Pulsar software can allow integration of several devices via the AI5000. Up to 32 AI500's can be multi dropped; therefore allowing access to up to 128 pulsars - useful for planning service and maintenance measures.

High performance

The Pulsar receiver communicates to the transmitter via a digital link which allows the receiver to identify and adjust to fluctuating environmental conditions. The microprocessor built into the receiver unit instructs the transmitter unit to increase the flash rate for increased performance and accuracy. The Pulsar is immune to influences such as sunlight, gas flares, arc welding or resonance effects due to vibrations of rotating parts, as well as to environmental influences such as mist, drizzle or snow. The flash rate is also increased upon the detection of gas to ensure both accuracy and fast response.

Heated optics

Regulated internal lens heaters protect against build up of ice and snow under adverse weather conditions. They also prevent condensation on the lenses eliminating interference with the measurement function.

HART-communication

The HART-Communication of the Polytron Pulsar allows for digital communication between the explosion-proof and the secure areas. Without additional cabling, you can obtain real-time access to the status of individual detectors and to the configuration and historical data of each device.

Worldwide Approvals

The Polytron Pulsar Duct Mount holds a performance approval from FM, and global product approvals including ATEX, IECEx, CSA and UL.

Dräger Polytron Pulsar 2

TECHNICAL SPECIFICATIONS

Type	Explosion proof Open Path gas detector utilizing dual wavelength infrared absorption technic
Gases	Wide range of hydrocarbons including the alkane series from methane to hexane, propylene, ethanol and methanol
Range	From 0 to 4 up to 0 to 8 LEL*m
Factory calibration	Methane or propane, selectable. Other hydrocarbon gases on request
Operating distance	4 to 60 m, 30 to 120 m or 100 to 200 m, 13 to 197 ft, 98 to 394 ft or 328 to 656 ft separation of transmitter and receiver
Signal output	Analog - Measuring 4 to 20 mA
Supply voltage	ATEX - 18 to 30 VDC, UL/CSA - 18 to 27 VDC
Power consumption	Max. 0.95 A @ 24 V, with full heating and all source lamps operating
Response time t95	<2s
Ambient conditions	Temperature: - 40 to + 60 °C Pressure: 800 to 1,100 hPa, 23.6 to 32.5 inch Hg Humidity: 0 to 100 %RH, non-condensing
Enclosure	IP66, stainless steel
Dimensions (W x H x D)	260 x 340 x 220 mm
Weight	ca. 6 kg
Approvals	ATEX, IECEx, FM/ANSI, DNV, IEC 60079-29-4, UL, CSA

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Polytron Pulsar 2 - variations by max. opearting range and approval - transmitter and receiver, each fitted with an ABS moulded cover. Supplied with EEx e junction box or EEx d certified plug and socket. Our Sales department supports you with the configuration of this product.	1	On request

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 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 °C (- 40 to + 149 °F) 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 °C to + 65 °C
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 (NPT)	1	6811080
Dräger PIR 3000 complete set e	1	6811160
Dräger PIR 3000 complete set e2	1	6811270
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

Dräger PIR 7000

- 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
- 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 °C / – 40 to + 170 °F (operating), – 40 to + 85 °C / – 40 to + 180 °F (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 (NPT) HART®	1	6811552
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 (NPT) HART®	1	6811562
Dräger PIR 7000 type 340 (M25) HART®	1	6811560
Dräger PIR 7000 type 340 (M25) HART®, complete set	1	6811819

Dräger SAM 3100 3200

The Dräger sampling units were designed to measure the concentrations of toxic and potentially explosive substances in locations where access is difficult. All required components are already fitted to a mounting plate. To achieve maximum flexibility for a variety of applications, all Dräger transmitters with process adapter can be used.

Dräger SAM 3100 3200
To achieve maximum flexibility for a variety of applications

Easy installation

All electrical connections lead directly to the components, and cables can be routed individually to suit the situation in hand. High quality compression fittings on the mounting plate make it quick and easy to connect the sample gas or air extraction line.

Straightforward one-man assembly

The sampling system comes fully assembled, and the plate can be attached in just a few simple steps by one person. Predrilled holes for fixing screws make easy work of wall-mounting and customer- specific assembly. The sample gas tubes can be installed quickly and easily without the need for screwdrivers.

Variable sampling concepts

The Dräger SAM 3100 and Dräger SAM 3200 units come equipped as standard with a non-explosion-proof sampling pump. From the same series, an explosion-proof pump can be chosen as an option. If process air is available, another alternative is to use a wear-free – and therefore maintenance-free – injector with pressure regulator. The gas flow to be measured is reliably monitored via the ring initiator with integrated connection housing.

TECHNICAL SPECIFICATIONS

Mounting plate	Stainless steel, fitted with measurement head on request (see separate data sheet)
Dimensions	500 x 500 mm
Gas pump	
Air transport	Via membrane valves
Flow rate	7.5 L/min
Max. neg. pressure	140 mbar
Max. pos. pressure	1.5 bar
Weight	3.1 kg
Voltage / frequency	230 V AC / 50 Hz
Wattage	70 watts
Current consumption	0.45 A
Filter element	
Filter element length	75 mm
Filter surface area	70 cm2
Deadspace volume	65 cm3
Materials	Filter head: PVDF/PTFE Filter body: Glas Filter element: PTFE
Connections	3 x G 1/4" (1x sealed)
Flowmeter	
Measurement accuracy	± 2.5 % as per VDI/VDE 3513
Working pressure	10 bar max.
Connections	1/4“ NPT internal thread
Cone	Borosilicate glass
Float	Nickel chromium steel

Dräger SAM 3100 3200

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger SAM 3100	1	On request

Dräger Alcotest 3820

The Dräger Alcotest® 3820 offers responsible drivers a reliable way to test their breath alcohol and gives them the assurance of being legal to drive. This is ensured by precise measurement technology identical to that used by the police: over 30 million breath alcohol tests a year.

Dräger Alcotest 3820
Professional alcohol testing device for personal use

Precision for over 60 years: the measurement technology used by the police

Dräger has been the world market leader and professional supplier of breathalcohol measuring devices for the police and industry for over 60 years. The measurement technology in the Alcotest® 3820 is identical with that in devices used for highly precise breath alcohol tests.

Consistent advances in technology over six decades have made the Alcotest 3820 incomparably fast and reliable today. As a private user or professional driver you can simply pre-empt unpleasant surprises if your breath alcohol concentration is checked.

Over 30 million breath alcohol measurements are performed with Dräger instruments around the world each year. The high quality devices are Made in Germany.

Fast and easy sampling

The measurement function is simply activated with the back-lit function button. Optional audible feedback provides additional orientation. The device is ready to use in seconds and the breath test can be performed immediately. The same button is used to navigate through the menu.

Replaceable mouthpiece

The mouthpiece is intuitive to fit and protected by a cap. A new mouthpiece should be used for each person being tested. Additional mouthpieces are available as accessories. The air channel passes the exhaled air over the device, and only a small sample of this air is drawn for analysis. This ensures that there is no residual alcohol in the device and that all measurements remain precise and reliable. The same method is also used by the police.

Always ready for use

On cool winter nights or a hot summer day: The device is ready for use almost immediately. The temperature range for measurements ranges from -5 °C to +50 °C.

Handy and discreet

Thanks to its compact design, the Alcotest 3820 fits into a trouser pocket. Therefore you can take a measurement discreetly at any time—no matter where you are. You always obtain a precise result when measuring the residual alcohol value, whether after a business lunch, at a party or the morning after.

Designed for years of use

- The Alcotest 3820 is Made in Germany and meets the highest quality standards. Regular calibration of the
- device ensures that the measurement technology will remain precise for a long time. The worldwide, regional
- Dräger service network ensures that you can keep using the device for many years.

TECHNICAL SPECIFICATIONS

Measuring principle	Electrochemical Dräger sensor for 1/4" technology, alcohol specific
Measuring range	0 to 5.00 ‰; if the limits of the measuring range are exceeded, a message is displayed
Sampling	Automatic sampling when minimum volume resp. blow time is reached; Automatic sampling when end of breath is reached; depending on configuration
Ready for use	Approx. 4 seconds after switching on
Display of the measurement results	After approx. 3 s (at 0.00 ‰); after approx. 10 s (at 1.00 ‰, 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)

Dräger Alcotest 3820

LED	1 light emitting diode (LED) to support the indication of results and warning message
Audible signal	Various acoustic signals to support messages and warnings on the display
Datalogger	Memory of last 10 tests
Power supply	1 x CR123A-Battery, charge level indicator in display, with one battery approx. 1,500 breath tests can be done.
Mouthpiece	Hygienically and individually packed
Operating concept	Measurement functions can be performed using just one button
Calibration	Wet gas or dry gas calibration
Housing	Impact resistant ABS/PC
Dimensions (W x H x D), weight	Approx. 50 x 133 x 29 mm / approx. 130 g, incl. Battery
Vibration and shock	EN 60068-2-32
CE marking	2004/108/EC (electromagnetic compatibility)
Norms	EN 16280, EN 15964, NHTSA, FDA Conformity, depending on configuration
Integrated clock	To show calibration interval
IP protection class	IP52

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 3820	1	8324922
Mouthpieces, 5 pieces	5	8325250

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).

Breath-alcohol testing at a distance

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 °C to +50 °C
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	1	8327701
Alcotest® 5000 funnels, 10 pc., individually hygienically packaged	1	8327718

Dräger Alcotest 5820

The Dräger Alcotest® 5820 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 proven in over 200,000 units in use worldwide today.

Dräger Alcotest 5820
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 green OK button, while two menu buttons are used for navigation.

Versatile and tough

The tried and tested electro-chemical Dräger sensor in the Alcotest 5820 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.

Simply hygienic: the Slide'n'click 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 5820 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.

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); after approx. 10 s (at 0.5 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 100 tests with test numbers

Dräger Alcotest 5820

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	2004/108/EC (electromagnetic compatibility)
Norms	EN 15964, NHTSA, FDA Conformity, depending on configuration Warning or deactivation after end of service interval IP54

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 5820	1	8325200
Protection cover	1	8324999
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
Lithium battery (CR123A)	1	4543808

Dräger Alcotest 6820

Alcotest 6820 is the logical successor to the successful Alcotest 6810. The compact hand-held measuring instrument Alcotest is quickly ready for use and is adaptable to international guidelines. With an even more sturdy enclosure and the proven Dräger sensor, Alcotest 6820 is a reliable partner for breath alcohol analyses.

Dräger Alcotest 6820
Adapted to determine breath alcohol concentrations

High-quality workmanship
A professional breath alcohol testing device must be able to withstand some abuse. The Alcotest 6820 new design and quality workmanship make this unit ideal for use in demanding conditions. Thanks to its durable material it is highly resistant to rough weather conditions such as cold or moisture, and it satisfies protection class IP 54.

Proven quality
Alcotest 6820 is also equipped with the proven electrochemical Dräger sensor. This sensor is characterised by very short response times coupled with precision and durability. Test results are always reliable regardless whether the temperature is -5 °C or +50 °C. Even with a high alcohol content, the sensor provides fast accurate results. And this is true for both active as well as passive measurements.

"Slide'n'Click" mouthpiece
The patented Dräger mouthpieces prevent any manipulation attempts. The optional return valve simultaneously ensures maximum hygiene. Alcotest 6820 uses the same reliable mouthpieces such as Alcotest models 6510 and 6810.

Optional accessories
A wide strap supports safe and comfortable use of the Alcotest 6820 testing device. The strap can be attached to your belt or around the wrist and secured with either buckles or hook and loop fastener. Reflectors make it easier to locate the device in the dark.

High user comfort
Testing intoxicated people requires a high degree of concentration. This is where the true value of an easy to operate device comes into play. All measurement functions are controlled with a single button. Easily understandable full-text messages on a large, backlit display guide you safely through the alcohol test. An LED display and acoustic signals support the visual display and report the completion of a test measurement. Two menu buttons are used for navigation and the collection of statistical data.

Practical design
Alcotest 6820 offers a balanced, ergonomic design. Its compact form makes it especially easy to hold and operate with only one hand. The mouthpiece of the Alcotest 6820 unit is easily snapped into the holder even when it's dark thanks to its intuitive shape - regardless whether you are right-handed or left-handed or whether testing traffic moving on the right or left side of the road. The display is always in clear view. After use, the mouthpiece is just as easily and hygienically removed again.

Data processing and documentation
The expanded memory capacity of Alcotest 6820 is able to record up to 5000 test results. An optical interface enables wireless transmission of data to the Dräger mobile printer directly on site. Data is transferable to the PC via USB connection and the same connection can be used to configure the device.

TECHNICAL SPECIFICATIONS

Measuring principle	Electrochemical sensor
Measurement range	0 to 2.5 mg/L
Calibration interval	6 months
Sensitivity drift	Typically 0.6 % of measured value per month
Dimensions	80 x 140 x 35 mm
Weight	Approx. 195 gr

Dräger Alcotest 6820

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Alcotest 6820 (test unit, 3 mouthpieces, 2 batteries, hand strap, plastic case)	1	8322660
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 100 pieces	1	6810690
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 250 pieces	1	6810825
Dräger Alcotest mouthpiece (Slide'n'click) - Package with 1.000 pieces	1	6810830
PSU (power source) 600 mA, 11 V, for charging NiMH batteries	1	8316991
PC connection cable for Dräger Alcotest Screener USB	1	8319715

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 + 40°C Storage/transport: – 20 to + 60°C
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 recently consumed certain drugs. The compact and quick saliva (oral fluid) based drug test yields reliable results affordably and easily. The non-invasive drug test kit does not require electricity and can therefore 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 test strips, which displays the control and test lines. The drug test itself is performed in three easy steps: swab the saliva sample, shake the test kit, wait for a brief incubation period, and then start the test. A colour indicator on the 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 line will appear alongside the respective substance class (drug). This means that none of the target substance was detected 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 the drug 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 offers two measurement options: depending on the chosen waiting time (pre-incubation) of the test there is a fast option 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 use quickly and easily, and is suitable for flexible use applications such as roadside checks and testing in safetyrelevant workplaces*. The test kit has no electrical parts, which makes the drug tester safe to use in hazardous areas and even as point-of-care-testing (POCT).

Additional benefits

Dräger has decades of experience in alcohol measuring equipment and drug detection methods. For the DrugCheck 3000, Dräger employed the testing principle of the proven Dräger DrugTest® 5000 system, which reliably detects even minute traces of THC. The disposable DrugCheck 3000 test kit cannot be manipulated and 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: 0 °C to 30 °C (32 °F to 86 °F) at 5% to 95% relative humidity
Storage / transportation	4 °C to 25 °C (39 °F to 77 °F)
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
DrugCheck® 3000 STK 5 IVD, 20 testkits in one package	1	8325500

Dräger PA91 Plus

The Dräger PA91 Plus is a highly capable, yet reasonably priced, compressed air breathing apparatus set. The Dräger PA91 Plus breathing apparatus is ideal for use when working in environments where fire and smoke, toxic gases or a lack of oxygen is present. Designed and manufactured by the world leader in the field of respiratory protective equipment, the PA91 Plus provides you with the highest level of performance in a simple but effective package.

Dräger PA91 Plus
A high level of performance

Comfortable carrying system

The carrying system has been orthopaedically designed and follows the contours of the back, ensuring the weight of the breathing apparatus set is concentrated on the hips and therefore reducing the risk of backstrain and fatigue. The backplate is constructed using a strong, moulded, composite polyamide material with carbon fibre and is anti-static, chemical and impact resistant. The harness is made from flame retardant polyester webbing, with centre adjustable buckle and independent shoulder straps. Moulded handles on the backplate provide greater manageability when transporting the set.

First breath activated

The Dräger positive pressure Lung Demand Valve is of a balanced piston design and is first breath activated. This provides a stable air supply with low breathing resistance and is extremely quite in use. It has a wrap around silicone cover for added impact protection and is easy to service, clean and disinfect. The Lung Demand Valve also features a centrally positioned, easily located, positive pressure 'switch off' push button.

Complete compatibility

The carrying system incorporates an adjustable cylinder strap, which can accommodate cylinders of all sizes from 4 litres up to 12 litres in capacity. The strong polyester strap can also accommodate a twin pack cylinder arrangement as an option. There are no special tools or procedures required for adjustment, which uses a secure, proven cam-lock mechanism.

Pneumatic design

The high performance balanced first stage reducer can be used with 200 or 300 bar cylinders and provides excellent flow characteristics using a small, lightweight reducer body. It incorporates a unique, patented safety pressure relief valve and allows for the easy connection of accessories. Servicing is made easier due to simple plug-in connections.

Warning whistle and pressure gauge

The PA91 Plus comes complete with Dräger's unique medium pressure operated warning whistle, which provides a low pressure warning in excess of 90 dBa and is consistent down to 10 bar. There is a fully luminescent gauge and the whistle warning unit assembly is fully integrated into the gauge / hose.

Accessories

The PA91 Plus can be used with any Dräger full facemask and incorporates Dräger's latest Plus Lung Demand Valve.

TECHNICAL SPECIFICATIONS

Weight	2.14 kgs
High pressure connection	200 bar or 300 bar, standard G5/8 as per EN 144-02. Other connections available to National Standards
Wistle warning unit	Pre-set by Dräger to between 560 bar to 600 bar
Approvals	MED, EN 136 and EN 137, 89/686/EEC (PPE), 97/23/EC (PED)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PA91 Plus	1	3350683
Dräger PA91 Plus: LDV with hose	1	3338702

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 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 °C to +60 °C), EN 61000-6-2, EN 61000-6-3

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 4000 - Pneumatic Gauge	1	3363988
Dräger PSS 4000 SCS - TX Gauge	1	3363990
This is a modulair product, ask our Sales department for support: telephone +31 (0)10 - 295 2740.		

Dräger PSS 5000

The Dräger PSS® 5000 SCBA is a new generation high performance breathing apparatus for the professional firefighter. Combining advanced ergonomics with a wide range of configurable options the Dräger PSS® 5000 provides the user with the comfort and versatility to meet the demands of first responders whenever breathing protection is required.

Dräger PSS 5000
For professional firefighting

Utilizing the established Dräger PSS Pneumatics and cylinder strap design, the Dräger PSS 5000 combines established technology, state-of-the-art materials and innovative thinking to create a SCBA for virtually any application.

Ergonomic carrying system

The Dräger PSS 5000 has been designed to be not only comfortable but also extremely stable during use in harsh firefighting environments. Incorporating a rigid harness connection to a fixed-height back plate, advanced harness materials and a pivoting waist belt, the Dräger PSS 5000 remains in position regardless of the task in hand.

Advanced harness choice

The Dräger Standard (DS) harness is a cost effective option for everyday use, offering a high level of comfort and durability. Easy to don and doff materials and simple pull forward and down adjustment mechanisms make the DS harness a versatile option for a wide variety of applications.
The Dräger Professional (DP) utilizes materials to withstand the high wear and tear that firefighters face daily, whilst providing an enhanced level of comfort and function over the DS harness. Incorporating hardwearing stainless steel buckles and long-life Aramid blend webbing, the DP is ideally suited to extended wear and frequent use.

Service friendly & easy to maintain

- to keep downtime and costs to a minimum during service and maintenance, the Dräger PSS 5000 incorporates a number of unique design features;
- Dräger's innovative Harness "slide and lock" mechanism facilitates fast and simple harness and waist pad connection/removal from the back plate, without the use of tools.
- the first stage reducer snap fit connection allows the pneumatics to be fitted or removed quickly and easily from the set.
- push in and out" hose clips allow swift 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.

Integrated and versatile hose routing

To minimize the risk of snagging and to guard against physical damage, both the gauge and air supply hoses are integrated within channels in the Dräger PSS 5000 back plate. The LDV, Gauge and Rescue hoses can now be routed over the left and/or right shoulders (2 hoses per side), allowing the Dräger PSS 5000 to be configured to any standard. Conventional waist mounted hoses can also be fitted making the Dräger PSS 5000 one of the most versatile SCBA's available.

Wide variety of syste, configurations and accessories

Dräger has revolutionized the use of breathing apparatus by creating a range of components that can be selected in combination to meet the specific needs of the firefighter regardless of the task.

It is also possible to add:

- Dräger Bodyguard 7000 electronic monitoring
- twin cylinder configuration
- quick-Connect (QC) cylinder connection
- chargeair quick filling
- secondary supply connections for rescue, decontamination and/or airline use
- PSS Merlin Modem
- PSS Rescue Hood
- And many more... (for a full list and information please refer to the Dräger CABE Family Catalogue)

Electronic monitoring with the Dräger Bodyguard® 7000

The Dräger PSS 5000 has been designed to be fully compatible with the globally established Dräger Bodyguard 7000 electronic signal and warning unit, and the newly integrated PSS Merlin Modem. For maximum protection The Dräger Bodyguard 7000 has an innovative compact design that integrates the power supply and pressure sensor modules within the back plate,

Dräger PSS 5000

creating a balanced weight distribution. Real-time monitoring of essential information such as timeto- whistle (based on current air consumption) and cylinder pressure is communicated via a lightweight handheld electronic gauge and display and/or, a facemask-mounted Head's Up Display (HUD). Simultaneously this information can be transferred to an Entry Control Board via the PSS Merlin Modem, further enhancing firefighter and fire ground safety.

TECHNICAL SPECIFICATIONS

Weight	3.85 kgs
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 (Type2)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PSS 5000 DS Bodyguard 7000, single cylinder strap, excluding LDV S Plus & Holder	1	3358349
Dräger PSS 5000 DP Pneumatic Gauge, single cylinder strap	1	3357845
Dräger PSS 5000 DS SCS , single cylinder strap	1	3357858

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 breathing apparatus S Plus	1	3338700
Lung Demand Standard type P	1	3357527

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 alarmm 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.

Dräger Panorama Nova Standard P
Meets the highest demands for reliability

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).

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	Made of robust plastic with inhalation and exhalation valve. Dräger plug-in connector for positive-pressure lung demand valve
Approvals	EN 136 Class 2 (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 6200 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	R56249
Dräger FPS 7000 L2-PC-CR	1	R56300

Dräger Marine 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 Marine Cylinder Steel

Steel, seamless cylinder.

Feature
designed for 300 bar pressure

Dräger Marine Cylinder Steel
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, 6 liters, 300 bar	1	38S1109

Dräger Composite Air Cylinders

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.

Dräger Composite Air 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.

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 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 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 °C to +25 °C, 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 °C ... +50 °C UL913: Class I, II, III, Div 1 Group A-G

Dräger FPS-COM 5000

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger FPS®-COM 5000	1	R62700
Dräger FPS®-COM 5000 with negative pressure face mask	1	R62701
Dräger FPS®-COM 5000 with positive pressure face mask	1	R62702
Dräger FPS®-COM 5000 with a rebreather face mask	1	R62703

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
For clear audibility by voice amplifier or radio

For missions under the harshest conditions

For missions requiring respiratory protection you have to expect extreme conditions: thick smoke and noise-obstacles 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 communications

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 model 250 - 320 g (without battery)
Wireless frequencies	863 – 865 Mhz or 902 – 928 Mhz (Country specific, dependant on frequency allocation plan)
Transmission power	10 mW
Radio coverage	approx. 100 m free field, approx. 30 m in indoor
Number of talk Groups	configurable, max. 10 in one device
Communication type	voice-activated, duplex
Battery types	2 x AA batteries
Operation time	approx. 8 hrs (Dependent on talk activity)
Ambient conditions for storage	-15 °C to +25 °C, 700 to 1,300 hPa, 10 to 95 % rel. humidity
Protection class	IP 67
Approvals	EN 136 class 3 EN137 type 2 ATEX: Ex II 1 G, Ex ia IIC T4/ T3 Ga (Ta = -30 °C ... +50 °C) IECEx: Ex ia IIC T4/ T3 Ga (Ta = -30 °C ... +50 °C) 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	1	R61100
Dräger FPS®-COM 7000 with positive pressure face mask	1	R61300
Dräger FPS®-COM 7000 with negative pressure face mask	1	R61350

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
Dräger C-C440 Communication Unit	1	On request
Contact our Sales department for order information.		

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).

Dräger C-C550
Transmitter with integrated loudspeaker en microphone

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.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger C-C550 Communication Unit	1	On request
Contact our Sales department (+31 10 295 2740) for more information about this product.		

Dräger Saver CF15

The 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 Saver CF constant flow emergency escape breathing apparatus allows safe, effective and uncomplicated escape from hazardous environments with the minimum of user training.

Dräger Saver CF15, with storage box
Designed with one thing in mind, to save lives

Automatic activation
The unit is automatically activated on opening the carrying bag and can be simply re-set in the event of false alarm.

Long life neck seal
The air hood neck seal is ozone resistant ensuring high levels of protection, even after storage.

High visibility
The unit is contained in an instantly recognisable orange carrying bag, incorporating photo luminescent panels allowing the unit to be seen at very low ambient light and visibility levels.

Easy inspection
The cylinder contents gauge is clearly visible without any dismantling or adjustments to the unit due to a transparent viewing window located on the side of the bag. This allows for quick and simple cylinder contents inspection.

Made to measure
The Saver CF has been especially designed to be as easy to don as is possible, regardless of face shape or size and is suitable for users with glasses or facial hair.

Design
Utilises a simple fail-safe reducer system with excellent flow characteristics giving a consistent air flow rate at all cylinder pressure levels. The combined diffuser and exhalation valve account for excellent air supply combined with a very streamlined hood profile. The easy to don flame retardant hood incorporates a wide visor for enhanced peripheral vision and a long life ozone resistant neck seal.

The Saver CF is extremely compact in design providing greater freedom of movement.

Carrying bag
The high visibility orange carrying bag incorporates photo luminescent panels, is interchangeable for either chestbag or bandoleer positions, washable, flame retardant and allows water to self-drain.

Low contents warning
A warning whistle sounds when the unit is nearing the end of its air supply.

Optional: Storage box
Storage box for EEBD complete with photo luminescent sign.

TECHNICAL SPECIFICATIONS

Dräger Saver CF15	
Dimensions	490 x 160 x 250 mm
Weight	5.2 kgs
Max. pressure	200 bar
Working temperature	-15°C to 60°C
Storage box	
Dimensions	740 x 280 x 220 mm (l x w x d)
Weight	1.3 kgs

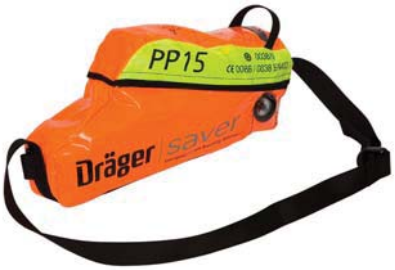
Dräger Saver CF15

ORDER INFORMATION

Description	Unit Sales	Articlenr
Soft bag version: Dräger Saver CF15	1	3359735
Soft bag version: Dräger Saver CF15 (SE) Anti-Static	1	3359743
Hard case version: Dräger Saver CF15	1	3359740
Cabinet for Dräger Saver CF15	1	3351823
Saver CF15: Storage bag	1	3350519
Saver CF15 SE: Anti-static bag	1	3360341
Saver hood and hose assembly	1	3350441
Saver CF: Valve Assy	1	3350484
Safety Wash, 5 liter dispenser	1	3380166
Safety Wash, refill 5 liter	1	3380167

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	-15°C to +60°C
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	1	3350403
Cabinet for Dräger Saver CF15	1	3351823
Safety Wash, 5 liter dispenser	1	3380166
Safety Wash, refill 5 liter	1	3380167

Dräger Oxy 3000/6000 MK II

Robust and always under control: the oxygen self-rescuers Dräger Oxy® 3000 and 6000 MK II are designed to handle the harshest conditions. The Safety Eye provides an additional level of security: the status window allows the user to assess whether the device is operational within seconds.

Dräger Oxy 3000/6000 MK II
Great usability

Breathing air for 30 or 60 minutes

- The Dräger Oxy devices supply employees with oxygen during an incident. In the case of oxygen deficiency, smoke or dangerous gases, these devices provide the user with more time to reach the next safe area or complete a successful escape. The availability of a 30-minute and a 60-minute device provide more options in your emergency planning concept.

Robust thanks to a double housing product concept

The metal/plastic exterior shell with an interior integrated shock absorber protects the KO2 cartridge against damage in harsh environments such as mining, sewage work and within the petrochemical industry. The exterior shell will be left behind when the device is activated. This feature allow employees safe, effective and uncomplicated escape from hazardous environment.

Safety duo: Crumple zone and Safety Eye

In what condition is your Dräger oxygen self-rescuer? Based on the position and depth of the dent in the exterior shell, the user can estimate the mechanical stresses the device has been subjected to. In addition, a glance through the Safety Eye is enough to ascertain if the KO2 cartridge is undamaged. The user is able to immediately identify if moisture or KO2 fragments are present inside the unit, without the need to use test equipment.

Less maintenance, lower costs

Thanks to their robust construction, the Dräger Oxy 3000 MK II and the Dräger Oxy 6000 MK II can be used maintenance-free for up to ten years. The quick, uncomplicated visual inspection of the exterior shell and the Safety Eye provide certainty about the functionality of the device. These features allow the user to not only reduce the risk for employees, but also operating costs.

Additional advantages

- Compact, ergonomic shape
- Worn with a hip belt, shoulder strap or hand belt
- Opening mechanism with one-handed operation for right-handed or left-handed wearers
- Optional rubber abrasion protection to protect against wear and tear
- Immediate activation of starter when donning the device
- Light, compact functional unit
- Comfort bite mouthpiece for high wearing comfort
- Anti-static breathing bag
- For your safety training: Dräger Oxy 3000/ 6000 MK II training device (optional simulator for inhalation temperature and breathing resistance available)
- Disposal of old devices by Dräger petrochemical

TECHNICAL SPECIFICATIONS

Temperature	-30 °C to +50 °C (-22 to 122 °F) for storage and transport -30 °C to +70 °C (-22 to 158 °F) for a maximum of 24 h during transport (not when the device is in use) -5 °C to +70 °C (23 to 158 °F) during use
Inhalation temperature	Maximum +50 °C (122 °F) in accordance with DIN EN 13794
Breathing bag volume	> 8 liters
Service life	10 years @ 5 days/week and 8hrs/shift
Duration	Dräger Oxy® 3000 MK II: 30 min (35 L/min breathing minute volume) Dräger Oxy® 6000 MK II: 60 min (35 L/min breathing minute volume)

Dräger Oxy 3000/6000 MK II

Inhalation/exhalation resistance	Dräger Oxy® 3000 MK II: +10 hPa or -10 hPa (maximum exhalation resistance), Σ 16 hPa (at the end of the running time) Dräger Oxy® 6000 MK II: +7.5 hPa or -7.5 hPa (maximum exhalation resistance), Σ 13 hPa (at the end of the running time)
Weight	Dräger Oxy® 3000 MK II: without options 2.5 kg/ 88.2 oz. with support ring (hip) 2.7 kg/ 95.2 oz. with support ring & abrasion protection 2.9 kg/ 102.2 oz. in use 1.7 kg/ 59.9 oz. Dräger Oxy® 6000 MK II: without options 3.3 kg/ 116.4 oz. with support ring (shoulder) & belt 3.7 kg/ 130.5 oz. with support ring, belt & abrasion protection 3.9 kg/ 137.6 oz. in use 2.4 kg/ 84.7 oz.
Dimensions	Dräger Oxy® 3000 MK II: without options 219 x 190 x 109 mm / 8.62 x 7.48 x 4.29 in. with support ring (hip) 225 x 190 x 122 mm / 8.86 x 7.48 x 4.80 in with support ring & abrasion protection 230 x 194 x 122 mm / 9.06 x 7.64 x 4.80 in in use 170 x 200 x 80 mm / 6.69 x 7.87 x 3.15 in Dräger Oxy® 6000 MK II: without options 246 x 213 x 125 mm / 9.69 x 8.39 x 4.92 in with support ring (shoulder) & belt 265 x 213 x 125 mm / 10.43 x 8.39 x 4.92 in with support ring, belt & abrasion protection 265 x 217 x 125 mm / 10.43 x 8.54 x 4.92 in in use 190 x 240 x 100 mm / 7.48 x 9.45 x 3.94 in
Approvals	Dräger Oxy® 3000 MK II: DIN EN 13794 89/686/EWG AS/NZS 1716:2012 (MDG 3609:2010) Dräger Oxy® 6000 MK II: DIN EN 13794 89/686/EWG AS/NZS 1716:2012 (MDG 3609:2010) SANS 10338:2009

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Oxy® 3000 MK II, standard	1	6305800
Dräger Oxy® 6000 MK II, standard	1	6306800

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 Fire Escape Hood with Holster (without accessory pockets)	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	R59427
Dräger PARAT® 7530, Hard Case	1	R59437

Dräger PARAT® 3000 Filtering Escape Devices

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.

Dräger Parat 3000
Protects the user from harmful gases and smokes

The filtering escape devices Dräger PARAT 3000 have a single but vital task to perform: They ensure that the user is provided with protection along his escape route into a safe, breathable atmosphere. Therefore these devices are robust, compactly designed and safe and easy to handle. The filtering escape devices are designed for a minimum of 15 minutes of escape time and approved to the only standard world-wide for industrial escape devices (DIN 58647-7).

Dräger PARAT® 3100
Half mask with 2-point harness – quick donning, comfortable use and good communication

Dräger PARAT® 3200
Mouth piece/nose clip assembly – for very low leakage.

Benefits
- ABEK 15 Filter – protection against a wide range of toxic gases and vapours
- robust, ergonomic case – for long service life even in rough work environments
- transparent cover with mounting clip – easy to service and carry along for daily use
- long service life - 12 years total life time (filter change every 4 years)

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. 360g Dräger PARAT 3200: approx. 330g
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)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PARAT 3100	1	R57981
Dräger PARAT 3200	1	R57982

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	150°C
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	20	3951213
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 4740 S/M	1	R55875

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	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
Gas Filters		
A1	90 gr/pc	6738005
A2	90 gr/pc	6738873
A2B2	120 gr/pc	6738775
A1B1E1K1	110 gr/pc	6738816
Combination Filters		
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 940 A2	1	6738855
Gas filter 900 A2B2	1	6738779
Gasfilter 105 AX	1	6738863
Gasfilter 900 K2	1	6738856
Gasfilter 940 A2B2E2K1	1	6738802
Gasfilter 1140 A2B2E2K2	1	6738804
Combination filter 1140 A2B2-P3 RD	1	6738783
Combinatiefilter 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
Combinatie filter 990 A2B2-P3 RD	5	6738773
Combinatie filter 990 A1B1E1K1-P2 RD	5	6738811
Combinatie 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°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 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.

Dräger PAS Colt - EN 402
Sophisticated harness

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.

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	-32°C to +70°C

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger PAS Colt EN 402	1	3352744

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 and emergency escape units available.

Dräger PAS Colt - EN 137
Sophisticated harness

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.

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 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	-32°C to +70°C

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 Airline Equipment

PAS® Filters reliably clean air, e.g. from an existing high-pressure network, from liquid and solid particles, including oil vapour and smell. This means that you get breathing air which even exceeds the specifications of DIN EN 12021.

Dräger PAS Filter Airline Equipment
For reliable clean air

Wall-mounted or portable

The PAS Filters can be mounted to the wall or placed on the floor. 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 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 (e.g.):

- Dräger PAS Lite
- Dräger PAS Colt
- Dräger PAS Micro
- Dräger PAS AirPack
- Dräger ABIL

Further advantages

- two connection options: 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 760 (L/min) with pre-filter 3 x CEJN portable 6.0 kg	1	3359922

Airline Hoses

For the new range of compressed line breathing apparatus you can chosse 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 -30°C to +60°C
- 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	30 BAR (60 Bar burst pressure)
Operating temperature	-30°C to +100°C
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		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	- 10°C to + 60° 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.

Dräger Automatic Switch Over Valve
Uninterrupted airsupply

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.

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	-30°C to +70°C
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

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 100-TE (300 bar)	1	84053202
Poseidon PE 100-TW (single phase, 230 V, 60 Hz)	1	84053203

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
- 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

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P-Purification system
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- 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 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 motorwith 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	1	BK0OCE000

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 3800

Chemical protective suits are used whenever and wherever a person's skin has to be protected from the harmful effects of hazardous liquids. If there is a risk that the entire body may come into contact with solid or liquid chemicals, complete coveralls are the only way to ensure full protection.

Dräger SPC 3800
Splash protection

Light and comfortable

The Dräger SPC 3800 (Splash Protective Clothing) is a light and comfortable, liquid-tight protective suit. It is made of Tychem® F material and is designed for disposable use. The donning and doffing procedures are especially easy because of the zippering concept from shoulder to shoulder at the back protected by a double flap which is made of the same Tychem® F material. Furthermore, the zipper does not interfere with the wearer's work and provides perfect protection during the operation and decontamination phase.

You choose

The Dräger SPC 3800 will be available in the colours grey and orange. The grey version is equipped with heat-sealed laminated safety gloves. The orange version has Butyl gloves attached. The feet are protected by flexible socks with cuffs which are also made of the Tychem® F material. Dräger also offers a suit with a modified sock that optimises conductivity.

Flexible use

The handling and wearing comfort is provided by the thin flexible form. Thereby, the face cuff can be alternatively worn on or underneath the double sealing frame of the mask. The Dräger SPC 3800 uses the same face cuff as the Dräger CPS 7800. Due to the separate packaging, the user can very easily identify if a suit has already been used. The one-piece coveralls with liquid-tight heat-sealed seams are optimized for use with full face masks together with a breathing apparatus, powered air purifying respirator or compressed airline equipment.

Reliable protection

These coveralls provide protection against ultra-fine dusts and powders, against many inorganic acids and alkalis as well as a broad spectrum of organic chemicals in liquid form. The Dräger SPC 3800 is CE certificated and classified according to category III as chemical protective suit type 3, 4, 5 and 6. Furthermore, the suit meets all requirements of the SOLAS approval. The main customer groups are within industrial applications and the shipping market. The coveralls are available in six sizes (S, M, L, XL, XXL, XXXL).

TECHNICAL SPECIFICATIONS

Material	Tychem® F
Sizes	Size M: body height from 1.68 m to 1.76 m Size L: body height from 1.74 m to 1.82 m Size XL: body height from 1.80 m to 1.88 m Size XXL: body height from 1.86 m to 1.94 m
Weight	840 g
Color	orange
Zipper with double flap	horizontal on backside
Gloves	Butyl® gloves
Temperature	-73 °C to +98 °C
Approvals	EN 14605 Category III, Type 3 and 4, EN ISO 13982-1 Category III, Type 5, EN 13034 Category III, Type 6 EN 1073-2, EN 14126, EN 1149-1, SOLAS

Dräger SPC 3800

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger SPC 3800, size M	1	R57375
Dräger SPC 3800, size L	1	R57376
Dräger SPC 3800, size XL	1	R57377
Dräger SPC 3800, size XXL	1	R57378

Dräger SPC 2400

Chemical protection overalls are always used when it is important to protect a person's skin from harmful influences or hazardous, liquid substances. The Dräger SPC 2400 Flexothane provides light protection against low concentrations of acids, logs and ammonia. Resistant to crude oil, machine oil, petroleum, benzine and diesel.

Dräger SPC 2400
Chemical protection overall

Features

The splash-proof or liquid-tight Dräger SPC 2400 chemical protection overalls are light and comfortable splash protection clothing, made from textile that is water-vapour permeable or PVC-layered.<Pgfgroep omschr
The one-piece overalls, with heat-sealed seams, are designed for use with disposable masks, filter masks, full-face masks with compressed air breathing apparatus, or compressed air line systems.

Both overalls are washable, thus making them reusable. Washing by hand is recommended, however the Dräger SPC 2400 Flexothane can also be washed by machine at a low washing movement.

The overalls are CE certified and classified as chemical protection types 4 and 3.

Dräger SPC 2400 Flexothane

The one-piece overall is equipped with a hood with drawstring, sleeves with elasticated ends and cuffs, as well as reflective strips on the upper arms. The ends of the legs can be adjusted using press studs.

The zip fastener runs vertically on the front of the overall, and is protected by a double flap. This overall offers protection against crude oil, machine oil, petroleum, lubricants, etc. The light, water-vapour-permeable material offers a high degree of comfort and maintains its flexibility, even at very low temperatures.

Dräger SPC 2400 PVC

The one-piece overall is equipped with an elasticated hood with a special fastening beneath the chin. The sleeves have elasticated ends and cuffs. The elasticated leg ends have a tie bar and cuffs that can be adjusted using hook and loop fastener strips. Furthermore, the elbow and knee areas are reinforced.

The vertical zip fastener with triple protection is located on the front. This overall provides protection when cleaning, e.g. when using a high-pressure cleaner or when cleaning tanks. The robust material also offers protection when using cleaning agents, low concentrations of acids and base, and inorganic salts.

TECHNICAL SPECIFICATIONS

Dräger SPC 2400 - Flexothane	
Weight	0.7 kg
Color	Red /dark-blue
Material	Water-vapour-permeable textile
Washability	Restricted machine wash (max. 40° C)
Approvals	NEN-EN 14605 (type 4)
Dräger SPC 2400 - PVC	
Weight	2 kg
Color	Yellow
Material	Water-vapour-permeable textile
Washability	Handwash max. 30° C
Approvals	NEN-EN 14605 (type 3)

Dräger SPC 2400

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger SPC 2400 Flexothane, size M, 164 - 182 cm, chest size: 96 - 104 cm	1	R54522
Dräger SPC 2400 Flexothane, size L, 170 - 188 cm, chest size: 104 - 118 cm	1	R54523
Dräger SPC 2400 Flexothane, size XL, 170 - 188 cm, chest size: 112 - 120 cm	1	R54524
Dräger SPC 2400 Flexothane, size XXL, 176 - 194 cm, chest size: 120 - 128 cm	1	R54998
IIR gloves, size 10 (1 pair)	1	R53531
IIR gloves, size 11 (1 pair)	1	R53560

Dräger Workmaster-Pro Himex

For emergency response to hazardous materials, it is essential to prevent dangerous chemicals causing permanent injury to personnel or damage to property and the environment. Such responsible work demands equipment that matches the responsibility.

Dräger Workmaster-pro Himex
For emergency response

Applications

The Dräger WorkMaster pro-ET chemical protective suit protects the equipment wearer from gaseous, liquid, aerosol and solid chemicals. The breathing apparatus is worn outside the suit.

Features

The suit material consists of high-quality HIMEX® substrate fabric, which features extremely high mechanical strength and chemical resistance and also withstands darting flames.

The components of the protective suit can be put together to suit specific applications with the help of a modular system and can be matched to the wearer to achieve maximum comfort in the various work situations. A choice of different suit sizes is available in both BLUE and ORANGE. The protective gloves and safety boots are chemical-proof, easily replaceable and joined to the suit.

Full integration

The visor of the permanently integrated fullface mask consists of composite safety glass. A ventilation system can also be integrated into the suit, and helps to keep the body cool and remove moisture. The wearer benefits from the agreeable conditions inside the suit and can thus enjoy substantially improved comfort. In addition, the suit can be connected to an external source such as a compressed air respirator.

HIMEX® is a registered trademark of Drägerwerk AG, Lübeck.

The Dräger WorkMaster pro-ET (ET = Emergency Team) chemical protective suit is a gas-tight, reusable, single-piece chemical protective suit compliant with EN 943-1:2002, Type 1b.

It is also tested and approved to EN 943-2:2002, Type 1b - (ET) and thus complies with the latest vfdb guideline 08/02:2002-11(3). Furthermore, the suit has the European MED Steering Wheel approval (Marine Equipment Directive) of the “GL LUXEMBOURG” and the Japanese marine approval “NIPPON KAIJI KYOKAI”.

TECHNICAL SPECIFICATIONS

Sizes	M from 160 cm - 175 cm L from 170 cm - 185 cm XL from 180 cm - 190 cm XXL from 185 cm - 200 cm
Weight	with hood approx. 6.5 kg with integrated full-face mask approx. 7 kgs (without ventilation system)
Color	outside / inside - blue / grey - orange / grey
Temperature	in use -40 °C to +60 °C in storage -5 °C to +25 °C
Suit material	(substrate fabric) with HIMEX®/hybrid material

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger Workmaster-Pro Himex size M	1	R29400/M
Dräger Workmaster-Pro Himex size L	1	R29400/L
Dräger Workmaster-Pro Himex size XL	1	R29400/X
Dräger Workmaster-Pro Himex size XXL	1	R29400/XX

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 -80°C.

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.

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

Dräger CPS 7900

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 °C tot +60 °C in storage -30 °C tot +60 °C
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: Including face cuff, safety boots size 43 and gloves size 10	1	R62021
Dräger CPS 6800, size XL, in transport bag: Including face cuff, safety boots size 46 and gloves size 11	1	R62022

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 °C to + 60 °C - 20 °C to + 25 °C	in use in storage
Weight	2,2 kg	
Approvals	EN 943-1:2002 EN 943-2:2002 (ET) SOLAS II-2, Reg. 19 ISO 16602:2007	EU requirements for gas-tight protective suits for industrial applications EU requirements for gas-tight protective suits for use by firefighters Requirements for use on seagoing vessels International requirements for chemical protective suits

ORDER INFORMATION

Description	Unit Sales	Articlenr
Dräger CPS 5800, size L, 170 - 185 cm	1	R57788
Dräger CPS 5800, size XL, 180 - 190 cm	1	R57789

Parka Work Jacket

If you are looking for good protection against bad or cold weather, this Parka work jacket is a good choice. Due to the removable lining, this dress is also ideal in spring and autumn.

Parka Work Jacket
Waterproof and low exhalation

Features
- flame retardant
- two loops for gas detection / radio equipment
- two chest pockets
- concealed detachable hood

Washing instruction
- maximum wash temperature is 40°C. The lifetime is influenced by the type and dosage of detergents.
- do not bleach
- tumble dry not possible
- no ironing allowed
- dry cleaning not possible

TECHNICAL SPECIFICATIONS

Type	Full Option waterproof Parka jacket
Color	Navy - Yellow
Sizes	S - XXXL
Material	99% cotton / 1% antistat - 250 gr/m2
Approvals	rain tight according to EN 343 + A1: 2007 reflections according to EN 471 + A1: 2007 en GO RT 3279: 2008 anti-static according to EN 1149 - 5: 2008 chemical resistant according to EN13034: 2005 + A1: 2009 flame retardant according to EN ISO 14116: 2008

ORDER INFORMATION

Description	Unit Sales	Articlenr
Parka work jacket, size S	1	07115050
Parka work jacket, size M	1	07115051
Parka work jacket, size L	1	07115052
Parka work jacket, size XL	1	07115053
Parka work jacket, size XXL	1	07115054
Parka work jacket, size XXXL	1	07115055

Coverall

The safest garment against flash fire. The safety boots need to be ordered separately.

Features
- FR reflective tape
- central zip with press studs at top
- two zipped chest pockets
- two side swing pockets with trouser access
- two hip patch pockets with rule pocket on right leg
- pen pocket on left sleeve
- length leg: 84 cm, 79 cm, 74 cm
- including logo

Coverall
The safest garment against flash fire

TECHNICAL SPECIFICATIONS

Type	Flamebuster Nordic
Color	Dark Blue
Sizes	46 - 62
Material	99% cotton / 1% antistat - 350 gr/m2
Approvals	EN340, EN1149, EN ISO 11611, EN ISO 11612, IEC 61482-2

ORDER INFORMATION

Description	Unit Sales	Articlenr
Coverall, size 46	1	SG03211
Coverall, size 48	1	SG03212
Coverall, size 50	1	SG03213
Coverall, size 52	1	SG03214
Coverall, size 54	1	SG03215
Coverall, size 56	1	SG03216
Coverall, size 58	1	SG03217
Coverall, size 60	1	SG03218
Coverall, size 62	1	SG03219

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 30°C 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 / m²
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
Overall, size XXL	1	07110004

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 (-30°C, 440V, MM)

Safety helmets

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety helmet JSP EVO2, red	1	SG03106
Safety helmet JSP EVO2, white	1	SG03104
Safety helmet JSP EVO2, yellow	1	SG03107
Safety helmet JSP EVO2, blue	1	SG03108

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 JSP MK7, yellow, including safety class	1	07105020

Safety helmet with integrated goggle

Safety helmet made of polyamide, complete with PC safety glasses.

Safety helmet
With integrated eye protection

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.

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, blue	1	SG03100
Safety helmet with integrated goggle, transparant	1	SG03101
Safety helmet with integrated goggle, orange	1	SG03102
Safety helmet with integrated goggle, yellow	1	SG03103

Safety Shoe

Low work shoe with loop and hook fastener closure and a steel toe.

Features
- hook and loop fastener closure
- Buk oiled leather
- ergo-Tex lining
- clima-stream ® system insole
- PPS cushioning system
- MPH XN sole technology
- EN 345 S2

Meets the requirements S2
- closed heel
- antistatic
- energy absorption capacity in the heel area
- waterproof and water absorbent

Safety Shoe
Hook and loop fastener

TECHNICAL SPECIFICATIONS

Type	Atlas Ergotex 400 S2 hook and loop fastener
Color	Black / blue
Weight	1.2 kg
Sizes	40 - 48

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Shoes S2, size 40	1	07107039
Safety Shoes S2, size 41	1	07107040
Safety Shoes S2, size 42	1	07107041
Safety Shoes S2, size 43	1	07107042
Safety Shoes S2, size 44	1	07107043
Safety Shoes S2, size 45	1	07107044
Safety Shoes S2, size 46	1	07107045
Safety Shoes S2, size 47	1	07107046
Safety Shoes S2 hook and loop fastener, size 48	1	07107047

Safety Shoes Loafer

The safety shoe has a sporty appearance and ensures maximum security and a perfect fit.

Features
- a lightweight, anti-static PU sole which is heat resistant to 110 C
- resistant to oils and acids
- equipped with the Tunnel System which provides optimal cushioning
- full grain leather / nappa
- nappa / leather lining
- dual density PU sole
- EN 345 S2

Meets the requirements S2
- closed heel
- anti-static
- energy absorption capacity in the heel area
- waterproof and water absorbent

Safety Shoes S2
Loafer

TECHNICAL SPECIFICATIONS

Type	Bata Rotterdam / Concho Loafer S2
Color	Black
Sizes	40 - 48

ORDER INFORMATION

Description	Unit Sales	Articlenr
Safety Shoes S2 Loafer, size 40	1	07107048
Safety Shoes S2 Loafer, size 41	1	07107049
Safety Shoes S2 Loafer, size 42	1	07107050
Safety Shoes S2 Loafer, size 43	1	07107051
Safety Shoes S2 Loafer, size 44	1	07107052
Safety Shoes S2 Loafer, size 45	1	07107053
Safety Shoes S2 Loafer, size 46	1	07107054
Safety Shoes S2 Loafer, size 47	1	07107055
Safety Shoes S2 Loafer, size 48	1	07107056

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 170°C
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

The new generation: spectacle Dräger X-pect 8320. This safety goggle stands for fantastic design, ultra light and highest comfort for intensive use.

Dräger x-pect 8320
Protective eyewear

Robust lightweight
The material of the X-pect 8320 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 8320 goggles high wearing comfort - even in extreme conditions such as heat and cold.

Scratch and anti-fog
The X-pect 8320 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 8320 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 8320 goggles offers a wide field of view - comfortable and easy to use.

Sporty appearance
The "wrap-around" design of the Dräger X-pect 8320 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 8320 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

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
Neox ® Handgloves, 30.5 cm	1	07103011

Frotté Handgloves

Medium heat protective handgloves.

Recommended Usage
- chemical plants
- agriculture
- petrol refining
- cleaning and maintenance
- soft, comfortable and absorbent

Frotté handgloves
Great protection

TECHNICAL SPECIFICATIONS

Size	10
Fabric	Frotté
Manchet style	Knitted manchet
Color	Natural

ORDER INFORMATION

Description	Unit Sales	Articlenr
Frotté Handgloves	1	SG06152

Rain Trouser

Lightweight and comfortable, flame retardant rain trouser. The rain jacket need to be ordered separately.

Features
- reflection bands
- high frequency welded seams
- adjustable snaps
- lightweight and comfortable

Rain trouser
Flame retardant

TECHNICAL SPECIFICATIONS

Type	Microflex flame retardant trouser
Color	Blue
Sizes	S - XXL
Material	50% polyamide / 50% polyurethane - 170 gr/m2
Approvals	EN340, EN 343, EN 1149-5, EN ISO14116

ORDER INFORMATION

Description	Unit Sales	Articlenr
Rain trouser, size S	1	07115060
Rain trouser, size M	1	07115061
Rain trouser, size L	1	07115062
Rain trouser, size XL	1	07115063
Rain trouser, size XXL	1	07115064

Rain Jacket

Lightweight and comfortable, flame retardant rain jacket.

Features
- reflection bands
- high frequency welded seams
- adjustable snaps
- lightweight and comfortable
- zipper under storm flap with press studs
- adjustable press stud on sleeves
- two patch pockets
- hood with drawstring, hidden in collar
- including logo

Rain jacket
Flame retardant

TECHNICAL SPECIFICATIONS

Type	Microflex flame retardant jacket
Color	Blue
Sizes	S - XXXL
Material	50% polyamide / 50% polyurethane - 170 gr/m2
Approvals	EN340, EN 343, EN 1149-5, EN ISO14116

ORDER INFORMATION

Description	Unit Sales	Articlenr
Rain jacket, size S	1	07115066
Rain jacket, size M	1	07115067
Rain jacket, size L	1	07115068
Rain jacket, size XL	1	07115069
Rain jacket, size XXL	1	07115070
Rain jacket, size XXXL	1	07115071

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.

Safety harness
D-rings at front and back

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.

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	SG04251
Safety harness, d-ring on back & front, universal size	1	SG04251

Shock absorbing lanyard

A shock absorbing lanyard in combination with a safety harness offers all the necessary elements for a complete fall protection system. It 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.

Shock absorbing lanyard
With scaffold hook and twist-lock karabiner

Features
- protected identification label
- blue webbing
- scaffold hock (B)
- protective sleeve
- shock absorbing element
- automatic twist-lock karabiner (A)

Shock absorbing element
- absorbing strap
- engaging force > 2kN
- impact force reduction < 6 kN

Webbing
- polyester
- width: 45 mm
- strength > 2500 daN

Karabiner
- opening: (A): 17 mm / (B): 50 mm
- (A): high strength steel
- (B): high strength forged steel
- strength: (A) > 2500 daN / (B) > 2300 daN

Applications
(maintenance) activities on board of a vessel or a rig.

TECHNICAL SPECIFICATIONS

Brand	PROTECTA
System breaking strength	> 15 kN
Net weight	1.15 kg
Lenght	1.75 m
Approvals	CE, EN355:2002

ORDER INFORMATION

Description	Unit Sales	Articlenr
Shock absorbing lanyard, 1.75 m with scaffold hook and twist-lock karabiner	1	SG04232
Safety harness, d-ring on back & front, universal size	1	SG04252
Safety line, 20 meters, Ø 10.5 mm, weight 1.6 kg, including swivel hook	1	SG04231

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.

ORDER INFORMATION

Description	Unit Sales	Articlenr
Rescue Tripod, aluminium, basic	1	SG04201
Stopmax/Ikar Rescue block: length 24 meters excl holder/adapter	1	SG04205
Stopmax/Ikar Rescue block: length 12 meters excl holder/adapter	1	SG04204

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.

Emergency Tank Shower
1.200 litre tank

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.

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	On request

Emergency Safety Shower with Eye/Facewash Fountain - in-door

An unheated emergency safety showers and eye/facewash modes designed specifically for export. With low level water inlet.

Emergency safety shower with eye/facewash fountain
Indoor usage - unheated

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.

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.

Emergency safety shower with eye/facewash fountain
Outdoor usage - heated

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.

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.

Barikos eye wash bottle
Low maintenance eye wash bottle

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.

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

Portable eyewash, face and body shower unit

Portable emergency Eye, Face and Body Shower unit.

Features
- Incorporating an Optiflex Hand Shower with reinforced hose connected to a 14 litre stainless steel cylinder When pressurised to 8 bar via a schraeder tyre valve this unit will deliver a copious quantity of water for two minutes
- Fitted with pressure gauge and dual action safety valve to prevent over pressurisation and to allow user to vent the cylinder for cleaning and maintenance
- 1.5 metre long flexible hose

Portable emergency unit
Eyewash, face and body shower

TECHNICAL SPECIFICATIONS

Manufacturer	Hughes Safety Showers
Model No.	STD-38G
Water Capacity	14 liter
Flow rate	7 l/minute
Duration of discharge	2 minutes
Tank materials	Stainless Steel
Stored pressure or cartridge type	Stored pressure
Storage pressure	8 bar
Cylinder test pressure	13.8 bar
Working Pressure (at discharge)	6.9 bar at 15 degrees C
Eye diffuser c/w cap & chain	Confirmed
Dimensions	725 x 220 mm (h x w)

ORDER INFORMATION

Description	Unit Sales	Articlenr
Portable eyewash, face and body shower unit	1	04130013

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 for cabinet	1	04135013
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.

Disinfection of drinkwater
Especially suitable for tanks and piping

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 °C) and at least three years if stored cool (t = < 6 °C)
- 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.

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

Freshwater Salinometer SL8005

The salinometer measures and supervises the salinity (salt content) by conductivity measurement in fresh water. The measured value is displayed as ppm and by comparing the measured value to a user defined alarm setpoint value, relay outputs are available to indicate if salinity is above or below the alarm setpoint value.

Freshwater Salinometer SL8005
Measures and supervises the salinity in water

Features
- Salinity Monitor for Freshwater
- Measuring range: 0-200 ppm
- High salinity warning
- Display for salinity and alarm level
- 4-20 mA output
- Built-in self-test
- Temperature compensation 0-100 °C
- Wall or panel mounting

Typical use
In areas where fresh water generation or purification is taking place and level of salinity in the fresh water must be monitored as well as in areas where a set level of salinity is requested in a process. Salinometers are used in: Freshwater Generators, Boilers, Reversed Osmosis Fresh Water Systems (RO) and other systems where salinity has to be supervised.

Main supply
85 - 265 V AC, 50/60 Hz, 10 VA typ. - 15 VA max. Mains supply must be protected against overcurrent by an external 250 mA slow-blow fuse.

Alarm function
User defined alarm setpoint value (0 - 199 ppm) is set using "+" and "-" buttons. When measured value exceeds alarm setpoint, change-over relay contacts A and B are activated. Alarm relay B may be enabled/ disabled from the front by pressing a button.

Test
Full electronics test when power is switched on and during run-time a test-button is available for testing the salinometers. The test-button will disable the electrode and feed an internal 10ppm signal to the salinometer (note that this will be seen an an actual measurement, and alarms will respond to this). Connection to electrode is monitored and error in this reported on the front (malfunction + LED + display = "- - -").

TECHNICAL SPECIFICATIONS

Mains supply	85-265 V AC, 50-60 Hz, 10 VA typ. - 15 VA max.
Mains current	Mains supply must be protected against overcurrent by an external 250 mA slow-blow fuse
Power consumption	Max. 10.0 W
Range of salinity	0 - 200 ppm, displayed as "000" to "199" and "HI" if value exceeds 200 ppm
Alarm level	User defined alarm setpoint value (0 - 199 ppm)
Cable connections	1-2: Mains power input 3-5: Alarm relay A (change over function NO-C-NC) 6-8: Alarm relay B (change over function NO-C-NC) 11-15: Electrode 16-17: 4-20 mA output
Relay contacts	2 x Change-over relay contacts - capable of handling 4A (85 - 265 V AC or 24 V DC) load. Relays must be protected against overcurrent by an external 4 A slow-blow fuse
Protection	IP65

ORDER INFORMATION

Description	Unit Sales	Articlenr
Freshwater Salinometer SL8005	1	Op aanvraag

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 90°C
- 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.

Smoke Detector Testers SOLO 330
Meets all of the 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

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: A3 smoke detector testgas 350 grm/tin	1	SG04484

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
Cyalome stick	1	SG06153