

PROFESSIONAL SAFETY SOLUTIONS

Gas Detection
Breathing Apparatus
Air Purifying Respirator
Chemical Protection Suit
Fire Detector Tester
Temperature & Pressure Calibrator
Safety Approved Flashlights
Repair & Calibration
(KOLAS Calibration Center)



인사말

화인컴에스이는 최상의 안전 솔루션을 제공합니다.

화인컴에스이(주)는 2002년 창사 이래 국내외 해운 선주사, 조선소, 소방, 석유화학 및 일반 산업현장 등 다양한 산업분야에서 수준 높은 SAFETY SOLUTION을 제공하고자 노력해 왔습니다.

전문적인 현장 지식을 가진 영업 인력 및 서비스 인력을 점진적으로 확충해왔으며, 안전 장비에 대한 산업분야별 다양한 요구에 맞춰 최적의 장비 선정, 최고의 SOLUTION을 제공 할 수 있도록 최선을 다하고 있습니다.

아울러 고객 만족을 실현하고자 안전 장비의 보급 뿐만 아니라 장비의 효율적인 운영, 지속적인 관리를 통한 완전한 사후관리 서비스를 지향하고 있으며, 보다 공신력 있는 서비스 제공을 위해 2015년 국제공인교정기관 (KOLAS) 인정을 획득하여 운영 적용하고 있으니, 고객 여러분들의 변함없는 성원을 부탁드립니다.

지금까지 보여주신 고객 여러분의 신뢰와 관심 깊이 감사 드리며, 앞으로도 항상 겸손한 자세로 최선을 다하는 화인컴에스이(주)가 되겠습니다.

WE PROVIDE THE BEST SAFETY SOLUTION

Established in 2002, FineCom SE Co., Ltd. has committed to providing a wide range of a high-quality safety solution to customers in various fields such as domestic and overseas marine industry, and in the fire service, petrochemical industries and general industrial settings.

As a quality safety solution provider, FineCom SE has steadily invested in experienced and highly trained employees. With the specialized personnel, FineCom SE has strived to provide the best safety solutions and optimal instruments in order to meet various needs and expectations of customers.

To improve customer satisfaction, we aim for safety equipment supply as well as a complete after-sales support through an efficient operation of instruments, accredited by KOLAS as a certified calibration laboratory in 2015, the service has become to obtain more public confidence.

Dear our esteemed customers! We would like to express our sincere appreciation about your confidence and interest in FineCom SE. As always, our utmost effort will be put into for development of the product quality and the customer service.

Business Area

FineCom SE provides optimized safety solutions to a variety of industries including marine, chemical, fire and pharmaceutical industry.

Shipping &
Shipbuilding

Fire & Rescue

Chemical,
Refining,
Oil & Gas

**Professional
Safety Solutions**

Pharmaceutical,
Government,
ETC

Business Partner

FineCom SE provides a high level of Safety Solutions to diverse industries with the best business partners.

Honeywell

Gas Detection Safety
Product(PPE, SCBA)

BWT
Technologies
by Honeywell

Portable
Gas Detector

RAE
SYSTEMS
by Honeywell

Gas Detection

SALISBURY

by Honeywell

Industrial Electrical
Protection

Dräger

General Safety
Equipment

MSA

General Safety
Equipment

solo
detectortesters

Smoke and Heat
Detector Test Kit

PELICAN

Approved Safety
Flash Light

CALGAZ

Calibration Gas
(Span Gas)

NAGMAN

Pressure & Temperature
Calibrator

BRIGHT STAR
for fire safety & flashlights

Approved Safety
Flash Light

Kappler

Chemical
Protection Suit



KOLAS Accreditation Scheme for Laboratories

KOLAS evaluates the technical competence of testing and calibration laboratories based on the general requirements of ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories and specific technical requirements of each field. Laboratories that demonstrate competence and meet the requirements of KOLAS are granted accreditation.

Mission of KOLAS

- Provide national accreditation for competent laboratories and inspection bodies.
- Encourage establishment and development of laboratories, inspection bodies and related facilities in KOREA.
- Promote mutual recognition with other accreditation bodies.
- Promote international acceptance of test results and inspection reports produced by accredited organizations in order to facilitate trade.
- Cooperate and collaborate with other accreditation bodies.

Scope of Accreditation

FineCom SE constantly challenge ourselves to develop confidence in calibration service that improves customer satisfaction.

We are accredited as Testing Laboratory in accordance with the provision of Article 14 of National Standards Act. These criteria encompasses the requirements of ISO/IEC 17025:2005)

NO	Products	Range
20303	Torque Wrench, Torque Driver	10 ~ 2000 N · m
90103	Gas detector	CH4, O2, CO, H2S, I-C4H10

BUSAN KOLAS Calibration Center

FineComSE Building, 7-10, jungang-daero 332 beon-gil, Dong-gu, Busan, 41967, South Korea

Tel. 051-465-8145 **Fax.** 051-465-8149

Email. kolas@finecomse.com



Repair & Calibration

With experienced Technician, the service team is doing their best to find the most efficient way of repair by promptly analyzing problems that customers encounter.

Furthermore, we have been sharing the technical information with manufacturer, which leads to aim at the highest customers' satisfaction.

Calibration & Inspection

- **Portable Gas Detectors**
- **Fixed Gas Detection System**
- **Breath Alcohol Meter**
- **Self-Contained Breathing Apparatus (SCBA)**
- **Emergency Escape Breathing Devices (EEBD)**
- **Chemical Protection Suits**
- **Temperature Measuring Instruments**
- **Pressure Measuring instruments**
- **Torque Wrenches**

Busan Office (Service Center)

FineComSE Building, 7-10, jungang-daero 332 beon-gil, Dong-gu, Busan, 41967, South Korea

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Gas Detection

Gas Detection Tubes

X-ACT 5000, Automatic Draeger Tube Pump



The automatic tube pump Draeger X-act® 5000 is the first all-in-one solution designed for measurements with Draeger 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, vapours and aerosols.

Dimension	175 x 230 x 108 mm
Weight	1.6 kg
Short-term measurements	using Dräger short-term tubes Number of strokes: adjustable, 1 to 199 strokes Stroke volume: 100 mL
Sample taking	Flow rate range <ul style="list-style-type: none"> • 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 % Sampling time <ul style="list-style-type: none"> • adjustable, up to 12 hours, depending on flow rate • Resolution in steps of 15 minutes (default) or 1 minute
Use of Extension Hose	Up to 30 Meter (98ft.)
Barcode Reader	Built in Barcode reader which emits an invisible laser beam during normal operation.
Approval	ATEX, MED, UL, IECEx, CE-mark

Draeger Accuro Pump



The Draeger-Tube pump accuro allows you to use the established Draeger-Tubes to take measurements under extreme conditions.

Application	For short-term measurements with a small number of strokes
Design	Bellow pump worked by hand Single-handed operation
Number of strokes	1-50 strokes and higher
Stroke Volume	100 ± 5 cm ³
Size (H x W x D)	170 x 45 x 85 mm
Weight	250 g
Approval	CE, ATEX, DIN

Draeger Chip-Measurement-System (CMS)



The world's only Chip Measurement System (CMS) makes spot measurements as easy as 1, 2, 3: insert chip—start measurement—read measurement result on the LCD display. The Draeger CMS combines the advantages of the Draeger-Tubes with those of an optoelectronic analysis system.

Size (L x W x H)	215 x 105 x 65 mm
Weight	730g (analyser with batteries)
Typical measurement time	Between 20 sec and 3 min, depending on the concentration of the gas or vapour and on the type of chip being used. Between 20 sec and 10 min in the case of special hazardous gases.
Ingress Protection (IP)	IP 54
Power Supply	4 x 1.5V (AA) alkaline batteries
Operation Temp.	0 to 40°C
Approval	ATEX, UL, CSA

Draeger Detector Tubes



The Draeger short-term detector tubes have proven to be a very cost-effective and reliable way to measure toxic gases and vapors in the workplace. More than 200 different Draeger tubes are available to accurately make spot measurements for over 500 gases and vapours.

- Glass Vial (120 x 7mm)
- Filled with a chemical Reagent(s)
- Air is pulled through with a hand operated pump (Draeger Accuro)
- The reagents change colour if the targeted chemical is present

Gas Detection

Draeger Short-Term Detection Tubes

Draeger-Tube®	Part No.	Measuring Range
Acetaldehyde 100/a	6726665	100 to 1,000 ppm
Acetic Acid 5/a	6722101	5 to 80 ppm
AcetoneE 40/a	8103381	40 to 800 ppm
Acetone 100/b	CH22901	100 to 12,000 ppm
Acid Test	8101121	qualitative
Acrylonitrile 0.2/a	8103701	0.2 to 4 ppm 5 to 50 ppm
Amine Test	8101061	qualitative
Ammonia 0.25/a	8101711	0.25 to 3 ppm
Ammonia 2/a	6733231	2 to 30 ppm
Ammonia 5/a	CH20501	5 to 70 ppm 50 to 600ppm
Ammonia 5/b	8101941	5 to 100 ppm
Ammonia 0.5%/a	CH31901	0.5 to 10 Vol.-%
Aniline 0.5/a	6733171	0.5 to 10 ppm
Aniline 5/a	CH20401	1 to 20 ppm
Arsine 0.05/a	CH25001	0.05 to 3 ppm
Benzene 0.25/a	8103691	0.25-2ppm 2 to 10 ppm
Benzene 1/a	8103641	1 ppm
Benzene 2/a (5)	8101231	2 to 60 ppm
Benzene 5/a	6718801	5 to 40 ppm
Benzene 5/b	6728071	5 to 50 ppm
Benzene 15/a	8101741	15 to 420 ppm
Carbon Dioxide 100/a	8101811	100 to 3,000 ppm
Carbon Dioxide 0.1%/a	CH23501	0.5 to 6 Vol.-% 0.1 to 1.2Vol.-%
Carbon Dioxide 0.5%/a	CH31401	0.5 to 10 Vol.-%

Draeger-Tube®	Part No.	Measuring Range
Carbon Dioxide 1%/a	CH25101	1 to 20 Vol.-%
Carbon Dioxide 5%/A	CH20301	5 to 60 Vol.-%
Carbon Disulphide 3/a	8101891	3 to 95 ppm
Carbon Disulphide 5/a	6728351	5 to 60 ppm
Carbon Disulphide 30/a	CH23201	0.1 to 10 mg/L
Carbon Monoxide 2/a	6733051	2 to 60 ppm
Carbon MonoxideE 5/c	CH25601	100 to 700 ppm 5 to 150 ppm
Carbon Monoxide 8/a	CH19701	8 to 150 ppm
Carbon Monoxide 10/b	CH20601	100 to 3,000 ppm 10 to 300ppm
Carbon Monoxide 0.3%/b	CH29901	0.3 to 7 Vol.-%
Carbon Tetrachloride 0.1/a	8103501	0.1 to 5 ppm
Carbon Tetrachloride 1/a	8101021	1 to 15 ppm 10 to 50 ppm
Chlorine 0.2/a	CH24301	0.2 to 3 ppm 3 to 30 ppm
Chlorine 0.3/b	6728411	0.3 to 5 ppm
Chlorine 50/a	CH20701	50 to 500 ppm
Chlorine Dioxide 0.025/a	8103491	0.025 to 0.1 ppm 0.1 to 1 ppm
Chlorobenzene 5/a (5)	6728761	5 to 200 ppm
Chloroform 2/a (5)	6728861	2 to 10 ppm
Chloroformates 0.2/b	6718601	0.2 to 10 ppm
Chloroprene 5/a	6718901	5 to 60 ppm
Chlorpricine 0.1/a	8103421	0.1 to 2 ppm
Chromic Acid 0.1/a (9)	6728681	0.1 to 0.5 mg/m3
Cyanide 2/a	6728791	2 to 15 mg/m3

Draeger-Tube®	Part No.	Measuring Range
Cyclohexane 100/a	6725201	100 to 1,500 ppm
Cyclohexane 40/a	8103671	40 to 200 ppm 300 to 3000 ppm
Cyclohexylamine 2/a	6728931	2 to 30 ppm
Diesel Fuel	8103475	25 to 200 mg/m3
Diethyl Ether 100/a	6730501	100 to 4,000 ppm
Dimethyl Formamide 10/b	6718501	10 to 40 ppm
Dimethyl Sulphate 0.005/c (9)	6718701	0.005 to 0.05 ppm
Dimethyl Sulphide 1/a (5)	6728451	1 to 15 ppm
Epichlorohydrin 5/b	6728111	5 to 80 ppm
Ethanol 100/a	8103761	100 to 3,000 ppm
Ethyl Acetate 200/a	CH20201	200 to 3,000 ppm
Ethyl Benzene 30/a	6728381	30 to 400 ppm
Ethylene 0.1/a (5)	8101331	0.2 to 5 ppm
Ethylene 50/a	6728051	50 to 2,500 ppm
Ethylene Glycol 10 (5)	8101351	10 to 180 mg/m3
Ethylene Oxide 1/a (5)	6728961	1 to 15 ppm
Ethylene Oxide 25/a	6728241	25 to 500 ppm
Ethyl Formate	8103541	20 to 500ppm
Ethyl Glycol Acetate 50/a	6726801	50 to 700 ppm
Fluorine 0.1/a	8101491	0.1 to 2 ppm
Formaldehyde 0.2/a	6733081	0.2 to 2.5ppm 0.5 to 5 ppm
Activation tube for use in conjunction with Formaldehyde 0.2/a tube	8101141	
Formaldehyde 2/a	8101751	2 to 40 ppm

Draeger-Tube®	Part No.	Measuring Range
Formic Acid 1/a	6722701	1 to 15 ppm
Halogenated Hydrocarbons 100/a (8)	8101601	100 to 2,600 ppm
Hexane 10/a	8103681	10 to 200 ppm 300 to 2500 ppm
Hydrazine 0.01/a	8103351	0.5 to 0.6 ppm 0.01 to 0.4ppm
Hydrazine 0.25/a	CH31801	0.25 to 10 ppm 0.1 to 5 ppm
Hydrocarbon 2/a	8103581	2 to 24 mg/L
Hydrocarbons 0.1%/c	8103571	0.1 to 1.3 Vol.-%
Hydrochloric Acid 0.2/a	8103481	0.2 to 3 ppm 3 to 20ppm
Hydrochloric Acid 1/a	CH29501	1 to 10 ppm
Hydrochloric Acid 50/a	6728181	500 to 5,000 ppm 50 to 500 ppm
Hydrochloric Acid /Nitric Acid 1/a	8101681	1 to 10 ppm 1 to 15 ppm
Hydrocyanic Acid 0.5/a	8103601	0.5 to 5 ppm 5 to 50 ppm
Hydrogen 0.2%/a	8101511	0.2 to 2.0 Vol.-%
Hydrogen 0.5%/a	CH30901	0.5 to 3.0 Vol.-%
Hydrogen Fluoride 0.5/a	8103251	0.5 to 15 ppm 10 to 90 ppm
Hydrogen Fluoride 1.5/b	CH30301	1.5 to 15 ppm
Hydrogen Peroxide 0.1/a	8101041	0.1 to 3 ppm
Hydrogen Sulphide 0.2/a	8101461	0.2 to 5 ppm
Hydrogen Sulphide 0.2/b	8101991	0.2 to 6 ppm
Hydrogen Sulphide 0.5/a	6728041	0.5 to 15 ppm
Hydrogen Sulphide 1/c	6719001	10 to 200 ppm 1 to 20 ppm

Gas Detection

Draeger Short-Term Detection Tubes

Draeger-Tube®	Part No.	Measuring Range
Hydrogen Sulphide 1/d	8101831	10 to 200 ppm 1 to 20 ppm
Hydrogen Sulphide 2/a	6728821	20 to 200 ppm 2 to 20 ppm
Hydrogen Sulphide 2/b	8101961	2 to 60 ppm
Hydrogen Sulphide 5/b	CH29801	5 to 60 ppm
Hydrogen Sulphide 100/a	CH29101	100 to 2,000 ppm
Hydrogen Sulphide 0.2%/a	CH28101	0.2 to 7 Vol.-%
Hydrogen Sulphide 2%/a	8101211	2 to 40 Vol.-%
Hydrogen Sulphide 0.2%/a	CH28201	0.2 to 7 Vol.-%
Iodine 0.1/a	8103521	1 to 5ppm 0.1 to 0.6 ppm
i-Propanol 50/a	8103741	50 to 4,000 ppm
Mercaptan 0.1/a	8103281	0.1 to 2.5 ppm 3 to 15ppm
Mercaptan 0.5/a	6728981	0.5 to 5 ppm
Mercaptan 20/a	8101871	20 to 100 ppm
Mercury Vapour 0.1/b	CH23101	0.05 to 2 mg/m3
Methanol 20/a	8103801	20 to 250 ppm 200 to 5,000 ppm
Methyl Acrylate 5/a	6728161	5 to 200 ppm
Methyl Bromide 0.2/a	8103391	0.2 to 8 ppm
Methyl Bromide 0.5/a	8101671	5 to 30 ppm 0.5 to 5 ppm
Methyl Bromide 3/a (5)	6728211	10 to 100 ppm 3 to 35 ppm
Methyl Bromide 5/b	CH27301	5 to 50 ppm
Methylene Chloride 20/a	8103591	20 to 200ppm
Natural Gas Odorization, Tertiary Butylmercaptan	8103071	3 to 15 mg/m3 1 to 10 mg/m3

Draeger-Tube®	Part No.	Measuring Range
Natural Gas Test (5)	CH20001	qualitative
Nickel Tetracarbonyl 0.1/a(9)	CH19501	0.1 to 1 ppm
Nitric Acid 1/a	6728311	5 to 50 ppm 1 to 15 ppm
Nitrogen Dioxide 0,1/a	8103631	5 to 30 ppm 0.1 to 5 ppm
Nitrogen Dioxide 2/c	6719101	5 to 100 ppm 2 to 50 ppm
Nitrous Fumes 0.2/a	8103661	0.2 to 6 ppm 5 to 30 ppm
Nitrous Fumes 2/a	CH31001	5 to 100 ppm 2 to 50ppm
Nitrous Fumes 20/a	6724001	20 to 500 ppm
Nitrous Fumes 50/a	8101921	250 to 2,000 ppm 50 to 1,000 ppm
Nitrous Fumes 100/c	CH27701	500 to 5,000 ppm 100 to 1,000 ppm
n-Butanol 10/a	8103861	10 to 250 ppm 250 to 2,000 ppm
Oil Mist 1/a	6733031	1 to 10 mg/m3
Olefine 0.05%/a	CH31201	Propylen 0.06 to 3.2Vol.-% Butylene 0.04 to 2.4Vol.-%
Oxygen 5%/B(8)	6728081	5 to 23 Vol.-%
Oxygen 5%/c	8103261	5 to 23 Vol.-%
Ozone 0.05/b	6733181	0.05 to 0.7 ppm
Ozone 10/a	CH21001	20 to 300 ppm
Pentane 100/a	6724701	100 to 1,500 ppm
Perchloroethylene 0.1/a	8101551	0.5 to 4 ppm 0.1 to 1 ppm
Perchloroethylene 2/a	8101501	20 to 300 ppm 2 to 40 ppm

Draeger-Tube®	Part No.	Measuring Range
Perchloroethylene 10/b	CH30701	10 to 500 ppm
Petroleum Hydrocarbons 10/a	8101691	10 to 300 ppm
Petroleum Hydrocarbons 100/a	6730201	100 to 2,500 ppm
Phenol 1/b, Cresol	8101641	1 to 20 ppm
Phosgene 0.02/a	8101521	0.02 to 1 ppm 0.02 to 0.6 ppm
Phosgene 0.05/a	CH19401	0.04 to 1.5 ppm
Phosgene 0.25/c	CH28301	0.25 to 5 ppm 0.01 to 0.3 ppm
Phosphine 0.01/a	8101611	0.1 to 1 ppm 0.01 to 0.3 ppm
Phosphine 0.1/C	8103711	0.7 to 4 ppm 0.1 to 1.0 ppm
Phosphine 0.1/b in acetylene	8103341	1 to 15 ppm 0.1 to 1 ppm
Phosphine 1/a	8101801	20 to 100 ppm 1 to 20 ppm
Phosphine 25/a	8101621	200 to 10,000 ppm 25 to 900 ppm
Phosphine 50/a	CH21201	50 to 1,000 ppm
Polytest	CH28401	qualitative
Pyridine 5/A	6728651	5 ppm
Styrene 10/a	6723301	10 to 200 ppm
Styrene 10/b	6733141	10 to 250 ppm
Styrene 50/a	CH27601	50 to 400 ppm
Sulphur Dioxide 0.1/a	6727101	0.1 to 3 ppm
Sulphur Dioxide 0.5/a	6728491	1 to 25 ppm 0.5 to 5 ppm
Sulphur Dioxide 1/a	CH31701	1 to 25 ppm

Draeger-Tube®	Part No.	Measuring Range
Sulphur Dioxide 20/a	CH24201	20 to 200 ppm
Sulphur Dioxide 50/b	8101531	400 to 8,000 ppm 50 to 500 ppm
Sulphuric Acid 1/a(9)	6728781	1 to 5 mg/m3
Sulfuryl Fluoride 1/a (5)	8103471	1 to 5 ppm
Tertiary Butylmercaptan	8103071	3 to 15 mg/m3 1 to 10 mg/m3
Tetrahydrothiophene 1/b(5)	8101341	1 to 10 ppm
Thioether	CH25803	1mg/m3 threshold value
Toluene 5/b	8101661	50 to 300 ppm 5 to 80 ppm
Toluene 50/a	8101701	50 to 400 ppm
Toluene 100/a	8101731	100 to 1,800 ppm
Toluene Diisocyanate 0.02/A(9)	6724501	0.02 to 0.2 ppm
Trichloroethane 50/d(5)	CH21101	50 to 600 ppm
Trichloroethylene 2/a	6728541	20 to 250 ppm 2 to 50 ppm
Trichloroethylene 50/a	8101881	50 to 500 ppm
Triethylamine 5/a	6718401	5 to 60 ppm
Vinyl Chloride 0.5/b	8101721	5 to 30 ppm 0.5 to 5 ppm
Vinyl Chloride 1/a	6728031	5 to 50 ppm 1 to 10 ppm
Vinyl Chloride 100/a	CH19601	100 to 3,000 ppm
Water Vapour 0.1	CH23401	1 to 40 mg/L
Water Vapour 0.1/a	8101321	0.1 to 1.0 mg/L
Water Vapour 1/b	8101781	20 to 40 mg/L 1 to 18 mg/L
Water Vapour 3/a	8103031	3 to 60 lbs/mmcf
Xylene 10/a	6733161	10 to 400 ppm

Gas Detection

Single Portable Gas Detector

Honeywell MiniMax XT / XP



It delivers advanced, full feature functionality, user configurability with cost effective serviceability for a wide range of toxic gases.

	MiniMax XT	MiniMax XP
Life Time	2 years after activation	No life time limitation
Measurement	O ₂ , CO, H ₂ S	O ₂ , CO, H ₂ S, SO ₂ , Cl ₂ , HCN, NO ₂ , NH ₃ , H ₂
Dimensions	87 x 50 x 27mm	93 x 50 x 27mm
Weight	73g (CO/H ₂ S), 82.3g (O ₂)	81.5g (Toxic), 93g (O ₂)
Battery life	2 years	Battery (replaceable) 3 years
Alarms	Visual, audible, vibrating	Visual, audible, vibrating
Guarantee	2 years	2 years
Approval	UL	UL

BW Clip



It operates up to three years maintenance-free: Just turn on the device and it runs continuously—no need for calibration, sensor replacement, battery replacement or battery charging.

	2 year detector	3 year detector
Life Time	Two years from activation	Three years from activation (Hibernation mode with case accessory or IntelliDoX)
Measurement	H ₂ S, CO, O ₂ , SO ₂	H ₂ S, CO
Dimensions	4.1 x 5.0 x 8.7 cm	
Weight	92 g	
Ingress Protection	IP 66/67	
Battery life	Two years (H ₂ S, CO, O ₂ or SO ₂)	Three year (H ₂ S, CO)
Alarms	Visual, vibrating, audible (95 dB) • Low, High	
Guarantee	Two or three years from activation	
Approval	UL, ATEX, IECEx, KTL	

ToxiRAE Pro



The ToxiRAE Pro family is the industry's first and largest family of wireless, personal single-gas monitors that can reliably and accurately monitor a full range of common toxic industrial chemicals (TICs), volatile organic compounds (VOCs), combustible gases, carbon dioxide (CO₂), and Oxygen (O₂).

Size	118 x 60 x 30 mm
Weight	220 g / 235 g (ToxiRAE Pro LEL and PID)
Sensor	ToxiRAE Pro LEL : Catalytic bead sensor ToxiRAE Pro CO ₂ : NDIR sensor ToxiRAE Pro Toxic Gases : Over 20 intelligent interchangeable field-replaceable electrochemical sensors
Detectable Gases	Combustible, O ₂ , CO, H ₂ S, H ₂ , HCN, EtO, ClO ₂ , Cl ₂ , NH ₃ , CO ₂ , VOCs
Battery	Rechargeable Li-ion battery
Wireless Network	ProRAE Guardian Real-Time Wireless Safety System or Closed-Loop Network with the EchoView Host
Alarm Modes	- Wireless remote alarm notification ¹ ; audible (95 dB @ 30 cm), vibration, visible alarm (flashing bright red LEDs), and on-screen indication of alarm conditions - Man Down Alarm with pre-alarm and real-time remote wireless notification
Dust and Water Resistance	IP-65 rating for dust and water ingress protection (validated by an independent test laboratory)
Approval	CSA, ATEX, IECEx, China Ex

ToxiRAE 3



This portable single-gas monitor is designed to keep workers safe against the threat of carbon monoxide (CO) and hydrogen sulfide (H₂S). The ToxiRAE 3's high-performance, three-electrode sensor delivers the fastest possible response time.

With its water and dust-resistant housing, and three-alarm capability, it's a valuable tool for ensuring workers are aware of the presence of CO or H₂S.

Size	8.6 x 5.5 x 2.0 cm
Weight	99.4 g
Detectable Gases	H ₂ S (0-100 ppm) / CO Low range (0-500 ppm) / CO High range (0-1999 ppm)
Battery	User-replaceable 2/3 AA high-capacity lithium IP 66/67
Alarms	95 dB typical (at 30 cm) buzzer and flashing red LED to indicate exceeded preset limits. Vibration alarm, 6-LED visible alarm
Response time	T ₉₀ < 12 seconds
IP Rating	IP-67
Approval	cCSAus, ATEX, IECEx
Approval	ATEX, IECEx, CSA/US

Gas Detection

Single Portable Gas Detector

Draeger Pac 3500 / 5500 / 7000



The Draeger Pac® series is composed of fast, accurate, reliable and easy-to-use personal single gas detectors. The devices are extremely robust, featuring clear warning signals and language-free displays. Their cutting-edge sensor technology delivers reliable results every time.

	Pac 3500	Pac 5500	Pac 7000
Life Time	2 years	No life time limitation	No life time limitation
Measurement	O2, CO, H2S	O2, CO, H2S	O2, CO, H2S, CO2, SO2, Cl2, HCN, NH3, NO2, NO, PH3, OV, OV-A
Dimensions	84 x 64 x 25mm		
Weight	120g		
Ingress Protection	IP 65		
Battery life	8 hours of use per day, 1 minute alarm per day CO, H2S : > 2 years O2 : > 12 months		
Alarms	Visual, audible, vibrating		
Guaranty	2 years		
Event logger	Storage of up to 60 events including concentration levels, date and time		
Approval	CE-Sign, ATEX, UL, IECEx, GOST		

MSA ALTAIR Pro



The ALTAIR Pro Single-Gas Detector has a wide range of features, including simple intuitive operation, small rugged design and dependable technology.

Life Time	No life time limitation, Indefinite with sensor and battery replacements as needs
Measurement	O2, CO, H2S, NH3, Cl2, ClO2, NO2, SO2, HCN, and PH3
Dimensions	86mm x 51mm x 25mm
Weight	114g including clip
Ingress Protection	IP67 (except O2-R is IP54)
Battery life	CR2 lithium camera battery (9000 hour installed life - typical)
Alarms	Average > 95dB AT 1.30cm, Bright LEDs, Vibrating alarm.
Guaranty	Two years after the unit is shipped, Warranty shall not exceed two years and three months after date of manufacture
Approval	CSA, ATEX, IECEx, ANZEx, UL-BR, CHINA(CMC, PCEC), EAC

Draeger X-am 5100



Draeger X-am® 5100 portable single-gas detector guarantees that you use the safest methods possible for handling HF, HCl, H2O2 or hydrazine.

Dimensions	48 x 130 x 61mm	
Weight	220-250g	
Measurement	HF/HCl	: 0-30 ppm
	H2O2	: 0-20 ppm
	Hydrazine	: 0-3 ppm
Ingress Protection	IP 54	
Alarms	Visual, audible, Vibrating	
Operating time	Alkaline Battery	: 180 h
	NiMH Rechargeable battery	: 150 h - 180 h
Charging Time	< 4 hours	
Data logger	Retrievable using an infrared interface > 1000 h at a recording interval of 1 value per minute	
Approval	ATEX, IECEx, CSA, CE mark	

Multi Portable Gas Detector

Draeger X-am 5000 / 5600



The X-am 5000/5600 is the smallest gas detection instrument for 1–6 gases monitoring.

	X-am 5000	X-am 5600
	Up to 5 gases	Up to 6 gases
Measurement	Flammable(Cat Ex/IR Ex), O ₂ , CO, H ₂ S, NO, NO ₂ , SO ₂ , PH ₃ , HCN, NH ₃ , CO ₂ (EC, IR), Cl ₂ , OV, OV-A, H ₂ , Amine, Odorant, COCl ₂ , O ₃	
Dimensions	48 x 130 x 44 mm	47 x 130 x 44mm
Weight	220-250g	250g
Ingress Protection	IP 67	
Alarms	Visual, audible, Vibrating	
Operating time	> 12 hours	> 10.5 hours
Charging Time	< 4 hours	
Data logger	Can be read out via Infrared > 1,000 hours with 5-6 gases and a recording interval of 1 value per minute	
Approval	ATEX, CSA, IECEx, CE-mark, MED, MSHA	ATEX, IEC, MED, CSA C US

Draeger X-am 2500



The Draeger X-am 2500 was especially developed for use as personal protection.

The 1 to 4 gas detector reliably detect combustible gases and vapours, as well as O₂, CO, NO₂, SO₂ and H₂S.

Dimensions	48 x 130 x 44mm
Weight	220-250g
Measurement	Flammable, O ₂ , CO, H ₂ S, NO ₂ , SO ₂
Ingress Protection	IP 67
Alarms	Visual, audible, Vibrating
Operating times	> 12 h with alkaline and NiMH, > 13 h with NiMH HC
Charging Time	< 4 hours
Data logger	Retrievable using an infrared interface > 1,000 h with 4 gases at a recording interval of 1 value per minute
Approval	ATEX, CSA, IECEx, CE mark, MED

Draeger X-am 7000



Draeger X-am 7000 is the solution for the simultaneous and continuous measurement of up to five gases.

The Draeger X-am 7000 can be equipped with three electrochemical, and two catalytic bead, infrared or photo ionization sensors.

Dimensions	150 x 140 x 75mm
Weight	Instrument : 600g Rechargeable battery : 490-730g
Measurement	Up to 5 gases Flammable (Cat Ex/ IR Ex), VOCs, O ₂ , CO, H ₂ S, CO ₂ , Amine, Cl ₂ , ClO ₂ , COCl _x , H ₂ , H ₂ HC, HCN, Hydride, NH ₃ , NO, NO ₂ , Odorant. PH ₃ , SO ₂ , OV, OV-A
Ingress Protection	IP 67
Alarms	Visual 360° flashing LEDs, audible alarm (> 100 dB at 30 cm or 1 ft.)
Battery life	Alkaline : > 20 hours NiMH : 9 hours (4.8 V / 3.0 Ah) / 20 hours (4.8 V / 6.0 Ah)
Charging Time	3.5 to 7 hours, depending on battery type
Pump mode	Maximum hose length of 45 m
Approval	ATEX, MED, UL, CSA, IECEx, CE-mark

Gas Detection

Multi Portable Gas Detector

Draeger X-Zone 5500



The Draeger X-zone 5500 transforms the Draeger personal gas detection instruments X-am 5000, 5100 and 5600 into innovative area monitoring devices for a wide range of applications. Up to 25 Draeger 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.

Dimensions	490 x 300 x 300mm
Weight	10kg
Ingress Protection	IP 67
Alarms	Visual, Audible 360°; > 108 dB in a distance of 1 m (30 ft.), 120 dB in a distance of 30 cm (1 ft.)
Life signal	Green status display(360°c), illuminated ring(LED)
Operating time	Approx. 120 h (24 Ah battery)
Charging time	Approx. 14 h
Pump operation	Maximum hose length: 45 m
Radio transmission	Worldwide license-free ISM frequencies Digital radio, robust and interference-free transmission up to 100m
RF approvals	868 MHz (EU, Norway, Switzerland)
Approval	ATEX, IECEx, CSA/US

Draeger X-dock 5300/6300/6600-Automatic Calibration System



The Draeger X-dock series provides you with full control of your portable Draeger 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.

	X-dock Master	X-dock Module Pac	X-dock Module X-am 125	X-dock Module X-am 125+
Weight	Approx.1,500g	Approx. 900g	Approx. 920g	Approx. 960g
Dimension (Master)	Approx. 120 x 130 x 250mm			
Dimension (Module)	Approx. 90 x 145 x 250mm			
Ingress Protection	IP20			
Power supply	Via 24 V (8321849 & 8321850) power supply or car adapter			
Approvals	CE marking			
Ambient conditions	0°C to 40°C (During operation)			
Draeger X-dock 5300/6300	3 test gas inlets for connecting 3 different test gases + one fresh air inlet + one waste gas outlet			
Draeger X-dock 6600	6 test gas inlets for connecting 6 different test gases + one fresh air inlet + one waste gas outlet			
Connections	3 USB 2.0 devices/1 USB host / Network connection			

MSA ALTAIR 5X



The ALTAIR 5X Gas Detector is capable of measuring up to 6 gases simultaneously and is now available with integrated PID sensor for VOC detection. Driven by advanced MSA XCell® Sensor Technology, the ALTAIR 5X Gas Detector delivers faster response time, better stability, accuracy, longer service life, and cost savings over the life of the instrument.

Dimensions	169mm x 89mm x 45mm without belt clip, PID, or IR sensor
Weight	453g (without IR sensor)
Measurement	PID(VOCs), IR (CO ₂), Flammable O ₂ , CO, H ₂ S, SO ₂ , Cl ₂ , NH ₃ , NO ₂ , ClO ₂ , PH ₃ , HCN, CO ₂ , C ₄ H ₁₀ , CH ₄ , C ₃ H ₈
Ingress Protection	IP 65
Alarms	Visual, audible(>95 dB typical), Vibrating, MotionAlert & InstantAlert
Pump	Sampling up to 24m
Data log	Average OF 200 hours (at 1-minute intervals)
Event log	Standard 1000 events
Warranty	3 years on CO, H ₂ S, LEL, O ₂ , SO ₂ and IR sensors, 2 years on NH ₃ , Cl ₂ sensors, 1 year on other sensors.
Approval	UL, CSA, IECEx, ATEX, MED

MSA ALTAIR 4X



The ALTAIR 4X is an extremely durable Multigas Detector that simultaneously measures up to four gases from a wide range of XCell® sensor options including combustible gases, O₂, CO, H₂S, SO₂ and NO₂.

Dimensions	122mm x 76mm x 35mm
Weight	222g
Measurement	0-100%LEL Flammable 0-30% VOL. O ₂ 0-1999 ppm CO 0-200 ppm H ₂ S
Ingress Protection	IP 67
Alarms	Visual, audible, Vibrating, MotionAlert & InstantAlert (Optional)
Run time	24 hours @ room temperature
Data log	50 hour minimum
Event log	Standard 500 events
Warranty	3 years (Extended warranty: Optional 1-year)
Approval	ETL, CSA, ATEX, IECEx, GOST-R, MED

MSA ALTAIR 2X



The ALTAIR 2X is one or two gas detector that incorporates industry-leading Xcell Sensor Technology.

Based on proven science and advanced patented sensor capabilities, the ALTAIR 2XP Detector delivers the world's first stand-alone bump test.

Dimensions	89mm x 54mm x 32mm (no clip)
Weight	113g w/ clip
Measurement	Single gas detector : CO, H ₂ S, SO ₂ , NO ₂ , NH ₃ , Cl ₂ Two-Tox gas detector : CO/H ₂ S, CO-H ₂ /H ₂ S, CO/NO ₂ , SO ₂ /H ₂ S
Ingress Protection	IP67
Alarms	Visual, audible, Vibrating
Data log	2X/2XP : >150 hrs 2XT : >100 hrs
Event log	75 events
Guarantee	Chassis & electronics : 3 years Cl ₂ & NH ₃ sensors : 2 years All other sensors : 3 years
Approval	UL, CSA, ATEX, IECEx

Gas Detection

Multi Portable Gas Detector

Honeywell MiniMax X4



MiniMax X4 is an unsurpassed portable gas detector for protection against flammable, O₂, CO and H₂S gas hazards.

It is ideal for use by those companies wanting advanced performance, reliability and ease of use without high costs of long term maintenance.

Dimension	124 x 76 x 36mm
Weight	210g
Measurement	0-100%LEL Flammable 0-30%vol O ₂ 0-999 ppm CO 0-250 ppm H ₂ S
Ingress Protection	IP 65
Alarms	Visual, audible, Vibrating
Battery life	14-16 hours with 2 x AA Alkaline batteries.
Guarantee	2 years
Approval	UL

Honeywell Impact & Impact Pro



Portable multi-gas monitor for the protection of personnel from up to four hazardous gases simultaneously in the working environment.

Using high specification flammable, O₂ and patented Surecell toxic sensors, our unique cartridge technology ensures safe, accurate and reliable measurements are always made.

Dimensions	49 x 84 x 136mm
Weight	Maximum 520g including rechargeable battery and optional pump.
Measurement (Up to 2-4 gases)	Flammable(Catalytic Bead or IR-LEL,VOL), O ₂ , CO, H ₂ S, NH ₃ , SO ₂ , Cl ₂ , NO ₂ , CO ₂ (EC or IR)
Ingress Protection	IP 67
Alarms	Visual, audible, Vibrating
Battery performance	Alkaline : > 17 hours NiMH : > 10 hours
Pump mode	Maximum length of tubing 25m
Guarantee	2 years
Approval	UL, CSA, MED, IECEx, ATEX, GOST

BW GasAlertMicro Clip XL / X3



The industrial GasAlertMicroClip is the world's most popular multi-gas portable detector, delivering long runtime and reliability—plus small size, low cost and the easiest user experience.

	GasAlertMicroClip XL	GasAlertMicroClip X3
Dimension	113 x 60 x 32 mm	113 x 60 x 32 mm
Weight	190 g	179 g
Measurement	0-100%LEL Flammable 0-30% O ₂ 0-500 ppm CO 0-100 ppm H ₂ S	
Ingress Protection	IP 68	
Alarms	Visual, vibrating, audible (95 dB)	
Battery life	18 hours; recharges in less than 6 hours	
Guarantee	2 years	3 years
Approval	CSA, ATEX, IECEx, CE, KTL	

BW GasAlert Quattro



Rugged and reliable, the Gas AlertQuattro four-gas detector combines a comprehensive range of features with simple one-button operation.

Dimension	130 x 81 x 47mm
Weight	316-338g
Measurement	0-100%LEL Flammable 0-30% O ₂ 0-1000 ppm CO 0-200 ppm H ₂ S
Ingress Protection	IP 66/IP 67
Alarms	Visual, audible, Vibrating
Battery life	AA alkaline : > 14 hours Rechargeable : > 18/20 hours
Guarantee	2 years
Approval	CSA, ATEX, IECEx

BW GasAlertMax XT II



GasAlertMax XT II reliably monitors up to four hazards and combines straightforward one-button operation with our robust, motorized pump for intelligent, remote sampling, ideal for confined spaces.

Dimension	131 x 70 x 52mm
Weight	328g
Measurement	0-100%LEL Flammable 0-30% O ₂ 0-1000 ppm CO 0-200 ppm H ₂ S
Ingress Protection	IP 66/IP 67
Alarms	Visual, audible, Vibrating
Battery life	13 hours
Guarantee	2 years
Pump	Sample from up to 23m
Approval	ATEX, IECEx, CSA, CE

Gas Detection

Multi Portable Gas Detector

BW GasAlertMicro 5 PID / IR



Simultaneously monitor and display up to five atmospheric hazards with the GasAlertMicro 5 Series.

Adaptable to variety of applications, the GasAlertMicro 5 Series has an extensive selection of user-settable filed options and is available as either a standard toxic gas model, a PID model for the detection VOCs, or an IR model for CO₂ detection.

Dimension	145 x 74 x 38mm
Weight	370g
Measurement	PID(VOCs), IR(CO ₂), Flammable O ₂ , CO, H ₂ S, SO ₂ , PH ₃ , NH ₃ , NO ₂ , HCN, Cl ₂ , ClO ₂ , O ₃
Ingress Protection	IP 65/IP 66
Alarms	Visual, audible, Vibrating
Pump	Sample from up to 20m
Guarantee	2 years
Approval	ATEX, IECEx, CSA, ABS

BW IntelliDoX, Automated instrument management system



The IntelliDoX system combines smart docking modules and Fleet Manager II software to provide automated instrument management for the BW Clip, helping you drive productivity, reliability and efficiency. Place the BW Clip in the docking module, and it automatically tests the gas detector and sensors while transferring data to the docking station.

Dimension	138 x 362 x 109 mm (individual docking module)
Weight	1.91 kg
Power supply	12 V / 8.33A ITE Power Supply
Communications method	Two-way infrared communication between docking module and detector
External interface	• 1 USB port • 1 Ethernet port
Menu navigation	<ul style="list-style-type: none"> • Adjust display settings • Configure gas inlets • Password protected (if enabled) • Adjust time and date • Review IntelliDoX module
Automatic tests	<ul style="list-style-type: none"> • FastBump: in 10 seconds • Standard bump: in 40 seconds
Data Storage	2 GB internal
Pump	Independent pump in each IntelliDoX module Flow Rate: 350 ml/min
Warranty	2 years

MicroRAE



The MicroRAE™ is a wireless multi-gas diffusion monitor that simultaneously measures up to four gases, including hydrogen sulfide, carbon monoxide, oxygen and combustibles(LEL).

With its different wireless connectivity options the MicroRAE can deliver real-time instrument readings location and alarm status to other wireless offerings such as ConneXt Plus, ConneXt Pro, ConneXt Loneworker4 and Safety Communicator.

Size	117 x 76(66)74 x 24 mm
Weight	206 g including Li-ion battery and clip
Sensors	LEL Catalytic bead for combustibles Liquid Oxygen (O2) Electrochemical Sensor for CO, H2S, HCN
Battery	Rechargeable Li-ion
Running time	15 hours continuous non-wireless 11 hours continuous wireless Note : All battery specifications at 68° F (20° C); lower temperatures and alarm conditions will affect runtime.
Alarms	Multi-tone 100dB buzzer (at 11.8"/ 30 cm, typical), vibration alarm, and flashing LEDs and on-screen indication of alarm conditions Alarms : latching, non latching or manual override Additional diagnostic alarm and display message for low battery Wireless connectivity alarm Man Down Alarm and real-time remote wireless notification
Wireless Network	RAE Dedicated Wireless Mesh network or Standard WiFi
IP Rating	IP-67
Approval	USA and Canada, IECEx, ATEX

Gas Detection

Multi Portable Gas Detector

QRAE 3



The QRAE 3 is a full featured compact 4-gas monitor that provides detection and monitoring of Oxygen(O₂), Combustibles and toxic gases that include Carbon Monoxide(CO), Hydrogen Sulfide(H₂S), Sulfure Dioxide(SO₂) and Hydrogen Cyanide(HCN) and others.

QRAE 3 can deliver wireless real-time instrument readings and alarm status 24/7.

Size	Diffusion : 140 mm x 82 mm x 42 mm Pumped : 145 mm x 82 mm x 42 mm
Weight	Diffusion : 365 g with Li-ion battery and clip Pumped : 410 g with Li-ion battery, clip, and external filter
Sensors	Up to four replaceable sensors: <ul style="list-style-type: none">· LEL: Catalytic bead for combustibles (built-in Correction Factor library)· Oxygen: Liquid electrolyte O₂· Electrochemical sensor for Toxics (CO, H₂S, SO₂, HCN, NH₃, PH₃ Cl₂, NO₂)
Battery	Rechargeable Li-ion
Running time	14 hours continuous non-wireless, diffusion 11 hours continuous non- wireless, pumped 10 hours continuous with wireless, diffusion 8 hours continuous with wireless, pumped Note : All battery specifications at 68° F (20° C); lower temperatures and alarm conditions will affect runtime.
Alarms	Multi-tone 95dB buzzer (at 11.8"/ 30 cm, typical), vibration alarm, and flashing red LEDs and on-screen indication of alarm conditions Alarms: latching, non latching or manual override Additional diagnostic alarm and display message for low battery Pump stall alarm (pumped version only) Man Down Alarm with pre-alarm and real-time remote wireless notification
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
IP Rating	Pumped : IP-65 Diffusion : IP-67
Sampling Pump	Built-in pump or diffusion Can sample through tubing up to 98ft (30m)
Approval	USA and Canada, IECEx, ATEX

MultiRAE Family



Elevate the safety of workers and first responders, and reduce downtime with the MultiRAE family of monitors that combine best-in-class gas and radiation detection capabilities with wireless connectivity and alarms.

MultiRAE instruments can be configured with 20+ sensor options, including ppb and ppm, PID, NDIR, and exotics to match the monitoring needs of multiple applications.

MultiRAE Family (MultiRAE Pro / MultiRAE / MultiRAE Lite)

Size	Pumped model: 193 x 96.5 x 66 mm Diffusion model: 175 x 96.5 x 56 mm (MultiRAE Lite)
Weight	Pumped model: 880g, Diffusion model: 760g
Sensors	Over 25 intelligent interchangeable field-replaceable sensors Gamma Radiation Sensor / Ppb PID : MultiRAE Pro High-Range PPM PID : MultiRAE Pro, MultiRAE Combustible NDIR / CO2 NDIR : MultiRAE Pro, MultiRAE, MultiRAE Lite
Battery Options,	Rechargeable Li-ion ~12-hr. (pumped)/18-hr. (diffusion) runtime, < 6-hr. recharge time
Runtime and	- Extended duration Li-ion ~18-hr. (pumped)/28-hr. (diffusion) runtime, < 9-hr. recharge time
Recharge Time	- Alkaline adapter with 4 x AA batteries ~6-hr. (pumped)/8-hr. (diffusion) runtime
Alarms	Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions. Man Down Alarm with pre-alarm and real-time remote wireless notification
Wireless Network	ProRAE Guardian Real-Time Wireless Safety System or EchoView Host-based Closed-Loop System
Dust and Water Resistance	IP-65 (pumped) ; IP-67 (diffusion) ingress protection rating
Sampling	Built-in pump or diffusion
Approval	CSA, ATEX, IECEx, IECEx/ANZEx

Gas Detection

Multi Portable Gas Detector

MultiRAE MX



The MultiRAE MX is the only one- to six-gas wireless monitor that is both ATEX Performance approved and MED (Wheelmark) certified.

The MultiRAE MX wireless version can be utilized in confined spaces and transmit sensor readings and Man Down alarms to an attendant via a RAE Systems EchoView Host and connect directly to ProRAE Guardian monitoring software.

Size	Pumped model: 193 x 96.5 x 66 mm Diffusion model: 175 x 96.5 x 56 mm
Weight	Pumped model : 880g, Diffusion model : 760g
Sensors	Over 25 intelligent interchangeable field-replaceable sensors including electrochemical sensors for toxic gases and oxygen, combustible LEL and NDIR sensors
Battery Options, Runtime and Recharge Time	Rechargeable Li-ion ~12-hr. (pumped)/18-hr. (diffusion) runtime, < 6-hr. recharge time - Extended duration Li-ion ~18-hr. (pumped)/28-hr. (diffusion) runtime, < 9-hr. recharge time - Alkaline adapter with 4 x AA batteries ~6-hr. (pumped)/8-hr. (diffusion) runtime
Alarms	Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions. - Man Down Alarm with pre-alarm and real-time remote wireless notification
Wireless Network	ProRAE Guardian Real-Time Wireless Safety System or EchoView Host-based Closed-Loop System
Dust and Water Resistance	IP-65 (pumped) ; IP-67(diffusion) ingress protection rating
Sampling	Built-in pump or diffusion
Approval	ATEX, IECEx, MED

AreaRAE Steel



AreaRAE Steel is a multi-gas, wireless monitor. Housed in a stainless-steel enclosure, it is rugged, portable and weather resistant, ensuring that it can withstand harsh environments.

The AreaRAE Steel can monitor up to five threats, including VOCs, LEL, Oxygen, and two user-selectable toxic sensors.

Size	235 x 127 x 235 mm without handle
Weight	6.3 kg with battery pack
Sensors	Up to five sensors (O ₂ , combustible, two toxic and VOC), electrochemical sensors for toxic gases and oxygen, photoionization detector for VOC, catalytic combustion sensor for combustible gases
Battery	Rechargeable, 7.4V/4.5Ah, Lithium-ion battery pack with built-in charger (less than 10 hours charge time) or a 6 C-size alkaline battery pack
Operating Hours	Up to 18 hours continuous operation on battery power
Alarm	Flashing red LED cluster to indicate exceeded preset limits, low battery or sensor failure 110 dB buzzer at 10cm (typical)
Wireless Frequency	ISM license free band (902 - 928 MHz)
Sampling Pump	Internal integrated diaphragm pump with programmable High (400cc/min) and Low (300cc/min) flow rate settings
Approval	CSA

Gas Detection

VOC Portable Gas Detector

MiniRAE Lite



The MiniRAE Lite is the most reliable handheld volatile organic compound(VOC) monitor on the market. Its photoionization detector's (PID) range of 0 to 5,000 ppm makes it an ideal instrument for applications ranging from environmental to construction.

Size	25.5 x 7.6 x 6.4 cm
Weight	738g
Sensors	Photoionization sensor with standard 10.6eV lamp
Battery	Alkaline battery adapter External field-replaceable lithium-ion battery pack, if specified
Operating Hours	12 hours of operation on alkaline battery adapter (12 hours with lithium-ion battery pack)
Alarms	95 dB buzzer (at 30 cm) and flashing red LED to indicate exceeded preset limits Alarm latching with manual override or automatic reset Additional diagnostic alarm and display message for low battery and pump stall
IP Rating	IP-65
Sampling Pump	Internal, integrated flow rate at 400 cc/min Sample from 100' (30m) horizontally and vertically
Warranty	3 years for 10.6 eV lamp, 1 year for pump, battery and instrument

MiniRAE 3000



The MiniRAE 3000 is a comprehensive handheld VOC(Volatile Organic Compound) monitor that uses a third-generation patented PID technology to accurately measure more ionizable chemicals than any other device on the market. It provides full-range measurement from 0 to 15,000 ppm of VOCs. The MiniRAE 3000 has a built-in wireless modem that allows real-time data connectivity with the ProRAE Guardian command center located up to 2 miles(3 km) away through a Bluetooth connection to a RAELink 3 portable modem or optionally via Mesh Network.

Size	25.5 x 7.6 x 6.4 cm
Weight	738g
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamp
Battery	Rechargeable, external field-replaceable Lithium-Ion battery pack Alkaline battery adapter
Running time	16 hours of operation (12 hours with alkaline battery adapter)
Alarms	95 dB buzzer (at 30 cm) and flashing red LED to indicate exceeded preset limits Alarm latching with manual override or automatic reset Additional diagnostic alarm and display message for low battery and pump stall
IP Rating	IP-67 unit off and without flexible probe / IP-65 unit running
Sampling Pump	Internal, integrated flow rate at 500 cc/mn Sample from 100' (30m) horizontally or vertically
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
Approval	CSA, ATEX
Warranty	3 years for 10.6 eV lamp, 1 year for pump, battery, sensor and instrument

UltraRAE 3000



The UltraRAE 3000 is the most advanced Compound-Specific Monitor on the market. Its Photoionization Detector's (PID) extended range of 0.05 to 10,000 ppm in VOC mode and 50 ppb to 200 ppm in benzene-specific mode makes it an ideal instrument for applications, from entry pre-screening during refinery and plant maintenance to hazardous material response, marine spill response and refinery down-stream monitoring.

Size	25.5 x 7.6 x 6.4 cm
Weight	738g
Sensors	Photoionization sensor with standard 10.6 eV or 11.7 eV lamps
Battery	Rechargeable, external field-replaceable Lithium-Ion battery pack Alkaline battery adapter
Operating Hours	16 hours of operation
Alarms	95 dB buzzer (at 30 cm) and flashing red LED to indicate exceeded preset limits Alarm latching with manual override or automatic reset Additional diagnostic alarm and display message for low battery and pump stall
IP Rating	IP-65, unit running
Sampling Pump	- Internal, integrated flow rate at 400 cc/min - Sample from 100' (30m) horizontally and vertically
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
Approval	US and Canada: CSA, ATEX, IECEx
Warranty	3 years for 10.6 eV lamp, 1 year for 9.8 eV lamp, pump, battery, sensor and instrument

ppbRAE 3000



The compact ppbRAE 3000 is a comprehensive VOC gas monitor and datalogger for hazardous environments. The ppbRAE 3000 is the most advanced handheld VOC monitor available for parts-per-billion detection. This third-generation patented PID device monitors VOCs using a photoionization detector with a 9.8 eV, 10.6 eV UV-discharge lamp. The built-in wireless modem allows real-time data connectivity with the ProRAE Guardian command center located up to two miles/3 km away (with optional RAELink3 portable modem) from the ppbRAE 3000 detector.

Size	25.5 x 7.6 x 6.4 cm
Weight	738g
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV lamp
Battery	Rechargeable, external field-replaceable Lithium-Ion battery pack Alkaline battery adapter
Operating Hours	16 hours of operation (12 hours with alkaline battery)
Alarms	95 dB buzzer (at 30 cm) and flashing red LED to indicate exceeded preset limits Alarm latching with manual override or automatic reset Additional alarm for low battery and pump stall
IP Rating	IP-67 unit off and without flexible probe / IP-65 unit running
Sampling Pump	-Internal, integrated flow rate at 500 cc/min -Sample from 100' (30m) horizontally and vertically
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
Approval	US and Canada : UL, ATEX, IECEx
Warranty	3-year warranty for 10.6 eV lamp, 1 year for pump, battery, and instrument

Gas Detection

VOC Portable Gas Detector

MultiRAE Benzene



The MultiRAE Benzene is the only gas monitor that includes up to 6-gas detection and real-time wireless capability, plus benzene-specific measurement.

The MultiRAE Benzene monitor combines the ability to make quick benzene-specific assessment("snapshot") measurements with the advantages of a versatile multi-gas monitor that can support approximately 20 intelligent interchangeable sensor options. Its optional wireless capability improves safety by providing real-time access to instrument readings and alarm status from any location, which delivers better situational awareness and faster incident response.

Size	193 x 96.5 x 66 mm without RAE SepTube Cartridge
Weight	880g without RAE SepTube Cartridge
Sensors	More than 20 intelligent interchangeable field-replaceable sensors, including PID sensor for VOCs, electrochemical sensors for toxic gases, and oxygen and LEL sensor
Battery Options,	Rechargeable Li-ion (~12-hr. runtime, < 6-hr. recharge time)
Runtime and	Extended-duration Li-ion (~18-hr. runtime, < 9-hr. recharge time)
Recharge Time	Alkaline adapter with 4 x AA batteries (~6-hr. runtime)
Alarms	Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions. Man Down Alarm with pre-alarm and real-time remote wireless notification
IP Rating	IP-65 ingress protection rating
Sampling	Built-in pump. Average flow rate: 250 cc/min. Auto shutoff in low-flow conditions
Wireless Network	ProRAE Guardian Real-Time Wireless Safety System or EchoView Host-based Closed-Loop System
Approval	CSA, ATEX, IECEx
Warranty	Two years on non-consumable components and catalytic LEL, CO, H2S, and O2 sensors. One year on all other sensors, pump, battery, and other consumable parts. 6 months on PID sensor

Fixed Gas Detection System

Draeger Polytron 8000 Series

The microprocessor-based transmitter can be equipped with various electrochemical, CatEX and IR Sensors. This way, you can easily detect flammable, oxygen and various toxic gases in the ambient air. In addition, the Polytron 8000 series can also be integrated into your digital fieldbus system, thus providing additional diagnostic functions.



〈Draeger Polytron 8100〉



〈Draeger Polytron 8310〉



〈Draeger Polytron 8700〉

Type	Flameproof "d" or combined increased safety "d/e" transmitter	
Gases and Range	Polytron 8100 : Toxic gases oxygen(EC) Polytron 8200 : Combustible gases and vapours (CatEx) / %LEL Polytron 8310 : Combustible gases and vapours (IR) / ppm, %LEL or Vol% Polytron 8700 : Combustible gases and vapours (PIR 7000-IR) / ppm, %LEL or Vol% Polytron 8720 : Carbon Dioxide (PIR 7000-CO2 IR) / ppm or Vol%	
Display	Backlit graphic LCD ; 3 status LEDs (Green/Yellow /Red)	
Signal Output	Analog	4 to 20mA
	Maintenance	3.4mA or 4mA \pm 1mA 1 Hz modulation
	Fault	< 1.2 mA
Digital Output	HART	
Supply Voltage	10 to 32 VDC, 3-wire	
Relays (option)	2 alarm, 1 fault relay, SPDT 5A @ 230VAC, 5A 30VDC, resistive load	
Enclosure	Enclosure	: Epoxy-coated copper free aluminium or 316L stainless steel
	Enclosure Rating	: NEMA 4X & 7, IP 65/66/67
	Cable entry	: 3/4" NPT female conduit or M20 cable gland
Ambient Conditions	Temperature	-40 to + 65°C
	Pressure	700 to 1300mbar
	Humidity	0 to 100%RH
Dimensions	280 × 150 × 130mm(without e-Box), 280 × 180 × 190mm(with e-Box)	
Weight (Approx)	3.0kg(a) / 5.0kg(s) (without e-Box)	
Approvals	ATEX, UL, CSA, IECEx, CE-mark	

Gas Detection

Fixed Gas Detection System

Draeger Polytron 7000



The Draeger 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.

Type	Intrinsically safe transmitter for electrochemical sensors	
Gases and Range	Toxic gases and Oxygen, ranges user adjustable, see sensor data sheet	
Display	Large graphic display, 34 × 62mm Menu structure and messages in real text, 3 button navigation	
Signal Output	Analog	4 to 20mA
	Digital	HART, LONWORKS, PROFIBUS PA, FOUNDATION fieldbus
	Warning	default : warning signal every 10s for 1s
	Maintenance	3.4mA constant or 4 Ma ± 1mA, 1 Hz modulation
	Fault	< 3.2 mA
Power Supply	16.5 to 30 VDC 2-wire, 3-wire for Pump module and relay module	
Pump Module	Tubing up to 30m @0.5l/min with 4mm inner diameter	
Relay Module	Two alarm relates, one fault relay, SPDT, user programmable	
Ambient Conditions	Temperature	-40 to +65°C
	Pressure	700 to 1300hPa
	Humidity	0 to 100%RH, non condensing
Enclosure	GRP, IP 66/67, NEMA 4, M20 cable gland	
Dimensions	166 × 135 × 129mm	
Weight (Approx)	0.9 kg	
SIL Level	SIL 2 verified	
Approvals	ATEX, IEC, UL, CSA, CE-mark	

Draeger Polytron 7500



The Draeger Polytron 7500 is a pyrolysing gas detector for the continuous monitoring of toxic gases such as NF3 and perfluorinated C4F6 and C5F8 in the ambient air. The device contains all necessary functions such as sampling, processing and analysis in one enclosure.

Type	Microprocessor-controlled transmitter with pump and oven	
Gases and Range	Nitrogen trifluoride NF3 CAS 7783-54-2 0 to 50ppm Octafluorocyclopentene C5F8 CAS 559-40-0 0 to 30ppm Hexafluorobutadiene C4F6 CAS 685-63-2 0 to 30ppm	
Output Analog	4 to 20mA, digital HART optional digital LON	
Power Supply	24 VDC ±10%; 1.5A	
Ambient Conditions	Temperature	0 to 40°C
	Humidity transmitter	0 to 99 %RH, non-condensing
	Humidity sample gas	20 to 90%RH
Enclosure	IP 21	
Dimensions	150 × 125 × 300mm	
Weight (Approx)	2.4 kg / 5.2 lbs	
Approvals	CE mark electromagnetic compatibility	

Draeger Polytron 5000 Series

The microprocessor-based transmitter can be equipped with various electrochemical, Cat-Ex and IR Sensors. This way, you can detect flammable, oxygen and various toxic gases in ambient air—reliably, quickly and cost-effectively, as the Polytron 5000 is the result of more than 40 years of experience in measurement technology.



⟨Draeger Polytron 5100⟩



⟨Draeger Polytron 5200⟩



⟨Draeger Polytron 5700⟩

Type	Flameproof “d” or combined increased-safety “d/e” transmitter	
Gases and Range	Polytron 5100 : Toxic gases oxygen(EC) Polytron 5200 : Combustible gases and vapours (CatEx) / %LEL Polytron 5310 : Combustible gases and vapours (IR) / ppm, %LEL or Vol% Polytron 5700 : Combustible gases and vapours (PIR 7000-IR) / ppm, %LEL or Vol% Polytron 5720 : Carbon Dioxide (PIR 7000-CO2 IR) / ppm or Vol%	
Display	4-digit LCD, 3 status LEDs (Green/ Yellow / Red)	
Signal Output	Analog	4 to 20mA
	Maintenance	Steady 3.4 mA or 3 to 5mA, 1 Hz modulation, user selection
	Fault	< 1.2mA, 3-wire (< 3mA, 2-wire)
Supply Voltage	10 to 30VDC, 3-wire (18 to 30 VDC, 2-wire)	
Sensors	O2, CO, H2S, H2, CL2, EO, NH3, NO, SO2, H2O2, CAT Ex, IR-Ex, IR-CO2	
Ambient Conditions	Temperature	-40 to +65°C
	Pressure	700 to 1300 mbar
	Humidity	0 to 100%RH, non condensing
Enclosure	Transmitter Housing	: Epoxy-coated copper free aluminum or 316L stainless steel
	Sensor Housing	: Polyimide
	Enclosure Rating	: IP 65/66/67, NEMA 4X & 7
	Cable entry	: 3/4" NPT female conduit entry or M20 Cable gland
Dimensions	280 × 150 × 130mm (without Docking station) / 280 × 180 × 190mm (with Docking station)	
Weight (Approx)	Aluminum-3.0kg / stainless steel-6.5kg	
Approvals	ATEX, IECEx, UL, CSA, CE-mark	

Gas Detection

Fixed Gas Detection System

Draeger Polytron 3000



The Draeger Polytron 3000 is an intrinsically safe gas detector for the continuous monitoring of 60 toxic gases and oxygen in ambient air. It is the part of a new generation of gas detectors developed on a modular platform. Communication to the central control system is done via a 4–20mA signal.

Type	Intrinsically safe transmitter for electrochemical sensors	
Gases and Range	Toxic gases and Oxygen in various ranges	
Signal Output	Analog	4 to 20mA
	Maintenance	3.4 Ma constant
	Fault	< 3.2 Ma
Power Supply	12 to 30 VDC, 2-wire	
Ambient Conditions	Temperature	-40 to +65°C
	Pressure	700 to 1300 mbar
	Humidity	0 to 100%RH, non condensing
Enclosure	IP 66/67, NEMA 4, GRP housing, M20 cable gland	
Dimensions	166 × 135 × 129mm	
Weight (Approx)	0.9 kg	
Approvals	ATEX, IEC, UL, CSA, CE-mark	

Draeger PEX 3000



The transmitter Draeger PEX 3000 detects flammable gases and vapors in concentrations below their Lower Explosion Limit. Its DD-sensor provides a very long-term stable measuring signal and responds to gas in only a few seconds.

Type	Transmitter with catalytic bead sensor	
Gases	Flammable gases and vapours in ambient air	
Measuring range	Type XTR 0000 and 0001	0 to 100%LEL
	Type XTR 0010 and 0011	0 to 10%LEL
Signal Output	Moral operation	4 to 20mA
	Warning	3.4 mA
	Fault	< 1.2 mA
Cabling	3-wire, shedlled, core size 0.75 to 1.5 mm ² , outer diameter 7 to 12 mm	
Max. cable length	2400 m at 3 × 1.5 mm ² / 1600 m at 3 × 1.0 mm ² / 1200 m at 3 × 0.75 mm ²	
Power Supply	12 to 30 VDC (nominal 24 VDC) max. 110 mA at 24V	
Ambient Conditions	Temperature	-40 to +65°C
	Pressure	700 to 1300hPa
	Humidity	5 to 95%RH
Enclosure	IP 65/66, glasfiber reinforced polyester	
Dimensions	Type XTR 0000: 80 × 145 × 55mm, Type XTR 0001: 110 × 145 × 55mm	
Weight (Approx)	0.6 kg	
Expected lifetime	typical > 3 years	
Approvals	ATEX, CE-mark	

Draeger PIR 7000



The Draeger 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.

Type	Explosion proof gas transmitter with infrared sensor technology	
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology	
Gases and Range	Methane, propane, ethylene	0 to 20...100 %LEL
Measuring performance (type 334, methane)	Digital resolution	0.5 %LEL
	Repeatability	≤ ± 1%LEL
	Response time T0...90	≤ 4 sec (normal response)
		< 1 sec (fast response)
Electrical data	Output signals	4 to 20mA, HART
	Fault signal	≤ 1.2 mA
	Beam block warning signal	2 mA
	Maintenance signal	3 mA
	Power supply	13 to 30 VDC, 3-wire
Ambient Conditions	Temperature	-40 to +77°C
	Pressure	700 to 1300hPa
	Humidity	0 to 100%RH
Enclosure	Material	: Stainless steel SS 316L
	Connecting thread	: M25 or 3/4" NPT
	Ingress protection	: IP 66/67, NEMA 4X
Dimensions	160mm × Ø89mm	
Weight (Approx)	2.2 kg	
Approvals	ATEX, IEC, UL, CSA, CE-mark	

Draeger PIR 3000



The Draeger PIR 3000 is an explosion proof infrared gas detector for the continuous monitoring of flammable gases and vapours. With a GRP junction box, 316 stainless steel enclosure and excellent measuring performance, the PIR 3000 offers unsurpassed price performance ratio.

Type	Explosion proof gas transmitter with infrared sensor technology	
Working principle	Temperature-compensated infrared absorption	
Gases and Range	Methane, propane, ethylene : 0 to 100 %LEL	
Measuring performance (methane)	Digital resolution	0.5 %LEL
	Repeatability	≤ ± 2 %LEL
	Response time T0...90	≤ 30 sec (with splash guard and calibration adapter)
Electrical data	Output signals	4 to 20mA
	Fault signal	1 mA
	Power supply	10 to 30 VDC
	Power consumption	≤ 2 W
Ambient Conditions	Temperature	-40 to +65°C
	Pressure	700 to 1300hPa
	Humidity	0 to 100%RH
Enclosure	Material	: Stainless steel SS 316
	Connecting thread	: M25 or 3/4" NPT
	Ingress protection	: IP 66/65/67
Dimensions	170mm × Ø37mm	
Weight (Approx)	550 g	
Approvals	ATEX, IEC, UL, CSA, CE-mark	

Gas Detection

Fixed Gas Detection System

Draeger Polytron Pulsar 2 - Open Path Gas Detector



The Draeger Polytron Pulsar 2 is the latest infrared technology in open path gas detection.

Equipped with all the same functions as the standard Draeger Pulsar, Draeger Pulsar 2 is fitted with an ABS moulded cover and is supplied with either a junction box or certificated connector to provide complete flexibility during installation.

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	
Operating distance	4 to 60m / 30 to 120m / 100 to 200m	
Measuring performance (methane)	Digital resolution	0.5 %LEL
	Repeatability	$\leq \pm 2$ %LEL
	Response time T0...90	≤ 30 sec (with splash guard and calibration adapter)
Signal output	Analogw	4 to 20mA
	Pre-warning	3.5mA, dirty optics or misalignment
	Beam block	2mA
	Fault	< 1 mA
	Digital	HART
Supply Voltage	ATEX	18 to 32 VDC
	UL, CSA	18 to 27 VDC
Power Consumption	Max. 0.95A @ 24V, with full heating and all source lamps operating	
Response time	< 2 s	
Ambient Conditions	Temperature	-40 to +60°C
	Pressure	800 to 1100hPa
	Humidity	0 to 100%RH, non-condensing
Enclosure	IP 66, stainless steel	
Dimensions	260mm × 340mm × 220mm	
Weight (Approx)	6 kg	
Approvals	ATEX, IECEx, UL, CSA, IEC, DNV, FM	

Honeywell Sensepoint XCD



Use The Sensepoint XCD provides comprehensive monitoring of flammable, toxic and oxygen gas hazards in potentially explosive atmospheres, indoor and outdoors—and is marked by installation ease and flexibility, user-friendly operation and cost-effective gas monitoring.

3-wire, 4-20mA and RS485 MODBUS output fixed point detector with in-built alarm and fault relays for the protection of personnel and plant from flammable, toxic and Oxygen hazards. Incorporating a transmitter with local display and fully configurable via non-intrusive magnetic switch interface. Wide range of sensors available.

Gases	Flammable CAT, IR (methane, propane), Toxic gases and Oxygen		
Electrical	input Voltage Range	16 to 32VDC (24VDC nominal)	
	Max. power consumption	Maximum power consumption is dependent on the type of gas sensor being used. EC = 3.7W, IR = 3.7W, Catalytic = 4.9W, Maximum inrush current = 800mA at 24VDC	
	Current Output	Sink or source	
	Fault	≥0.0<1.0mA	
	Inhibit	2.0mA or 4.0mA (17.4mA) / during configuration/ user setting	
	Normal gas measurement	4.0mA to 20.0mA	
	Max. over range	22mA	
Material	Terminal	15 x screw terminal suitable for wire diameter 0.5mm ² (20AWG to 14AWG)	
	Relays	3 x 5A@250VAC. Selectable normally open or normally closed (switch) and energized/de-energized (programmable). Alarm relays default normally open/de-energized. Fault relay default normally open/energized.	
	Communication	RS 485, MODBUS RTU (Optional)	
Ambient Conditions	Housing	: Epoxy painted aluminium alloy LM25 or 316 Stainless steel	
	Sensor	: 316 Stainless steel	
	Weather Protection	: Plastic	
IP Rating	Temperature	-40 to +65°C	
	Pressure	90 to 110kPa	
	Humidity	0 to 90%RH, non condensing	
Entries	ATEX : 2 x M20 cable entry UL : 2 x 3/4" NPT conduit entries	Weight (Approx)	Aluminium alloy LM25: 2.0kg, Stainless steel 316: 5.0kg
		Dimensions	164 × 201 × 99mm
		Approvals	ATEX, IECEx, UL, GB, KTL, CE mark

Honeywell Series 3000 MK II Transmitter



The series 3000 Mk II provides comprehensive monitoring of toxic and oxygen gas hazards in potentially explosive atmospheres, both indoors and outdoors.

This low powered gas detector operates on an industry standard 2-wire 4-20mA loop, making it ideal for both new and retrofit application.

Use	Rugged and reliable gas detector for the protection of personnel from toxic and oxygen gas hazards. Suitable for use in Zone 1 or 2 hazardous areas and North American Class I, II Division 1 or 2 areas.		
Gases	Toxic gases and Oxygen in various ranges (see sensor data sheet)		
Connections and power	2-wire loop powered 17VDC(+/- 10%) to 24VDC(max) operation. 22mA max. over range		
Signal	0- 100%FSD 4-20mA	Fault = 3mA	
	Calibration due selectable off or 3mA	Max. over range 22mA	
	Inhibit (toxic sensors) = Selectable 3mA or 4mA Inhibit (Oxygen sensor) = Selectable 3mA or 17.4mA		
Recommended Cable	2-wire with screen (90% coverage) or conduit 0.5mm ² (20AWG) to 2.0mm ² (14AWG)		
Material	Transmitter : Epoxy painted aluminium alloy LM25 or 316 Stainless steel Sensor : 316 Stainless steel with PTFE filter		
Ambient Conditions	Temperature -40 to +55°C / Pressure 90 to 110kPa / Humidity 0 to 90%RH, non condensing		
IP Rating	IP 66, NEMA 4X	Dimensions	164 × 201 × 99mm
Weight (Approx)	Aluminium alloy LM25: 1.7kg, Stainless steel 316: 3.7kg	Approvals	AATEX, IEC, UL, CSA, CE-mark

Gas Detection

Fixed Gas Detection System

Honeywell XNX Universal Transmitter



The XNX is an extremely flexible transmitter that can be configured to accept an input from any of the Honeywell Analytics range of gas sensor technologies.

This enables users to have a single type of interface to all their gas detection needs, even when different types of detectors are employed, to most effectively address the different gas detection applications on site.

Use	High specification universal transmitter for use with a wide range of Honeywell Analytics local or remote gas detectors for the detection of flammable, toxic and Oxygen gas hazards. Suitable for use in Zone 1 and 2 hazardous areas, and North American Class I and II Division 1 or 2 areas.
Gases	3 versions - supports (Catalytic Bead and IR Cell), Electrochemical Cell and IR (point and open-path) gas detection.
Install	3 or 4 wire operation, source, sink or isolated, Simple plug-in sensors and replaceable cells
Material	Housing : 5-coat marine finish painted aluminium alloy LM25 or 316 stainless steel.
Weight	Aluminium alloy LM 25 : 2.8kg / 316 stainless steel : 5kg
Mounting	Surface mount via integral mounting lugs. Optional pipe mounting kit suitable for Φ 100mm to 150mm (Φ 4" to 6") pipe.
Entries	5 conduit / cable entries (2 right, 2 left, 1 bottom). Entry size M25 for ATEX/IECEx versions or 3/4" NPT for UL/CSA certified versions 160mm x 197mm x 114mm
IP Rating	IP66 in accordance with EN60529 : 1992. NEMA 4X
Operating Temperature	-40 to +65°C
Operating Humidity	0.99% RH(non condensing)
Operating Pressure	90-110kPa
Input Voltage Range	EC and mV versions 16-32VDC, IR version 18 to 32VDC (24VDC nominal)
Max Power consumption	XNX EC (toxic) : 6.2W XNX mV (Catalytic or IR cell) : 6.5W XNX IR with Serchpoint Optima Plus : 9.7W
Current Output	Fully configurable isolated 4-20mA & HART output module providing current sink, current source and isolated modes of operation (support HART 6.0 protocol) Fault $\geq 0.0 < 1.0$ mA Normal gas measurement 4.0mA to 20.0mA Inhibit 2.0mA or 4.0mA (17.4mA) / during configuration/ user setting HART mode : Fault/warning 3mA Normal gas measurement 4-20mA Inhibit 22.0mA Maximum over range
4-20mA signal Accuracy	+ / - 1% full scale
Terminals	Cage style pluggable with retaining screws for wire diameter 0.5mm ² to 2.5mm ² (approx. 20AWG to 14AWG)
Approval	ATEX, IECEx, UL, CSA, CE marking

Honeywell Searchpoint Optima Plus Point Infrared Gas Detector



Searchpoint Optima Plus is an infrared point Hydrocarbon gas detector certified for use in potentially explosive atmospheres.

The unit's infrared detection principle offers the fastest speed of response and fail-to-safe operation.

Type	Explosion proof gas transmitter with infrared sensor technology	
Output	Signal Output	4-20 mA sink or source
	Inhibit	1-3 mA (default 2 mA)
	Warning	0-6 mA (default 4 mA)
	Fault	0 mA
	Over range	20-21.5 mA (default 21mA)
Digital Output	Optional Multidrop Modbus RS485	
Material	316 stainless steel	Weight (Approx) 1.6kg
Accuracy	Optima PLUS (HC)	Baseline < $\pm 1\%$ LEL, 50% FSD < $\pm 2\%$ LEL
	Optima PLUS (ET)	Baseline < $\pm 2\%$ LEL, 50% FSD < $\pm 3\%$ LEL
Repeatability	< $\pm 2\%$ LEL at LEL 50% FSD	Linearity < 5% FSD
Response time	T50 < 3 seconds, T90 < 4 seconds (methane)	
Operational condition	Temperature	-40 to +65°C
Variation with pressure	0.1% (of reading) per mbar	Approvals ATEX, UL, CSA, IECEx and EN
Power supply	18 - 32 VDC (24V nom), < 4.5 W max	Enclosure IP 66/67

MeshGuard



The MeshGuard is a battery operated, semi-fixed, wireless monitor for gas and gamma radiation. An internal mesh radio allows it to form an intelligent network for enhanced safety without costly wiring.

MeshGuard systems can easily be configured for a broad range of applications.

The MeshGuard easily connects to a controller (FMC 2000 or PC) and/or wireless alarm bar.

Size	26.5 x 9.5 x 5.5cm	
Weight	0.6kg	
Sensors	More than 20 intelligent interchangeable field-replaceable sensors : LEL / LEL-IR, O ₂ , CO, H ₂ S, NH ₃ , Cl ₂ , SO ₂ , CO ₂ -IR, Gamma Radiation	
Power Supply	Disposable Lithium Battery, +3.6V (optional rechargeable external battery for extended run time)	
Alarms	2 super-bright red LEDs, 90dB @ 30cm	
Operating Range	985 feet/300 meters (line of sight)	
Operating Time	Toxic Gas Sensors:	
	Up to 6 months on internal battery (up to 1 year on external)	
	LEL Gas Sensor:	
	Up to 21 days on external PowerPak battery	
IP Rating	LEL IR Gas Sensor:	
	Up to 2 months on internal battery (up to 1 year on external)	
IP Rating	IP-65	
Wireless Frequency	ISM license free band. IEEE 802.15.4 2.4 GHz	
Approval	US and Canada, ATEX, IECEx	

Gas Detection

Control Unit

Draeger REGARD 3920



The Draeger REGARD 3920 is a standalone, self contained control system for the detection of Toxic, Oxygen and Ex Hazards. The control system is fully configurable between 1 and 16 channels, depending upon the type and quantity of input/output boards installed.

Type	Control unit for location in a non-hazardous area
Gas and ranges	Toxic, oxygen and combustible gases with user definable measuring.
Input	2 or 3-wire 4 to 20mA transmitter / Remote reset / 24 VDC supply
Output	Alarm 1, Alarm 2 and fault as standard. Warning and inhibit relays on optional relay board. Single, common or voted alarms on optional relay board. Acknowledgeable relays on optional relay board. Repeat 4-20mA Via optional Repeat Board.
Power supply	External 24 VDC Internal 2.5A, 5A or 10 A power supply at 110/240VAC
Dimensions	420 × 300 × 190mm
Weight	Approx. 3kg
Temperature Pressure	-0 to +55°C 700 to 1300 hPa
Humidity	0 to 100 %RH, non-condensing
Ingress protection	Ingress Protection IP 65, ABS – OV material of construction
Approvals	ATEX, SIL, CE-mark

Honeywell Touchpoint Plus



The Touchpoint Plus is an advanced Touchscreen digital controller designed for use in industrial gas detection installation.
The standard Touchpoint Plus can accommodate up to eight inputs.

Capacity	Up to 8 channel base	Type of inputs	2 or 3 wires, mA. mV.
Size(wall-mounted version)	426mm× 300mm × 156 mm	Housing Material	Polycarbonate ABS
Weight	Max 8.5kg	Display	7" color LCD with touch screen
Visual indicators	3LEDs FOR Master indicators. LED for each channel. Green for Normal/Yellow for Fault / inhibit and Red for Alarm	Button	Common for reset/mute operation
Audible alarm	≥ 70dB @ 1m	Power Supply(AC)	110/220VAC, 50-60Hz Manual switching
Language	Multi Language (EN. CN. FR. DE.NL.IT.ES.RU.PO)	Power Consumption	105W max
Power Supply(DC)	18 to 32 VDC (+/-10%) typical 24VDC		
I/O Capacity			
4-20mA Input	2 or 3 wires. 2/4/8 channel module.		
mV Input	Catalytic type flammable gas detectors. 2/4/8 channel module		
Dual Input	Two mA input + two mV input and four mA input + four Mv input		
Relay Output	User configurable. Time delay ON/OFF. 5A@250VAC. 5A@30VDC. 12 relays per module		
4-20mA Output	4 Channels(Normal) 2 boards. 0 to 22mA (4 to 20mA = 0-100% scale)		
Environmental		Others	
Operating Temperature	-10°C to + 55°C for continuous.	Backup battery	22.2V Lithium Ion Battery, 2600mAh capacity (>30 minutes for typical system)
Humidity range	up to 95% RH (non-condensing)	Data logging	Configuration, logged events and data
Ingress protection	IP 65	Approvals	UL, CSA, EMC/RFI, LVD

Calibration gas

Calibration Gas (Single / Multi)

Non-refillable Single & Multi-gas Calibration Cylinders



Provides single and mixture calibration gas along with the related equipment.

Non-refillable Multi-gas calibration Cylinders

2.5%(50%LEL) CH₄ / 18% O₂ / 100ppm CO / 25ppm H₂S / N₂
 2.5%(50%LEL) CH₄/ 12% O₂ / 50ppm CO / 25ppm H₂S/ N₂
 0.9%(50%LEL) I-C₄H₁₀ / 12% O₂ /50ppm CO /25ppm H₂S / N₂

Non-refillable Single Gas calibration cylinders

25%LEL Methane / Air	70 ppm CO / Air or N ₂
50%LEL Methane / Air	100 ppm CO / Air or N ₂
70%LEL Methane / Air	250 ppm CO / Air or N ₂
50% Methane / N ₂	25 ppm H ₂ S/ Air or N ₂
50%LEL Iso-Butane / Air	99.99% N ₂
8% iso-Butane / N ₂	25 ppm NH ₃ / N ₂
8% n-Butane / N ₂	50 ppm NH ₃ / N ₂
50%LEL Propane /Air	1000 ppm isobutylene / Air
50%LEL Pentane / Air	3% CO ₂ / N ₂
50%LEL H ₂ / Air	5% CO ₂ / N ₂
1000 ppm H ₂ / N ₂	191 ppm Ethanol / N ₂
5% O ₂ / N ₂	260 ppm Ethanol / N ₂
18% O ₂ / N ₂	

Available calibration Gases

Chlorine, Hydrogen Chloride, Mercaptan, Nitrogen Dioxide, Phosphine, Hexane, Toluene, Sulphur Dioxide, Benzene, Nitric Oxide, Ethylene Oxide, Helium UHP

Pressure Reducer (Regulators)

Pressure Reducer (Regulators)



The regulator, or gas delivery system, is crucial in providing the correct amount of gas to the instrument. This ensures an accurate bump testing and calibration.

Pressure reducer (Regulators)

713 Regulator	0.5LPM, 1 LPM, 1.5LPM
715 Regulator	0.5LPM, 1 LPM, 1.5LPM
DFR Regulator	3.0LPM
Trigger Regulator	0.5LPM/ 6.0 LPM

Alcohol & Drug Test Kit

Alcohol Test Kit

Draeger Alcotest 5510



The Draeger Alcotest 5510 offers professional users precise and quick breath alcohol analysis in a user-friendly and compact form.

Thanks to its wide range of possible configurations, the handheld instrument can be easily adapted to meet different international regulations and guidelines.

Size (H x W x D)	142 x 75 x 36mm
Weight	195g
Measurement Principle	Electrochemical Draeger Sensor 1/4" technology, alcohol-specific
Measurement Range	0 to 2.5mg/L : if measurement range limit is exceeded, a message is displayed
Ready for use	Approx. 3 s after switching on
Measurement result	After approx. 3 s (at 0 mg/L); after approx. 10 s (at 0.5mg/L, room temperature)
Audible signal	Different signal tones to support display messages and warnings
Data storage	Storage of last 10 tests with test numbers
Power	Two AA batteries (approx. 1500 breath tests can be performed)
CE Marking	Directive 89/336/EC (electromagnetic compatibility)
Calibration	Wet gas or Dry gas calibration

Q3 INNOVATION ALCOHAWK ABI



The AlcoHAWK® ABI is a breath alcohol screener that quickly screens for the presence of alcohol.

Size (H x W x D)	127 x 82.5 x 25.4mm
Weight	227g
Measurement Principle	Semiconductor type alcohol sensor
Measurement Range	0.00% - 0.40% BAC
Accuracy	±0.01% @ 0.20%BAC
Digital Display	3 Digit LED display
Power	9 Volt alkaline battery
Blowing Time	5 sec.
Response Time	5 sec.
Approval	DOT/ NHTSA

AL-6000



AL-6000 is a hand held, portable breath alcohol tester to check subject's breath alcohol concentration with reliable accuracy and it is available to test in Passive mode.

Size (H x W x D)	124 x 58 x 41mm
Weight	117g
Measurement Principle	Semiconductor type alcohol sensor
Measurement Range	0.00% -0.40% BAC / 0.00 - 4.00‰/ 0.00 -2.00mg/l BrAC
Accuracy	±0.01% @ 0.05%BAC
Digital Display	3-digit back-lit LCD display (0.00%)
Power	Two 1.5Volt (AA) alkaline batteries
Approval	DOT/ NHTSA, CE, FDA 510K listed, Australian standard.

AL-7000



AL-7000 is sleek, accurate and convenient premium breathalyser featuring user calibration and a four-digit clear, easy to read display.

Size (H x W x D)	116 x 50 x 21mm
Weight	103g
Measurement Principle	Semiconductor type alcohol sensor
Measurement Range	0.000% -0.400% BAC
Accuracy	±0.010%BAC at 0.050%BAC
Digital Display	4-digit back-lit LCD display (0.000%)
Power	Two 1.5Volt (AA) alkaline batteries
Approval	DOT/ NHTSA, CE, FDA 510K listed, Australian standard.

AL-9000



AL-9000 Fuel Cell breathalyser boasts a fuel cell sensor to provide the highest level of accuracy.

Size (H x W x D)	116 x 50 x 20mm
Weight	100g
Measurement Principle	Fuel cell type alcohol sensor
Measurement Range	0.000% -0.400% BAC / 0.000 - 4.000 ‰ / 0.000-2.000mg/l BrAC
Accuracy	±0.005% @ 0.100%BAC
Audible warnings	3 steps beep warning of alcohol detection with LED display
Power	Two 1.5Volt (AAA) alkaline batteries
Approval	DOT/ NHTSA, CE, ISO9000, FDA 510K listed, Australian standard.
Optional	Calibration Kit (Dry gas and Regulator) Printer with Cable, PC software CD & USB Cable

Alcohol & Drug Test Kit

Alcohol Test Kit

Breath Alcohol Measurement with Draeger Alcotest-Tubes



This easy to use, single used measuring system consist of an alcotest tubes, a mouthpiece and a measuring bag. When the tested person blows a volume of breath which contain alcohol, the chemical reagent system in the tubes will change colour from yellow to green when alcohol is present.

Alcotest tubes 0.5 ‰

10 tubes, 10 mouthpieces, 1 alcotest measuring bag

Alcotest tubes 0.8 ‰

10 tubes, 10 mouthpieces, 1 alcotest measuring bag

Drug Test Kit

Draeger DrugCheck 1200 STK



The reliable method to prevent drug abuse in a cost-efficient way. Current drug influence can quickly and easily be detected with the saliva test.

Saliva drug test, box with 25 test kits

7 substance classes

AMP (75), BZO (10), COC (36), MET (75), MTD (15), OPI (30), THC (45)

6 substance classes

AMP (75), BZO (10), COC (36), MET (75), OPI (30), THC (45)

5 substance classes

AMP (75), COC (36), MET (75), OPI (30), THC (45)

* The following substances can be detected with Draeger DrugCheck:
AMP : Amphetamine, BZO : Benzodiazepine,
COC : Cocaine,
MET : Methamphetamine,
MTD : Methadone, OPI : Opiates, THC : Cannabis
(figures in brackets describe the limit value concentration in ng/ml)

Flow check (Smoke Generator)

Flow check (Smoke Generator)

Draeger Air Flow Tester



Air flow test tubes can be used universally. Simple and easy to use for the identification of air flows movements.

Air-Flow tester Kit : carrying box, comprising an aspirator bulb, air flow test tubes(10) and sealing caps

Draeger Flow Check



The Draeger Flow Check air current indicator produces a harmless cloud of smoke that floats freely and easily because it has the same density as ambient air.

Consequently, slight air currents become visible to easy identify leaks and test the integrity of air-tight systems.

Operating Temperature	5 °C to 40 °C
Dimension	300 x 200 X 70 mm
Weight	500g
Smoke Time per Ampoule	Approx. 3 min
Operating Time	Approx. 20 min
Ni-Cd rechargeable Battery	7.2 V; 1.4 Ah
Charging current	700 mA

Air Purifying Respirator

Half Mask

Draeger X-plore® 3300



Practical use and comfort: Draeger X-plore® 3300 offers both and additionally excels by its economical and low maintenance use.

- Reusable Half mask with a dual filter bayonet connection.
- Mask made from Soft-TPE material for friendly to the skin and comfortable to wear, translucent grey
- Economical, easy to maintain, good wearing comfort
- CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

Draeger X-plore® 3500



A perfect combination of durability, protection and comfort. For harsh conditions and long duration use, the Draeger X-plore 3500 half mask is the first choice.

- Reusable, premium quality half mask with a dual filter Bayonet connection.
- Mask made from hypoallergenic Drägerflex material for long-term, demanding jobs, robust, black
- Very comfortable head harness with "drop down" neck strap.
- Each mask is supplied with a re-sealable storage bag
- Spare parts available
- CE-certified (EN 140), Australian Standard AS/NZS 1716, NIOSH 42 CFR 84

MSA Advantage® 200 LS



The Advantage 200 LS is a comfortable, efficient and economic half mask. It is ideal for applications where workers are exposed to various hazards from job to job, such as high concentrations of fumes, mists and gases. With its patented MultiFlex system the Advantage 200 LS offers maximum protection and high wearing comfort.

- Lightweight, cost-efficient
- Thermoplastic rubber increases softness and decreases weight
- Multiflex system equalizes facial pressure
- AnthroCurve conforms to each user's face
- EN 140, AS/NZS 1716:2003, KAZ: ST RK, GOST 12.4.190-99, BY: STB GOST R 12.4.189-2006, USA Approvals

Full Face Mask

Draeger X-plore® 5500



Whether in the chemical, metal, or automotive industries, ship building, maintenance, supplies, or disposal: The Draeger 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.

- Dual filter bayonet connection
- Double sealing frame ensures comfortable and tight fit
- Shock-resistant polycarbonate visors
- Mask material in EPDM, high ageing resistance, extremely hypoallergenic
- EN136 Cl.2 with CE mark and NIOSH

Draeger X-plore® 6300

Double and triple safety. The Draeger X-plore® 6300 meets stringent requirements with regard to reliability, secure fit and comfort. An economical full-face mask for professional use in industry.



- Single-filter face mask
- Double sealing frame ensures comfortable and tight fit
- Successor to the Panorama Nova Standard series
- 5 point head harness
- Mask material in EPDM, high ageing resistance, extremely hypoallergenic
- Scratch resistant plexiglass (PMMA) visors
- Blue plastic exhalation valve cover, no neck strap
- EN 136 Class 2 (CE mark), NIOSH, AS/NZS

Draeger X-plore® 6530

The Draeger 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.



- Single-filter face mask
- Double sealing frame ensures comfortable and tight fit
- Successor to the Panorama Nova Standard series
- 5 point head harness
- Stainless steel speech diaphragm for clear communication
- Shock & heat -resistant polycarbonate visors
- Black plastic exhalation valve cover with neck strap
- EN 136 Class 3 (CE mark), NIOSH (PC), AS/NZS

Air Purifying Respirator

Full Face Mask

MSA Advantage® 3200

The full face mask series Advantage 3000 provides both protection and unparalleled comfort. The soft sealing line made of hypo allergenic silicone provides a pressurefree fit. The large, optically corrected lens ensures a clear, undistorted view, while the grey-blue colour gives the mask an aesthetic appearance.



- Full face respirator features state-of-the-art design to lower breathing resistance, while preset upper straps make it easy to put on/take off
- Scratch-resistant wraparound faceplate allows for wide field-of-vision
- Components can be replaced by hand in seconds
- EN136 class 2, RU: GOST R 12.4.189-99, KZ: ST RK, GOST R 12.4.189-99, BY: STB GOST R 12.4.189-2006, AS/NZS 1716:2003, USA Approvals

MSA Advantage® 3100

The full face mask series Advantage 3000 provides both protection and unparalleled comfort. The soft sealing line made of hypoallergenic silicone provides a pressure free fit. The large, optically corrected lens ensures a clear, undistorted view, while the grey-blue colour gives the mask an aesthetic appearance.



- Full face respirator features state-of-the-art design to lower breathing resistance, while the nose cup reduces fogging and silicone faceplate increases comfort
- Scratch-resistant wraparound lens allows for wide field-of-vision, while adjustable straps offers consistent fit
- Single-port, standard thread filter connection
- EN136 class 3 (Single port, EN thread), RU: GOST R 12.4.189-99, KZ: ST RK, GOST R 12.4.189-99, BY: STB GOST R 12.4.189-2006, AS/NZS 1716:2003

Bayonet Filter & RD 40 Filter

Draeger X-plore® Bayonet filters



Filter system for maximum wearer comfort. The Draeger X-plore® bayonet filters are easy to attach, minimize restrictions on field of view and offer reliable protection from harmful gases, vapors and particles.

- Innovative and comfortable
- Easy and secure attachment
- The gas cartridges can be upgraded to operate as combination cartridges
- Packaged in pairs
- All gas and combination cartridges are equipped with a robust plastic housing.
- CE-marked in accordance with EN 14387 and/or EN 143:2000.

Bayonet Filter & RD 40 Filter

Draeger X-plore® Rd40 filters



The filters of the Draeger X-plore® Rd 40 series provide economical and effective cleaning of breathing air from harmful substances—be it in fumigation, agricultural, clean-up or general manufacturing industries.

- Offers various filter types for major applications and protects against many hazardous substances
- Long life (6 years of a shelf life for combination, 12 years of a shelf life particle filter)
- Resalable individual packaging
- The aluminum housing ensures that any damage to the filter is easily detected, therefore providing extra security.
- All filters are CE-marked in accordance with EN 14387 and/or EN 143:2000.

MSA Advantage® Chemical and Combination Cartridges



Crafted for easy installation and strong protection, Advantage Respirator Cartridges use a bayonet-style design for easy mounting. With low-lug height and lead-in connectors, the cartridges lock into place with only a single twist.

- Respirator cartridges feature bayonet-style design for quick mounting
- Cartridges lock into place with one twist
- Complete range compatible with all MSA Advantage facepieces

MSA Advantage® Flexi-Filters



Lightweight, low-profile Flexi-Filter Pads make it easy for wearers to work for hours without fatigue or overheating. The swept-back design increases user field of vision, while low-breathing resistance ensures hours of comfort. Convenient finger tabs ensure easy installation and removal.

- Lightweight, low-profile filters offer minimal breathing resistance
- Swept-back design offers high visibility
- Finger tabs make easy on/off

Air Purifying Respirator

Bayonet Filter & RD 40 Filter

MSA Particle Filters



This PlexTec model features a new filter element that boasts a significantly increased filtering surface. The reduction in breath resistance improves filtering performance while allowing more relaxed breathing as the unit protects against solid and liquid particles of toxic agents.

- Upgraded, lightweight filter features increased filtering surface
- Unit protects against solid and liquid particles of toxic agents (radioactive and carcinogenic particles)
- Plastic housing allows easy incineration
- Can be stored for up to 10 years
- AS/NZS 1716:2003, EU: EN 143, RU: GOST R 12.4.194-99, KZ: ST RK, GOST R 12.4.194-99, BY: STB GOST R 12.4.194-2007

MSA Gas Filters 90

These high-performance filters provide strong protection against gases and particles. Reliable against both organic and inorganic vapors. MSA's PlexTec particle filter technology increases filtering surface for easier breathing.



- Reliable protection against gas, particles and vapour
- PlexTec technology for reduced inhalation resistance and more relaxed breathing
- Superior filter performance and service time
- Robust metal housing for solid mechanical performance
- Compact and lightweight with easy-to-cover opening
- AS/NZS 1716:2003, EN 14387, RU: GOST R 12.4.251-09, KAZ: ST RK, GOST R 12.4.251-09, BY: STB GOST R 12.4.193-2006, UA: DSTU EN 14387:2006

MSA Combination Filter 92 / 93

The 9X series of MSA gas and combination filters are in full compliance with the REACH regulation and do not include any toxic materials listed in the European Regulation. For all gases and vapours which may be present in combination with particles [dust, smokes, mist, spray] a combined filter [protection from gases and particles] must be used.



- Protection against toxic gas and vapours
- Gas filter classes 1 or 2
- Protection class P2 against particles
- Combination Filter 92: Single (A, B, E, K) range or - Multiple (ABEK/St) range
- Combination Filter 93: Single (A, B, E, K, AX) range or - Multiple (AB, ABEK) range
- EN 14387, RU: GOST R 12.4.251-09, KAZ: ST RK, GOST R 12.4.251-09, BY: STB GOST R 12.4.193-2006, AS/NZS 1716:2003

Escape Device

Emergency Escape Breathing Device (EEBD)

Draeger Saver CF Series



The Draeger Saver CF constant flow Emergency Escape Breathing Apparatus allows safe, effective and uncomplicated escape from hazardous environments. Simple to put on and featuring practically automatic operation, this hood-based, positive-pressure breathing device can be used with minimal training.

	Saver CF 10	Saver CF 15
Size (H x L x D)	510 x 190 x 260mm	
Cylinder Charging Pressure	200 bar	
Airflow to Hood	35-37 L/min	
Operating Temperature Range	-15 °C to +60 °C	
Approval	EN1146:2005, ISO 23269-1:2008, SOLAS Chapter II-2, MED, PED, ATEX zone 0	
Weight (Hard Case)	5.9kg	6.9kg
Weight (Soft Case)	4.2kg	5.2kg
Cylinder	2L 200bar	3L 200bar
Service Time	10 minutes	15 minutes

MSA S-Cap-Air

MSA S-Cap-Air, a compressed-air emergency escape device, provides 15 minutes of life-saving respiratory protection in extremely toxic or oxygen-deficient environments. Simple to use and easy training.



Size (H x W x D)	Diameter approx. 250 mm, width approx. 550 mm
Weight	Steel cylinder - approx. 6kg, Composite cylinder - approx. 4.5kg
Service Time	15 min.
Air supply	Continuous, approx. 35 litres/minute
Cylinder	3L, 200bar
Approval	EN 1146, IMO, SOLAS, MSC

Honeywell BIO-S-CAPE



The Bio-S-Cape, a compressed air emergency escape breathing device, is designed for escape in toxic or oxygen-deficient environments, requiring easy and immediate donning.

Size (H x W x D)	500 x 180 x 180 mm
Weight	steel air cylinder - Approx 5.36kg / composite air cylinder - 3.58kg (3L)
Service Time	15 minutes
Pressure in use	200 bar - flow of pre-regulated air
Approved temperatures	-15°C/+60°C
Approval	EN 1146:2005, SOLAS, MSC, MED, IMO

Escape Device

Filter Escape Apparatus

Draeger PARAT® 4700



The Draeger PARAT® 4700 industrial escape hood was developed with users, placing the focus on the fastest possible escape. Optimized operation and wearing comfort, a robust housing and a tested ABEK P3 filter ensure protection from toxic industrial gases, vapours and particles for at least 15 minutes.

Filter Performance	ABEK P3 combination filter against toxic industrial gases, vapours and particles
Period of Use	At least 15 minutes
Service Life	16 years (provided the filter is exchanged after eight years)
Weight	PARAT® 4720 - 675g, PARAT® 4730 - 740g
Dimensions	PARAT® 4720 - 245 x 160 x 110mm PARAT® 4730 - 249 x 156 x 115mm
Approval	DIN 58647-7 (filter additionally tested in accordance with EN 14387:2004)

Draeger PARAT® 5500



The Draeger 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 Draeger PARAT® 5500 is protected from toxic fire-related gases, vapours and particles for at least 15 minutes while escaping.

Filter Performance	CO P2 combination filter against toxic fire-related gases, vapours and particles
Period of Use	At least 15 minutes
Service Life	16 years (provided the filter is exchanged after eight years)
Weight	PARAT® 5510 - 590 g, PARAT® 5520 - 660 g, PARAT® 5530 - 720 g
Dimensions	PARAT® 5510: 190 x 135 x 90mm PARAT® 5520: 215 x 155 x 105mm PARAT® 5530: 241 x 143 x 107mm
Approval	EN 403:2004, additionally tested for the use against H ₂ S (at 2,500 ppm) in accordance with DIN 58647-7

Draeger PARAT® 7500



The combined fire and industrial escape hood 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 Draeger PARAT® 7500 is protected from toxic industrial and fire-related gases, vapours and particles for at least 15 minutes while escaping.

Filter Performance	ABEK CO P3 combination filter against toxic gases, vapours, particles and fire-related gases
Period of Use	At least 15 minutes
Service Life	16 years (provided the filter is exchanged after eight years)
Weight	PARAT® 7520 - 770 g, PARAT® 7520e - 850 g, PARAT® 7530 - 830 g, PARAT® 7530e - 900 g
Dimensions	PARAT® 7520: 235 x 160 x 115mm PARAT® 7530: 249 x 156 x 115mm
Approval	EN 403:2004, DIN 58647-7 (filter additionally tested in accordance with EN 14387:2004)

Draeger PARAT® 3000



The Draeger PARAT 3000 is a half mask escape device equipped with a multi-gas ABEK15 filter. The device ensures 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.

Filter Performance	ABEK 15 gas filter for protection against organic and anorganic gases and vapours
Period of Use	At least 15 minutes
Service Life	4 years maintenance free, filter exchange every 4 year, total shelf life 12 years
Weight	PARAT 3100 - approx. 360g, PARAT 3200 - approx. 330g
Dimensions	PARAT 3100 - 170 x 110 x 90mm, PARAT 3200 - 170 x 110 x 60mm
Approval	DIN 58647 part 7

MSA S-CAP



This highly visible, one-size-fits-all yellow hood offers protection against smoke and gas from fires, especially carbon monoxide. The easy-to-use unit dons quickly and features a nose cup for a wide variety of head and face sizes, while the cotton neck seal ensures a tight fit. The high-performance filter offers thorough protection, while the wide lens provides an increased field of vision and the low breathing resistance reduces claustrophobia.

Filter performance	CO, gases from fire & particles P2
Service Time	min. 15 minutes (rated service time)
Storage Life	Max. 10 years
Dimensions	310 x 180 x 230mm
Weight	approx. 630 g (ready for use)
Approval	EN 403:2004

MSA Smoke Hood



Designed especially for the offshore oil industry, this self-adjusting, highly visible orange hood offers protection against radiant heat and smoke. The one-size-fits-all unit dons quickly and features an elastic neck seal and high-performance filter for thorough protection. The large window and low breathing resistance offer an increased field of vision and reduce claustrophobia.

Filter performance	CO, gases from fire & particles P2, radiant heat
Service Time	min. 15 minutes (rated service time)
Storage Life	Max. 10 years
Dimensions	200 x 110 x 80mm
Weight	approx. 630 g (ready for use)
Approval	EN 403:2004

Breathing Apparatus

Self-Contained Breathing Apparatus

Draeger PSS® 7000



Developed by professionals for professionals, the Draeger PSS® 7000 breathing apparatus is a major milestone in our continuing development of breathing devices for the professional fire fighter.

	PSS 7000	PSS 7000 Bodyguard
Weight of complete set	11.7 Kg	12.2 Kg
Input Pressure	0 - 300 bar	
Nominal 1st Stage output pressure	7.5 bar	
1st stage output flow	> 1000 l/min	
Operating Temperature	-30 to +60°C	
Whistle activation pressure	50 – 60 bar	
Approvals	EN 137:2006 Type 2, vfdb 0802	

Draeger PSS® 5000



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

	PSS 5000 DS	PSS 5000 DP	PSS 5000 DP Bodyguard 7000
Weight of backplate and harness	3.85 Kg	4.00 Kg	4.60 Kg
Input Pressure	0 - 300 bar		
Nominal 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		
Approvals	EN 137:2006 Type 2		

Draeger PSS® 3000



The Draeger PSS® 3000 is a new generation of high performing breathing apparatus for fire-fighters. Combining comfort with exceptional pneumatic performance, it is designed for applications where simplicity and ease of use are key essentials. Lightweight yet robust, and easy to don, this advanced breathing apparatus provides the ultimate in breathing protection.

Weight of backplate and harness	2.70 Kg
Dimensions	590 x 290 x 160 mm (H x W x D)
Input Pressure	0 – 300 bar
Nominal 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
Approvals	EN 137:2006 Type 2, vfdb 0802

Draeger PAS® Lite



For use in industrial applications where a simple, robust and easy to use breathing apparatus is required, the Draeger PAS® Lite Self-Contained Breathing Apparatus(SCBA) combines reliability with comfort and performance. Lightweight yet robust, this pneumatic gauge SCBA offers excellent service life as well as being easy to maintain.

Weight of backplate and harness	2.70 Kg
Dimensions	590 x 290 x 160 mm (H x W x D)
Input Pressure	0 – 300 bar
Nominal 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
Approvals	EN 137 2006 Type 2, MED, SOLAS II-2

MSA AirGo Compact



The AirGo compact self-contained breathing apparatus is specifically designed for emergency response and escape. On ships or industrial facilities where such units are mandatory, the AirGo compact is the optimal choice.

Materials	Backplate: heat resistant glass fibre reinforced polyamide Harness: Intrinsically flame retardant polyamide straps
Weight	2.9 kg (14.5 kg with full steel cylinder & mask)
Dimensions	Wall box: 76 x 48 x 31 cm (H x W x D)
Approvals	EN 137:2006, type 2, ATEX II 1 G c IIC T6

Breathing Apparatus

Self-Contained Breathing Apparatus

Honeywell Aeris Confort Type 2



The Aeris Confort Type 2 is an open circuit self contained compressed breathing apparatus developed by Honeywell Safety Products which complies with the requirements of the latest EN 137, Type 2 standard.

weight of the complete apparatus without the cylinder	4.10 Kg
High-pressure pneumatic gauge	0-400 bar, photo-luminescent gauge, rubber protection and integrated alarm whistle
Alarm activation	55 ± 5 bar
Alarm volume	> 90 dBA
Approved temperatures	-30°C/+60°C
Apparatus type-approvals	EN 137: 2006 Type 2, SOLAS, MED, IMO, MSC
Full-face mask type-approval	EN 136 Class III

Honeywell X-PRO



The X-Pro is a high performance compressed air breathing apparatus set developed by Honeywell Safety Products. Its construction integrates many passive safety elements and modular function, offering an optimal protection for the user in every kind of environments and extreme applications.

weight of the complete apparatus without the cylinder	3.90 Kg
High-pressure pneumatic gauge	0-400 bar, photo-luminescent gauge, rubber protection and integrated alarm whistle
Alarm activation	55 ± 5 bar
Alarm volume	> 90 dBA
Approved temperatures	-30°C/+60°C
Apparatus type-approvals	EN 137 Type 2: 2006, SOLAS, MED, IMO, MSC, AS/NZS 2003
Full-face mask type-approval	EN 136 Class III

Draeger FPS® 7000



The Draeger 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.

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 Draeger HPS 6200 either with Draeger Q-fix or with Draeger S-fix 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
Weight	approx. 600 g (varies according to version)
Approvals	EN 136 Class. 3, EN 137 type 2, DIN 58610 (MHK), NIOSH (some versions)

Draeger Panorama Nova®



The respiratory mask Panorama Nova meets the highest standards of protection, sealing and quality. For decades proven worldwide, the full face mask represents absolute reliability in the protection of the respiratory tract and eyes.

Mask body	EPDM or silicone
Visor	Impact-resistant Polycarbonate or extremely heat and chemical-resistant Triplex glass
Equipment connector	Robust plastic with inhalation and exhalation valve RA – round thread connection Rd40 mm × 1/7" acc. to EN 148-1 PE – thread connection used by German fire-fighters, M45 × 3 acc. to EN 148-3 ESA – plug-in connector of German fire-fighters acc. to DIN 58600 P – Draeger plug-in connection
Weight	Approx. 550-650 g (depending on the visor/frame)
Approvals	EN 136 class 3 (CE mark), DIN 58610, vfdb, NIOSH, AS/NZS (depending on variant)

Breathing Apparatus

Self-Contained Breathing Apparatus

MSA 3S Positive Pressure Full-Face Masks



The MSA 3S full face mask, the most successful mask design in the world with over 5 millions units sold, has been upgraded. It offers even more user comfort and value, without changing the 3S Classic style.

- Over 50 versions for your convenience
- Available in standard and small sizes
- Several versions of harnesses: rubber, silicone, Nomex EZ-don, adapters for mask-helmet-combinations
- Lens variants coated in polycarbonate & Triplex glass, also for high mechanical and chemical resistance
- Broad range of accessories
- Also available as mask-helmet-combination
- EN 136, Class 3

Honeywell PANORAMASQUE



The Panoramasque is a full-face mask with a wide field of vision without any optical distortion, providing a good seal, a comfort of use and fully approved for all applications.

Facepiece and internal half-mask EPDM (special polymer)

Lens Polycarbonate with anti-scratch coating

Harness Five-point head strap (optional two points mask connection and hair net)

Connector Air-Klick system

Size Universal

Weight Approx. 585 g

Approvals EN 136 Class III

Honeywell Opti-Pro



The Opti-Pro is a full-face mask with a modern design, offering an extreme field of vision, optimal comfort due to the silicon and ensure a good seal.

Facepiece and internal half-mask Silicone

Lens Polycarbonate with anti-scratch coating

Harness Five-point head strap (optional two points mask connection and hair net)

Connector Air-Klick system

Size S/M/L

Weight Approx. 705 g

Approvals EN 136 Class III

Draeger Compressed Air Cylinder



Designed using leading technology and advanced materials, Draeger's range of Composite Cylinders can be used in any application where breathing becomes difficult or impossible.

Type	Water Capacity	Working Pressure
Steel	2 liters	300 bar
	4 liters	200 bar
	6 liters	200 bar / 300 bar
	7 liters	200 bar
Carbon Composite	2 liters	300 bar
	3 liters	300 bar
	6 liters	300 bar
	6.8 liters	300 bar
	8 liters	300 bar
	9 liters	300 bar

MSA Compressed Air Cylinder



MSA steel and composite compressed air cylinders meet a wide range of applications, needs, and budgets. Composite cylinders with aluminium liner, over wrapped with carbon and glass fibres, are 50% lighter than the traditional economic steel construction. MSA offers cylinder versions with 200 and 300 bar service pressure and 2 to 9 litre capacity.

Type	Water Capacity	Working Pressure	Options
Steel	2 liters	300 bar	-
	4 liters	200 bar	-
	6 liters	300 bar	ratchet hand wheel/ flow restrictor /gauges
	7 liters	300 bar	gauges
Carbon Composite	3 liters	300 bar	flow restrictor
	6 liters	300 bar	flow restrictor/gauges
	6.8 liters	300 bar	ratchet hand wheel/ flow restrictor / gauges/30 years lifetime
	6.9 liters	300 bar	ratchet hand wheel/ flow restrictor
	9 liters	300 bar	30 years lifetime

Breathing Apparatus

Self-Contained Breathing Apparatus

Honeywell Compressed Air Cylinder



A complete range of 200 bar and 300 bar steel and carbon composite cylinders.

Type	Water Capacity	Working Pressure
Steel	6 liters	200 bar
	6 liters	300 bar
Carbon Composite	6.9 liters	300 bar
	9 liters	300 bar

Closed Circuit Breathing Apparatus

Draeger PSS BG4 Plus



The closed-circuit breathing apparatus Draeger PSS® BG 4 plus combines uncompromising safety with the greatest breathing and wearing comfort. It supplies the wearer with breathing air in a toxic environment for up to four hours.

Duration of use	4 h according to EN 145 and NIOSH
Weight, ready for use	15,5 kg (incl. mask, full oxygen cylinder (aluminium), CO ₂ absorber and approx. 1,2 kg cooling ice)
Dimensions	595 x 450 x 185 mm (H x W x D)
Constant oxygen metering	1.5 - 1.9 l/min O ₂
Minimum valve	> 80 l/min O ₂
Breathing bag volume	5.5 litter
Bypass valve	> 50 l/min
Operating temperatures	-40 °C / -40 °F to +90 °C / +194 °F (if stored at room temperature)
Approvals	EN 145, Ex protection according to EN 50020, Eex IIC T4, Eex ial and NIOSH

Compressor

Compressor

Draeger DE 100

The Draeger DE 100 mobile compressor is by far the smallest and lightest of Draeger's mobile compressors.



- Easy Operation
- Pure Breathing Air
- Innovative materials for durable installations
- Complete filling application
- 200 bar or 300 bar filling valve with automatic venting, pressure gauge and 1 metre long filling hose
- Mobile, 3-stages
- Purification system P11

Draeger JUNIOR 100

The Draeger JUNIOR 100 is the most compact, mobile recreational Draeger diving compressor.



- The small compact class
- Simple and safe operation
- Innovative materials for durable installations
- Compressor equipped with 1 international filling connection, 1 filling valve with automatic venting and pressure gauge with 1m filling tube and Thread connection R 5/8"

Draeger MARINER

The universal mobile compressors Draeger MARINER 200/250/320 are ideally suited for professional operations under the most extreme operating conditions.



- The small compact class
- Simple and safe operation
- Innovative materials for durable installations
- Compressor block with micronic type suction filter, intercoolers, interstage separator, inter-pressure safety valves and filter set P41
- Available in three different versions (200 L/min, 250 L/min, 320 L/min)
- 3- stage (Mariner 200/250), 4-stage (Mariner 320)

Draeger VERTICUS 5



Economical and "super silent": The sound-proofed high pressure compressor station (up to 420 bar) Draeger VERTICUS 5 provides high operational performance and offers safe and reliable breathing air supply for professional applications.

- Modular design
- Intelligent design and state-of-the-art technologies
- Innovative materials for durable installations
- Compressor block with micronic type suction filter, intercoolers, interstage separator, inter-pressure safety valves, filter set P61
- Secures filter monitoring system
- B - control
- Available in five versions with air supply capacities of 260 L/min up to 680 L/min.
- 4-stage

Compressed Air Quality Test Kit

Compressed Air Quality Test Kit

Draeger Aerotest Simultan HP



Draeger Aerotest Simultan HP is used to determine the quality of respiratory air in high-pressure applications. In combination with the new Draeger Oil Impactor the system offers a unique quality level for the monitoring of compressed air.

Dimensions	350 x 300 x 85mm	Weight	Approx. 3.0kg
Measurement	Oil, Water Vapour, CO, CO2	Supply Pressure	200/300 bars
Connection	G 5/8	Flow	0.2 and 4.0 L/min

Comprising

Pressure reducer with manual connection, Measuring device for 4 Tubes, Adapter Impactor, Bubble test hose, Package of 5 sinter filters, Break-off device for tubes, Timer, Instructions for use, Transport case



<Draeger-Tubes>



<Adapter for impactor>



<Draeger Oil Impactor>

Draeger Aerotest Alpha



The Draeger Aerotest Alpha is the instrument of choice for monitoring the purity of compressed air in the low pressure range.

In combination with the Draeger Oil impactor, the system achieves an unprecedented quality of compressed air monitoring.

Dimensions	350 x 300 x 85mm
Weight	Approx. 3.0kg
Measurement	Oil, Water Vapour, CO, CO2
Supply Pressure	15 bar
Connection	9 mm
Flow	0.2 and 4.0 L/min

Comprising

1 Pressure reducer, Measuring device for 4 tubes, Impactor adapter, Tube opener, Bubble test hose, Pack of 5 sintered filters, Instruction manual, Transport case

Draeger Aerotest Navy



The Draeger Aerotest Navy is designed for the quantitative determination of water vapour, oil, CO2, CO and O2 as well as other impurities to be contained in the compressed air supplied from high pressure compressors or compressed air to max. 300bar.

Dimensions	400 x 300 x 91 mm
Weight	Approx. 3.0 kg
Measurement	Oil, Water Vapour, CO, CO2
Supply Pressure	8.5 bar
Flow	0.2 and 4.0 L/min

Comprising

Measuring device for 4 tubes, Timer, Break-off facility for tubes, Instruction manual, one adapter for compressor valve PN300, One adapter for cylinder valve PN300, Gas detector pump accuro, Spare parts for the accuro pump, T piece for O2 test

Chemical Protection Suit

Chemical Protection Suit

Draeger CPS 5800



The Draeger 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.

Feature	<ul style="list-style-type: none"> • Soft face cuff which fits with most mask types • Double flap with continuous Velcro strap protects zip fastener • Fixed gloves combine butyl outer with laminate inner lining for increased protection • Gas-tight socks with boot flaps for use with multiple boot sizes 		
	Material	Made of Zytron 500, a very soft laminate material	
	Colour	Orange	
	Weight	approx. 2.2 kg	Size M, L, XL, XXL
Approvals	EN 943 part 1 & 2 (type 1b), Solars II-2, Reg. 19, ISO 16602: 2007		

Draeger SPC 3800



The Draeger SPC 3800 (Splash Protective Clothing) is a light and comfortable, liquid-tight protective suit. The protective overalls SPC 3800 prevent contact with solid and liquid chemicals and is primarily used in industry and shipping.

Feature	<ul style="list-style-type: none"> • Soft face cuff offers flexibility in the selection of the full face mask • Foil or butyl gloves combined with any overgloves • Horizontal zipper protected by a double cover flap on the back • Additional arm cuff covering the shaft of the overglove 		
	Material	Tychem® F	
	Colour	Grey and Orange (Grey version with heatsealed laminated safety gloves, Orange version with butyl gloves)	
	Weight	Grey: approx. 660 g / Orange: approx. 840 g	Size S, M, L, XL, XXL, XXXL
Approvals	EN 14605, EN ISO 13982-1, SOLAS		

Kappler ZYTRON 200 (Z2H428)



Zytron 200 ups the protection level through increased resistance to a wider range of chemicals and greater physical strength, especially valuable in applications where rip-out is a concern.

Feature	<ul style="list-style-type: none"> • Coverall with hood, elastic wrists and ankles, Heat Sealed/ Taped Seams • Elastic in hood, ankle and wrist openings • Double storm flap with hook-and-loop closure 		
	Material	Zytron®200 is a multiple layer film based composite material consisting of a 150oz/yd2 non-woven substrate laminated on one side to barrier films.	
	Color	Grey	Weight 4.1 kg
	Size	XS, SM/MD, LG/XL, 2X/3X, 4X	Approvals CE Certified Type 3

Chemical Protection Suit

Gas Tight Suit

Draeger CPS 7900



Draeger CPS 7900 provides excellent protection against industrial chemicals, biological agents, and other toxic substances. Its qualified equally well for work in explosive areas and for handling cryogenic substances.

Feature	<ul style="list-style-type: none"> • Anti-fog visor • Zipper closing at top or bottom, Cover flap with Velcro fastener or snaps • Gas-tight safety gloves or with the new EN combination (Silvershield and Tricotril) 		
Material	Made of D-mex, a very light and flexible symmetric-5-layer-material		
Colour	Orange or Blue		
Weight	6.9kg (with boot), 5.5kg (with socks)	Size	S, M, L, XL, XXL
Approvals	EN 943-1:2002, SOLAS, EX-PROTECTION		

Draeger CPS 7800



The reusable gas-tight Draeger CPS 7800 provides excellent protection against gaseous, liquid, aerosol and solid hazardous substances even in explosive areas.

Feature	<ul style="list-style-type: none"> • Flexible gas-tight face cuff combined with various full face masks • Gas-tight zipper with cover flap on the front side • Integrated safety boots facilitate donning of the suit • Regulating Valve PT 120L for ventilation
Material	Made of D-mex, a very light and flexible symmetric-5-layer-material
Color	Orange or Blue
Weight	With face cuff and socks: approx. 3.5 kg / With full face mask and boots: approx. 6.2 kg (without ventilation system)
Size	S, M, L, XL, XXL
Approvals	EN 943-1, vfdb 08/01:2006-11, BS 8467, SOLAS

Draeger CPS 6800



The Draeger CPS 6800 is against cryogenic hazardous substances and low concentrations of acids and alkalis. The new and innovative suit design is more flexible and allows users to comfortably enter confined spaces.

Feature	<ul style="list-style-type: none"> • Gas-tight face cuff offering flexibility when choosing the full face mask • Glove attachment allows gloves to be changed quickly without tools • Integrated safety boots make donning easier • RV PT 120 L, adjustable ventilation unit for cooling the suit interior
Material	Umex
Color	Red
Weight	With face cuff and socks: approx. 2.9 kg / With full face mask and boots: approx. 6 kg (without accessories)
Size	S, M, L, XL, XXL
Approvals	EN 943-1, ISO 16602:2007, SOLAS.

Ansell TRELLCHEM® VPS type T



Versatile suit with excellent chemical resistance and durability, both for the hazmat team and for the industrial user. It is one of the most popular suits in the Trellech® gastight suit range.

Feature	<ul style="list-style-type: none">• Non-encapsulating design with face seal and without hump• A ventilation system is included as standard.• The standard glove assembly consists of two layer: Inner Ansell Barrier® glove, Trellech® Viton®/butyl rubber glove (ET suits) or Butyl rubber glove• Black nitrile rubber safety boots with European approval as Firemen's boots			
	Material	Combination of elastomers and plastics with a woven fabric	Color	Yellow
	Approvals	EN 943-1, EN 943-2/ET, SOLAS	Size	XS, S, M, L, XL, XXL

Ansell TRELLCHEM® Super type T



The true workhorse of the Trellech® gastight suit range. Highly chemical resistant and durable, yet soft and flexible, and with an outstanding performance record it has users within all areas.

Feature	<ul style="list-style-type: none">• Non-encapsulating suits fitted with an anatomically designed face seal• A ventilation system is included as standard• Fitted with Trellech® Viton®/Butyl rubber gloves• Black nitrile rubber safety boots with European approval as Firemen's boots			
	Material	Nylon fabric coated with high-performance elastomers	Color	Yellow
	Approvals	EN 943-1, EN 943-2/ET, SOLAS	Size	XS, S, M, L, XL, XXL

Ansell TRELLCHEM® Light type T



Basic reusable gastight suit intended for lighter industrial work made from a soft and durable material.

Feature	<ul style="list-style-type: none">• Non-encapsulating suits are fitted with an anatomically designed face seal• A ventilation system is included as standard.• The gloves are attached with the Trellech® Bayonet glove ring system• Yellow PVC safety boots• Seams are stitched and sealed with a welded-on tape on the outside			
	Material	flexible polyamide fabric coated with PVC on both sides	Color	Orange
	Approvals	EN 943-1, EN 1073-2, EN 14126, SOLAS	Size	XS, S, M, L, XL, XXL

Kappler ZYTRON 500 (Z5H580)



Gas-tight styles for Level A protection include front and rear entry, flat back or expanded back. Zytron 500 fabric also available in splash suits and coveralls.

Feature	<ul style="list-style-type: none">• Vapour total Encapsulating suit for maximum-protection against hazardous gases, liquids, and particles• Expanded width face shield of 40 mil PVC with optional 5 mil FEP overlay lens• Gas-tight PVC zipper covered by a double storm flap with hook and loop closures• Hazmat styles include double-taped seams – seams sewn then hot-air taped inside and out• Glove system includes field replaceable Butyl gloves. Hazmat styles include film liner glove			
	Material	Made of Zytron 500, the softest laminate material	Color	Orange or Charcoal Grey
	Size	XS, SM/MD, LG/XL, 2X/3X, 4X	Weight	approx. 4.1kg
	Approvals	CE Certified Type 1a		

Industrial Electrical Protection

Industrial Electrical Protection

ARC Flash Protection Premium Coverall Kits



Salisbury PRO-WEAR® Arc Flash Protection Coverall Kits are clothing kits containing arc flash coveralls in an ATPV rating of either 8 cal/cm² or 12 cal/cm², an AS1000HAT, an appropriate ATPV rated AFHOOD, ASBAG, SKBAG and safety glasses.

These kits meet NFPA 70E Hazard Risk Category 2.

SKU	Description
SKCA11	Size: S, M, L, XL, 2XL, 3XL, ATPV Rating cal/cm: 10, HRC: 2 / Navy
SKCA11TC	Size: S, M, L, XL, 2XL, 3XL, ATPV Rating cal/cm: 12, HRC: 2 / 2-Color
SKCA8	Size: S, M, L, XL, 2XL, 3XL, ATPV Rating cal/cm: 8, HRC: 2 / Navy
SKCA8TC	Size: S, M, L, XL, 2XL, 3XL, ATPV Rating cal/cm: 8, HRC: 2 / 2-Color

Insulated Rescue Hook



Insulated Rescue Hook is an invaluable tool for any workplace. It is used to withdraw an injured worker out of a hazardous area. Confined spaces, in vaults, or just near electrical cabinets and switch gear are some of the places where this tool is a must. Featuring a foam filled, fiberglass reinforced handle for superior electrical insulation and a coated heat treated body hook with an 18" opening.

Cat. No.	24401	24403
Dimensions	1.8 m	2.4 m
Weight	2 kg	2.5 kg

Static Discharge Stick



The Static Discharge Stick is designed to safely remove the static charge after de-energizing.

This tool is pre-assembled and includes a brass ally "U" hook, closed cell foam filled tubular fiberglass switch stick made in accordance with ASTM Standard F feet of copper grounding cable attached to a Salisbury flat jaw grade 3 bronze serrated clamp with strain relief.

Cat. No.	20817	22629
Cable Length	1.8 m	1.8 m
Description	Static Discharge Stick OAL 1.08 m	Static Discharge Stick w/ Universal Attachment 0.3 m
Weight	3.6 kg	0.17 kg

Safety Helmet

Safety Helmet

MSA V-Gard Series & Accessories

MSA has been in industrial helmets for over 50 years, and is today the world leader for workers' head protection worldwide. The V-Gard product is a proven and a well established brand, including the patented V shell design and trademark.



V-Gard

Model	V-Gard	V-Gard 200	V-Gard 500
Helmet shell material	HDPE	ABS	ABS
Weight	350g	350g	360g
Peak	Normal	Short	Normal
Rain Gutter		•	•
Ventilation systems		•	•

Types of suspension

Fas-Trac III Suspension

1-Touch Suspension

Staz-on Suspension

Swing-Ratchet Suspension



V-Gard 200



Chin Strap

MSA Elastic Chin Strap(88218)

MSA Elastic Chin Strap(220553)

MSA Polyester Chin Strap(10124238)



V-Gard 500

Approval

Model	V-Gard	V-Gard 200	V-Gard 500
Low Temperature	-30°C (GOST -50°C)	-30°C	-30°C (GOST -50°C)
High Temperature			GOST +90 °C
EN 397 lateral deformation		•	•
EN 397 440 V AC	•	• (only non vented type)	• (only non vented type)
EN 50365 (1000V AC)	•	• (only non vented type)	• (only non vented type)
Antistatic EN 13463-1	Zone 1,2,20,21,22	Zone 1,2,20,21,22	Zone 1,2,20,21,22

Accessories

- Frames and visors
- Earmuffs
- Winter liners, cooling pads and neck capes
- Stow-away eye protection

Safety Helmet

Rescue Helmet

Draeger HPS 3100



The Draeger HPS 3100—a multi-functional and universal helmet for the various demands of emergency teams in search and rescue missions, for forest and bush fire fighting, road accidents, height rescue and any kind of technical support operations in emergency situations.

Size	Universal size, continuously adjustable for head sizes from 52 to 64 cm
Dimensions (W x L x H)	240 x 295 x 193 mm
Weight	ca. 800 g (helmet), ca. 115 g (safety goggles)
Outer shell	Polyamide, reinforced with glass fibres
Inner shell	Polyurethane
Interior design	Flame-resistant and washable 4-point-harness, chin strap with velcro fasteners and buckle, hairnet made from Kermel/viscose
Ventilation system	Continuously adjustable, additionally reinforced with a steel mesh
Low-temperature stability	Down to -30°C
Safety goggles	Double-lenses system (Pinlock) and passively ventilated safety goggles made from polyurethane, optical class 1B
Approvals and tests for the helmet	EN 397:2001 (industrial safety helmet), EN 12492: 2003 (mountaineer helmet), EN 443:1997 points 5.6 and 5.7 (heat and flame resistance)
Approvals and tests for the safety goggles	EN 166:2004, EN 14458:2004

Firefighter's Helmet

MSA F1SF Helmet



Approved according to the new EN443:2008, the F1SF helmets sets the new standard for fire-fighter's head protection and comfort. Dedicated to structural fire-fighting, in buildings, tunnels and other structures, it fulfills the growing requirements of fire soldiers in all urban and industrial operations.

Shell	High temperature polyamide
Shock absorption padding	polyurethane with wool/aramide layer.
Cradle and chinstrap	Aramide straps, leather, polyamide, polycarbonate
Interfaces (SCBA mask and accessories)	Polycarbonate/Polyamide 3 positions adjustment for SCBA mask.
Neck curtains	Fire resistant wool, nomex, aluminised fabric (tested according to EN 469)

Draeger HPS 4300



Draeger HPS® 4300—a firefighter's helmet in a class of its own. Optimum protection even at extreme temperatures. Convincing wearing comfort and a good climate inside the helmet. An extensive range of accessories is available to complete the head-protection system.

Size	H2: 48 to 61, H3: 56 to 64, continuously adjustable
Weight	H2: approx. 950g, H3: approx. 1050g
Outer shell	GFK = glass fiber reinforced duroplastic, high temperature-resistant, specially SMC pressed, reinforced with aramid fabric
Interior design	Flame-resistant and washable harness made of Nomex/Aramid, sweatband made of "eco-leather" with padding made of PU foam, hairnet made of polyester
Visors (optional selections)	2 mm polysulfone (amber-tinted), anti-scratch coating on both sides, approved in accordance with EN 443:2008 and EN 14458, with and without gold coating against high IR radiation or 2 mm polycarbonate (clear), various coatings, approved in accordance with EN 166
Thermal resistance	E2, E3
Radiant heat	14 kW/m ²
Cold resistance	Up to -40°C
Approvals and tests	EN 443:2008 – Type A, shipping approvals in accordance with SOLAS and MED
Variants	Comfort : with edge protection, reflective stripe and goggles loop, Basic : without edge protection, reflective stripe and goggles loop

Calibrator

Temperature Calibrator

Temperature Dry Block Calibrator



Low Temperature Dry Block Calibrator capable of Temperature Measurement from Ambient to 350° C with an Accuracy of $\pm 1^{\circ}$ C. Medium Temperature Dry Block Calibrator capable of Temperature Measurement from Ambient to 650° C with an Accuracy of $\pm 1.5^{\circ}$ C. Most popular product in Marine Market worldwide.

Models	350H	350H2	650H	650H2
Range	10°C above amb. to 350°C		20°C above amb. to 650°C	
Resolution	0.1°C		0.1°C	
Accuracy	$\pm 1^{\circ}$ C		$\pm 1.5^{\circ}$ C	
Stability	$\pm 0.3^{\circ}$ C	$\pm 0.4^{\circ}$ C	$\pm 0.5^{\circ}$ C	$\pm 0.6^{\circ}$ C
Stabilisation Time	15 minutes		25 minutes	
Well Dia	25mm		25mm	
Well Depth	110mm	190mm	110mm	190mm
Heating Time(to Max.)	20minutes	28minutes	20minutes	40minutes
Cooling Time(to 100°C)	45minutes	60minutes	60minutes	180minutes
Interchangeable Thermowell	Single hole to suit 1/4" & 1/2" Probes			
Switch Test Facility/Supply	Provided / 5 V DC (open)			
Power Consumption	500 W		1200 W	1400 W
Power Supply	220V AC / 50Hz			
Dimensions	160x330x350 mm	160x365x450 mm	160x330x350 mm	160x365x450 mm
Weight	7 kg	8.5 kg	8.5 kg	11 kg
Optional	RS-232 Computer Interface & Calibration Software			
Approval	DNV			

Sub-Zero Low Temperature Dry block Calibrator



Economy Sub Zero Dry Block Temperature Calibrator capable of Temperature Measurement from -35° C from Ambient to 123° C with an Accuracy of $\pm 0.5^{\circ}$ C.

Models	MP40R	MTC 40
Range	-40°C above Ambient to 123°C	-40°C from Ambient to 123°C
Resolution	$\pm 0.1^{\circ}$ C	0.1°C
Accuracy	$\pm 0.3^{\circ}$ C	$\pm 0.3^{\circ}$ C
Stability	$\pm 0.05^{\circ}$ C	$\pm 0.05^{\circ}$ C
Stabilisation Time	7 minutes	7 minutes
Well Dia	19mm	19mm
Well Depth	100mm	100mm
Heating Time(to Max.)	14 min	14 min
Cooling Time(to 100°C)	34 min	34 min
Interchangeable Thermowell	Single hole to suit 1/4"	Single hole to suit 1/4" Probe
Power Supply	230V AC / 50 Hz / 120 W	230V AC / 50 Hz / 120 W
Dimensions	155 x 375 x 300 mm	160 x 365 x 350 mm
Weight	10 kg	10 kg
Optional	RS-232 Computer Interface & Calibration Software	
Approval	-	DNV

Pressure Calibrator

Pneumatic Pressure Calibrator



Microprocessor based Economy Pressure Calibrators available in several ranges from -0.85(vac.) to 40 bar with an Accuracy of $\pm 0.1\%$ FS.

MPCE-P			
Ranges	-0.85 to 2 / 10 / 20 / 35 / 40 Bar		
Accuracy	$\pm 0.1\%$ F.S.		
Resolution	Minimum 4½ digits		
Display	2 line, 16 characters LCD (Alpha-Numeric)		
Engineering Units	Mpa, Atm, Bar, Kg/cm ² , mH ₂ O, PSI, inHg, ftH ₂ O, Kpa, inH ₂ O, mmHg, cmH ₂ O		
mA Input	0-25mA DC		
Pressure Switch Test	Maximum 5V DC		
Over Pressure Alarm	105% FS (Audio / Visual)		
Matching Pumps	Thro's Matching Pneumatic Hand Pump with fine adjustment Vernier & Release Valve		
Battery Type & Life	9 Volts : Approx. 12 hours		
Low Battery indication	Provided	Weight	5 kg
Dimensions	480 x 260 x 150 mm	Approval	DNV

Hydraulic Pressure Calibrator



Microprocessor based Economy Pressure Calibrators available in several ranges up to 700 bar with an Accuracy of $\pm 0.1\%$ FS.

MPCE-H			
Ranges	0 to 70 / 100 / 200 / 350 / 600 / 700 Bar		
Accuracy	$\pm 0.1\%$ F.S.		
Resolution	Minimum 4½ digits		
Display	2 line, 16 characters LCD (Alpha-Numeric)		
Engineering Units	Mpa, Atm, Bar, Kg/cm ² , mH ₂ O, PSI, inHg, ftH ₂ O, Kpa, inH ₂ O, mmHg, cmH ₂ O		
mA Input	0-25mA DC		
Pressure Switch Test	Maximum 5V DC		
Over Pressure Alarm	105% FS (Audio / Visual)		
Matching Pumps	Thro's Matching Pneumatic Hand Pump with fine adjustment Vernier & Release Valve		
Battery Type & Life	9 Volts : Approx. 12 hours		
Low Battery indication	Provided	Weight	7 kg
Dimensions	480 x 260 x 150 mm	Approval	DNV

Safety Approved Flashlights

Torch (Flash Light)

L4 1830 LED

The L4 is a handy, unbelievably bright LED flashlight that's powered by 3 AAAA alkaline cells(included).



Lights Source	LED
Batteries	3 AAAA Alkaline (included)
Tested Lumen Value	5
Runtime	32 hours
Beam distance	13m
Length	15.7cm
Weight with batteries	0.03kg
Approval	FM

MityLite 1900 / MityLite 1900Z1

Unlike conventional flashlights that have a yellowish beam, the MityLite 1900 flashlight uses a hi-intensity Xenon lamp that produces a powerful, bright beam.



Lights Source	Xenon
Batteries	2 AAA Alkaline (included)
Tested Lumen Value	11
Runtime	1h 30min
Beam distance	45m
Length	10.4cm
Weight with batteries	0.04kg
Approval	1900 : IECEx, CSA, ETL 1900Z1 : ATEX (Zone 1)

L1 1930 LED

With a long lamp life and extended battery burn time, you won't be left in the dark with the L1 flashlight. The convenient tail switch for constant on/momentary is easy to operate.



Lights Source	LED
Batteries	4 LR 44 Alkaline (included)
Tested Lumen Value	12
Runtime	4h 15min
Beam distance	17m
Length	6.7cm
Weight with batteries	0.02kg
Approval	UL, IECEx

MityLite 1965 LED

When you need the latest and brightest LED technology in a compact form factor, choose the new MityLite™ 1965 LED from Pelican. Small enough to fit in your shirt pocket, yet bright enough to illuminate your work area.



Lights Source	LED
Batteries	2 AAA Alkaline (included)
Tested Lumen Value	21
Runtime	4h
Beam distance	51m
Length	13.9cm
Weight with batteries	0.05kg
Approval	IECEx, TRAC, SGS

Pocket Sabre 1820

The Pocket Sabre 1820 flashlight descended from Pelican's famous SabreLite 2000. Built to last, the unbreakable ABS body resists chemicals, water and corrosion.



Lights Source	Xenon
Batteries	2 C Alkaline (included)
Tested Lumen Value	22
Runtime	6h 45min
Beam distance	146m
Length	14.8cm
Weight with batteries	0.23kg
Approval	IECEX, UL, FM, CSA

SabreLite 2000 / SabreLite 2000Z1

Unlike ordinary flashlights that produce a yellow beam, the SabreLite's incredibly bright Xenon lamp produces a powerful collimated white beam. Pelican's SabreLite is the leader in quality and performance.



Lights Source	Xenon
Batteries	3 C Alkaline (not included)
Tested Lumen Value	53
Runtime	5 hours
Beam distance	158m
Length	19.8cm
Weight with batteries	0.36kg
Approval	2000 : IECEx, UL, CSA 2000Z1 : ATEX Zone 1

SabreLite 2010 Recoil LED / SabreLite 2010 Z0

The SabreLite 2010 LED is Pelican's flagship LED flashlight. LED technology produces a white collimated beam that's as bright as an incandescent flashlight and provides 10,000 hours of lamp life and extended battery burn time.



Lights Source	LED
Batteries	3 C Alkaline (not included)
Tested Lumen Value	161
Runtime	22 hours
Beam distance	160m
Length	20.6cm
Weight with batteries	0.37kg
Approval	2010 : ETL, IECEX 2010 Z0 : ATEX Zone 0

StealthLite 2400 / StealthLite 2400 Z1

The unique easy slide thumb switch on the StealthLite 2400 Flashlight is easy to operate, even with gloves. The tough resin body is corrosion proof and resistant to extreme temperatures.



Lights Source	Xenon
Batteries	4 AA Alkaline (included)
Tested Lumen Value	45
Runtime	3h 45min
Beam distance	125m
Length	16.5cm
Weight with batteries	0.2kg
Approval	2400 : ETL, CSA 2400 Z1 : ATEX Zone 1

Safety Approved Flashlights

Torch (Flash Light)

StealthLite 2410 Recoil LED / StealthLite 2410 Z0

Same features as the StealthLite 2400 Flashlight, but with the LED module that produces a true, bright collimated LED beam. The 2410 is corrosion proof, resistant to extreme temperatures, and submersible.



Lights Source	Recoil LED
Batteries	4 AA Alkaline (included)
Tested Lumen Value	72
Runtime	5h 45min
Beam distance	184m
Length	17.8cm
Weight with batteries	0.21kg
Approval	2410 : IECEx, ETL 2410 Z0 : ATEX (Zone 0)

StealthLite Rechargeable 2450

The rechargeable version of the StealthLite 2400 Flashlight. The 2450 provides a consistently bright Xenon beam after every charge. It is submersible and corrosion proof.



Lights Source	Xenon
Batteries	4 AA NiMH (included)
Tested Lumen Value	35
Runtime	3h 30min
Beam distance	122m
Length	16.5cm
Weight with batteries	0.22kg
Approval	CSA, FM

StealthLite Rechargeable 2460 / StealthLite 2460 Z1

The rechargeable version of the StealthLite 2410 LED Flashlight. The 2460 uses a long-life NiMH battery pack for extended burn time. It comes with a charger base unit that can be installed at home or work using the transformer, or in a vehicle through direct wiring or 12V plug-in.



Lights Source	LED
Batteries	4 AA NiMH Rechargeable
Tested Lumen Value	183
Runtime	5h
Beam distance	179m
Length	17.8cm
Weight with batteries	0.22kg
Approval	2460 : FM 2460 Z1 : ATEX (Zone 1)

3315 LED

The new 3315 LED flashlight: the lightweight compact design houses 3AA batteries that power a single LED for 113 lumens of super bright LED light. Safety approved for the most volatile work environments, the 3315 LED flashlight is one of the most efficient flashlights on the market today.



Lights Source	LED
Batteries	3 AA Alkaline (included)
Tested Lumen Value	110
Runtime	19 hours
Beam distance	164m
Length	15.6cm
Weight with batteries	0.17kg
Approval	IECEx, UL

M10 8040

The Pelican M10™ Flashlight uses a high-pressure Xenon fired lamp module that produces a powerful, bright, high intensity light.



Lights Source	Incandescent (Xenon)
Batteries	4 C Alkaline (not included)
Tested Lumen Value	67 Lumens
Runtime	5h 15min
Beam distance	198m
Length	28.6cm
Weight with batteries	0.52kg
Approval	IECEX, FM, CSA

Bright Star WorkSafe 2117 / 2217

The flashlights that make up Bright Star's WorkSAFE series are the lowest-priced Class I, Division I rated lights in the world.



Model	2117	2217
Power Source	2x D-Cell Alkaline or Carbon Zinc	2x D-Cell Alkaline or Carbon Zinc
Bulb /Lamp Life	15 hours	20 hours
Light Output	10,000 beam candlepower	10,000 beam candlepower
Length	20.6cm	20.6cm
Weight without battery	0.13kg	0.13kg
Approval	UL, ASTM & MSHA	UL, ASTM & MSHA
Submersible	N/A	Waterproof

Bright Star WorkSafe 2217 LED

The intrinsically safe certification on these lights gives you the absolute confidence to use our lights in the most hazardous environments without concern of any safety issues.



Lights Source	LED
Power Source	2x 'D' Cell Alkaline
Bulb /Lamp Life	LED
Light Output	50 Lumens
Life	30,000 hours
Runtime	200 hours
Beam Distance	88m
Weight	0.13kg
Approval	UL, ATEX
Submersible	Waterproof

Bright Star WorkSafe 2124/2224

The flashlights that make up Bright Star's WorkSAFE series are the lowest-priced Class I, Division I rated lights in the world.



Model	2124	2224
Power Source	Carbon Zinc Only : 3x D-Cell	Carbon Zinc Only : 3x D-Cell
Bulb /Lamp Life	15 hours	15 hours
Light Output	9,000 beam candlepower 460 Candelas Peak Beam Intensity	15,000 Beam Candlepower 770 Candelas Peak Beam Intensity
Length	25.1cm	25.1cm
Weight without battery	0.17kg	0.17kg
Approval	UL/CUL, ASTM & MSHA	UL/CUL, ASTM & MSHA
Submersible	N/A	Waterproof

Safety Approved Flashlights

Torch (Flash Light)

Bright Star WorkSafe 2224 LED

The intrinsically safe certification on these lights gives you the absolute confidence to use our lights in the most hazardous environments without concern of any safety issues.



Lights Source	LED
Power Source	3 x 'D' Cell Alkaline
Light source	LED
Life	30,000 hours
Runtime	250 hours
Light Output	50 Lumens
Beam Distance	88m
Weight	0.17kg
Approval	UL
Submersible	Waterproof

Bright Star WorkSafe 2618

It is made of oil resistant polypropylene with a anti roll design. Faceted reflector for a smooth beam. Light turns on/off with a slide switch.



Lights Source	PR-2
Power Source	2 X D- cell
Bulb /Lamp Life	15 hours
Light Output	10,000 Beam Candlepower
Length	20.6 cm
Weight without battery	0.12 kg

Bright Star WorkSafe 2618 LED

From the original designers of the industrial work light, Bright Star advances the technology in this lighting category with the new 2618 LED industrial light. A great all around industrial work light, designed for the toughest environments at an affordable price.



Lights Source	LED
Power Source	2 x D-cell Alkaline
Light source	LED
Life	30,000 hours
Runtime	200 hours
Light Output	50 Lumens
Beam Distance	75m
Weight	0.12kg

Bright Star RAZOR LED

The Razor was designed for the most demanding needs in mind. It is constructed from a durable polypropylene that can withstand the most abusive environments.



Lights Source	LED
Power Source	3 AA-cell Alkaline Batteries
Bulb /Lamp Life	30,000 hours
Light Output	100 Lumens
Length	18.09cm
Weight without battery	0.19kg
Approval	UL, IECEx. ATEX
Submersible	Waterproof

Right Angle Light

Little Ed 3610 Recoil LED



The 3610 is a right angle flashlight that uses our latest “Deep Mount” LED technology, delivering impressive lumens and lux performance. The stainless steel mounting clip allows for hands free applications.

Lights Source	Recoil LED
Batteries	4 AA Alkaline
Tested Lumen Value	183 Lumens
Runtime	5h 45min
Beam distance	184m
Length	19.1cm
Weight with batteries	0.3kg
Approval	IECEX, ETL

Little Ed Rechargeable 3660 Recoil LED



The rechargeable version of the 3610 Flashlight. The 3660 Flashlight uses a long-life NiMH battery pack for extended burn time. It comes with a charger base unit that can be installed at home or work using the 110V transformer.

Lights Source	Recoil LED
Batteries	4 NiMH Rechargeable
Tested Lumen Value	183 Lumens
Runtime	5 hours
Beam distance	179m
Length	19.1cm
Weight with batteries	0.3kg
Approval	FM

3715 LED



Pelican leads the way yet again with its new right angle light. Featuring downcast LEDs for illuminating your path, the new 3715 LED light also features 233 lumens (high) and 113 lumens (low), and a flashing mode.

Lights Source	LED
Batteries	4 AA Alkaline
Tested Lumen Value	233 (H) / 113 (L) / 31 (Downcast) Lumens
Runtime	4h (H) / 7h (L) / 30h (Downcast)
Beam distance	293m (H) / 187m (L) / 30m (Downcast)
Length	13.6cm
Weight with batteries	0.4kg
Approval	ETL, IECEX

3765 Rechargeable LED



The rechargeable version of the 3700 Flashlight with multiple options for charging. The Fast Charger System comes with a 2-bay charger base: a fast charging bay for the Big Ed (with battery pack installed) and a trickle bay for a spare battery pack (not included).

Lights Source	LED
Batteries	4 AA NiMH Rechargeable
Tested Lumen Value	237 (High) / 113 (Low) / 32 (Downcast) Lumens
Runtime	3 h (High) / 6h 30min (Low) / 20h (Downcast)
Beam distance	301m (High) / 193m (Low) / 28m (Downcast)
Length	13.6cm
Weight with batteries	0.41kg
Approval	ETL

Safety Approved Flashlights

Right Angle Light

Big Ed Rechargeable 3750



The rechargeable version of the 3700 Flashlight with multiple options for charging. The Fast Charger System comes with a 2-bay charger base: a fast charging bay for the Big Ed (with battery pack installed) and a trickle bay for a spare battery pack (not included). It also comes with a 110V transformer.

Lights Source	Incandescent (Krypton)
Batteries	4 NiCAD Rechargeable
Tested Lumen Value	96 Lumens / 28 Lumens
Runtime	1h 45m (High) / 4h (Back-up)
Beam distance	133m (High) / 65m (Back-up)
Length	17.8cm
Weight with batteries	0.58kg
Approval	UL

Head Lamp

HeadUp Lite 2600

The 2600 is a premier hands-free light. It comes with a hi-intensity Krypton lamp for intense brightness, as well as an emergency back-up lamp stored inside the body.



Lights Source	Krypton (Primary / Back-up)
Batteries	4 AA Alkaline (included)
Tested Lumen Value	18 Lumens
Runtime	3h 30min
Beam distance	27m
Length	9.7cm
Weight with batteries	0.27kg
Approval	FM, CSA

HeadUp Lite 2610 LED

The 2610 provides hands-free light where you need it, when you need it. A dual mode button activates all 3 LEDs for full brightness, or just 1 to extend battery life.



Lights Source	LED
Batteries	3 AAA Alkaline (included)
Tested Lumen Value	30 Lumens (High) / 14 Lumens (Low)
Runtime	19h (High) / 47h (Low)
Beam distance	28m (High) / 19m (Low)
Length	3.8cm
Weight with batteries	0.09kg
Approval	ETL, IECEx

HeadUp Lite 2755 LED

Pelican™ safety approved headlights are designed for use in hazardous environments. It is not only Class I Div 1 approved but also is ultra compact and lightweight.



Lights Source	LED
Batteries	3 AAA Alkaline (included)
Tested Lumen Value	72 L (High) / 34 L (Low)
Runtime	6h (High) / 15h (Low)
Beam distance	57m(High) / 40m (Low)
Length	5.7cm
Weight with batteries	0.09kg
Approval	ETL, IECEx

HeadUp Lite 2765 LED

Pelican™ safety approved headlights are designed for use in hazardous environments. It is not only Class I Div 1 approved but also is ultra compact and lightweight.



Lights Source	LED
Batteries	3 AAA Alkaline (included)
Tested Lumen Value	105 (H) / 104 (M) / 65 (L) / 33 (Downcast) Lumens
Runtime	4h 15min (H) / 4h (M) / 6h 15min (L) / 9h (Downcast)
Beam distance	107m (H) / 93m (M) / 63m (L) / 9m (Downcast)
Length	5.7cm
Weight with batteries	0.09kg
Approval	ETL, IECEx

HeadUp Lite 2680 Recoil LED



The 2680 uses a 1 watt LED that's aimed backwards into the reflector. 100% of the light is captured and aimed forward as a tight collimated beam that's as bright as an incandescent.

Lights Source	LED
Batteries	4 AA Alkaline (included)
Tested Lumen Value	79 Lumens
Runtime	10h
Beam distance	123m
Length	11.8cm
Weight with batteries	0.27kg
Approval	FM

HeadUp Lite 2690 LED

Regardless of the season or environment, the 2690 HeadsUp Lite™ won't leave you in the dark. It's abundant safety approvals(Class I II III Division 1) allow for use in some of the most volatile of environments.



Lights Source	LED
Batteries	3 AAA Alkaline (included)
Tested Lumen Value	74 Lumens
Runtime	11h
Beam distance	92m
Length	7.1cm
Weight with batteries	0.11kg
Approval	IECEx, SGS, QPS

Safety Approved Flashlights

Lantern (Hand Lamp)

Bright Star WokSafe 2206



The flashlights that make up Bright Star's WorkSAFE series are the lowest-priced Class I, Division I rated lights in the world. Which means, for just a fraction more than the cost of non-safety rated flashlights, you can own the safest hazardous-environment-ready flashlights available.

Lights Source	KPR 113
Power Source	Alkaline or Carbon Zinc 6V Lantern Battery
Bulb /Lamp Life	15 hours
Light Output	50,000 beam candlepower
Length	20.9cm
Weight without battery	0.39kg
Approval	UL/CUL, MASHA
Submersible	Waterproof & floating

Bright Star WokSafe 2206 LED

The intrinsically safe certification on these lights gives you the absolute confidence to use our lights in the most hazardous environments without concern of any safety issues.



Lights Source	LED
Power Source	4 x 'D' Cell Alkaline
Life	30,000 hours
Runtime	150 hours
Light Output	90 Lumens
Length	20.9cm
Approval	UL, IECEx, ATEX
Submersible	Waterproof

Bright Star LightHawk, Rechargeable

The Lighthawk Lantern was the first lantern developed with Lithium Ion Rechargeable Battery Technology, bringing the most reliable battery technology to the flashlight market. Long run times, fast recharge times and extremely lightweight.



Lights Source	XPR12
Power Source	Lithium-Ion, 4400mAh, 7.8V
Bulb /Lamp Life	100 hours
Light Output	264 Lumens
Length	24.1cm
Weight without battery	0.9kg
Approval	UL

KingLite 4000



The KingLite is a heavy duty, high powered spotlight packed with features. It uses a unique dual filament Xenon lamp that produces a bright beam that cuts through thick smoke, fog, and dust.

Lights Source	Xenon
Batteries	8 D Alkaline (not included)
Tested Lumen Value	249 Lumens
Runtime	11hours
Beam distance	106m
Length	23.8cm
Weight with batteries	2.1kg
Approval	FM, CSA

9415 LED Lantern



At just 3 pounds and 413* lumens, the new 9415 LED Lantern packs the power without the weight. Four LEDs, powered by the latest generation Ni-MH batteries illuminate a distance of 360 yards(325* meters).

Lights Source	LED
Batteries	4 NiMH
Tested Lumen Value	413 (H) / 159 (L) Lumens
Runtime	4h 30 min (H) / 12h (L)
Beam distance	325m (H) / 201m (L)
Length	22.2cm
Weight with batteries	1.4kg
Approval	UL, Intertek

Camera

Intrinsically Safe Camera

iCAM 501 Ultra



The iCAM501 Ultra is a Zone 0 intrinsically safe digital camera and is the perfect visualization tool for use in hazardous areas.

Size (H x W x D)	132 x 32 x 22mm
Weight	Approx 200g including batteries
IP Rating	IP 65
Power	2 x Alkaline AA batteries refer to ATEX / FM Certificates for details on range of approved batteries
Memory	On board 1 Gbyte flash, 5000 photos without any voice recording
Image	3.1 Mega-Pixel (2048 x 1536 resolution)
Lens	Fixed focus 1/4" format lens in plastic holder
Focal Distance	30 cm to infinity
View Finder	Two element optical view finder
Connectivity	USB 1.1 via mini-USB socket for use in the safe area only.
Flash	4 LED flash giving 131 lux. Seconds of energy at 67ms exposure
Image format	jpeg
Approval	ATEX, IECEx, FM

Thermal Imaging Camera

Draeger UCF 6000/7000



UCF 6000

Easy to use and with one-hand controls, this camera delivers excellent image quality even under the most extreme conditions. The user-friendly thermal imaging camera Draeger UCF® 6000 is characterized by ease of use and essential, innovative functions.



UCF 7000

Easy to use with one hand only. See more and make better decisions with optimal display options provided by the Draeger UCF® 7000 thermal imaging camera.

The camera is intrinsically safe (ATEX zone 1) and offers the maximum level of safety and reliability in potentially explosive atmospheres.

	UCF 6000	UCF 7000
Size (W x H x D)	125 x 280 x 110mm	125 x 280 x 110mm
Weight	1.4 kg incl. battery	1.4 kg incl. battery
Display		
Technology	Liquid crystal display (LCD)	Liquid crystal display (LCD)
Application modes		Standard, Fire, Persons, ThermalScan
Size	9cm (3.5")	9cm (3.5")
Housing		
Protection cover	Rubber material EPDM	Rubber material EPDM
Carrying loops	High-temperature resistant material	High-temperature resistant material
Housing material	High-temperature resistant plastic	High-temperature resistant plastic
Protection class	IP 67	IP 67
Infrared-specifications		
Type of sensor	a-Si Micro bolometer Array	a-Si Micro bolometer Array
Resolution	160 x 120 Pixel	160 x 120 Pixel
IR spectral	7 to 14 µm	7 to 14 µm
Temperature sensitivity	typically 0.035 °C (0.063 °F)	typically 0.035 °C (0.063 °F)
Picture frequency	50Hz	50Hz
Optics		
Material	Germanium	Germanium
Focus	From 1 m to infinity	From 1 m to infinity
Field of view	Horizontal : 47' / Vertical : 32' / Diagonal 62'	Horizontal : 47' / Vertical : 32' / Diagonal 62'
Operation		
Operation time with battery	Typically 4 hours	Typically 4 hours
Operation temperature	-40 °C to 85 °C	-40 °C to 85 °C
Approval	NFPA 1801:2013	NFPA 1801:2013, ATEX zone 1

Fire Detector Tester

Smoke Detector Tester

Solo 330 & 332 Aerosol Smoke Dispenser



<SOLO 330>

<SOLO 332>

Fundamental to functional smoke checking for many professionals around the world the Solo 330 contains the test aerosol and ensures that it is applied correctly and contained only where required. Used with the access poles it enables safe testing at heights but is equally valued at low level.

- Lightweight and simple to use
- Universal design suits widest range of detectors (up to 100mm / 4" in diameter)
- Spring-loaded solution for suspended ceilings
- Transparent test cup for clear view of detector LED
- Swing frame for use at / from angles
- Outstanding quality backed by lifetime warranty
- Detector manufacturer approved
- Solo 332 suitable for detectors up to 177mm / 7" in diameter (for larger detectors)

Solo A3 Smoke Detector Tester



Approved all over the world the Solo A3 delivers, to the detector under test, particles replicating those found in smoke, so providing full compliance for functional testing. Designed for use with the Solo 330/332 dispensers.

It is the professional's choice for ultimate value in aerosol smoke.

- UL and ULC Listed
- Detector manufacturer endorsed
- Non-flammable
- Oil free formulation
- No lasting residue
- Fast activation and clearing time

Solo C3 Carbon Monoxide Detector Tester



Many multi-sensor fire detectors detect carbon monoxide(CO) as well as smoke and/or heat.

Under international codes and standards the CO cell needs to be functionally tested with a CO stimulus from the protected area through the detector vents to the sensor. Solo C3 is used in conjunction with Solo 330/332 dispensers.

- Detector manufacturer endorsed
- Genuine and non-flammable CO stimulus
- Controlled delivery
- Designed for use with Solo 330 & 332 dispenser

Solo A7 Detector Duster



Detector cleaning is a specialist activity that involves more than just a wipe and a blow. An inherent part of it is, however usually the clearing of dust or other solid contaminants. The Solo A7 been developed specifically for this purpose—with a particularly high velocity burst and non-flammable formulation.

- Non-flammable
- Powerful
- Simple to use
- Non-abrasive

SOLO M8 Smoke Centurion Canister



SmokeCenturion is a new aerosol tester for checking the functionality of smoke detectors. Designed to test the widest possible range of smoke detectors, SmokeCenturion offers efficient testing in a simple-to-use format either hand-held or with use of a dispenser.

- UL / ULC Listed
- Fast detector activation
- Either hand-held
- Silicone-free testing, reduces risk of detector contamination
- High eco responsibility: ozone friendly (no CFCs) and low GWP propellant
- Formula approved by leading detector manufacturers

SOLO 100/101/108 Telescopic Access Poles



The core element of the Solo range is the telescopic and extension access poles which are extremely lightweight and quickly extend to provide access to detectors up to 9 metres.

- Light, easy to use at height, on-site, day after day
- Non-whip even at height
- Certified non-conductive
- Available in one, two or four telescopic sections
- Lifetime Warranty
- Designed for use with the whole range of Solo Products

SOLO 200 Detector Removal Tool



Compatible with most detectors, the Solo 200 features colour coded heads which rotate to provide a combination of sizes and settings for just about every detector.

- Universal design suits widest range of detectors
- Suitable for use at / from angles
- Lightweight
- Lifetime Warranty

Fire Detector Tester

Heat Detector Tester

Solo 461 Cordless Heat Detector Tester



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.

- UL & ULC listed
- Detector manufacturer endorsed
- Ultra safe, no cables to trip over
- Rapid activation
- Lightweight and simple to use
- Universal design, suitable for use on most detectors
- Designed for use at height and at angles
- Battery powered (supplied with 2 Battery Batons and a fast charger)
- Suits fixed temperature, rate-of-rise and combination detectors up to 194°F / 90°C

Solo 423 / 424 Heat Detector Tester



This mains powered tester is available in both 110/120 and 220/240 volt versions and is supplied complete with a 5m lead.

- Suit fixed temperature, rate-of-rise and combination detectors up to 194°F / 90°C
- Rapid activation times
- Lightweight and simple to use
- Universal design suits widest range of detectors
- Designed for use at height, at angles and low level
- Supplied with 5m / 16ft cable (additional 5m / 16ft cable available)

Multi-Stimulus Detector Tester

Multi Stimulus Detector Tester (TESTIFIRE)



The latest generation of Testifire remains uniquely capable of producing smoke, heat and CO stimuli while benefiting from the experience of generation one.

Enabling tests of fire detector sensors to be conducted independently, sequentially or simultaneously Testifire is equally suitable for single or multi-sensor detectors, point, or aspirating.

- UL certified
- approved by leading detector manufacturers
- Testifire 1001: Smoke and Heat Testing (SET)
- Testifire 2001: Smoke, Heat and CO Testing (SET)

Flame Detector Tester

T-229/4P UV/IR Flame detectors



<Test Lamp>



<Carrying Case>

The Sense-WARE T-229/4P Flame detector test lamp activates UV, IR and UV/IR Flame detectors that detect at 185–235nm UV and 4.4 micron IR radiation.

Size (H x L x D)	310 x 220 x 210mm
Weight	2.1kg
Test range UV Flame detectors	up to 8m in continue mode, up to 4m in pulse mode
Test range IR and UV/IR Flame detectors	up to 4m
Battery	sealed Lead Acid battery, 12Vdc /2.7 Ah
Lamp	H3, 12 Vdc/100W
Use	10-15minutes under optimal conditions and continuous use
Housing	ABS (plastic) black
Protection	IP 30 /NEMA 1



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