Product Catalog 2026
Fixed Gas Detection

Dräger

Technology for Life


Dräger
ID
Tag
Process values
Status
10:05
1 Main pipe central hall
2 Detector oven leakage
6 C2H4 %LEL
3 Gas supply line oven leakage
17 CO ppm
4 Oxygen oven room
5 CH4 %LEL
5 Central hall sealing
20.8 O2 Vol%
6 Oxygen oven room 2
7 C2H4 %LEL
7 Building 24 - Room 201
15 CO ppm
8 Gas supply line
4 CH4 %LEL
20.9 O2 Vol%

Sections

Welcome

Dräger is a leading international company in the fields of medical and safety technology. Founded in Lübeck in 1889, Dräger has grown into a worldwide enterprise in its fifth generation as a family-run business. Our long-term success is predicated on a value-oriented corporate culture with four central strengths: close collaboration with our customers, the expertise of our employees, continuous innovation and outstanding quality.

“Technology for Life” is our guiding principle. Wherever they are deployed – in clinical settings, industry, mining or emergency services – Dräger products protect, support and save lives.

Flammable Gas Detection

More than the sum of their components

Our measuring technology monitors your production locations, warehouses and workplaces and warns you against imminent gas hazards and flames. In addition to a uniquely wide rang of sensors, measuring instruments and technical components we offer expert planning, maintenance, service and training.

Dräger sensors measure more than 400 flammable or toxic gases and vapors as well as oxygen in measuring ranges from Vol.-% through %-LEL to ppb. We can cover every required measuring technology with our own products: Infrared absorption, electrochemical reaction and catalytic bead to detect hazardous gas emissions. However, our portfolio also includes various technologies for flame detection.

Third party products such as horns, warning lights and fans are compatible with our components and integrated by us into the system. Our gas monitoring systems are of modular design, making your safety system future-proof and your investment pay off for years to come. New products are designed with compatibility in mind, meaning systems can normally be extended, modified or modernised at any time using existing components.

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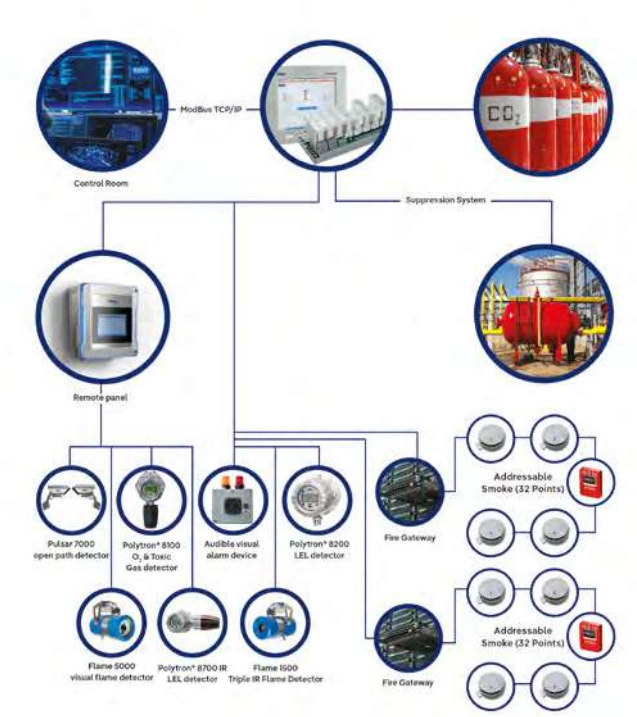
Controllers

Controllers

Controllers



Dräger REGARD® 7000F Industrial Fire and Gas Controller

The REGARD® 7000F is an ANSI/UL864* performance-approved combination fire and gas system with the functions of a traditional NFPA 72 fire panel and a process safety system in a single platform. Capable of multi-tasking and flexible, the menu-driven REGARD® 7000F is an easily configurable solution that can be customized for many industrial fire and gas applications.

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Controllers

Dräger REGARD® 7000F
Please contact your local Dräger Representative for more information.

Dräger REGARD® 7000	
Environmental conditions	
Temperature	0 to 55 °C / 32 to 131 °F (during operation)
Humidity	5 to 95% RH, non-condensing
Pressure	700 to 1,300 hPa
Height	max. 2,000 m (6,561 ft) above sea level (only applies to Relay Module 240 V AC)
Notification time of response	
Transmission of measurement values and status information in Dräger REGARD® 7000F < 10 seconds	
Time to measurement readiness	
After switching on the Dräger REGARD® 7000F	< 30 s

Dräger REGARD® 7000 Dockingstation 8-slot	
Operating voltage	Plug-in contacts for wire cross sections of 0.08 to 2.5 mm2
Operating voltage	24 V (18 to 30 V) DC
Current draw	Max. 22 A (independent of the number of installed modules and connected transmitters)
Power loss	Max. 15 W at 24 V
SFR output	Min. 3.3 V, 10 mA, max. 30 V, 2 A switching capacity; the SFR output must be protected against overload
SSR output	Min. 3.3 V, 10 mA, max. 30 V, 2 A switching capacity; the SSR output must be protected against overload
Number of modules per docking station	Max. 8
Dimensions	184 x 400 x 78 mm / 7.24 x 15.75 x 3.07" (H x W x D)
Weight	2,600 g / 5.73 lbs

Dräger REGARD® 7000 4-20 mA Input Module c/w HART®	
Number of input channels	Max. 8
Operating voltage	24 V (18 to 30 V) through docking station
Transmitter supply voltage	Typically 24 V, depending on the supply voltage of the docking station
Transmitter supply current	Max. 500 mA per channel, with max. 4 inputs occupied Max. 250 mA per channel, with 4 to 8 inputs occupied Total transmitter supply current max. 2 A
Voltage range for signal input	0 to 24 mA (short-circuit detection at 38 mA)
Measurement precision	±0.05 mA ± 0.002 mA/K (0 to 4 mA) ±1.25% ± 0.05%/K (4 to 24 mA)
Current draw	Max. 2.1 A
Power loss	Max. 5 W at 24 V
Terminal block	24-pin, DC
Dimensions	110 x 46 x 130 mm / 4.33 x 1.81 x 5.12" (H x W x D)
Weight	265 g / 0.58 lbs

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Dräger REGARD® 7000 Digital Input Module	
Number of input channels	Max. 8
Operating voltage	24 V (18 to 30 V) through docking station
Channel output voltage	Typically 24 V, depending on the supply voltage of the docking station
Supply current of the connected input elements	Max. 400 mA per channel, with max. 4 inputs occupied Max. 250 mA per channel, with 4 to 8 inputs occupied Total supply current max. 2 A
Standby current through EOL resistance	Configurable to 0 mA (line break detection switched off) and in the range of 5 to 400 mA
Switching threshold	Configurable in the range of 3 to 400 mA
Current draw	Max. 2.1 A
Power loss	Max. 5 W at 24 V
Terminal block	16-pin, DC
Dimensions	110 x 46 x 130 mm / 4.33 x 1.81 x 5.12" (H x W x D)
Weight	265 g / 0.58 lbs
Dräger REGARD® 7000 Gateway Module	
Number of channels	1 channel, bidirectional; One gateway module always occupies one port in the overall system
Modbus RTU gateway and gateway module supply voltage	24 V (18 to 30 V) DC
Gateway module current draw	Typ. 160 mA at 24 V
Gateway module power loss	Max. 4 W at 24 V
Modbus RTU gateway current draw	Typ. 80 mA at 24 V
Modbus RTU gateway power loss	Max. 2.5 W at 24 V
Transmission rate	Adjustable 9,600 to 921,600 baud
Cable length between Dräger REGARD® 7000 Gateway O/P and Dräger REGARD® 7000 Modbus RTU Gateway	Max. 5 m
Cable type	STP (shielded twisted pair), e.g. LAPP Unitronic® Bus LD Cable
Cable length RS-485 side	57,600 baud max. 1,200 m / 3937 ft <230,400 baud max. 500 m / 4921 ft <921,600 baud max. 120 m / 423 ft
Terminal block	2-pin
Dimensions	110 x 46 x 130 mm / 4.33 x 1.81 x 5.12" (H x W x D)
Weight	265 g / 0.58 lbs

Galvanic isolation between Dräger REGARD® 7000 and field-bus side through Modbus RTU Gateway

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Controllers

Dräger REGARD® 7000 Modbus RTU Gateway	
Dimensions	116 x 23 x 115 mm / 4.57 x 0.91 x 4.53" (H x W x D)
Weight	130 g / 0.29 lbs

Dräger REGARD® 7000 Relay Module 24 V DC/24 V DC complex	
Number of output relays	8, each with one switch contact
Switching voltage	3.3 to 24 V DC
Switching current	10 mA to 2 A
Power consumption	Max. 100 mA (no relays activated) Max. 200 mA (8 relays activated)
Power loss	5 W at 24 V
Update rate of switch outputs	0.5 s
Terminal block	24-pin, 24 V
Dimensions	110 x 46 x 130 mm / 4.33 x 1.81 x 5.12" (H x W x D)
Weight	340 g / 0.75 lbs
Dräger REGARD® 7000 Slotcover	
Dimensions	69 x 44 x 44 mm / 2.72 x 1.73 x 1.73" (H x W x D)
Weight	53 g / 0.12 lbs
Dräger REGARD® 7000 Terminal Block	
Dimensions	110 x 46 x 85 mm / 4.33 x 1.81 x 3.35" (H x W x D)
Weight	115 g / 0.25 lbs
Approvals	
UL 864 10th Edition UL 2017 2nd Edition	NFPA 72 2022 Compliant ATEX Directive (2014/34/EU) Electromagnetic Compatibility (2014/30/EU) Low Voltage Directive

HART® is a registered trademark of the HART® Communication Foundation (2014/35/EU)

Controllers

Dräger REGARD® 3000 plus Controllers

The Dräger REGARD® 3000 plus is a flexible control system that reliably monitors hazardous areas in your gas detection system and triggers alarms. Its modular design adapts to different system sizes and can be configured centrally or locally. A user-friendly dashboard and clear alarms provide transparency and safety.

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Controllers

Dräger REGARD® 3000 plus	
Dräger REGARD® 3000 plus Display Unit	3715011
Dräger REGARD® 3000 plus Lid Unit	3738916
Dräger REGARD® 3000 plus Base Unit	3734916
Dräger REGARD® 3000 plus Docking Station ET	3738952
Dräger REGARD® 3000/5000 4-20mA Input Module 2Ch	3705680
Dräger REGARD® 3000/5000 4-20mA Input Module 4Ch	3705681
Dräger REGARD® 3000/5000 4-20mA Input Module 8Ch	3705682
Dräger REGARD® 3000/5000 Relay Module 4Ch	3705687
Dräger REGARD® 3000/5000 Relay Module 8Ch	3705688
Dräger REGARD® 3000/5000 MB RTU Gateway Module	3705693
Dräger REGARD® 3000/5000 MB TCP Gateway Module	3705694
Dräger REGARD® 3000/5000 Slotcover	3705672
Dräger REGARD® Add-On Event Logger	3707819
Dräger REGARD® 3000 plus/7000 PC Software Key	8327253
Dräger REGARD® 3000/5000 Mounting Clip	3720165
Dräger REGARD® 3000 Cabinet Set ET	3738929
Dräger REGARD® 3000/5000 plus Adapter pba SP	3739311
Dräger REGARD® 3000/5000 EMC Cable Gland	3709674
Socket wrench for Cable Gland	3716411

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Controllers

Dräger REGARD® 3000 plus		
Control system specifications		
Control system type	Modular control unit for gas and fire detection systems for wall or cabinet mounting	
System limits	The display unit processes 192 logical channels or 24 modules, regardless of whether they are channels of REGARD® 3000, REGARD® 3000 plus or REGARD® 7000. At the same time the display unit can communicate with up to 12 Docking Stations or base units in one system, regardless of whether they are Docking Stations or Base Units of REGARD® 3000, REGARD® 3000 plus or REGARD® 7000.	
System response times	Transmission of measured values and status information within the REGARD® 3000 plus	typically 1 s max. 3.3 s
	If the maximum transmission time for status information is exceeded, a special status is signaled	
	Measured value update time at the input: 4 – 20 mA Input Module / HART 2/4/8 Ch	50 ms
	Measured value update time at the input: Modbus RTU Gateway Module	max. 6 s
Setting times	t20	< 3 s
	t50	< 3 s
	t90	< 3 s
	The setting times are independent of the measured gas.	
Time until ready to measure	After switching on the REGARD® 3000 plus	< 60 s
Electrical data		
Base Unit		
Terminal block (power supply)	Plug contacts for wire cross sections from 0.5 mm2 to 4.0 mm2	
Operating voltage	115 – 230 V AC / 50 – 60 Hz	
Power consumption	3 A max. (typically 1 A) (depending on the number of installed modules and connected transmitters)	
Power loss	Max. 25 W (power supply 10 W + Docking Station 15 W)	
Docking Station		
Terminal blocks	Plug contacts for wire cross sections from 0.08 mm2 to 2.5 mm2	
Operating voltage (without Base Unit)	24 V DC (18 - 30 V DC)	
Power consumption (without Base Unit)	3 A max. (depending on the number of installed modules and connected transmitters)	
Power loss (without Base Unit)	Max. 15 W at 24 V	
Output SFR	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload	
Output SSR	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload	
Pre-alarm relay output	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload	
Main alarm relay output	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload	

Controllers

Monitoring functions	Input voltage monitoring 18 – 30 V based on the Docking Station supply voltage. In case of undervoltage, the SFR is activated; in case of overvoltage, the supply is switched off and the SFR is activated, after which a restart is necessary. Total current monitoring switch-off at > 5.5 A (max. 6 A) at 18 – 30 V, after which a restart is necessary. Overtemperature monitoring switches off the docking station and activates the SFR, after which a restart is necessary.

4 – 20 mA Input Module / HART 2/4/8 Ch	
Number of input channels	2, 4 or 8
Transmitter supply voltage	Typically 24 V, depending on the supply voltage of the docking station
Transmitter supply current	Max. 500 mA per channel
	Total max. 1 A per module (ambient temperature < 55 °C)
	Total max. 2 A per module (ambient temperature < 55 °C)
	If the total transmitter supply current is exceeded, the transmitters must be supplied externally.
Current range signal input	0 to 24 mA (short-circuit detection at 38 mA)
Input resistance	262 Ohm
Measurement accuracy	±0.05 mA ±0.002 mA/K [0 ... 4 mA]
	±1.25 % ±0.05 %/K [4 ... 24 mA]
Power consumption	Max. 2.1 A
Power loss	Max. 5 W at 24 V
Deviation of adjustable time parameters	Max. ±1%
Relay Module 4/8 Ch	
Number of output relays	4 or 8, each with one potential-free changeover contact
Switching voltage	100 to 240 V AC, 50 to 60 Hz
	5 to 50 V DC
Switching current	100 to 240 V AC up to 2 A; cosine Phi ≥ 0,4
	5 to 30 V DC, 10 mA to 2 A
	> 30 to 50 V DC, 10 mA to 1.2 A
Power consumption	Max. 100 mA (no relay activated) Max. 150 mA (4 relays activated)
Power loss	Max. 5 W at 24 V
Pollution level	2
Overvoltage category	II
Update rate of the switching outputs	0.5 s
Deviation with adjustable time parameters	Max. ±1%
Power loss	Max. 4 W at 24 V
Transmission rate	100 Mbit/s
Cable length fieldbus side	max. 100 m

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Controllers

Modbus RTU Gateway Module	
Number of channels	1 channel, bidirectional. One gateway module always occupies one port in the overall system
Power consumption	Typ. 100 mA at 24 V
Power loss	Max. 4 W at 24 V
Transmission rate	Adjustable: 9,600 to 921,600 baud
Cable length fieldbus side	< 57,600 baud max. 1200 m
	< 230,400 baud max. 500 m
	< 921,600 baud max. 120 m
Resistance	Max. 120 Ohm

Modbus TCP Gateway Module	
Number of channels	1 channel, bidirectional. One gateway module always occupies one port in the overall system
Power consumption	Typ. 100 mA at 24 V
Power loss	Max. 4 W at 24 V
Transmission rate	100 Mbit/s
Cable length fieldbus side	max. 100 m

Housing characteristics		
Dimensions and weights	**[H x W x D] [mm] [g]**	**[g]**
Base Unit	300 × 305 × 100	2600
Display Unit	300 × 303 × 50	1700
Docking Station	185 x 200 x 50	680
Lid Unit	300 × 303 × 50	1400
4 – 20 mA Input Module / HART®2/4/8Ch	69 x 110 x 35	110/115
Relay Module 4/8 Ch	69 x 110 x 35	130/150
Modbus RTU Gateway Module	69 x 110 x 35	120
Slotcover	69 x 110 x 35	80
Modbus TCP Gateway Module	69 x 110 x 35	1400

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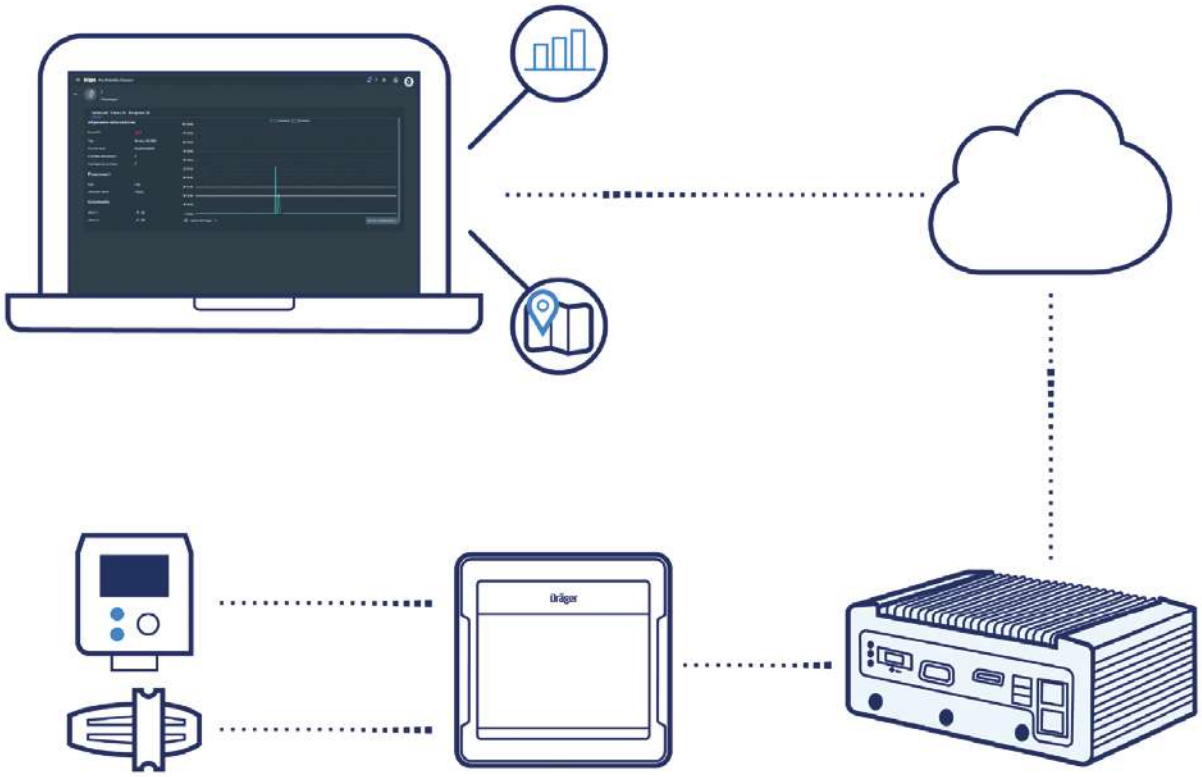
Controllers

Dräger REGARD® 3000 plus	
Environmental conditions	
Temperature (during operation)	-20 … +55 °C
Temperature (in storage)	-20 … +65 °Cstation
Humidity (with Display Unit)	5 … 90% rH, non-condensing
Humidity (without Display Unit)	0 … 95% rH, non-condensing
Humidity (in storage)	5 … 90% rH, non-condensing
Pressure	700 … 1300 hPa
Height	Max. 2000 m above sea level
Approvals	
Approvals	
ATEX (metrological performance)	EN 60079-29-1, EN 50104, EN 50271, EN IEC 62990-1
SIL (functional safety)	EN 50402, IEC 61508
CE marking	2014/34/EU ATEX Directive
	2014/30/EU EMC Directive
	2014/35/EU Low Voltage Directive
	2011/65/EU RoHS Directive



Dräger Edge Device
Cloud solution for gas detection systems

Transform your REGARD® gas detection system into a smart IIoT solution. The Dräger Edge Device and Dräger Gas Detection Connect provide you with live data on various devices, historical analyses and automatic alarm notifications via email. Plan maintenance efficiently from a distance and save time and resources – and stay informed anytime, anywhere.

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Controllers

Dräger Edge Device	Order No.
Dräger Edge Device	3737568

Dräger Gas Detection Connect	
GDC Configurator Standard	3740515
GDC Standard Core License	3739670
GDC Transmitter License	3739674
GDC Enterprise License	3739675

Dräger Edge Device	
CPU	Intel Atom x7-E3950 4x 1.6 GHz, 12 W
Main memory	8 GB
Mass storage device	32 GB eMMC
Operating system	Linux Yocto
External power supply	24 VDC (±20 %)
Electrical data	
Operating temperature	-4°F to 140°F
Storage temperature	-40°F to 185°F
Humidity	5 – 93% r.h., non-condensing
Pressure	700 – 1300 hPa
Height	Max. 2000 m above sea level
Housing	
Protection rating	IP20
Dimensions	150 x 58 x 100 mm (2.23” x 5.91” x 3.94”)
Weight	Approx. 1 kg (2.2 lbs)

Flammable Gas Detection

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Flammable Gas Detection

Flammable Gas Detection

Dräger Polytron® 8200 CAT

Detection of flammable gases and vapors

The Dräger Polytron® 8200 CAT is an explosion-proof high-end transmitter designed for detecting flammable gases and vapours. It uses the catalytic DrägerSensor Ex... DQ. In addition to the 3-wire operation with a 4 to 20 mA analogue output, it also offers HART, fieldbus options and Modbus, allowing you to integrate the transmitter with most control systems in your gas detection system.

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Flammable Gas Detection

Dräger Polytron® 8200 CAT	Order No.
Polytron® 8200 DQ d A 4-20/HART®, epoxy coated aluminum body, sensor included	8344439
Polytron® 8200 DQ d A 4-20/HART® relay, epoxy coated aluminum body, sensor included	8344440
Polytron® 8200 DQ d S 4-20/HART®, 316L St. Steel body, sensor included	8344448
Polytron® 8200 DQ d S 4-20/HART® relay, 316L St. Steel body, sensor included	8344449
Polytron® 8200 CAT d A 4-20 for use with REMOTE sensor (order sensor separately)	VN02061
Polytron® 8200 CAT d A Relays for use with REMOTE sensor (order sensor separately)	VN02062
Polytron® 8200 CAT d S 4-20 for use with REMOTE sensor (order sensor separately)	VN02063
Polytron® 8200 CAT d S Relays for use with REMOTE sensor (order sensor separately)	VN02064
Polytron® 8200 CAT d A Modbus, epoxy coated aluminum housing	VN02051
Polytron® 8200 CAT d S Modbus, 316 St. Steel housing	VN02052
Polytron® 8000 Series Customized (Remote, ModBus, ProfiBus, FOUNDATION)	8344800

Accessories		
Magnetic wand		4544101
Pipe mount kit		4544198
Aluminum junction box for remote sensor ‘d’		4544099
Stainless steel junction box for remote sensor ‘d’		4544098
Duct mount kit		6812725
IR Connection Kit Polytron® 5000/8000		4544197
PolySoft licence (1 year)		8328600
PolySoft licence (subscription)		8328601
Splash guard		6812510
Weather Shield Set A Polytron® 5/6/8xxx		3702198
Gassing adapter	PE, w/o tubing	6806978
	PE incl. tubing	4509314
Calibration adapter Viton®		6810536
Process adapter (Stainless steel) for DQ		6812470
Process adapter (Stainless steel) for LC		6812465
P5/6/8x00 horizontal surface bracket		3728095
2" NPT Vent Line Adapter Kit, SS, for LC Cat Bead Sensor		SC05928
2" NPT Pipe Line Adapter, LC Sensor, Vent Line		SC04072
Dust filter for sensor (package of 10 stickers)		6810537
Gore-Membrane VE for air flow, moisture, water, dust. Package of 2.		8326840

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Flammable Gas Detection

Dräger Polytron® 8200 CAT			
Type	Explosion proof / flameproof enclosed transmitter (“d”)		
Gases	Flammable gases and vapours		
Measurement ranges	DQ	0 to 100% LEL	
	LC	0 to 10% LEL	
Display	Backlit graphic LCD; 3 status LEDs (green/yellow/red)		
Performance characteristics	Accuracy/repeatability	Zero	≤ 1% LEL
		Sensitivity	≤ 1% LEL
	Long-term drift	Zero	≤ 0.5% LEL after 2 months
		Sensitivity	≤ 1.0% LEL after 2 months
	Response time	T50	5 seconds (methane)
		T90	10 seconds (methane)

Electrical data		
Signal output analogue	Normal operation	4 to 20 mA, 3- or 4-wire, sink or source
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation; (adjustable)
	Fault	< 1.2 mA
Signal output digital	HART® w/ 3- or 4-wire, PROFIBUS® PA, FOUNDATION fieldbus™ H1 and Modbus RTU w/ 5-wires	
Power supply	10 to 30 V DC	
Relay specification (option)	2 alarm relays and 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC	

Housing		
Transmitter housing	Epoxy coated copper-free aluminium or stainless steel SS316 L	
Sensor housing	Stainless steel 303	
Enclosure protection type	NEMA 4X, IP65/66/67	
Cable entry point	3/4" NPT threaded holes or M20 cable gland	
Dimensions (H x W x D), approx.	w/o docking station	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm
	w/ docking station	11.0" x 7.1" x 7.5" / 280 x 180 x 190 mm
Weight, approx.	w/o docking station, aluminium	4.9 lbs / 2.2 kg
	w/o docking station, SS316 L	8.8 lbs / 4.0 kg
	w/ docking station, aluminium	7.7 lbs / 3.5 kg
	w/ docking station, SS316 L	11.9 lbs / 5.4 kg

Environmental conditions (see sensor data sheet)	
Temperature	-40 to 80 °C (-40 to 176 °F) without relay
	-40 to 70 °C (-40 to 158 °F) with relay
	-50 to 85 °C (-122 to 185 °F) remote sensor
Humidity	5 to 95% r. h., non-condensing
Pressure	23.6 to 38.4 inch Hg / 800 to 1,200 mbar

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Flammable Gas Detection

Approvals*	
UL & CSA	Class I, Div 1, Groups A, B, C, D;
	Class II, Div 1, Groups E, F, G;
	Class I, Zone 1, Group IIC;
	T-Code T6/T4
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;
CE markings	ATEX (Directive 2014/34/EU)
	Electromagnetic Compatibility (Directive 2014/30/EU)
	Low Voltage (Directive 2014/35/EU)
Shipping approvals (for DQ sensor only)	DNV GL, ABS, LR, CCS, RMRS
MED approval (for DQ sensor only)	Certificate No. MEDB0000411
DEKRA Performance approval (for DQ sensor only)	Certificate No. BVS 13 ATEX G 001 X
SIL 2 certified by TUEV Sued	Certificate No. Z10 053474 0023

* All docking station versions are only ATEX/IECEx approved

Flammable Gas Detection

Dräger Polytron® 5200 CAT

Detection of flammable gases and vapors

The Dräger Polytron® 5200 CAT is a cost effective explosion proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses a catalytic bead DrägerSensor® Ex ... DQ, which will detect most flammable gases and vapors. A 3 wire 4 to 20 mA analog output with relays makes it compatible with most control systems.

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Flammable Gas Detection

Dräger Polytron® 5200 CAT	Order No.
Dräger Polytron® 5200 CAT DQ d A	8344150
Dräger Polytron® 5200 CAT DQ d A relay	8344151
Dräger Polytron® 5200 CAT DQ d S	8344152
Dräger Polytron® 5200 CAT DQ d S relay	8344153
Dräger Polytron® 8xx Custom Configuration Kit e.g. St. Steel & LC sensor – visit www.draeger.com/Polytron® to configure yours	8344500

Accessories		Order No.
Magnetic wand		4544101
Pipe mount kit		4544198
Aluminum junction box for remote sensor ‘d’		4544099
Stainless steel junction box for remote sensor ‘d’		4544098
Duct mount kit		6812725
IR Connection Kit Polytron® 5000/8000		4544197
PolySoft licence (1 year)		8328600
PolySoft licence (subscription)		8328601
Splash guard		6812510
Weather Shield Set A Polytron® 5/6/8xxx		3702198
Gassing adapter	PE, w/o tubing	6806978
	PE incl. tubing	4509314
Calibration adapter Viton®		6810536
Process adapter (Stainless steel) for DQ		6812470
Process adapter (Stainless steel) for LC		6812465

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Flammable Gas Detection

Dräger Polytron® 5200 CAT			
Type	Explosion proof / flameproof enclosed transmitter (“d”)		
Gases	Flammable gases and vapours		
Measurement ranges	DQ	0 to 100% LEL	
	LC	0 to 10% LEL	
Display	4-digit backlit graphic LCD 3 status LEDs (green/yellow/red)		
Electrical data			
Signal output analogue	Normal operation	4 to 20 mA,	
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation; (adjustable)	
	Fault	< 1.2 mA	
Power supply	10 to 30 V DC		
Power consumption (max.)	w/o relay, non-remote	95 mA at 24 V	
Relay specification (option)	w/ relay, remote	145 mA at 24 V	
Relay specification (option)	2 alarm relays and 1 fault relay, single-pole two-way contact 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound		
Housing			
Transmitter housing	Epoxy coated copper-free aluminium or stainless steel SS316 L		
Sensor housing	Stainless steel 303		
Enclosure protection type	NEMA 4X, IP65/66/67		
Cable entry point	3/4" NPT threaded holes or M20 cable gland		
Dimensions (H x W x D), approx.	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm	
Weight, approx.	aluminium	4.9 lbs / 2.2 kg	
	SS316 L	8.8 lbs / 4.0 kg	
Environmental conditions (see sensor data sheet)			
Temperature	-40 to 80 °C (-40 to 176 °F) without relay		
	-40 to 70 °C (-40 to 158 °F) with relay		
	-50 to 85 °C (-122 to 185 °F) remote sensor		
Humidity	5 to 95% r. h., non-condensing		
Pressure	23.6 to 38.4 inch Hg / 800 to 1,200 mbar		

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Flammable Gas Detection

Approvals*	
UL & CSA	Class I, Div 1, Groups A, B, C, D;
	Class II, Div 1, Groups E, F, G;
	Class I, Zone 1, Group IIC;
	T-Code T6/T4
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;
CE labelling	ATEX (Directive 2014/34/EU)
	Electromagnetic compatibility (Directive 2014/30/EU)
	Low voltage (Directive 2014/35/EU)

* All docking station versions are only ATEX/IECEx approved

Flammable Gas Detection

Dräger PointGard 3200

Detection of flammable gases and vapors

The Dräger PointGard 3200 is a complete 1-channel gas detection system for detecting combustible gases or vapors in ambient air. The robust yet compact IP66 housing already contains all necessary alarm equipment.

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Flammable Gas Detection

Dräger PointGard 3200 CAT (Order Remote Housing separately)	
Dräger PointGard 3200 CAT AC (CatEx Sensor included)	3728173
Dräger PointGard 3200 CAT AC for Remote (CatEx Sensor not included)	3728171
Dräger PointGard 3200 CAT DC (CatEx Sensor included)	3728169
Dräger PointGard 3200 CAT DC for Remote (CatEx Sensor not included)	3728168
Dräger PointGard 3200 CAT AC with green steady light (CatEx Sensor included)	3728172
Dräger PointGard 3200 CAT AC for Remote with green steady light (CatEx Sensor not included)	3728170
Remote Sensor DQ NPT Alu (Ex d)	3706933
Remote Sensor DQ NPT Steel (Ex d)	3706934
Accessories	
Mounting Bracket Set (not included in Dräger PointGard)	8326497
Splash Guard	6812510
Calibration Adapter Viton®	6810536
IR Connection Kit for PC configuration and upgrades	4544197
LED steady light, green	8326489
LED strobe light, blue	8326472
AC Power Cable Brazil	8326448
AC Power Cable Europe	8326449
AC Power Cable UK	8326450
AC Power Cable USA	8326451
AC Power Cable Australia	8326452

Viton® is a registered trademark of the DuPont company.

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Flammable Gas Detection

Dräger PointGard 3200 CAT		
Type	Self-contained gas monitor with alarm devices for monitoring flammable gases and vapors in the ambient air	
Measuring ranges	Catalytic Bead Sensor (CAT Ex)	0-100% LEL
Electrical data		
Signal output analog	Normal operation	4-20 mA with HART
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation (adjustable)
	Fault	<1.2 mA
Power supply AC version	Operating voltage	100-240 VAC, 50/60 Hz
	Nominal power	6 W
	Operating current (max)	0.5 A
	Inrush current	Max. 40 A @ 230 VAC 50 Hz
Power supply DC version	Operating voltage	10-30 VDC
	Nominal power	6 W
	Operating current (max)	2.5 A
Electrical certification	CE rating, IEC/EN 61010-1	
	Complies with UL 61010-1	
Relay specification	2 alarm relays and 1 fault relay	
	SPDT contact 5 A @ 230 VAC, 5 A at 30 VDC, resistance bound	
	Alarm reset through front-mounted push button	
Alarm device	Variants with amber and red LED strobes activate these on 2 alarm levels independently	
	Variants with green steady light activate red strobe on both alarm levels. Green steady light turns off during alarm or fault condition; optional blue LED strobe	
	85-105 dB adjustable-volume buzzer with continuous and pulsating tone. Side mounted horn silence button with adjustable resound time.	
Display and controls		
LCD Display	75 mm/3" backlit graphic LC display	
	Selectable red or green illumination, alphanumeric	
Indicators	3 status LEDs (green/yellow/red)	
Operation	Through three front mounted push buttons	
Security	Separate passwords for maintenance and configuration menu	

Flammable Gas Detection

Dräger Polytron® 8700 IR

Detection of flammable gases and vapors

The Dräger Polytron® 8700 IR is an advanced explosion proof transmitter for the detection of combustible gases in the lower explosion limit (LEL). It uses a high performance infrared Dräger PIR 7000 sensor, which will quickly detect most common hydrocarbon gases. Besides a 3 wire 4 to 20 mA analogue output with relays, it also offers HART®, Modbus and Fieldbus making it compatible with most control systems.

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Flammable Gas Detection

Dräger Polytron® 8700 IR (incl. splash guard and status indicator)	Order No.
Polytron® 8700 334 d A 4-20/HART®, aluminum body without relays	8344601
Polytron® 8700 334 d A 4-20/HART® Relay, aluminum body with relays	8344602
Polytron® 8700 334 d S 4-20/HART®, St. Steel body without relays	8344610
Polytron® 8700 334 d S 4-20/HART® Relay, St. Steel body with relays	8344611
Polytron® 8700 340 d A 4-20/HART®, aluminum body without relays	8344637
Polytron® 8700 340 d A 4-20/HART® Relay, aluminum body with relays	8344638
Polytron® 8700 340 d S 4-20/HART®, 8344800-ITR0520 St. Steel body without relays	VN00287
Polytron® 8700 340 d S 4-20/HART® Relay, 8344800-ITR0521 St. Steel body with relays	VN00288
Polytron® 8700 IR d A 4-20 for use with REMOTE sensor (order sensor separately)	VN02065
Polytron® 8700 IR d A Relays for use with REMOTE sensor (order sensor separately)	VN02066
Polytron® 8700 IR d S 4-20 for use with REMOTE sensor (order sensor separately)	VN02067
Polytron® 8700 IR d S Relays for use with REMOTE sensor (order sensor separately)	VN02068
Polytron® 8700 IR 334 d A, Modbus epoxy coated aluminum housing	VN02057
Polytron® 8700 IR 334 d S Modbus, 316 St. Steel housing	VN02058
Polytron® 8700 IR 340 d A Modbus, epoxy coated aluminum housing	VN02059
Polytron® 8700 IR 340 d S Modbus, 316 St. Steel housing	VN02060
Polytron® 8000 Series Customized (Remote, ModBus, ProfiBus, FOUNDATION)	8344800

Accessories	
Magnetic wand for menu access (blue body, white logo)	4544101
Pipe/pole mounting kit for 2”-6" pipe, Polytron® 5000/8000	4544198
Polytron® 7000/5xx0/8xx0 2” pipe mount kit	SC05206
Duct mount kit Polytron® 8700 for PIR 7000	6812300
Flowcell adapter, duct; for remote cal/function testing inside ducts	6811945
Duct mount kit bump test adapter for PIR 7000	6811990
Insect guard (2 mm grid) PIR 7x00	6811609
Spider guard (1 mm grid) PIR 7x00	6800306
Hydrophobic filter for PIR 7000	6811890
Calibration adapter for PIR 7000	6811610
Process cuvette, SS 303, for sample draw systems	6811415
Process adapter, polyoxymethelene, for sample draw systems	6811915
PIR 7000 process cuvette SGR (sapphire glass removable) sample draw adapter	6813219
Weathercap polyamide Polytron® 5/6/87x0 PIR 7x00	3717515
Sun shield, pole mount kit, vertical type	SC05207
Sun shield, pole mount kit, horizontal type	SC05208

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Flammable Gas Detection

Remote Sensor Accessories	Order No.
Junction box aluminum for remote sensor incl. 2 terminal blocks	4544099
Junction box st. steel for remote sensor incl. 2 terminal blocks	4544098
Dräger PIR 7000 334 NPT HART complete set Ex d aluminum	6813030
Dräger PIR 7000 334 NPT HART complete set Ex d stainless steel	6813035
Dräger PIR 7000 340 NPT HART complete set Ex d aluminum	6813040
Dräger PIR 7000 340 NPT HART complete set Ex d stainless steel	6813045
Flowcell, for remote cal/function testing	6811490
Polytron® 8700 bump test adapter for PIR 7000	6811630
Calibration adapter PIR 7000	6811610
Process cuvette, SS 303, for sample draw systems	6811415
Instrument Interface and Software	
IRDA connection kit (dongle, cable & holder)	4544197
Polysoft basic license for 1 PC – valid for 1 year	8328600
Polysoft basic license for 1 PC – subscription, charged yearly	8328601
Polysoft premium license for 1 PC – subscription billed annually	8328640
Polysoft premium license for 1 PC – valid for 1 year	8328639
GasVision license key for visualizing Polytron® datalogger download	8325646

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Flammable Gas Detection

Dräger Polytron® 8700 IR			
Type	Explosion proof / flameproof enclosed transmitter (“d”)		
Gases	Flammable gases and vapors		
Measuring ranges	Methane, propane, ethylene 250+ tested substances	0 to 20 ... 100 % LEL 0 to 350 ppm ... 100 % LEL	
	Methane	0 to 100 % vol.	
	Other substances and measuring ranges on request		
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)		
Measuring performance (type 334, methane, 0 to 100 %LEL)	Digital resolution	.5 %LEL	
	Repeatability	0.5 %LEL	
	Linearity error	+/- 1.5 %LEL	
	Response time t0...90	≤ 4 seconds (“normal response mode”), < 1 seconds (“fast response mode”), < 9 sec. (w/ splash guard, normal response mode)	
	Long-term drift	≤ ± 1 %LEL after 12 months	
Electrical data	Signal output analogue	Normal operation	4 to 20 mA, 3- or 4-wire, sink or source
		Maintenance	Constant 3.4 mA (adjustable)
		Fault	< 1.2 mA
	Signal output digital	HART® w/ 3- or 4-wire, PROFIBUS® PA, FOUNDATION fieldbus™ H1 and Modbus RTU w/ 5-wire	
	Power supply	10 to 30 V DC	
	Power consumption (max.)	w/o relay, non-remote	330 mA at 24 V
		w/ relay, remote	350 mA at 24 V
	Relay specification (option)	2 alarm relays and 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC	
Environmental conditions (see sensor data sheet)	Temperature	-40 to +171 °F (-40 to +77 °C) without relay	
		-40 to +158°F (-40 to +70°C) with relay	
	Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar	
	Humidity	0 to 100 % r. h., non-condensing	
Housing	Transmitter housing	Epoxy coated copper-free aluminium or stainless steel SS316 L	
	Sensor housing	Stainless steel SS316 L	
	Enclosure protection type	NEMA 4X & 7, IP65/66/67	
	Cable entry point	3/4" NPT threaded holes or M20 cable gland	
	Dimensions (H x W x D)	11.0” x 5.9” x 5.1” / 280 × 150 × 130 mm	
	Weight, approx.	Aluminium	4.9 lbs / 2.2 kg
		SS316 L	8.8 lbs / 4.0 kg

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Flammable Gas Detection

Dräger Polytron® 8700 IR			
Approvals*	UL & CSA	Class I, Div 1, Groups A, B, C, D;	
		Class I, Zone 1, Group IIC;	
		T-Code T6/T4	
		CSA C22.2 No. 152	
	IECEx	Ex Approval	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C,
		Performance Approval	IEC 60079-29-1:2016-07 Ed: 2.0. Certificate No.: IECEx TUR 20.0049X
	ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ a ≤ +40/+70 °C;	
	CE markings	ATEX (Directive 2014/34/EU)	
		Electromagnetic Compatibility (Directive 2014/30/EU)	
		Low Voltage (Directive 2014/35/EU)	
	Shipping approvals)	DNV GL, ABS, LR, CCS, RMRS	
	MED approval	Certificate No. MEDB0000411	
	Performance approval)	Certificate No. BVS 13 ATEX G 001 X	
	SIL 2 certified by TUEV Sued	Certificate No. Z10 17 05 53474 023	

* All docking station versions are only ATEX/IECEx approved

Flammable Gas Detection

Dräger Polytron® 8310 IR
Detection of flammable gases and vapors

The Dräger Polytron® 8310 IR is an advanced explosion proof transmitter for the detection of combustible hydrocarbon gases in the lower explosion limit (LEL). It uses an infrared DrägerSensor® IR that can be configured for methane, propane or ethylene. Besides a 3 wire 4 to 20 mA analog output with relays, it also offers HART®, Modbus and Fieldbus protocols making it compatible with most control systems.

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Flammable Gas Detection

Dräger Polytron® 8310 IR. A = aluminum; S = St. Steel	Order No.
Polytron® 8310 IR d A 4-20/HART®, epoxy coated aluminum body	8344807
Polytron® 8310 IR d A 4-20/HART® Relay, epoxy coated aluminum body	8344808
Polytron® 8310 IR d S 4-20/HART® 8344800-XTR 0500 316L St. Steel	VN00283
Polytron® 8310 IR d S 4-20/HART® Relay, 8344800-XTR 0501 316L St. Steel	VN00284
Polytron® 8310 IR d A Modbus, epoxy coated aluminum housing	VN02053
Polytron® 8310 IR d S Modbus, 316 St. Steel housing	VN02054
Custom Configuration e.g. Modbus, stainless steel at www.draeger.com/ polytron	8344800
Accessories	
Magnetic wand	4544101
Pipe mount bracket	4544198
Duct mount kit	6812725
IR Connection Kit Polytron® 5000/8000	4544197
PolySoft license (1 year)	8328600
PolySoft license (subscription)	8328601
Process adapter	6811330
Sun protection cover Dräger Polytron® 5/6/8xxx	3702198
Weather guard for DSIR sensor	6811135

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Flammable Gas Detection

Dräger Polytron® 8310 IR		
Type	Explosion proof / flameproof enclosed transmitter (“d”)	
Gases	Over 140 different combustible hydrocarbons gases and vapors	
Measuring ranges	0 to 100% LEL	
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)	
Electrical data		
Signal output analog	Normal operation	4 to 20 mA, 3- or 4-wire, sink or source
	Maintenance	Constant 3.4 mA (adjustable)
	Fault	< 1.2 mA
Signal output digital	HART® w/ 3- or 4-wire, PROFIBUS® PA, FOUNDATION fieldbusTM H1 and Modbus RTU w/ 4-wire	
Power supply	10 to 30 V DC, 3-wire	
Power consumption (max.)	w/o relay, non-remote	145 mA at 24 V
	w/ relay, remote	185 mA at 24 V
Relay specification (option)	2 alarm relays and 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC	
Environmental conditions (see sensor data sheet)		
Temperature	-40 to 65 °C (-40 to 149 °F) without relay -40 to 65 °C (-40 to 149 °F) with relay	
Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar	
Humidity	0 to 100 % r. h., non-condensing	
Housing		
Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
Sensor housing	Stainless steel SS316 L	
Enclosure protection type	NEMA 4X & 7, IP65/66/67	
Cable entry point	3/4" NPT threaded holes or M20 cable gland	
Dimensions (H x W x D), approx.	11.6” x 5.9” x 5.1” / 295 x 150 x 130 mm	
Weight, approx.	Aluminum	4.9 lbs / 2.2 kg
	SS316 L	8.8 lbs / 4.0 kg
Approvals		
UL & CSA	Class I, Div 1, Groups A, B, C, D; Class I, Zone 1, Group IIC; T-Code T6/T4 CSA C22.2 No. 152	
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C;	
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C; II 2G Ex db ia IIC T6/T4 Gb,-40 ≤ Ta ≤ +40/+70 °C;	
CE markings	ATEX (Directive 2014/34/EU)	
	Electromagnetic Compatibility (Directive 2014/30/EU)	
	Low Voltage (Directive 2014/35/EU)	
Shipping approvals	DNV GL, ABS, LR, CCS, RMRS	
MED approval	Certificate No. MEDB0000411	
DEKRA Performance approval	Certificate No. BVS 13 ATEX G 001 X	

Flammable Gas Detection

Dräger Polytron® 5700 IR
Detection of flammable gases and vapors

The Dräger Polytron® 5700 IR is a cost effective explosion proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses a high performance infrared Dräger PIR 7000 sensor, which will quickly detect most common hydrocarbon gases. A 3 wire 4 to 20 mA analog output with optional relays makes it compatible with most control systems.

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Flammable Gas Detection

Dräger Polytron® 5700 IR	Order No.
Dräger Polytron® 5700 IR 334 d A	8344220
Dräger Polytron® 5700 IR 334 d A relay	8344221
Dräger Polytron® 5700 IR 340 d A	8344240
Dräger Polytron® 5700 IR 340 d A relay	8344241
Dräger Polytron® 5700 IR 334 d S	8344222
Dräger Polytron® 8xx Custom Configuration Kit e.g. St. Steel & Relays – visit www.draeger.com/Polytron® to configure yours	8344500
Accessories	
Magnetic wand	4544101
Pipe mount bracket	4544198
Duct mount kit	6812300
Flow Cell for PIR 7000	6811490
Bump Test Adapter for PIR 7000	6811630
Insect guard for PIR 7x00	6811609
Hydrophobic filter for PIR 7x00	6811890
Calibration adapter for PIR 7x00	6811610
PolySoft license (1 year)	6828 00
PolySoft license (subscription)	6828601
PolySoft Premium license (1 year)	8328639
PolySoft Premium license (subscription)	8328640
Process cuvette for PIR 7x00, POM (Polyoxymethylene)	6811915
Process cuvette for PIR 7x00, stainless steel	6811415
Process cuvette for PIR 7x00, stainless steel	6811415
Aluminum junction box for remote sensor ‘d’	4544099
Stainless steel junction box for remote sensor ‘d’	4544098

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Flammable Gas Detection

Dräger Polytron® 5700 IR		
Type	Explosion proof / flameproof enclosed transmitter (“d”)	
Gases	Flammable hydrocarbon gases and vapors	
Measuring ranges	Methane, propane, ethylene 250+ tested substances	0 to 20 ... 100 % LEL 0 to 350 ppm ... 100 % LEL
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)	
Electrical data		
Signal output analog	Normal operation	4 to 20 mA
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation; (adjustable)
	Fault	< 1.2 mA
Power supply	10 to 30 V DC, 3-wire	
Power consumption (max.)	w/o relay, non-remote	300 mA at 24 V
	w/ relay, remote	350 mA at 24 V
Relay specification (option)	2 alarm relays and 1 fault relay, single-pole two-way contact 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound	
Environmental conditions (see sensor data sheet)		
Temperature	-40 to 80 °C (-40 to 176 °F) without relay -40 to 70 °C (-40 to 158 °F) with relay- -50 to 85 °C (-122 to 185 °F) remote sensor	
Pressure	23.6 to 38.4 inch Hg / 800 to 1,200 mbar	
Humidity	5 to 95% r. h., non-condensing	
Housing		
Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
Sensor housing	Stainless steel 303	
Enclosure protection type	NEMA 4X & 7, IP65/66/67	
Cable entry point	3/4" NPT threaded holes or M20 cable gland	
Dimensions (H x W x D), approx.	11.0" x 5.9" x 5.1" / 280 x 150 x 130 mm	
Weight, approx.	Aluminum	4.9 lbs / 2.2 kg
	SS316 L	8.8 lbs / 4.0 kg
Approvals*		
UL & CSA	Class I, Div 1, Groups A, B, C, D; Class II, Div 1, Groups E, F, G; Class I, Zone 1, Group IIC; T-Code T6/T4	
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;	
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;	
CE markings	ATEX (Directive 2014/34/EU)	
	Electromagnetic Compatibility (Directive 2014/30/EU)	
	Low Voltage (Directive 2014/35/EU)	
Performance approval	BVS 15 ATEX G 001 X	

Dräger Polytron® 5310 IR
Detection of flammable gases and vapors

The Dräger Polytron® 5310 IR is a cost effective explosion proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses an infrared DrägerSensor® IR that can be configured for methane, propane, or ethylene. A 3 wire 4 to 20 mA analog output with relays makes it compatible with most control systems.

Flammable Gas Detection

Dräger Polytron® 5310 IR	Order No.
Dräger Polytron® 5310 IR d A	8344370
Dräger Polytron® 5310 IR d A Relay	8344371
Dräger Polytron® 5xx0 Kit (Custom configuration e. g. stainless steel housing)	8344500
Accessories	
Pip mount bracket	4544198
Duct mount kit	6812725
IR Connection Kit Polytron® 5000/8000	4544197
PolySoft licence (1 year)	8328600
PolySoft licence (subscription)	8328601
Process adapter	6811330
Weather protection kit Dräger Polytron® 5/6/8xxx	3702198
Weather guard	6811135
Aluminum junction box for remote sensor ‘d’	4544099
Stainless steel junction box for remote sensor ‘d’	4544098

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Flammable Gas Detection

Dräger Polytron® 5310 IR		
Type	Explosion proof / flameproof enclosed transmitter (“d”)	
Gases	Flammable gases and vapors	
Measuring ranges	0 to 100% LEL	
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)	
Electrical data		
Signal output analog	Normal operation	4 to 20 mA
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation; (adjustable)
	Fault	< 1.2 mA
Power supply	10 to 30 V DC, 3-wire	
Power consumption (max.)	w/o relay, non-remote	95 mA at 24 V
	w/ relay, remote	145 mA at 24 V
Relay specification (option)	2 alarm relays and 1 fault relay, single-pole two-way contact 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound 2,000 – 4,000	
Environmental conditions (see sensor data sheet)		
Temperature	-40 to 80 °C (-40 to 176 °F) without relay -40 to 70 °C (-40 to 158 °F) with relay- -50 to 85 °C (-122 to 185 °F) remote sensor	
Pressure	23.6 to 38.4 inch Hg / 800 to 1,200 mbar	
Humidity	5 to 95% r. h., non-condensing	
Housing		
Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
Sensor housing	Stainless steel 303	
Enclosure protection type	NEMA 4X & 7, IP65/66/67	
Cable entry point	3/4" NPT threaded holes or M20 cable gland	
Dimensions (H x W x D), approx.	11.6” x 5.9” x 5.1” / 295 x 150 x 130 mm	
Weight, approx.	Aluminum	4.9 lbs / 2.2 kg
	SS316 L	8.8 lbs / 4.0 kg
Approvals*		
UL & CSA	Class I, Div 1, Groups A, B, C, D; Class II, Div 1, Groups E, F, G; Class I, Zone 1, Group IIC; T-Code T6/T4	
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;	
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C;	
CE markings	ATEX (Directive 2014/34/EU)	
	Electromagnetic Compatibility (Directive 2014/30/EU)	
	Low Voltage (Directive 2014/35/EU)	

Dräger PointGard 3700

Detection of flammable gases and vapors

The Dräger PointGard 3700 is a complete 1-channel gas detection system for detecting combustible gases or vapors in ambient air. The robust yet compact IP66 housing already contains all necessary alarm equipment.

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Flammable Gas Detection

Dräger PointGard 3700 IR (Order Dräger PIR 7000 Sensor separatly)	
Dräger PointGard 3700/3720 IR AC Remote	3728167
Dräger PointGard 3700/3720 IR DC Remote	3728165
Dräger PointGard 3700/3720 IR AC Remote with green steady light	3728166
Dräger PointGard 3700 IR compatible remote sensors	
Dräger PIR 7000 Typ 334 (NPT) HART®, complete set (stainless steal)	6813035
Dräger PIR 7000 Typ 340 (NPT) HART®, complete set (stainless steal)	6813045
Dräger PIR 7000 Typ 334 (NPT) HART®, complete set (aluminum)	6813030
Dräger PIR 7000 Typ 340 (NPT) HART®, complete set (aluminum)	6813040
The complete set includes the Ex d junction box, the splash guard, the status indicator and the mounting set, already pre-assembled.	
Dräger PIR 7000/7200 accessories	
Calibration adapter cup PIR 7000	6811610
Flowcell PIR 7000 remote cal adapter	6811490
Flowcell PIR 7200 remote cal adapter	6811910
Remote bump test adapter PIR 7000	6811630
Remote bump test adapter PIR 7200	6811930
Insect guard (2 mm grid) PIR 7x00	6811609
Spider guard (1 mm grid) PIR 7x00	6800306
Hydrophobic filter PIR 7x00	6811890
Dräger PointGard 3000 Series common accessories	
Mounting Bracket Set (not included in Dräger PointGard)	8326497
Sunshield weather protection for PointGard 3000	NA10458
Splash Guard	6812510
IR Connection Kit for PC configuration and upgrades	8317409
LED steady light, green	8326489
LED strobe light, blue	8326472
AC Power Cable Brazil	8326448
AC Power Cable Europe	8326449
AC Power Cable UK	8326450
AC Power Cable USA	8326451
AC Power Cable Australia	8326452

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Flammable Gas Detection

Technical data	
Functions	Event and data logger with a capacity of up to 35,000 records
	Warning and error messages displayed in plain text
	Passwordless bump-test mode inhibits alarms
	Automatic calibration mode for zero and span
Housing	
Material	Glass fiber reinforced polyester (GFRP)
Mounting	Wall mount with internal screws or optional SS mounting brackets
Housing protection type	IP66; indoor or outdoor use
Housing certification	UL 508A/50/50E; CSA C22.2 94.1/94.2/14-13
Cable entry point	3 cable glands 1/2" NPT
Size (L x W x D)	255 x 280 x 120 mm/10 x 11 x 4.7"
Weight	3.8 kg / 8.4 lbs
Environmental conditions	
Temperature (storage)	-20 to +65 °C/-4 to +149 °F
Temperature (operation)	-20 to +50 °C/-4 to +122 °F
Pressure	20.7 to 38.4" Hg/700 to 1,300 hPa
Humidity	0 to 95% r. h., noncondensing
Sensor characteristics and available gases	
Please consult the Dräger PIR 7000 product information for details	

Flammable Gas Detection

Dräger PIR 7000
Flammable Gas Detection Transmitter

The Dräger PIR 7000 is an explosion-proof point gas detection transmitter that uses infrared (IR) technology to continuously monitor hydrocarbon gases in %LEL or ppm. With its stainless steel SS 316L enclosure and drift-free optics, this detector is built for the harshest industrial environments, including offshore installations.

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Flammable Gas Detection

Dräger PIR 7000	Order No.
Dräger PIR 7000 type 334 (NPT) HART®	6811552
Dräger PIR 7000 type 340 (NPT) HART®	6811562
Dräger PIR 7000 334 NPT HART® complete set* Ex d Alu.	6813030
Dräger PIR 7000 334 NPT HART® complete set* Ex d St. Steel	6813035
Dräger PIR 7000 340 NPT HART® complete set* Ex d Alu.	6813040
Dräger PIR 7000 340 NPT HART® complete set* Ex d St. Steel	6813045
Dräger PIR 7000 type 334 (M25) HART®	681550
Dräger PIR 7000 type 334 NPT (Polytron® 5700/8700 SpareSensor)	6811822
Dräger PIR 7000 type 340 NPT (Polytron® 5700/8700 Spare Sensor)	6811832
Dräger PIR 7000 type 334 (M25) HART®, complete set	6811817
Dräger PIR 7000 type 340 (M25) HART®	6811560
Dräger PIR 7000 type 340 (M25) HART®, complete set	6811819

*The complete set contains an Ex e (M25) or Ex d (NPT) junction box, splash guard, status indicator and mounting set, already preassembled.
M25 variants are not UL/CSA approved

Accessories	
Mounting Set (only compatible with M25 version)	6811648
Duct Mount Kit for PIR 7000 Complete Set Ex d	6812300
Dräger PIR 7000 334 NPT HART® complete set* Ex d Alu.	6813030
Splash Guard	6811911
Status Indicator	6811625
Insect Guard	6811609
Sunshade Weather Guard	SC05208
Spider Guard (finer mesh than insect guard)	6800306
Hydrophobic Filter	6811890
Calibration Adapter	6811610
Flow Cell for Remote Calibration	6811490
Flow Cell for Duct Mount Kit	6811945
Bump Test Adapter	6811630
Bump Test Adapter for Duct Mount Kit	6811990
Process Adapter POM Sampling Adapter	6811915
Process Cuvette St. Steel 303 Sampling Adapter	6811415
Process Cuvette SGR 303 SS Sampling Adapter Removable Lens	6813219
Magnetic Wand	4544101
USB PC Adapter	6811663
Dräger PRC 7000 Remote Control Software	8323355
Dräger PRC 7010 Remote Control Software	8323365

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Flammable Gas Detection

Dräger PIR 7000		
Type	Explosion proof / flameproof enclosed transmitter (“d”) or combined with increased safety (“d/e”)	
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology. IR absorption at 3.34µ or 3.40µ IR wavelength.	
Gases and ranges	Methane, propane, ethylene 250+ tested substances	0 to 20 ... 100 % LEL 0 to 350 ppm ... 100 % LEL
	Methane	0 to 100 % vol.
	Further substances and measuring ranges on request	
Measuring performance (type 334, methane, 0 to 100 %LEL)	Digital resolution	0.5 %LEL
	Repeatability	0.5 %LEL
	Linearity error	+/- 1.5 %LEL
	Response time t0...90	≤ 4 seconds (“normal response mode”) < 1 seconds (“fast response mode”) < 9 sec. (w/ splash guard, normal response mode)
	Long-term drift	≤ ± 1 %LEL after 12 months
Electrical data		
Output signals	4 to 20 mA, HART® autodetect sink/source	
Fault signal	≤ 1.2 mA (configurable)	
Beam block warning signal	2 mA (configurable)	
Maintenance signal	3 mA (configurable)	
Power supply	13 to 30 V DC, 3-wire	
Power consumption	5.6 W (typical)	
Ambient conditions		
Temperature	40 to +77 °C/-40 to +170 °F (operating) -40 to + 85 °C/-40 to +180 °F (storage)	
Humidity	0 to 100 %RH	
Pressure	700 to 1,300 hPa/23.6 to 32.5 inch Hg	
Enclosure		
Material	Stainless steel SS 316L	
Connecting thread	M25 or 3/4" NPT	
Weight	2.2 kg (without accessories)	
Dimensions	160 mm x Ø 89 mm / 6.3" x Ø 3.5"	
Ingress protection	IP66 and IP67, NEMA 4X	
Approvals		
ATEX	II 2G Ex d(e) IIC T6/T4 II 2D Ex tD A21 IP65 T80 °C/T130 °C	
IECEx	Ex d IIC T6/T4 Ex tD A21 IP65 T80 °C/T130 °C	
UL & CSA (only NPT Variants)	Type: IDS 010x Class I, Div. 1, Groups A, B, C, D Class II, Div. 1, Groups E, F, G Class I, Zone 1, Group IIC T-Code T6/T4, –40 °C < Ta < +40 °C/ +80 °C 9 to 30 V DC, 9 W - Type 4x	
Functional Safety (SIL)	SIL2 cert. by TÜV (EN 61508, EN 50402) PFD = 2.04E–04, SFF = 94.0%	
CE mark	Electromagnetic compatibility (directive 89/336/EEC)	

Flammable Gas Detection

GS01 (wireless)

Detector for flammable gases and vapors

The GS01 is a wireless infrared gas transmitter for continuous monitoring of flammable hydrocarbon gases and vapors in the oil and gas industry. The intrinsically safe and SIL-rated transmitter features completely wireless signal transmission and power supply. This makes the GS01 a flexible and cost efficient solution for plant expansions, upgrades, and new greenfield projects.

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Flammable Gas Detection

GS01 (wireless)	Order No.
GS01 wireless IR Gas Detector	3705976
GS01-EA wireless IR Gas Detector-5m FM	AL20737
GS01-EA wireless IR Gas Detector-10m FM	AL20738
GS01-EA wireless IR Gas Detector-20m FM	AL20739
GS01 Battery pack FM (without cells)	AL20 713
GS01 Battery cell type SL-2780/S	AL20706
GS01 Battery cover	AL20708
GS01 Weather cap	AL20709
GS01 Serial adapter	AL20710
GS01 Sunshade / weather protection	AL20711
Sencity OMNI-S 6 dBi antenna	AL20718
Sencity OMNI-S 2 dBi stick antenna N-male	3705654
Sencity OMNI-S 2 dBi stick antenna	3705655
Antenna cable with N connector, 5 m	AL20719
Antenna cable with N connector, 10 m	AL20720
Antenna cable with N connector, 20 m	AL20721
O-ring GS01,battery comp., Ø 8.4 cm, 5 pc	3701093

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Flammable Gas Detection

GS01	
Measuring principle	Infrared single beam, triple wavelength
Dectable gases	0 to 100 % LEL (Methane) 0 to 60 % LEL (Propane)
Calibration	Factory-set, no field calibration
Response time	≤ 5 seconds
Accuracy	± 3 % LEL or ± 10 % of measured value, each the higher value (refers to Methane)
Zero-point stability	± 3 % LEL (lifelong)
Electrical data	
Battery type	Lithium-Thionyl Chloride
Average power	5 mW
Battery lifetime	Up to 2 years (depending on the environmental conditions) 300 mA at 24 V
RF power	GS01: < 12 dBm EIRP GS01-EA: < 16 dBm EIRP
Communication	
Type	IEEE802.15.4 in 2.4 GHz ISM Band
Protocol	ISA100 Wireless™
Gateway output	Standard: Modbus TCP/RTU, OPC Optional: PROFINET® (SIL2)
Environmental conditions	
Operating temperature	-30 °C to +55 °C (if higher temperature ranges up to +65 °C are required please contact Dräger)
Storage temperature	40 °C to +65 °C
Humidity	0 to 100 % RH
Protection Class	IP66 and IP67
Housing	
Dimensions	300 x 110 x 170 mm
Weight	2.8 kg (incl. Battery)
Mounting	With bracket for 8 mm or 5/16" bolts
Approvals	
UL & CSA	II 2G Ex ib IIC T4 Gb (-30 °C to +55 °C)
IECEx	Class I, Zone 1 AEx ib IIC T4 Gb (-30 °C to 55 °C) Class I, Div 2 Group A, B, C, D (-30 °C to 55 °C)
Performance Approval	Compliant with EN 60079-29-1
Safety Integrity Level	SIL2 IEC 61508, Ed.2.0

PROFINET® is a registered trademark of PROFIBUS and PROFINET International (PI).
The ISA100 WirelessTM is a trademark of ISA100 Wireless Compliance Institute.

Flammable Gas Detection

Dräger Pulsar 7000 Series

Detection of flammable gases and vapors

The Dräger Pulsar 7000 Series are stationary open path gas detectors. They detect explosive hydrocarbons in gases. The robust design and the extremely rapid response of the sensor make the Dräger Pulsar 7000 Series a dependable solution for your requirements in the oil and gas industry, as well as the chemical industry.

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Flammable Gas Detection

Dräger Pulsar 7000	Order No.
Pulsar 7000 Short Range 4m – 60m (13ft – 196ft) CSA & UL	NA10340
Pulsar 7000 Medium Range 30m – 120m (98ft – 393ft) CSA & UL	NA10341
Pulsar 7000 Long Range 100m – 200m (328ft – 656ft) CSA & UL	NA10342
Pulsar 7000 Short Range 4m – 60m (13ft – 196ft) CSA & UL-Ethylene	NA10343
Pulsar 7000 Medium Range 30m – 120m (98ft – 393ft) CSA & UL-Ethylene	NA10344
Dräger Pulsar 7000	
Dräger Pulsar 7000 TX S Range CSA & UL	6851728
Dräger Pulsar 7000 TX L Range CSA & UL	6851729
Dräger Pulsar 7900 RX S Range CSA & UL-Ethylene	6851732
Dräger Pulsar 7700 RX S Range CSA & UL	6851733
Dräger Pulsar 7700 RX L Range CSA & UL	6851734
Both TX & RX will come with a mounting plate and a weather shield.	
Duct Mount	
Dräger Pulsar 7700 Duct Mount CSA & UL Complete (TX & RX)	6851739
Dräger Pulsar 7000 Duct Mount TX CSA & UL	6851730
Dräger Pulsar 7700 Duct Mount RX CSA & UL	6851731
Mounting Parts	
2” / 50mm Pipe mount kit	2307003
Pulsar 7000 duct wall mounting plate kit	2350450
Communication & Maintenance	
Pulsar Interface Adapter (PIA), single unit	6851565
Pulsar Interface Adapter set for Standard variant	6851630
Pulsar Interface Adapter set for Ethylene variant	6851631
Pulsar Interface Adapter set for Duct Mount	6851632
Lens cleaning fluid LCF01	2350291
Calibration Kits	
Gas test sheets for Dräger Pulsar 7900 (Ethylene)	2350520
Gas test sheets for Dräger Pulsar 7700 (Methane/Propane)	2350521
Gas test sheets for Dräger Pulsar 7700 Duct Mount	2350451
Gas cell kit, single pass (Propane)	2350514
Gas cell kit, single pass (Methane)	2350516
Gas cell kit, single pass (Methane and Propane)	2350518

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Flammable Gas Detection

Dräger Pulsar 7000		
Type	Expolsion-proof open-paths gas detector based on infrared absorbation spectroscopy	
Gases	Wide range of hydrocarbons, including the alkane series from methane to hexane, propylene	
Measuring range	Min. 0 to 4 LEL m, max. 0 to 8 LEL m	
Gas category	IEC, NIOSH or PTB; selectable	
Factory calibration	Methane, propane or ethylene, selectable	
Operating range	4 to 60 m, 30 to 120 m or 100 to 200 m (distance between transmitter and receiver)	
Electrical data		
Signal output analog	Measuring	4 to 20 mA, 3- or 4-wire, sink or source
	Pre-warning	3.5 mA (eg. dirty lens or misalignment), configurable
	Maintenance	3 mA
	Beam block warning	2 mA
	Faults	< 1 mA
Signal output digital	HART® 7	
Power consumption	< 5 W receiver, < 9 W transmitter	
Operating voltage	18 to 32 VDC (24 VDC nominal)	
Response time t_{90}	< 2 s (under normal operating conditions when using the digital link)	
Skew tolerance	+/- 0.6°	
Ambient conditions		
Temperature	-40 to + 60 °C, -40 to +140 °F	
Pressure	800 to 1,100 hPa	
Air Humidity	0 to 100% rel. humidity, non-condensing	
Housing		
Material	Stainless steel AISI 316L “Marine Grade”	
Protection class	IP66/IP67	
Weight, approx.	9 kg (19.84 lbs), each transmitter and receiver incl. backplate and weather shield	
Approvals*		
Performance approval	Tamb = -55 °C to +40 °C/+60 °C*	
	FM Class 6325	
	ANSI/ISA-12.13.04	
Safety Integrity Level	SIL 2 SC3 Certification by TÜV Nord (EN 61508)	
UL /CSA	Class I, Div. 1, Groups C, D Class II, Div. 1, Groups E, F, G, H Class I, Zone 1, AEx db [ia Ga] IIC T6...T5 Gb	

* -40 °C for Heavy Duty/Offshore model
HART® is a registered trademark of the HART® Communication Foundation

D-9511-2022

Toxic Gases and Oxygen Detectors

Dräger

Technology for Life

03

Toxic Gases and Oxygen Detectors

Electrochemical Sensor Transmitters

Toxic Gases & Oxygen Detectors

Dräger Polytron® 8100 EC

Detection of toxic gases and vapors

The Polytron® 8100 EC is Dräger's top of the line explosion-proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug and play electrochemical DrägerSensor to detect a specific gas. Besides having a 3-wire 4 to 20 mA analog output with relays, it also offers HART®, Modbus and Fieldbus protocol, making it compatible with most control systems.

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Toxic Gases & Oxygen Detectors

Dräger Polytron® 8100 EC	Order No.
Polytron® 8100 EC d A 4-20/HART®, epoxy coated Aluminum enclosure without sensor, datalogger included	8344403
Polytron® 8100 EC d A 4-20/HART® Relay, Epoxy coated Aluminum enclosure without sensor, datalogger included	8344404
Polytron® 8100 EC d S 4-20/HART®, 316L St. Steel enclosure, without sensor, datalogger included	8344412
Polytron® 8100 EC d S 4-20/HART® Relay, 316L St. Steel enclosure, without sensor, datalogger included	8344413
Polytron® 8100 EC d A Modbus epoxy coated aluminum housing	VN02049
Polytron® 8100 EC d S Modbus 316 St. Steel housing	VN02050
Polytron® 8000 Series Customized (Remote, ModBus, ProfiBus, FOUNDATION)	8344800
Electrochemical DrägerSensors®	
DrägerSensor® AC Acidic Compounds 0-30 ppm, requires 6809381	6810595
Initial Operation Set for Acidic Compounds AC L sensor (Pipette & electrolyte 4 sensors)	6809381
DrägerSensor® Cl_2 Chlorine 0-50 ppm	6809665
DrägerSensor® CO Carbon Monoxide 0-800 ppm	6809605
DrägerSensor® CO LS Carbon Monoxide 0-5,000 ppm	6809620
DrägerSensor® CO LH Carbon Monoxide 0-300 ppm	6812570
DrägerSensor® $COCl_2$ Phosgene 0-20 ppm	6809930
DrägerSensor® H_2 Hydrogen 0-3,000 ppm	6809685
DrägerSensor® MEC H_2 Hydrogen 0-40,000 ppm / 0-100% LEL	6800335
MEC-Key (required for MEC sensors)	6812695
DrägerSensor® H_2O_2 HC Hydrogen Peroxide 0-7,000 ppm	6809675
DrägerSensor® H_2O_2 LC Hydrogen Peroxide 0-300 ppm	6809705
Dräger SensorAlive® H_2S 0-100 ppm	6814014
Bayonet Ring Dräger SensorAlive (required for new install)	6800132
DrägerSensor® H_2S Hydrogen Sulfide 0-100 ppm	6810435
DrägerSensor® H_2S HC Hydrogen Sulfide 0-1,000 ppm	6809710
DrägerSensor® H_2S LC Hydrogen Sulfide 0-100 ppm	6809610
DrägerSensor® HCl Hydrogen Chloride 0-100 ppm	6809640
DrägerSensor® HCN LC Hydrogen Cyanide 0-50 ppm	6813200
DrägerSensor® PH_3 /AsH_3 Phosphine/Arsine 0-10 ppm	6809695
DrägerSensor® Hydride 0-20 ppm	6809635
DrägerSensor® Hydride SC 0-1 ppm	6809980
DrägerSensor® N_2H_4 Hydrazine 0-5 ppm	6810180
DrägerSensor® NH_3 HC Ammonia 0-1,000 ppm	6809645
DrägerSensor® NH_3 LC Ammonia 0–300 ppm (for special applications only, use NH_3 TL/FL	6809680
DrägerSensor® NH_3 FL Ammonia 0-300 ppm (four electrode fast recovery from high	6813260
DrägerSensor® NH_3 TL Ammonia 0-300 ppm	6813095
DrägerSensor® NH_3 TH Ammonia 0-10,000 ppm	6800055
DrägerSensor® NO Nitric Oxide 0-200 ppm	6809625

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Toxic Gases & Oxygen Detectors

Electrochemical DrägerSensors®		Order No,
DrägerSensor® NO_2 LC Nitrogen Dioxide 0-20 ppm (Low Concentration)		6813205
DrägerSensor® O_2 Oxygen 0-100% Vol. (only for special applications)		6809720
DrägerSensor® O_2 LS Oxygen 0-25% Vol.		6809630
DrägerSensor® O_3 Ozone 0-5 ppm		6814005
DrägerSensor® OV1 Organic Vapors 0-200 ppm		6810740
DrägerSensor® OV2 Organic Vapors 0-100 ppm		6810745
DrägerSensor® SO_2 Sulfur Dioxide 0-100 ppm		6809660
Accessories		
Magnetic wand		4544101
Diagnostic Dongle		8317619
Pipe or pole mounting bracket		8317860
Duct mount kit		4544198
IR Connection Kit Polytron® 5000/8000		8323404
IR Connection Kit Polytron® 5000/8000		4544197
PolySoft licence (1 year)		8328639
PolySoft licence (subscription)		8328640
EC Sensing Head Remote w/ wall mounting bracket		
Connection cable w/ plug for Remote EC Sensing Head	16 ft / 5 m	8323305
	49 ft / 15 m	8323315
	98 ft / 30 m	8323330
Duct mount adapter for remote EC sensing head		6812725
Splash guard (not for Cl_2, HCl, H_2O_2, O_3, N_2H_4)		6812510
Weather protection kit Dräger Polytron® 5/6/8xxx		3702198
Calibration adapter FKM Viton®		6810536
Gassing adapter PE incl. tubing		4509314
Dust filter (not for Cl_2, HCl, H_2O_2, O_2, N_2H_4)		6809595
Dust filter (SO_2)		6812224
Selective filter A2F (CO, CO LS, H_2)		6809684
Selective filter K2F ($COCl_2$)		6809933
Selective filter NF (HCl)		6809643
Selective filter HSF (Hydrides)		6809862
Selective filter D3F (CO)		6812435
Selective filter MF (PH_3, AsH_3)		6809638
Selective filter K1F (SO_2) 68		6809663

Toxic Gases & Oxygen Detectors

Dräger Polytron® 8100 EC			
Type	Explosion proof / flameproof enclosed transmitter (“d”)		
Gases	Toxic gases and oxygen, dependent on the sensor used		
Measuring ranges	Customized adjustment, see sensor data sheet		
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)		
Performance Characteristics	see sensor datasheet		
Electrical data	Signal output analog	Normal operation	4 to 20 mA, 3- or 4-wire, sink or source
		Maintenance	Constant 3.4 mA (adjustable)
		Fault	< 1.2 mA
	Signal output digital	HART® w/ 3- or 4-wire, PROFIBUS® PA, FOUNDATION fieldbus™ H1 and Modbus RTU w/ 5-wires	
	Power supply	10 to 30 V DC	
	Power consumption (max.)	w/o relay, non-remote	80 mA at 24 V
		w/ relay, remote	100 mA at 24 V
	Relay specification (option)	2 alarm relays and 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC	
Environmental conditions (see sensor data sheet)	Temperature	-40 to 77°C (-40 to 170°F) without relay -40 to 70°C (-40 to 158°F) with relay	
	Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar	
	Humidity	0 to 100% r. h., non-condensing	
Housing	Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
	Sensor housing	Polyamide	
	Enclosure protection type	NEMA 4X & 7, IP65/66/67	
	Cable entry point	3/4” NPT threaded holes or M20 cable gland	
	Dimensions (H x W x D), approx.	11.0” x 5.9” x 5.1” / 280 x 150 x 130 mm	
	Weight, approx.	Aluminum	6.6 lbs / 3.0 kg
		SS316 L	11.0 lbs / 5.0 kg

Toxic Gases & Oxygen Detectors

Dräger Polytron® 8100 EC		
Approvals	UL & CSA	Class I, Div 1, Groups A, B, C, D;
		Class II, Div 1, Groups E, F, G;
		Class I, Zone 1, Group IIC;
		T-Code T6/T4
	IECEx	Ex db [ia] IIC T6/T4 Gb,
		-40 ≤ Ta ≤ +40/+70 °C;
	ATEX	II 2G Ex db [ia] IIC T6/T4 Gb,
		-40 ≤ Ta ≤ +40/+70 °C;
	FM Performance (H2S sensor)	Certificate No: FM16NUS0015
		FM 6340:2014, FM Class 3810:2005,
		ISA–92.00.01-2010
	CE marking	ATEX (Directive 2014/34/EU)
		Electromagnetic Compatibility (Directive 2014/30/EU)
		Low Voltage (Directive 2014/35/EU)
	Marine approvals	DNV GL, ABS, LR, CSS, RMRS
	MED approval	Certificate no. MEDB0000411
	DEKRA Performance approval (for O_2 sensors only)	Certificate no. BVS 13 ATEX G 001 X
		EN 60079-29-16:2016
	SIL 2 certified by TUEV Sued	Certificate no. Z10 053474 0023

Toxic Gases & Oxygen Detectors

Dräger Polytron® 7000 Detection of toxic gases and oxygen

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

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Toxic Gases & Oxygen Detectors

Dräger Polytron® 7000	Order No.
Dräger Polytron® 7000 with 4 to 20 mA output and Sensor Diagnostic Dongle	8317980

Dräger Polytron® 7000 variations

4 to 20 mA	HART®	Relay	Pump		
x					8317610
x		x			8317636*
x			x		8317637*
x		x	x		8317638*
x	x				8317710
x	x	x			8317776*
x	x		x		8317777*
x	x	x	x		8317778*

PROFIBUS® PA	FOUNDATION fieldbus™ H1	LON	Relay	Pump	
		x			8317810*
		x	x		8317816*
		x		x	8317817*
		x	x	x	8317818*
x					8319430
x			x		8319427*
x				x	8319436*
x			x	x	8319438*
	x				8319440
	x		x		8319428*
	x			x	8319437*
	x		x	x	8319439*

Dräger Polytron® Docking Station – one required per transmitter	8317990

Toxic Gases & Oxygen Detectors

Modules	Order No.
Pump Module	8317350
Relay Module	8317360
Relay Connector	1890086
Software dongles	
Data Dongle	8317618
Sensor Test Dongle	8317619
Sensor Diagnostic Dongle	831786
Accessories	
Remote Sensor Adapter	8317275
Remote Cable and plug 5 m / 16 ft.	8317270
Remote Cable and plug 15 m / 49 ft.	8317998
Remote Cable and plug 30 m / 100 ft. 83 17 999	8317999
Remote duct adapter	8317617
Duct Mounting Kit	8317150
Cable Entry Set M20, with cable gland and connector for multidrop	8317282
Calibration Adapter, electrochemical sensors	6806978
Pump Adapter for DrägerSensor® AC L	8317976
Calibration Adapter, DrägerSensor® AC L	6809380
Dräger GasVision, data display software	8314034
Dräger CC-Vision GDS, calibration and configuration software	6811989
IR data cable, USB DIRA	8317409
PDA m515-Ex	8317995
Process Adapter RS EC, Stainless Steel	8323404

Toxic Gases & Oxygen Detectors

Dräger Polytron® 7000		
Type	Intrinsically safe transmitter for electrochemical sensors	
Gases and Ranges	Toxic gases and oxygen in various ranges	
Display	Large graphic display, 34 x 62 mm, 64 x 128 pixel 1.3“ x 2.4“ Menu structure and messages in real text, 3 button navigation	
Electrical data		
Output	Analog	4 to 20 mA
	Digital	HART®, LONWORKS®, PROFIBUS PA, FOUNDATION fieldbus™
	Maintenance signal, configurable	3.4 mA constant or 4 mA ± 1 mA, 1 Hz modulation
	Fault signal	< 3.2 mA
Power supply	16,5 to 30 VDC 2-Wire, 3-Wire for Pump module* and relay module*	
Pump Module*	Tubing up to 30 m / 100 ft. @ 0.5 l/min with 4 mm / 3/16“ inner diameter	
Relay Module*	Two alarm relays, one fault relay, SPDT, user programmable Rating 5 A 240 VAC, 5 A 24 VDC	
Amibient Conditions		
Temperature	- 40 to + 65 °C / - 40 to + 150 °F	
Pressure	700 to 1,300 mbar / 20.7 to 38.4 inch Hg	
Humidity	0 to 100 %RH, non condensing	
Housing		
Enclosure	IP66/67, NEMA 4, GRP housing, M20 cable gland	
Size (H x W x D)	166 x 135 x 129 mm, 6.54" x 5.32" x 5.08" ft.	
Weight	Approx. 900 g / 2 lbs.	
SIL Level	SIL 2 verified	
Approvals		
ATEX	Ex ia IIC Ga T4/T6 -40 °C to +65/+40 °C Ex ic IIC Gc T4/T6 -40 °C to +65/+40 °C I M1 Ex ia I Ma -40 °C to 65 °C	
O_2 measuring function for protection against explosion (measurement of inertisation)		
IECEx	Ex ia IIC Ga T4/T6 -40 °C to +65/+40 °C Ex ic IIC Gc T4/T6 -40 °C to +65/+40 °C I M1 Ex ia I Ma -40 °C to 65 °C In accordance with IEC 60079-27, FIS	
UL	Class I, Div 1, Group A, B, C, D, Class II, Div 1, Group E, F, G	
CSA	Class I, Div 1, Group A, B, C, D / Ex ia IIC T6/T4, -40 to 40/+65 °C	
CE mark	Electromagnetic compatibility (2004/108/EEC) Low Voltage (Directive 2006/95/EC)	

HART® is a registered trademark of the HART Communication Foundation
LONWORKS® is a registered trademark of the Echelon Corporation
FOUNDATION fieldbus™ is a registered trademark of the Fieldbus Foundation™
*General purpose use only. The transmitter does not have any approval, but the CE-mark when used with LON. a pump or relay module.

Toxic Gases & Oxygen Detectors

Dräger Polytron® 5100 EC
Detection of toxic gases and oxygen

The Dräger Polytron® 5100 EC is a cost-effective explosion proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug and play electrochemical DrägerSensor® to detect a specific gas. A 2 or 3 wire 4 to 20 mA output with relays make it compatible with most control systems.

Toxic Gases & Oxygen Detectors

Dräger Polytron® 5100 EC	Order No.
Dräger Polytron® 5100 EC d A	8344403
Dräger Polytron® 5100 EC d A relay	8344404
Dräger Polytron® 5xx0 Kit (Custom configuration e. g. stainless steel housing)	8344500
Accessories	
Magnetic wand	4544101
Pipe mount bracket	4544198
Duct mount kit	6812725
Duct mount adapter for remote EC sensing head	6812617
Remote adapter RS stainless steel	8323404
EC Sensing Head Remote w/mount kit	6812684
IR Connection Kit Polytron® 5000/8000	4544197
PolySoft	8323405
PolySoft premium	8323411
Connection cable w/ plug for Remote EC Sensing Head	
16 ft / 5 m	8323305
49 ft / 15 m	8323315
98 ft / 30 m	8323330
Splash guard	6812510
Gassing adapter PE incl. tubing	4509314
Calibration adapter Viton®	6810536

Viton® is a registered trademark of the DuPont company.

Toxic Gases & Oxygen Detectors

Dräger Polytron® 5100 EC		
Type	Explosion proof / flameproof enclosed transmitter (“d”)	
Gases	Toxic gases and oxygen, dependent on the sensor used	
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red) (3-wire)	
Electrical data		
Signal output analog	Normal operation	4 to 20 mA
Power supply	10 to 30 V DC, 3-wire 18 to 30 V DC, 2-wire	
Power consumption (max.)	w/o relay, non-remote	80 mA at 24 V
	w/ relay, remote	100 mA at 24 V
Relay specification (option)	2 alarm relays and 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound	
Environmental conditions (see sensor data sheet)		
Temperature	-40 to 65°C (-40 to 149°F) without relay -40 to 65°C (-40 to 149°F) with relay	
Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar	
Humidity	0 to 100 % r. h., non-condensing	
Housing		
Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
Sensor housing	Polyamide	
Enclosure protection type	NEMA 4X & 7, IP65/66/67	
Cable entry point	3/4” NPT threaded holes	
Dimensions (H x W x D), approx.	11.0” x 5.9” x 5.1” / 280 × 150 × 130 mm	
Weight, approx.	6.6 lbs / 3.0 kg	
	11.0 lbs / 5.0 kg	
Approvals		
UL	Class I, Div 1, Groups A, B, C, D; \Class II, Div 1, Groups E, F, G; Class I, Zone 1, Group IIC; T-Code T6/T4	
CSA	Class I, Div 1, Groups A, B, C, D; Class I, Zone 1, Group IIC; T-Code T6/T4 CSA C22.2 No. 152	
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70°C; ‘d’ version Ex db e IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70°C; ‘e’ version Ex tb IIIC T135°C Db	
CE markings	ATEX (Directive 2014/34/EU) Electroma- gnetic Compatibility (Directive 2014/30/ EU) Low Voltage (Directive 2014/35/EU)	

* All docking station versions are only ATEX/IECEx approved

Toxic Gases & Oxygen Detectors

Dräger PointGard 3100
Detection of toxic gases and oxygen

The Dräger PointGard 3100 is a complete 1-channel gas detection system for detecting toxic gases or oxygen in ambient air. The robust yet compact IP66 housing already contains all necessary alarm equipment.

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Toxic Gases & Oxygen Detectors

Dräger PointGard 3100 EC (Order EC-Sensor separatly)	
Dräger PointGard 3100 EC AC	3728176
Dräger PointGard 3100 EC AC with green steady light	3728175
Dräger PointGard 3100 EC DC	3728174
Dräger PointGard 3100 EC DC with green steady light	3730935
Dräger PointGard 3100 EC accessories	
EC Sensing Head Remote Enclosure w/ mount (requires cable)	6812684
Remote Cable + Plug (5 m/16')	8323305
Remote Cable + Plug (15 m/49')	8323315
Remote Cable + Plug (30 m/100')	8323330
Sensor Diagnostics Dongle (includes Sensor Test Dongle)	8317860
Sensor Test Dongle	8317619
Electrochemical DrägerSensors	
DrägerSensor® AC Acidic Compounds	6810595
DrägerSensor® Cl_2 Chlorine 0-50 ppm	6809665
DrägerSensor® CO 0-1000 ppm	6809605
DrägerSensor® CO LS Carbon Monoxide 0-5000 ppm	6809620
DrägerSensor® CO LH Carbon Monoxide 0-300 ppm	6812570
DrägerSensor® $COCl_2$ Phosgene 0-20 ppm	6809930
DrägerSensor® H_2 0-3000 ppm	6809685
DrägerSensor® H_2O_2 HC Hydrogen Peroxide 0-7000 ppm	6809675
DrägerSensor® H_2O_2 LC Hydrogen Peroxide 0-300 ppm	6809705
DrägerSensor® H_2S Hydrogen Sulfide 0-100 ppm	6810435
DrägerSensor® H_2S HC Hydrogen Sulfide 0-1000 ppm	6809710
DrägerSensor® H_2S LC Hydrogen Sulfide 0-100 ppm	6809610
DrägerSensor® HCl Hydrogen Chloride 0-100 ppm	6809640
DrägerSensor® HCN LC Hydrogen Cyanide 0-50 ppm	6813200
DrägerSensor® PH_3/AsH_3 Phosphine/Arsine 0-10 ppm	6809695
DrägerSensor® Hydride 0-20 ppm	6809635
DrägerSensor® Hydride SC 0-0.5 ppm	6809980
DrägerSensor® N_2H_4 Hydrazine	6810180
DrägerSensor® NH_3 HC Ammonia 0-1000 ppm*	6809645
DrägerSensor® NH_3 TH Ammonia 0-10000 ppm	6800055
DrägerSensor® NH_3 TL Ammonia 0-300 ppm	6813095
DrägerSensor® NH_3 FL Ammonia 0-300 ppm	6813260
DrägerSensor® NO LC Nitric Oxide 0-200 ppm	6809625
DrägerSensor® NO_2 Nitrogen Dioxide 0-100 ppm	6809655
DrägerSensor® NO_2 LC Nitrogen Dioxide 0-20 ppm	6813205
DrägerSensor® O_2 LS Oxygen 0-25% Vol	6809630
DrägerSensor® O_3 Ozone 0-5 ppm	6810290
DrägerSensor® OV1 Organic Vapors 0-200 ppm	6810740
DrägerSensor® OV2 Organic Vapors 0-100 ppm	6810745
DrägerSensor® SO_2 Sulfur Dioxide 0-10 ppm	6809660

Toxic Gases & Oxygen Detectors

Dräger PointGard 3000 Series common accessories	
Mounting Bracket Set (not included in Dräger PointGard)	8326497
Sunshield weather protection for PointGard 3000	NA10458
Splash Guard	6812510
Calibration Adapter Viton®	6810536
IR Connection Kit for PC configuration and upgrades	8317409
LED steady light, green	8326489
LED strobe light, blue	8326472
AC Power Cable Brazil	8326448
AC Power Cable Europe	8326449
AC Power Cable UK	8326450
AC Power Cable USA	8326451
AC Power Cable Australia	8326452

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Toxic Gases & Oxygen Detectors

Dräger PointGard 3100 EC		
Type	Self-contained gas monitor with alarm devices for monitoring toxic gases and oxygen in the ambient air	
Measuring ranges	See the list of electrochemical DrägerSensor® on the next page	
Electrical data		
Signal output analog	Normal operation	4-20 mA with HART
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation (adjustable)
	Fault	<1.2 mA
Power supply AC version	Operating voltage	100-240 VAC, 50/60 Hz
	Nominal power	6 W
	Operating current (max)	0.5 A
	Inrush current	Max. 40 A @ 230 VAC 50 Hz
Power supply DC version	Operating voltage	10-30 VDC
	Nominal power	6 W
	Operating current (max)	2.5 A
Electrical certification	CE rating, IEC/EN 61010-1	
	Complies with UL 61010-1	
	Class B device, residential use compliant with ICES-3(B)/ NMB-3(B)	
Relay specification	2 alarm relays and 1 fault relay	
	SPDT contact 5 A @ 230 VAC, 5 A at 30 VDC, resistance bound	
	Alarm reset through front-mounted push button	
Alarm device	Variants with amber and red LED strobes activate these on 2 alarm levels independently	
	Variants with green steady light activate red strobe on both alarm levels. Green steady light turns off during alarm or fault condition; optional blue LED strobe	
	85-105 dB adjustable-volume buzzer with continuous and pulsating tone. Side mounted horn silence button with adjustable resound time.	
Display and controls		
LCD Display	75 mm/3" backlit graphic LC display	
	Selectable red or green illumination, alphanumeric	
Indicators	3 status LEDs (green/yellow/red)	
Operation	Through three front mounted push buttons	
Security	Separate passwords for maintenance and configuration menu	
Functions	Event and data logger with a capacity of up to 35,000 records	
	Warning and error messages displayed in plain text	
	Passwordless bump-test mode inhibits alarms	
	Automatic calibration mode for zero and span	

Toxic Gases & Oxygen Detectors

Dräger PointGard 3100 EC	
Housing	
Material	Glass fiber reinforced polyester (GFRP)
Mounting	Wall mount with internal screws or optional SS mounting brackets
Housing protection type	IP66; indoor or outdoor use
Housing certification	UL 508A/50/50E; CSA C22.2 94.1/94.2/14-13
Cable entry point	3 cable glands 1/2" NPT
Size (L x W x D)	255 x 280 x 120 mm/10 x 11 x 4.7"
Weight	3.9 kg/8.6 lb
Environmental conditions	
Temperature (storage)	-20 to +65 °C/-4 to +149 °F
Temperature (operation)	-20 to +50 °C/-4 to +122 °F
Pressure	20.7 to 38.4" Hg/700 to 1,300 hPa
Humidity	0 to 95% r. h., noncondensing

Toxic Gases & Oxygen Detectors

Dräger Polytron® 3000 Fixed Gas Detector

Continuous safety calls for nonstop gas monitoring. The Dräger Polytron® 3000 is an intrinsically safe gas detector for the continuous monitoring of more than 60 toxic gases and oxygen in ambient air. It is part of a new generation of gas detectors developed on a modular platform. The Polytron® 3000 communicates to the central control system via a 4 to 20 mA signal.

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Toxic Gases & Oxygen Detectors

Dräger Polytron® 3000	Order No.
Dräger Polytron® 3000 with Display Various	Various
Dräger Polytron® 3000 without Display Various	Various
Polytron® Docking Station, one per transmitter	8317990
Duct Mount Kit	8317150

Toxic Gases & Oxygen Detectors

Dräger Polytron® 3000		
Type	Intrinsically safe transmitter for electrochemical sensors	
Gases and Ranges	Toxic gases and oxygen in various ranges	
Electrical data		
Output	Analog	4 to 20 mA
	Maintenance signal	3.4 mA constant
	Fault signal	< 3.2 mA
Power supply	12 to 30 VDC, 2-wire	
Amibient Conditions		
Temperature	- 40 to + 65 °C / - 40 to + 150 °F	
Pressure	700 to 1,300 mbar / 20.7 to 38.4 inch Hg	
Humidity	0 to 100 %RH, non condensing	
Housing		
Enclosure	IP66/67, NEMA 4, GRP housing, M20 cable gland	
Dimensions (approx.)	166 x 135 x 129 mm / 6.54" x 5.32" x 5.08" (H x W x D)	
Weight (approx.)	900 g / 2 lbs.	
Approvals		
ATEX	II 1G EEx ia IIC T6/T4: -40 to +40 / +65 °C II 3G EEx nL IIC T6/T4: -25 to +40 / +65 °C	
IECEx	EEx ia IIC T6/T4: -40 to +40 / +65 °C	
UL	Class I, Div 1, Group A, B, C, D Class II, Div 1, Group E, F, G T6/T4: -40 to +40 / +65 °C	
CSA	Class I, Div 1, Groups A, B, C, D Ex ia T6/T4: -40 to +40 / +65 °C	
CE markings	Electromagnetic Compatibility (Directive 2014/30/EU)	

Gas		
Ammonia	Boron Trichloride	Butadiene
Carbon Monoxide	Chlorine	Diborane
Diethyl Ether	Ethylene Oxide	Germane
Hydrazine	Hydrofluoric Acid	Hydrogen
Hydrogen Chloride	Hydrogen Cyanide	Hydrogen Sulfide
Isopropanol	Nitrogen Dioxide	Nitrogen Monoxide
Oxygen	Ozone	Phosphine
Propylene	Sulfur Dioxide	Tetrahydrofurane

For other gases, please contact your Drager representative.

Dräger Polytron® 6100 EC WL

Wireless toxic gas detection transmitter

The Dräger Polytron® 6100 EC WL is a wireless transmitter for continuous monitoring of toxic gases and oxygen. The intrinsically safe and SIL2-rated transmitter features completely wireless signal transmission using either ISA100 Wireless or WirelessHART, with flexible power options including an internal battery pack for up to 24 months of continuous operation or a 24 VDC wired supply. This makes the Polytron® 6100 EC WL a flexible and cost-efficient solution for plant expansions, upgrades or new installations.

Toxic Gases & Oxygen Detectors

Dräger Polytron® 6100 EC WL WirelessHART® and ISA100	Order No.
Dräger Polytron® 6100 EC WL WirelessHART®	3714791
Dräger Polytron® Repeater WirelessHART®	3714789
Dräger Polytron® 6100 EC WL ISA100	3714792
Dräger Polytron® Repeater ISA100	3714790
Accessories	
Polytron® 6100 Battery Box	3702223
Polytron® 6100 Battery Pack, 1 piece	3702176
Polytron® 6100 Battery Pack, 6 pieces	3702177
Polytron® Weather Protection	3702198
Polytron® 6100 Standard Antenna 2 dBi	3702169
Polytron® Remote Antenna 6 dBi	3702171
Antenna cable 5m	AL20719
Antenna cable 10m	AL20720
Antenna cable 20m	AL20721
Pipe mounting kit for 2”-6" pipe, Polytron® 5000/8000	4544198
Magnetic Wand	4544101
Calibration adapter	6810536
Calibration / Process Adapter AC L Sensors	8324093
Software	
Dräger PolySoft Configuration Software-Basic Annual Subscription 1-PC (For Windows 10 based operating devices)	8328601
Polysoft Configuration Software Basic license-1 PC-Valid for 1 year (For Windows 10 based operating devices)	8328600
ISA100 Wireless Access Point - Yokogawa	
Access Point, ISA 100, Output-Copper	NA10019
Access Point, ISA 100, Output-Fiber Optic	NA10020
Centero Wireless Gateway ISA 100, Integrated Antenna - 30 Field Devices, Integrated Access Point	3738120
Media Converter, Fiber Optic	NA10021
ISA100 Gateways	
Yokogawa Gateway, 1 License for 25 Points & 2 Access Points for standalone use	NA10015
Yokogawa Gateway, 1 License for 25 Points & 2 Access Points for redundant AP use	NA10016
Yokogawa Gateway, 1 License for 100 Points & 20 Access Points for standalone use	NA10017
Yokogawa Gateway, 1 License for 100 Points & 20 Access Points for redundant AP use	NA10018
Centero Wireless Gateway ISA 100, Integrated Antenna - 30 Field Devices, Integrated Access Point	3738120
MIMES RadioHub	
Mimes RadioHub IO - 4-20mA to ISA 100, GRP Enclosure, Exe Antenna, SIL2 C (no US Ex approval)	3738128

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Toxic Gases & Oxygen Detectors

Electrochemical DrägerSensors	
DrägerSensor® AC Acidic Compounds 0-30 ppm, requires 6809381	6810595
Initial Operation Set for Acidic Compounds AC L sensor (Pipette & electrolyte 4 sensors)	6809381
DrägerSensor® Cl_2 Chlorine 0-50 ppm	6809665
DrägerSensor® CO Carbon Monoxide 0-800 ppm	6809605
DrägerSensor® CO LS Carbon Monoxide 0-5,000 ppm	6809620
DrägerSensor® CO LH Carbon Monoxide 0-300 ppm	6812570
DrägerSensor® $COCl_2$ Phosgene 0-20 ppm	6809930
DrägerSensor® H_2 Hydrogen 0-3,000 ppm	6809685
DrägerSensor® MEC H_2 Hydrogen 0-40,000 ppm / 0-100% LEL	6800335
MEC-Key (required for MEC sensors)	6812695
DrägerSensor® H_2O_2 HC Hydrogen Peroxide 0-7,000 ppm	6809675
DrägerSensor® H_2O_2 LC Hydrogen Peroxide 0-300 ppm	6809705
DrägerSensor® H_2S Hydrogen Sulfide 0-100 ppm	6810435
DrägerSensor® H_2S HC Hydrogen Sulfide 0-1,000 ppm	6809710
DrägerSensor® H_2S LC Hydrogen Sulfide 0-100 ppm	6809610
DrägerSensor® HCl Hydrogen Chloride 0-100 ppm	6809640
DrägerSensor® HCN LC Hydrogen Cyanide 0-50 ppm	6813200
DrägerSensor® PH_3 /AsH_3 Phosphine/Arsine 0-10 ppm	6809695
DrägerSensor® Hydride 0-20 ppm	6809635
DrägerSensor® Hydride SC 0-1 ppm	6809980
DrägerSensor® N_2H_4 Hydrazine 0-5 ppm	6810180
DrägerSensor® NH_3 HC Ammonia 0-1,000 ppm	6809645
DrägerSensor® NH_3 LC Ammonia 0–300 ppm (for special applications only, use NH_3 TL/FL	6809680
DrägerSensor® NH_3 FL Ammonia 0-300 ppm (four electrode fast recovery from high	6813260
DrägerSensor® NH_3 TL Ammonia 0-300 ppm	6813095
DrägerSensor® NH_3 TH Ammonia 0-10,000 ppm	6800055
DrägerSensor® NO Nitric Oxide 0-200 ppm	6809625
DrägerSensor® NO_2 LC Nitrogen Dioxide 0-20 ppm (Low Concentration)	6813205
DrägerSensor® O_2 Oxygen 0-100% Vol. (only for special applications)	6809720
DrägerSensor® O_2 LS Oxygen 0-25% Vol.	6809630
DrägerSensor® O_3 Ozone 0-5 ppm	6814005
DrägerSensor® OV1 Organic Vapors 0-200 ppm	6810740
DrägerSensor® OV2 Organic Vapors 0-100 ppm	6810745
DrägerSensor® SO_2 Sulfur Dioxide 0-100 ppm	6809660

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Toxic Gases & Oxygen Detectors

Dräger Polytron® 6100 EC WL

Housing	
Gases and measuring range	Toxic gases and Oxygen, see sensor data sheet. All DrägerSensors® are supported.
Housing material	Stainless steel 316 and Polyamide 12
Protection class	IP66/67
Dimensions	320 x 150 x 170 mm (with 2dBi aerial)
Weight transmitter	Ca. 3.2 kg (7.0 lb)
Weight battery pack	Ca. 0.5 kg (1.1 lb)
Cable gland	M25 x 1.5
Electrical data	
Battery type	Lithium thionyl chloride (Battery pack with 4 D cells)
Battery lifetime	Depending on operating conditions; max. 24 months
Wired power supply	2-wire shielded cable, 24-12 AWG / 0,2 – 2,5 mm²
Operating voltage	14 to 30 V
Environmental conditions	
Temperature	-40 to +65 °C (-40 to +149 °F)
Pressure	700 to 1,300 hPa (20.7 to 38.4 in Hg)
Humidity	0 to 100 % r.h., non-condensing
Communication	
Bluetooth® (for operation and service purposes)	Range 15 m
Measured value transmission (process interface), protocol	ISA100 Wireless™ or WirelessHART®
Type	IEEE802.15.4 in 2.4 GHz-ISM-Band
Range	500 m in free area
Approvals	
ATEX / IECEx	I M1 / II 1GD Ex ia I Ma, Ex ia IIC T4 Ga, Ex ia IIIC T135 °C Da, -40 °C ≤ Ta ≤ +65 °C
CSA & UL	Class I, Division 1, Groups. A, B, C and D T4 Class II, Division 1, Groups. E, F and G T135C Class I, Zone 0, AEx ia I Class I, Zone 0, AEx ia IIC T4 Ga Class II, Zone 20, AEx ia IIIC T135°C Da
CE-Directive	ATEX directive 2014/34/EU RED directive 2014/53/EU RoHS directive 2011/65/EU
Safety Integrity Level	SIL2

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The ISA100 WirelessTM is a registered trademark of ISA100 Wireless Compliance Institute.
Wireless HART® is a registered trademark of the FieldComm GroupTM
Bluetooth® is a registered trademark of Bluetooth SIG, Inc.

Dräger Polytron® 8720 IR
Detection of carbon dioxide

The Dräger Polytron® 8720 IR is an advanced explosion proof transmitter for the detection of carbon dioxide in percent volume or ppm. It uses a high performance infrared Dräger PIR 7200 sensor, which can be submerged in water without damage. Besides a 3 wire 4 to 20 mA analogue output with relays, it also offers HART®, Modbus and Fieldbus making it compatible with most control systems.

Toxic Gases & Oxygen Detectors

Dräger Polytron® 8720 IR (incl. splash guard and status indicator)	Order No.
Polytron® 8720 d A 4-20/HART®, aluminum body without relays	8344709
Polytron® 8720 d A 4-20/HART® Relay, aluminum body with relays	8344710
Polytron® 8720 d S 4-20/HART®, 8344800-ITR0550, St. Steel body without relays	VN00285
Polytron® 8720 d S 4-20/HART® Relay, 8344800-ITR0551, St. Steel body with relays	VN00286
Polytron® 8700 IR d A 4-20 for use with REMOTE sensor (order sensor separately)	VN02065
Polytron® 8700 IR d A Relays for use with REMOTE sensor (order sensor separately)	VN02066
Polytron® 8700 IR d S 4-20 for use with REMOTE sensor (order sensor separately)	VN02067
Polytron® 8700 IR d S Relays for use with REMOTE sensor (order sensor separately)	VN02068
Polytron® 8720 IR d A Modbus, epoxy coated aluminum housing	VN02055
Polytron® 8720 IR d S Modbus, 316 St. Steel housing	VN02056
Polytron® 8000 Series Customized (Remote, ModBus, ProfiBus, FOUNDATION)	8344800
Accessoires	
Magnetic wand	4544101
Pipe mount bracket	4544198
Duct mount kit	6812300
Duct mount kit Flow Cell for PIR 7x00	6811945
Duct mount kit Bump Test Adapter for PIR 7x00	6811990
Status indicator for PIR 7200	6811920
Splash guard for PIR 7200	6811912
Flow Cell for PIR 7200	6811910
Bump Test Adapter for PIR 7200	6811930
Insect guard for PIR 7x00	6811609
Hydrophobic filter for PIR 7x00	6811890
Calibration adapter for PIR 7x00	6811610
PolySoft licence (1 year)	6828600
PolySoft licence (subscription)	6828601
PolySoft Premium licence (1 year)	8328639
PolySoft Premium licence (subscription)	8328640
Process cuvette for PIR 7x00, POM (Polyoxymethylene)	6811915
Process cuvette for PIR 7x00, stainless steel	6811415
Process cuvette for PIR 7x00, SGR	6813219
Aluminum junction box for remote sensor ‘d’	4544099
Stainless steel junction box for remote sensor ‘d’	4544098

Toxic Gases & Oxygen Detectors

Dräger Polytron® 8720 IR		
Type	Explosion proof / flameproof enclosed transmitter (“d”)	
Gases	Carbon dioxide	
Measuring ranges	0 to 10 vol. % (Standard)	
	0 to 2,000 ppm ... 30 vol. % (configurable)	
	Up to 100 vol. % possible with decreased linearity.	
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)	
Performance Characteristics		
Accuracy/repeatability	Sensitivity	≤ ± 0.01 % vol.
	Long term drift	≤ ± 0.03 % vol. after 12 months
Response time	T90	4 seconds (w/o splash guard)
Electrical data		
Signal output analog	Normal operation	4 to 20 mA, 3- or 4-wire, sink or source
	Maintenance	Constant 3.4 mA (adjustable)
	Fault	< 1.2 mA
Signal output digital	HART® w/ 3- or 4-wire, PROFIBUS® PA, FOUNDATION fieldbus™ H1 and Modbus RTU w/ 5-wire	
Power supply	10 to 30 V DC, 3-wire	
Power consumption (max.)	w/o relay, non-remote	300 mA at 24 V
	w/ relay, remote	350 mA at 24 V
Relay specification (option)	2 alarm relays and 1 fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC	
Environmental conditions (see sensor data sheet)		
Temperature	-40 to +171 °F (-40 to +77 °C) without relay -40 to 70 °C (-40 to 158 °F) with relay	
Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar	
Humidity	0 to 100 % r. h., non-condensing	
Housing		
Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
Sensor housing	Stainless steel SS316 L	
Enclosure protection type	NEMA 4X & 7, IP65/66/67	
Cable entry point	3/4" NPT threaded holes or M20 cable gland	
Dimensions (H x W x D), approx.	11.0” x 5.9” x 5.1” / 280 × 150 × 130 mm	
Weight, approx.	8.6 lbs / 3.9 kg	
	12.6lbs / 5.7 kg	

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Toxic Gases & Oxygen Detectors

Approvals	
UL & CSA	Class I, Div 1, Groups A, B, C, D; Class I, Zone 1, Group IIC; T-Code T6/T4 CSA C22.2 No. 152
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C
CE markings	ATEX (Directive 2014/34/EU)
	Electromagnetic Compatibility (Directive 2014/30/EU)
	Low Voltage (Directive 2014/35/EU)
Shipping approvals	DNV GL, ABS, LR, CCS, RMRS
MED approval	Certificate No. MEDB0000411
DEKRA Performance approval	PFG 14 G 001XSI
SIL 2	Certificate no. Z10 053474 0023

Dräger Polytron® 5720 IR
Detection of carbon dioxide

The Dräger Polytron® 5720 IR is a cost effective explosion proof transmitter for the detection of carbon dioxide in percent volume or ppm. It uses a high performance infrared Dräger PIR 7200 sensor, which can be submerged in water without damage. A 3 wire 4 to 20 mA analog output with relays makes it compatible with most control systems.

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Toxic Gases & Oxygen Detectors

Dräger Polytron® 5720 IR (incl. splash guard and status indicator)	Order No.
Dräger Polytron® 5720 IR d A	8344200
Dräger Polytron® 5720 IR d A relay	8344201
Dräger Polytron® 5720 IR d S relay	8344203
Dräger Polytron® 8xx Custom Configuration Kit e.g. St. Steel & Relays – visit www.draeger.com/Polytron® to configure yours	8344500
Accessories	
Magnetic wand	4544101
Pipe mount bracket	4544198
Duct mount kit	6812300
Duct mount kit Flow Cell for PIR 7x00	6811945
Duct mount kit Bump Test Adapter for PIR 7x00	6811990
Status indicator for PIR 7200	6811920
Splash guard for PIR 7200	6811912
Flow Cell for PIR 7200	6811910
Bump Test Adapter for PIR 7200	6811930
Insect guard for PIR 7x00	6811609
Hydrophobic filter for PIR 7x00	6811890
Calibration adapter for PIR 7x00	6811610
PolySoft licence (1 year)	6828600
PolySoft licence (subscription)	6828601
PolySoft Premium licence (1 year)	8328639
PolySoft Premium licence (subscription)	8328640
Process cuvette for PIR 7x00, POM (Polyoxymethylene)	6811915
Process cuvette for PIR 7x00, stainless steel	6811415
Process cuvette for PIR 7x00, SGR	6813219
Aluminum junction box for remote sensor ‘d’	4544099
Stainless steel junction box for remote sensor ‘d’	4544098

Toxic Gases & Oxygen Detectors

Dräger Polytron® 5720 IR		
Type	Explosion proof / flameproof enclosed transmitter (“d”) or combined with increased safety (“d/e”)	
Gases	Carbon dioxide	
Measuring ranges	0 to 10 vol. % (Standard)	
	0 to 2,000 ppm ... 30 vol. % (configurable)	
Display	Backlit graphic LCD; 3 Status LEDs (green/yellow/red)	
Electrical data		
Signal output analog	Normal operation	4 to 20 mA
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation; (adjustable)
	Fault	< 1.2 mA
Power supply	10 to 30 V DC, 3-wire	
Power consumption (max.)	w/o relay, non-remote	300 mA at 24 V
	w/ relay, remote	350 mA at 24 V
Relay specification (option)	2 alarm relays and 1 fault relay, single-pole two-way contact 5 A @ 230 VAC, 5 A @ 30 VDC, resistance-bound	
Environmental conditions (see sensor data sheet)		
Temperature	-40 to +171 °F (-40 to +77 °C) without relay -40 to 70 °C (-40 to 158 °F) with relay	
Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar	
Humidity	0 to 100 % r. h., non-condensing	
Housing		
Transmitter housing	Epoxy coated copper-free aluminum or stainless steel SS316 L	
Sensor housing	Stainless steel SS316 L	
Enclosure protection type	NEMA 4X & 7, IP65/66/67	
Cable entry point	3/4" NPT threaded holes or M20 cable gland	
Dimensions (H x W x D), approx.	11.0” x 5.9” x 5.1” / 280 × 150 × 130 mm	
Weight, approx.	8.6 lbs / 3.9 kg	
	12.6lbs / 5.7 kg	
Approvals		
UL & CSA	Class I, Div 1, Groups A, B, C, D; Class I, Zone 1, Group IIC; T-Code T6/T4 CSA C22.2 No. 152	
IECEx	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C	
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C	
CE markings	ATEX (Directive 2014/34/EU)	
	Electromagnetic Compatibility (Directive 2014/30/EU)	
	Low Voltage (Directive 2014/35/EU)	

* All docking station versions are only ATEX/IECEx approved

Dräger PointGard 3720
Detection of carbon dioxide

The Dräger PointGard 3720 is a complete 1-channel gas detection system for detecting carbon dioxide in ambient air. The robust yet compact IP66 housing already contains all necessary alarm equipment. It uses the high performance Dräger PIR 7200 sensor mounted in a remote housing

Toxic Gases & Oxygen Detectors

Dräger PointGard 3720 IR (Order Dräger PIR 7200 Sensor separatly)	
Dräger PointGard 3700/3720 IR AC Remote	3728167
Dräger PointGard 3700/3720 IR DC Remote	3728165
Dräger PointGard 3700/3720 IR AC Remote with green steady light	3728166
Dräger PointGard 3720 IR compatible remote sensors	
Dräger PIR 7200 (NPT) HART®, complete set (aluminum)	6813050
Dräger PIR 7200 (NPT) HART®, complete set (stainless steel)	6813055
Dräger PIR 7200 (M25) HART®, complete set (stainless steel)	6812290
The complete set includes the Ex d or e junction box, the splash guard, the status indicator and the mounting set, already pre-assembled.	

Dräger PIR 7000/72000 accessories	
Calibration adapter cup PIR 7000	6811610
Flowcell PIR 7000 remote cal adapter	6811490
Flowcell PIR 7200 remote cal adapter	6811910
Remote bump test adapter PIR 7000	6811630
Remote bump test adapter PIR 7200	6811930
Insect guard (2 mm grid) PIR 7x00	6811609
Spider guard (1 mm grid) PIR 7x00	6800306
Hydrophobic filter PIR 7x00	6811890

Dräger PointGard 3000 Series common accessories	
Mounting Bracket Set (not included in Dräger PointGard)	8326497
Sunshield weather protection for PointGard 3000	NA10458
Splash Guard	6812510
IR Connection Kit for PC configuration and upgrades	4544197
LED steady light, green	8326489
LED strobe light, blue	8326472
AC Power Cable Brazil	8326448
AC Power Cable Europe	8326449
AC Power Cable UK	8326450
AC Power Cable USA	8326451
AC Power Cable Australia	8326452

Toxic Gases & Oxygen Detectors

Dräger PointGard 3720 IR		
Type	Self-contained gas monitor with alarm devices for monitoring carbon dioxide in the ambient air	
Measuring ranges	0 to 10 vol. % (Standard) 0 to 2,000 ppm to 30 vol. % (configurable) Up to 100 vol. % possible with decreased linearity.	
Electrical data		
Signal output analog	Normal operation	4-20 mA with HART
	Maintenance	Constant 3.4 mA or 4 mA ±1 mA 1 Hz modulation (adjustable)
	Fault	<1.2 mA
Power supply AC version	Operating voltage	100-240 VAC, 50/60 Hz
	Nominal power	12 W
	Operating current (max)	0.5 A
	Inrush current	Max. 40 A @ 230 VAC 50 Hz
Power supply DC version	Operating voltage	10-30 VDC
	Nominal power	12 W
	Operating current (max)	2.5 A
Electrical certification	CE rating, IEC/EN 61010-1	
	Complies with UL 61010-1	
Relay specification	2 alarm relays and 1 fault relay	
	SPDT contact 5 A @ 230 VAC, 5 A at 30 VDC, resistance bound	
	Alarm reset through front-mounted push button	
Alarm device	Variants with amber and red LED strobes activate these on 2 alarm levels independently	
	Variants with green steady light activate red strobe on both alarm levels. Green steady light turns off during alarm or fault condition; optional blue LED strobe	
	85-105 dB adjustable-volume buzzer with continuous and pulsating tone. Side mounted horn silence button with adjustable resound time.	
Display and Controls		
LCD Display	75 mm/3" backlit graphic LC display	
	Selectable red or green illumination, alphanumeric	
Indicators	3 status LEDs (green/yellow/red)	
Operation	Through three front mounted push buttons	
Security	Separate passwords for maintenance and configuration menu	
Functions	Event and data logger with a capacity of up to 35,000 records	
	Warning and error messages displayed in plain text	
	Passwordless bump-test mode inhibits alarms	
	Automatic calibration mode for zero and span	

Toxic Gases & Oxygen Detectors

Dräger PointGard 3720 IR	
Housing	
Material	Glass fiber reinforced polyester (GFRP)
Mounting	Wall mount with internal screws or optional SS mounting brackets
Housing protection type	IP66; indoor or outdoor use
Housing certification	UL 508A/50/50E; CSA C22.2 94.1/94.2/14?13
Cable entry point	3 cable glands 1/2" NPT
Size (L x W x D)	255 x 280 x 120 mm/10 x 11 x 4.7"
Weight	3.8 kg / 8.4 lbs
Environmental cotrols	
Temperature (storage)	-20 to +65 °C/-4 to +149 °F
Temperature (operation)	-20 to +50 °C/-4 to +122 °F
Pressure	20.7 to 38.4" Hg/700 to 1,300 hPa
Humidity	0 to 95% r. h., noncondensing

Toxic Gases & Oxygen Detectors

Dräger PIR 7200
Toxic Gas Detection Transmitter

When looking for a carbon dioxide monitor you can trust, consider the Drager PIR 7200. This explosion-proof point gas detection transmitter uses the latest infrared (IR) technology to provide early detection of toxic gas. Designed for a wide variety of industrial environments, the transmitter offers drift-free optics. Due to its robust design and engineering, the PIR 7200 can be operated in harsh industrial environments.

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Toxic Gases & Oxygen Detectors

Dräger PIR 7200	Order No.
Dräger PIR 7200 (NPT) HART®	6811572
Dräger PIR 7200 (M25) HART®	6811570
PIR 7200 NPT HART complete set* Ex d with Aluminum Junction Box	6813050
PIR 7200 NPT HART complete set* Ex d with Stainless Steel Junction Box	6813055

* the complete set includes the explosion proof (Ex d) junction box, splash guard, and status indicator already pre-assembled.

Accessories	
Junction Box Aluminum for Remote Sensor incl. 2 terminal blocks	4544099
Junction Box St. Steel for Remote Sensor incl. 2 terminal blocks	4544098
Weathercap Polyamide Polytron 5/6/87x0 PIR 7x00	3717515
Status Indicator for PIR 7200	6811920
Splash Guard for PIR 7200	6811912
Magnetic wand with key chain for calibration and testing	4544101
Duct Mount Kit Polytron 8700 or PIR 7000 complete set Ex d	6812300
Flowcell Adapter, duct; for remote cal/function testing inside ducts	6811945
Duct Mount Kit Bump Test Adapter for PIR 7000	6811990
Flowcell PIR 7200	6811910
Bump test adapter PIR 7200	6811930
Calibration adapter PIR 7x00	6811610
Process cuvette SS 303 Sample Draw Adapter	6811415
Process adapter, polyoxymethelene, for sample draw systems	6811915
PIR 7000 Process Cuvette SGR (Sapphire Glass Removable) Sample Draw Adapter	6813219
Mounting set PIR 7x00 (for M25 Ex e variant only)	6811648
Insect guard (2 mm grid) PIR 7x00	6811609
Spider guard (1 mm grid) PIR 7x00	6800306
Hydrophobic filter PIR 7x00	6811890
Flowcell Adapter, duct; for remote cal/function testing inside ducts	6811945
Bump test adapter PIR7000 for ducts	6811990
USB PC adapter PIR 7x00	6811663

Toxic Gases & Oxygen Detectors

Dräger PIR 7200		
Type	Explosion proof / flameproof enclosed transmitter (“d”) or combined with increased safety (“d/e”)	
Principle of operation	Temperature-compensated infrared absorption, 4-beam technology	
Gases and ranges	Carbon dioxide (CO_2)	0 to 10 % vol. (default) 0 to 2,000 ppm ... 30 % vol. (configurable)
Measuring performance (carbon dioxide, 0 to 10 % vol.)	Digital resolution	0.02 % vol.
	Repeatability	≤ ±0.1 % vol.
	Response time $t_{0...90}$	≤ 4 seconds (“normal response”) < 1 second (“fast response”)
	Long-term drift	≤ ±0.03 % vol. after 12 months
Electrical data		
Output signals	4 to 20 mA, HART®	
Fault signal	≤ 1.2 mA (configurable)	
Beam block warning signal	2 mA (configurable)	
Maintenance signal	3 mA (configurable)	
Power supply	13 to 30 V DC, 3-wire	
Power consumption	5.6 W (typical)	
Ambient conditions		
Temperature	40 to +77 °C/-40 to +170 °F (operating) -40 to + 85 °C/-40 to +180 °F (storage)	
Humidity	0 to 100 %RH	
Pressure	700 to 1,300 hPa/23.6 to 32.5 inch Hg	
Enclosure		
Material	Stainless steel SS 316L	
Connecting thread	M25 or 3/4" NPT	
Weight	2.2 kg (without accessories)	
Dimensions	160 mm x Ø 89 mm / 6.3" x Ø 3.5"	
Ingress protection	IP66 and IP67, NEMA 4X	
Approvals		
ATEX	II 2G Ex d(e) IIC T6/T4 II 2D Ex tD A21 IP65 T80 °C/T130 °C	
IECEx	Ex d IIC T6/T4 Ex tD A21 IP65 T80 °C/T130 °C	
UL (Classified) & CSA (C-US)	Class I, Div. 1, Groups A, B, C, D Class II, Div. 1, Groups E, F, G Class I, Div. 1, Groups B, C, D Class II, Div. 1, Groups E, F, G	
Safety Integrity Level	SIL2 certified by TÜV (EN 61508, EN 50402)	
CE mark	Electromagnetic compatibility (directive 89/336/EEC)	

Toxic Gases & Oxygen Detectors

Haloguard® IR Toxic Gas Monitoring System

The Haloguard® IR utilizes advanced photoacoustic infrared (PIR) technology for highly selective, continuous detection of toxic and refrigerant gases at concentrations as low as 1 ppm. Its integrated sampling pump supports up to 8 remote points via sequential sampling, reaching distances of up to 300 ft. With versatile connectivity options including 4–20 mA analog output, relay contacts, and serial communication, the system seamlessly integrates with DCS, BAS, and BMS for reliable process control.

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Toxic Gases & Oxygen Detectors

Haloguard® IR	Order No.
Haloguard® IR PIR Gas Monitor 1-Channel 4-20 NEMA 12	NA01035
Haloguard® IR PIR Gas Monitor 1-Channel 4-20 NEMA 4 Special Custom Gas Curve	NA01036
Haloguard® IR PIR Gas Monitor 1-Channel 4-20 NEMA 4 Strobe	NA01037
Haloguard® IR PIR Gas Monitor 2-Channel 4-20 NEMA 4 Strobe	NA01038
Haloguard® IR PIR Gas Monitor 4-Channel 4-20 NEMA 4 Strobe	NA01039
Haloguard® IR PIR Gas Monitor 6-Channel 4-20 NEMA 4 Strobe	NA01040
Haloguard® IR PIR Gas Monitor 8-Channel 4-20 NEMA 4 Strobe	NA01041
Accessories & Spare Parts	
Internal Air Filter Spare Haloguard® IR HG121 A702A	NA01042
End of Line Filter Spare Haloguard® H145 A703A	NA01043
PG-30 Pressure Switch Spare Haloguard® IR SW009 A708	NA01044
End of Line Filter Assy 1/8" OD Tubing A703	NA01045
End of Line Filter Assy 1/4" OD Tubing A703-1	NA01049
Multichannel Tubing PU 1/8" OD 33M HG023	NA01046
Multichannel Tubing PU 1/8" OD 153M HG023A	NA01047
Singlechannel Tubing PU 1/8" ID 1/4" OD 33M HG015	NA01048

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Toxic Gases & Oxygen Detectors

Haloguard® IR	
Technology	Photoacoustic Infrared (PIR)
Sensitivity / Resolution	1 ppm minimum detection; 1 ppm resolution
Measuring Range	0–1000 ppm for common refrigerants
Response / Clearing Time	< 1 minute per channel / < 3 minutes per channel
Sample Rate	1.0 L/min with internal pump
Max Sample Line Length	150 ft standard; 500 ft optional (slower response)
Channels	Base unit 1; optional 2, 4 or 8-channel scanner; expand to 24 points
Analog Output	4–20 mA or 0–10 VDC and
Relays	Four SPDT alarm relays standard; optional 7 relays
Serial Output (optional)	BACnet MS/TP
Alarm Device	Amber LED strobe
Power	115–230 VAC, 50/60 Hz, ~65 W
Operating Conditions	32°F to 120°F (0°C to 49°C), non-condensing
Enclosure	Standard NEMA 250; optional NEMA 4/12
Certifications	Listed to UL 3111-1 and CAN/CSA-C22.2 No. 1010.1-92

Selection of Detectable Gases	
Refrigerant Type	**Refrigerant Names**
CFC	R-11, R-12, R-113, R-114, R-115, R-13
CFC Blends	R-500, R-502
HCFC	R-22, R-123, R-124, R-141b, R-142b, R-225
HCFC Blends	R-401A (MP39), R-401B, R-402A (HP80), R-408A, R-409A
HFC	R-23, R-32, R-125, R-134a, R-143a, R-152a, R-227ea, R-236fa, R-245fa, R-218
HFC Blends	R-404A (HP62), R-407C (Suva 9000), R-410A (AZ-20), R-434A, R-438A, R-507A (AZ-50), R-507C
HFC / HFO Blends	R-447A, R-448A, R-449A, R-454B, R-513A, R-515B
HFC / PFC Blends	R-508A, R-508B (Suva 95)
HFO	R-1234yf, R-1234ze(E), R-1336mzz(Z)
HFO / HCFO Blends	R-514A
HCFO	R-1130, R-1233zd(E)
Hydrocarbons	R-50, R-290, R-600, R-600a, R-601, R-602, R-603, R-604, Butene, Butyne
PFC	R-14 (CF4), R-218

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Toxic Gases & Oxygen Detectors

Selection of Detectable Gases		Selection of Detectable Gases	
Gas Names	**Formula**	**Gas Names**	**Formula**
1,1,1-Trichloroethane	$C_2H_3Cl_3$	Hexafluoropropylene	$C3F_6$
1,1,2-Trichloroethane	$C_2H_3Cl_3$	Hexene	C_6H_{12}
1,2-Dichloroethane	$C_2H_4Cl_2$	Isopropanol (2-Propanol)	C_3H_8O
1,3-Butadiene	C_4H_6	Isobutane	C_4H_{10}
2-Propanol (Isopropyl Alcohol)	C_3H_8O	Methane	CH_4
Acetic Acid	$C_2H_4O_2$	Methanol	CH_4O
Acetone	C_3H_6O	Methyl Acrylate	$C_4H_6O_2$
Acrolein	C_3H_4O	Methyl Ethyl Ketone (MEK)	C_4H_8O
Acrylonitrile	C_3H_3N	Methyl Fluoride	CH_3F
Ammonia	NH_3	Methyl Formate	$C_2H_4O_2$
Benzene	C_6H_6	Methyl Iodide	CH_3I
Butane	C_4H_{10}	Methyl Isobutyl Ketone (MIBK)	$C6H_{12}O$
Butyl Acetate	$C6H_{12}O_2$	Methyl Methacrylate	$C_5H_8O_2$
Carbon Dioxide	CO_2	Methylene Chloride	CH_2Cl_2
Carbon Monoxide	CO	Methyl Chloride	CH_2Cl_2
Carbon Tetrachloride	CCl_4	N-Butanol	$C_4H_{10}O$
Chloroethane	C_2H_5Cl	N-Hexane	C_6H_{14}
Chloroform	$CHCl_3$	N-Pentane	C_5H_{12}
Cyclohexanol	$C_6H_{12}O$	Nitrogen Trifluoride	NF_3
Diethyl Benzene	$C_{10}H_{14}$	Nitrous Oxide (N_2O)	N_2O
Diethyl Ether (Ethyl Ether)	$C_4H_{10}O$	Octafluoro Cyclo Butane	C_4F_8
Diethyl Ketone	$C_5H_{10}O$	Octafluoro Cyclo Pentane	C_5F_{10}
Dimethylamine	C_2H_7N	Perfluoromethyl Vinyl Ether (PMVE)	C_3F_6O
Ethane	C_2H_6	Phosgene	$COCl_2$
Ethanol	C_2H_6O	Propane	C_3H_8
Ethene	C_2H_4	Propylene Oxide	C_3H_6O
Ethyl Acetate	$C_4H_8O_2$	Styrene	C_8H_8
Ethyl Benzene	C_8H_{10}	Sulfur Hexafluoride (SF_6)	SF_6
Ethylene	C_2H_4	Tetrachloroethene	C_2Cl_4
Ethylene Oxide	C_2H_4O	Tetrafluoroethylene	C_2F_4
Halon 1211	$CBrClF_2$	Tolulene	C_7H_8
Halon 1301	$CBrF_3$	Trichloromethylene	CCl_3H
Heptane	C_7H_{16}	Triethylamine	$C_6H_{15}N$
Hexafluoro-1,3 Butadiene	C_4F_6	Xylenes	C_8H_{10}

Electrochemical Sensors for Fixed Gas Detection

Toxic Gases & Oxygen Detectors

Electrochemical (EC) DrägerSensor®
for Fixed Gas Detectors

Fast response, high accuracy, great stability, long life. Electrochemical DrägerSensors® offer all these benefits. You can use the robust and long-life sensors for the selective measurement of the smallest concentrations of toxic gases and oxygen in ambient air.

Toxic Gases & Oxygen Detectors

Accessories	
Dust Filter for all DrägerSensors, except Cl_2, HCl, H_2O_2 (LC & HC), O_3, N_2H_4	R51019
Dust filter Teflon stamped	R51548
Selective filter A2F (CO, CO LS, H_2)	6809684
Selective filter K2F ($COCl_2$)	6809933
Selective filter NF (HCl)	6809643
Selective filter HSF (Hydride)	6809862
Selective filter MF (PH_3, AsH_3)	6809638
Selective filter K1F (SO_2)	6809663
Selective filter D3F	6812435
Selectrive filter BF (HCN, Hydrides)	6809653
Splash Guard (not for Cl_2, HCl, H_2O_2, O_3, N_2H_4)	6812510
Calibration adapter PE w/ tubing	4509314
Calibration / Process Adapter AC L Sensors	8324093
Splash guard for Acidic Compounds AC L sensor	6809379
Initial Operation Set for Acidic Compounds AC L sensor (Pipette, electrolyte for initial operation of max. 4 channels) Required Accessory for 6810595 Startup	6809381
MEC-Key (required for MEC sensors)	6812695
Bayonet Ring Dräger SensorAlive (required for new install)	6800132
Calibration adapter FKM	6810536
Remote Calibration Adapter	6807955
EC Sensor Bias Box for 4 sensors incl. charger	NA10649

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Toxic Gases & Oxygen Detectors

Target gas	DrägerSensor®	Part number	Measuring Range		Comment
			Vol%	**Vol%**	
Oxygen	O_2	6809720	0	100% Vol.	only for special applications
Oxygen	O_2 LS	6809630	0	25% Vol.	
			Detection limit	**max. range**	
Acidic Compounds	AC L	6810595	0	30ppm	Requires 6809381
Ammonia	NH_3 HC	6809645	0	1,000 ppm	
Ammonia	NH_3 LC	6809680	0	300 ppm	for special applications only, use NH_3 TL/FL instead
Ammonia	NH_3 FL	6813260	0	300 ppm	four electrode fast recovery from high exposures
Ammonia	NH_3 TL	6813095	0	300 ppm	
Ammonia	NH_3 TH	6800055	0	10,000 ppm	
Carbon monoxide	CO	6809605	0	1,000 ppm	
Carbon monoxide	CO LS	6809620	0	5,000 ppm	
Carbon monoxide	CO LH	6812570	0	300 ppm	
Chlorine	Cl_2	68 09 665	0	50 ppm	
Hydrazine	N_2H_4	6810180	0	5 ppm	
Hydride		6809635	0	20 ppm	
Hydride	SC	6809980	0	1 ppm	
Hydrogen	H_2	6809685	0	3,000 ppm	
Hydrogen	MEC H_2	6800335	0	40,000 ppm 100% LEL	requires MEC-key
Hydrogen Chloride	HCl	6809640	0	100 ppm	
Hydrogen Cyanide	HCN LC	6813200	0	50 ppm	
Hydrogen Peroxide	H_2O_2 HC	6809675	0	7,000 ppm	
Hydrogen Peroxide	H_2O_2 LC	6809705	0	300 ppm	
Nitric Oxide	NO	6809625	0	200 ppm	
Nitrogen Dioxide	NO_2 LC	6813205	0	20 ppm	
Organic Vapors	OV1	6810740	0	200 ppm	
Organic Vapors	OV2	6810745	0	100 ppm	
Ozone	O_3	6814005	0	5 ppm	
Phosphine/Arsine	PH_3 /AsH_3	6809695	0	10 ppm	
Sulfur Dioxide	SO_2	6809660	0	100 ppm	
Dräger SensorAlive®	H_2S	6814014	0	100 ppm	

Dräger SensorAlive H_2S Self-testing sensor for Polytron® transmitters

The Dräger SensorAlive is an electrochemical sensor with an integrated gas generator. The gas generator enables daily automatic sensor testing with hydrogen sulfi de (H_2S) as the test gas. It also alerts when the sensor inlet is clogged, preventing gas from reaching the sensor. Daily bump tests help to improve the safety of your gas detection system and allow for extended preventive maintenance intervals.

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Toxic Gases & Oxygen Detectors

Dräger SensorAlive H_2S	Order No.
Dräger SensorAlive H_2S	6814014
Bayonet Ring Dräger SensorAlive (required for new install)	6800132
Calibration adapter Viton® / FKM	6810536
Gassing adapter PE	4509314
Sensor Diagnostic Dongle (recommended for new install)	8317860

Viton® is a trademark of the DuPont company.

Compatible Transmitters	
Dräger Polytron® 8100 EC d A 4-20/HART®	8344403
Dräger Polytron® 8100 EC d A 4-20/HART® relay	8344404
Dräger Polytron® 8100 EC d S 4-20/HART®	8344412
Dräger Polytron® 8100 EC d S 4-20/HART® relay	8344413
PointGard 3100 EC DC	3728174
PointGard 3100 EC AC green	3728175
PointGard 3100 EC AC	3728176
PointGard 3100 EC DC green	3730935

Toxic Gases & Oxygen Detectors

Dräger SensorAlive H_2S	
Measuring gas	H_2S
Measuring ranges	
Max. full scale value	100 ppm
Default full scale value	50 ppm
Min. full scale value	10 ppm
Lower detection limit (LDL)	0.5 ppm
Alarm response time	
Typical response at room temperature and use of a calibration or gassing adapter at a flow of 0.5 l/min.	
for gassing with 5-fold alarm threshold, t0...20	≤ 15 sec.
for gassing with 1.6-fold alarm threshold, t0...63	≤ 30 sec.
Calibration	
Calibration interval (default)	6 months (maximum configurable to 360 days)
Setting range min./ max.	1 day/ 12 months
Warm-up time	
Sensor ready for use after max.	5 min.
Sensor ready for calibration after max.	10 min. (ready for first LifeTest after 4 days)
Measuring ranges	
Uncertainty of measurement (of the measured value) or	≤ ±3 %
minimum (the greater value applies)	≤ ±0.5 ppm
Expected life in ambient air	> 36 months (sensor continues to operate after gas generator is depleted)
Measuring ranges	
Temperature operation	-40 to +65 °C (-40F to +149F)
Temperature self-test	-40 to +60 °C (-40 to 140F)
Ambient pressure	± 3%
Relative humidity	5 to 95%
Storage conditions	
Packed, temperature min./ max.	0 to +40 °C (32 to 104F)
Dimensions	
Polytron® 8100 with SensorAlive	5.8" x 5.1" x 13" / 148 x 129 x 330 mm (length x depth x height)
Approvals	
ATEX	II 1G Ex ia IIC Ga II 1D Ex ia IIIC Da
IECEx	Ex ia IIC Ga Ex ia IIIC Da
UL & CSA	Class I, Div 1, Groups A, B, C, D; Class II, Div 1, Groups E, F, G; Class I, Zone 1, Group IIC; T-Code T6/T4

Performance approved in accordance with IEC / EN 62990-1 (in connection with the respective measuring heads or transmitters).
All data are typical values, apply to new sensors and ambient conditions of 20 °C, 50 % r.h. and 1013 mbar.
SensorAlive is SIL 2 certified by TÜV Süd when used with Polytron® 8100 transmitter.

Toxic Gases & Oxygen Detectors

Falco 2 PID – Fixed VOC Gas Detection

Toxic Gas Detection Transmitter

The ION Science Falco 2 is an explosion proof transmitter for the continuous monitoring of volatile organic compounds (VOC) in ambient air. Its integrated PID (Photoionization Detector) sensor is extremely sensitive down to fractions of ppm yet resistant to extreme industrial conditions. An optional built in sampling pump extends its application scope.

Toxic Gases & Oxygen Detectors

Falco 2 PID Transmitters (includes calibration adapter and magnetic wand)	
Falco 2 PID 10.6 eV 0.001-10 ppm diffusion operation	3738980
Falco 2 PID 10.6 eV 0.001-10 ppm with integrated pump	3738981
Falco 2 PID 10.6 eV 0.01-50 ppm diffusion operation	3738982
Falco 2 PID 10.6 eV 0.01-50 ppm with integrated pump	3738983
Falco 2 PID TAC 10.0 eV 0.01-50 ppm diffusion operation	3738984
Falco 2 PID TAC 10.0 eV 0.01-50 ppm with integrated pump	3738985
Falco 2 PID 10.6 eV 0.1-1000 ppm diffusion operation	3738986
Falco 2 PID 10.6 eV 0.1-1000 ppm with integrated pump	3738987
Falco 2 PID 10.6 eV 1-3000 ppm diffusion operation	3738988
Falco 2 PID 10.6 eV 1-3000 ppm with integrated pump	3738989
Falco 2 PID accessories	
Magnetic wand Falco PID	3706186
Adapter M25 to 3/4 NPT (NP Brass) necessary for Falco 2	3721372
Process adapter Falco PID for diffusion model	3702619
Blind Plug M25 Ex d (NP Brass)	3721366
Stainless steel stopping plug for unused housing port	3706189
Cylinder regulator 500 cc 5/8"-18 UNF Brass	4557020
Zero Air Cal Gas 20.9% O2 bal N2 103L	4510058
Cal gas isobutylene (C_4H_8) 5 ppm 103L	3700261
Cal gas isobutylene (C_4H_8) 100 ppm 103L	3701256
Falco 2 PID spare parts	
MiniPID 2 Falco white 10-1000 ppm	3706185
MiniPID 2 Falco orange 50-3000 ppm	3723736
MiniPID 2 Falco TAC 0.1-50ppm	3723730
Electrode set white (0.1-10ppm & 0.1-1000ppm)	MD29346
Electrode set orange (0.1-50ppm & 0.1-3000ppm)	3703373
Eletrode set Falco TAC 0.1-50ppm	3723724
UV lamp 10.6 eV PID Falco	3706176
UV lamp cleaning kit Falco	3706178
Opening tool PID Falco Sensor	3706184
PTFE filter disc PID Falco diffusion	3706177
Moisture filter PID Falco pump oper.	3706188

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Toxic Gases & Oxygen Detectors

Falco PID 10.6 eV abridged list of detectable VOCs

Chemical name	CAS no.	Falco 0.1-1000 ppm range	Chemical name	CAS no.	Falco 0.1-1000 ppm range
Acetamide	60-35-5	0.2 - 1000 ppm	Furfural	98-01-1	0.1 - 800 ppm
Acetic anhydride	108-24-7	0.4 - 1000 ppm	Furfuryl alcohol	98-00-0	0.2 - 1000 ppm
Acetoin	513-86-0	0.1 - 1000 ppm	Gasoline	8006-61-9	0.1 - 900 ppm
Acetone	67-64-1	0.1 - 1000 ppm	Glutaraldehyde	111-30-8	0.1 - 900 ppm
Acetophenone	98-86-2	0.1 - 600 ppm	Heptan-2-one	110-43-0	0.1 - 900 ppm
Acrolein	107-02-8	0.3 - 1000 ppm	Heptane	142-82-5	0.2 - 1000 ppm
Allyl acetoacetate	1118-84-9	0.2 - 1000 ppm	Heptanol	53535-33-4	0.2 - 1000 ppm
Allyl alcohol	107-18-6	0.2 - 1000 ppm	Hexamethyldisilazane, 1,1,1,3,3,3-.	999-97-3	0.1 - 500 ppm
Allyl chloride	107-05-1	0.5 - 1000 ppm	Hexamethyldisiloxane	107-46-0	0.1 - 300 ppm
Allyl glycidyl ether	106-92-3	0.1 - 800 ppm	Hexamethylene diisocyanate	822-06-0	0.2 - 1000 ppm
Amyl acetate, sec-	628-63-7	0.2 - 1000 ppm	Hexan-2-one	591-78-6	0.1 - 800 ppm
Amyl alcohol	71-41-0	0.3 - 1000 ppm	Hexane	110-54-3	0.3 - 1000 ppm
Aniline	62-53-3	0.1 - 500 ppm	Hexanol	111-27-3	0.2 - 1000 ppm
Anisole	100-66-3	0.1 - 600 ppm	Hexene, 1-	592-41-6	0.1 - 1000 ppm
Benzaldehyde	100-52-7	0.1 - 700 ppm	Hydrazine	302-01-2	0.3 - 1000 ppm
Benzene	71-43-2	0.1 - 500 ppm	Hydrogen sulfide	2148878	0.4 - 1000 ppm
Benzoic acid	65-85-0	0.1 - 700 ppm	Indene	95-13-6	0.1 - 500 ppm
Benzonitrile	100-47-0	0.1 - 700 ppm	Indole	120-72-9	0.1 - 400 ppm
Benzoquinone, p-	106-51-4	0.1 - 1000 ppm	Iodine	7553-56-2	0.1 - 200 ppm
Benzyl acetate	140-11-4	0.1 - 600 ppm	Iodoform	75-47-8	0.2 - 1000 ppm
Benzyl alcohol	100-51-6	0.1 - 1000 ppm	Iodomethane	74-88-4	0.1 - 400 ppm
Benzyl chloride	100-44-7	0.1 - 700 ppm	Isobornyl acetate	125-12-2	0.1 - 500 ppm
Benzyl formate	104-57-4	0.1 - 800 ppm	Isobutyl acetate	110-19-0	0.2 - 1000 ppm
Benzyl isobutyrate	103-28-6	0.1 - 500 ppm	Isobutylene	115-11-7	0.1 - 1000 ppm
Benzyl nitrile	140-29-4	0.1 - 1000 ppm	Isooctane	540-84-1	0.1 - 1000 ppm
Benzylamine	100-46-9	0.1 - 600 ppm	Isopentanol	137-32-6	0.2 - 1000 ppm
Biphenyl	92-52-4	0.1 - 400 ppm	Isoprene	78-79-5	0.1 - 900 ppm
Bromo-2-chloroethane, 1-	107-04-0	0.3 - 1000 ppm	Isopropanol	67-63-0	0.4 - 1000 ppm
Bromo-2-methylpentane, 1-	25346-33-2	0.2 - 1000 ppm	Isopropyl acetate	108-21-4	0.2 - 1000 ppm
Bromoacetone	598-31-2	0.1 - 1000 ppm	Isopropylamine	75-31-0	0.1 - 1000 ppm
Bromobenzene	108-86-1	0.1 - 300 ppm	Isovaleraldehyde	590-86-3	0.1 - 1000 ppm
Bromobutane, 1-	109-65-9	0.2 - 1000 ppm	Jet Fuel JP-5		0.1 - 700 ppm
Bromoethane	74-96-4	0.2 - 1000 ppm	Kerosene	8008-20-6	0.1 - 800 ppm
Bromoethyl methyl ether, 2-	6482-24-2	0.3 - 1000 ppm	Linalyl acetate	115-95-7	0.1 - 1000 ppm
Bromoform	75-25-2	0.3 - 1000 ppm	Menthol	1490-04-6	0.1 - 500 ppm
Bromopentane, 1-	110-53-2	0.1 - 1000 ppm	Mercaptoacetic acid	68-11-1	0.1 - 1000 ppm
Bromopropane, 1-	106-94-5	0.2 - 1000 ppm	Methacrylamide	79-39-0	0.2 - 1000 ppm

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Toxic Gases & Oxygen Detectors

Falco PID 10.6 eV abridged list of detectable VOCs

Chemical name	CAS no.	Falco 0.1-1000 ppm range	Chemical name	CAS no.	Falco 0.1-1000 ppm range
Butadiene diepoxide, 1,3-	1464-53-5	0.4 - 1000 ppm	Methacrylic acid	79-41-4	0.2 - 1000 ppm
Butadiene, 1,3-	106-99-0	0.1 - 800 ppm	Methoxy-1-butanol, 3-	2517-43-3	0.3 - 1000 ppm
Butanedione, 2,3-	431-03-8	0.1 - 900 ppm	Methoxyethane	540-67-0	0.1 - 1000 ppm
Butanol, 1-	71-36-3	0.4 - 1000 ppm	Methoxyethanol, 2-	109-86-4	0.3 - 1000 ppm
Buten-3-ol, 1-	598-32-3	0.2 - 1000 ppm	Methoxyethene	107-25-5	0.1 - 1000 ppm
Butene, 1-	106-98-9	0.2 - 1000 ppm	Methoxypropane, 2-	598-53-8	0.1 - 1000 ppm
Butenoic acid, 3-	107-93-7	0.2 - 1000 ppm	Methoxypropyl acetate	108-65-6	0.2 - 1000 ppm
Butoxyethanol, 2-	111-76-2	0.1 - 1000 ppm	Methyl acetoacetate	105-45-3	0.3 - 1000 ppm
Butoxyethylacetate, 2-	112-07-2	0.2 - 1000 ppm	Methyl acrylate	96-33-3	0.4 - 1000 ppm
Butyl acetate	123-86-4	0.3 - 1000 ppm	Methyl benzoate	93-58-3	0.1 - 1000 ppm
Butyl acrylate	141-32-2	0.2 - 1000 ppm	Methyl bromide	74-83-9	0.2 - 1000 ppm
Butyl butyrate	109-21-7	0.2 - 1000 ppm	Methyl ethyl ketone	78-93-3	0.1 - 1000 ppm
Butyl chloroformate	592-34-7	0.3 - 1000 ppm	Methyl ethyl ketone peroxides	1338-23-4	0.1 - 800 ppm
Butyl ether, n-	142-96-1	0.1 - 800 ppm	Methyl isobutyl ketone	108-10-1	0.1 - 900 ppm
Butyl iodide	542-69-8	0.1 - 1000 ppm	Methyl isopropyl ketone	563-80-4	0.1 - 1000 ppm
Butyl isocyanate	111-36-4	0.3 - 1000 ppm	Methyl isothiocyanate	556-61-6	0.1 - 600 ppm
Butyl mercaptan, tert-	75-66-1	0.1 - 600 ppm	Methyl mercaptan	74-93-1	0.1 - 700 ppm
Butyl methacrylate	97-88-1	0.1 - 1000 ppm	Methyl methacrylate	80-62-6	0.1 - 1000 ppm
Butyl propionate, n-	590-01-2	0.2 - 1000 ppm	Methyl phenyl acetate	101-41-7	0.1 - 400 ppm
Butylamine, n-	109-73-9	0.1 - 1000 ppm	Methyl propionate	554-12-1	0.4 - 1000 ppm
Butylbenzene	104-51-8	0.1 - 500 ppm	Methyl salicylate	119-36-8	0.1 - 800 ppm
Butylphenol, o-sec-	89-72-5	0.1 - 900 ppm	Methyl sulfide	75-18-3	0.1 - 800 ppm
Butyraldehyde	123-72-8	0.2 - 1000 ppm	Methyl tert-butyl ether	1634-04-4	0.1 - 1000 ppm
Camphene	565-00-4	0.1 - 500 ppm	Methyl vinyl ketone	78-94-4	0.1 - 600 ppm
Carbon disulfide	75-15-0	0.1 - 1000 ppm	Methyl-1-butene, 3-	563-45-1	0.1 - 800 ppm
Carbon tetrabromide	558-13-4	0.3 - 1000 ppm	Methyl-2-butanol, 3-	598-75-4	0.3 - 1000 ppm
Carene	13466-78-9	0.1 - 500 ppm	Methyl-2-pyrrolidinone, N-	872-50-4	0.1 - 900 ppm
Carvacrol	499-75-2	0.1 - 800 ppm	Methylamine	74-89-5	0.2 - 1000 ppm
Carvone, R-	6485-40-1	0.2 - 1000 ppm	Methylbutanal, 2-	96-17-3	0.1 - 1000 ppm
Chloramine	10599-90-3	0.2 - 1000 ppm	Methylcyclohexane	108-87-2	0.1 - 1000 ppm
Chloro-2-propanone, 1-	78-95-5	0.1 - 1000 ppm	Methylcyclohexanol, 4-	589-91-3	0.2 - 1000 ppm
Chloroacetaldehyde	107-20-0	0.3 - 1000 ppm	Methylcyclopentane	96-37-7	0.2 - 1000 ppm
Chlorobenzene	108-90-7	0.1 - 500 ppm	Methylhexan-2-one, 5-	541-85-5	0.1 - 800 ppm

Toxic Gases & Oxygen Detectors

Falco PID 10.6 eV abridged list of detectable VOCs

Chemical name	CAS no.	Falco 0.1-1000 ppm range	Chemical name	CAS no.	Falco 0.1-1000 ppm range
Chlorocyclohexane	542-18-7	0.2 - 1000 ppm	Methylhydrazine	60-34-4	0.1 - 1000 ppm
Chloroethyl methyl ether, 2-	627-42-9	0.3 - 1000 ppm	Methylpentane, 2-	107-83-5	0.3 - 1000 ppm
Chloroethyl methyl ether, 2-	627-42-9	0.3 - 1000 ppm	Methylpyrrole, N-	96-54-8	0.1 - 900 ppm
Chloromethoxyethane	3188-13-4	0.4 - 1000 ppm	Methylstyrene	25013-15-4	0.1 - 500 ppm
Chloroprene	126-99-8	0.1 - 1000 ppm	Mineral spirits	64475-85-0	0.1 - 800 ppm
Chlorostyrene, o-	2039-87-4	0.1 - 400 ppm	Morpholine	110-91-8	0.4 - 1000 ppm
Chlorotoluene, p-	106-43-4	0.1 - 400 ppm	Naphthalene	91-20-3	0.1 - 400 ppm
Chlorotrifluoroethylene	79-38-9	0.1 - 1000 ppm	Nitrobenzene	98-95-3	0.2 - 1000 ppm
Citronellal	106-23-0	0.1 - 900 ppm	Nonane	111-84-2	0.1 - 1000 ppm
Creosote	8021-39-4	0.1 - 1000 ppm	Norbornadiene, 2,5-	121-46-0	0.1 - 600 ppm
Cresol, m-	108-39-4	0.2 - 1000 ppm	Octane	111-65-9	0.2 - 1000 ppm
Cumene	6117-91-5	0.1 - 800 ppm	Octanol (mixed isomers)	111-87-5	0.2 - 1000 ppm
Cyclohexane	110-82-7	0.1 - 1000 ppm	Octene, 1-	111-66-0	0.1 - 700 ppm
Cyclohexanol	108-93-0	0.2 - 1000 ppm	Oxydiethanol, 2,2'-	111-46-6	0.2 - 1000 ppm
Cyclohexanone	108-94-1	0.1 - 1000 ppm	Pentan-2-one	107-87-9	0.1 - 1000 ppm
Cyclohexene	110-83-8	0.1 - 900 ppm	Pentanal	110-62-3	0.2 - 1000 ppm
Cyclohexylamine	108-91-8	0.3 - 1000 ppm	Pentandione, 2,4-	123-54-6	0.1 - 1000 ppm
Cyclopentadiene	542-92-7	0.1 - 800 ppm	Pentanol, 2-	6032-29-7	0.2 - 1000 ppm
Cymene, p-	99-87-6	0.1 - 400 ppm	Perfluorobutadiene	685-63-2	0.3 - 1000 ppm
Decahydronaphthalene	91-17-8	0.1 - 900 ppm	Petroleum ether	8032-32-4	0.1 - 900 ppm
Decane	124-18-5	0.1 - 1000 ppm	Phenol	108-95-2	0.1 - 900 ppm
Diacetone alcohol	123-42-2	0.1 - 900 ppm	Phenoxyethanol, 2-	122-99-6	0.5 - 1000 ppm
Dibromoethane, 1,2-	106-93-4	0.2 - 1000 ppm	Phenylethyl acetate, 1-	93-92-5	0.1 - 700 ppm
Dibromomethane	74-95-3	0.2 - 1000 ppm	Phosphine	7803-51-2	0.2 - 1000 ppm
Dichloro-1,2-difluoroethene, 1,2-	598-88-9	0.2 - 1000 ppm	Picoline, 3-	108-99-6	0.1 - 700 ppm
Dichloro-1-propene, 2,3-	78-88-6	0.1 - 1000 ppm	Pinene, α-	2437-95-8	0.1 - 300 ppm
Dichloro-2,2,-difluoroethene, 1,1-	79-35-6	0.1 - 1000 ppm	Piperidine	110-89-4	0.1 - 1000 ppm
Dichloroethene, 1,1-	75-35-4	0.1 - 1000 ppm	Piperylene	504-60-9	0.1 - 900 ppm
Dicyclopentadiene	77-73-6	0.1 - 700 ppm	Propen-1-imine, 2-	73311-40-7	0.2 - 1000 ppm
Diesel fuel	68334-30-5	0.1 - 800 ppm	Propene	115-07-1	0.1 - 1000 ppm
Diethyl ether	60-29-7	0.1 - 1000 ppm	Propionaldehyde	123-38-6	0.2 - 1000 ppm
Diethyl malonate	105-53-3	0.4 - 1000 ppm	Propyl acetate, n-	109-60-4	0.3 - 1000 ppm
Diethyl phosphite	762-04-9	0.2 - 1000 ppm	Propylamine, n-	107-10-8	0.1 - 1000 ppm
Diethyl phthalate	84-66-2	0.1 - 1000 ppm	Propylbenzene	103-65-1	0.1 - 500 ppm
Diethyl sulfide	352-93-2	0.1 - 600 ppm	Propylene glycol ethyl ether acetate	98516-30-4	0.1 - 1000 ppm
Diethyl sulfone	597-35-3	0.2 - 1000 ppm	Propyleneimine	75-55-8	0.1 - 1000 ppm

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Toxic Gases & Oxygen Detectors

Falco PID 10.6 eV abridged list of detectable VOCs

Chemical name	CAS no.	Falco 0.1-1000 ppm range	Chemical name	CAS no.	Falco 0.1-1000 ppm range
Diethylamine	109-89-7	0.1 - 1000 ppm	Propyne	74-99-7	0.4 - 1000 ppm
Diethylaminoethanol, 2-	100-37-8	0.3 - 1000 ppm	Pyridine	110-86-1	0.1 - 700 ppm
Diethylene glycol monoethyl ether	111-90-0	0.1 - 600 ppm	Pyrrole	109-97-7	0.1 - 1000 ppm
Diethylsilane	542-91-6	0.2 - 1000 ppm	Pyrrolidine	123-75-1	0.4 - 1000 ppm
Dihydroxybenzene, 1,2-	120-80-9	0.1 - 1000 ppm	Styrene	100-42-5	0.1 - 500 ppm
Dihydroxybenzene, 1,3-	108-46-3	0.1 - 1000 ppm	Terpineol, α-	98-55-5	0.1 - 800 ppm
Dimethylacetamide N,N-	127-19-5	0.1 - 1000 ppm	Tert-butanol	75-65-0	0.2 - 1000 ppm
Dimethylamine	124-40-3	0.2 - 1000 ppm	Tert-butyl bromide	507-19-7	0.1 - 1000 ppm
Dimethylaniline, NN-	121-69-7	0.1 - 600 ppm	Tetrachloroethylene	127-18-4	0.1 - 400 ppm
Dimethylformamide	68-12-2	0.1 - 1000 ppm	Tetraethyl orthosilicate	78-10-4	0.3 - 1000 ppm
Dimethylhydrazine, 1,1-	57-14-7	0.1 - 1000 ppm	Tetrahydrofuran	109-99-9	0.2 - 1000 ppm
Dimethylsilane	1111-74-6	0.2 - 1000 ppm	Tetrahydronaphthalene	119-64-2	0.1 - 400 ppm
Dioxane, 1,4-	142-84-7	0.2 - 1000 ppm	Tetrahydrothiophene	110-01-0	0.1 - 700 ppm
Dipropyl ether	111-43-3	0.1 - 1000 ppm	Tetramethyl orthosilicate	681-84-5	0.2 - 1000 ppm
Di-tert-butyl-p-cresol	128-37-0	0.1 - 300 ppm	Tetramethylbenzene (all isomers)	95-93-2	0.1 - 300 ppm
Divinylbenzene	1321-74-0	0.1 - 700 ppm	Tetramethylsilane	75-76-3	0.2 - 1000 ppm
Dodecene	112-40-3	0.1 - 1000 ppm	Thioacetic acid	507-09-5	0.2 - 1000 ppm
Ethanolamine	141-43-5	0.3 - 1000 ppm	Thiophene	110-02-1	0.1 - 500 ppm
Ethoxy-2-propanol, 1-	1569-02-4	0.2 - 1000 ppm	Titanium-n-propoxide	3087-37-4	0.3 - 1000 ppm
Ethoxyethanol, 2-	110-80-5	0.2 - 1000 ppm	Toluene	108-88-3	0.1 - 600 ppm
Ethoxyethyl acetate, 2-	111-15-9	0.3 - 1000 ppm	Toluene-2,4-diisocyanate	584-84-9	0.2 - 1000 ppm
Ethyl acetate	141-78-6	0.5 - 1000 ppm	Toluidine, o-	95-53-4	0.1 - 500 ppm
Ethyl acrylate	140-88-5	0.2 - 1000 ppm	Tributylamine	102-82-9	0.1 - 1000 ppm
Ethyl benzoate	93-89-0	0.1 - 900 ppm	Trichloroethylene	79-01-6	0.1 - 600 ppm
Ethyl butyrate	105-54-4	0.1 - 1000 ppm	Triethyl phosphate	78-40-0	0.4 - 1000 ppm
Ethyl cyanoacrylate	7085-85-0	0.2 - 1000 ppm	Triethyl silane	617-86-7	0.2 - 1000 ppm
Ethyl hexyl acrylate, 2-	103-11-7	0.1 - 1000 ppm	Triethylamine	121-44-8	0.1 - 1000 ppm
Ethyl iodide	75-03-6	0.1 - 300 ppm	Trimethylamine	75-50-3	0.1 - 500 ppm
Ethyl lactate	97-64-3	0.2 - 1000 ppm	Trimethylbenzene, 1,3,5-	108-67-8	0.1 - 400 ppm
Ethyl mercaptan	75-08-1	0.1 - 600 ppm	Trimethylsilane	993-07-7	0.1 - 1000 ppm
Ethyl methacrylate	97-63-2	0.1 - 1000 ppm	Trioxane	110-88-3	0.2 - 1000 ppm
Ethyl phenyl acetate	101-97-3	0.1 - 1000 ppm	Turpentine	9005-90-7	0.1 - 600 ppm
Ethyl tert-butyl ether	637-92-3	0.1 - 800 ppm	TVOC		0.1 - 1000 ppm

Toxic Gases & Oxygen Detectors

Falco PID 10.6 eV abridged list of detectable VOCs

Chemical name	CAS no.	Falco 0.1-1000 ppm range	Chemical name	CAS no.	Falco 0.1-1000 ppm range
Ethylamine	75-04-7	0.1 - 1000 ppm	Undecane	1120-21-4	0.1 - 1000 ppm
Ethylbenzene	100-41-4	0.1 - 600 ppm	Vinyl acetate	108-05-4	0.2 - 1000 ppm
Ethylene glycol monopropyl ether	2807-30-9	0.3 - 1000 ppm	Vinyl chloride	75-01-4	0.2 - 1000 ppm
Ethyleneimine	151-56-4	0.2 - 1000 ppm	Vinyl-2-pyrrolidinone, 1-	88-12-0	0.5 - 1000 ppm
Ethylhexanal, 2-	123-05-7	0.2 - 1000 ppm	Vinylcyclohexene	100-40-3	0.1 - 500 ppm
Fluorobenzene	462-06-6	0.1 - 700 ppm	Xylene mixed isomers	1330-20-7	0.1 - 500 ppm
Formamide	75-12-7	0.2 - 1000 ppm	Xylidine, all	1300-73-8	0.1 - 700 ppm
Furan	110-00-9	0.1 - 400 ppm			

Toxic Gases & Oxygen Detectors

Technical data	
Sensor	**Photoionization detector**
Falco detection ranges and sensitivity with 10.6eV lamp fitted*	0.001 ppm – 10.0 ppm
	0.01 ppm – 50.0 ppm
	0.1 ppm – 1000 ppm
	1 ppm – 3000 ppm
Falco TAC detection ranges and sensitivity with 10.0eV lamp fitted*	0.01 ppm – 50.0 ppm
Response time (T90)	Diffused models: <30 seconds**
Accuracy	± 5% or ± 1 digit
User interface	OLED high contrast white on black: 128 x 64 pixels
	Screen size: 35 mm (w) x 17.5 mm (h)
	5 magnetic switches with LED confirmation (up, down, left, right & enter).
Status indicator	Bright visible status indicator: RED, AMBER, GREEN
Output	4 – 20 mA
	2 programmable relays
	RS 485 Modbus®
Falco diffused environmental specification	
Operational temperature:	-40 °C to 50 °C (-40 °F to 122 °F) 0-100% RH and condensing humidity
Storage temperature:	-40 °C to 60 °C (-40 °F to 140 °F)
Falco pumped environmental specification	
Operational temperature:	-20 °C to 50 °C (-40 °F to 122 °F) 0-100% RH and condensing humidity
Storage temperature:	-20 °C to 60 °C (-40 °F to 140 °F)
Ingress Protection	
Main unit	IP65
Sensor head	IP65
Power	Working voltage: 12 to 40 VDC Typical 2 W, Max. 7 watts
Mechanical interface	2 x cable entry points M25x1,5 cable diameter 12-18mm
Mounting points	2 x M8
Weight & Dimensions	– Diffusion 2.9 kg (6.4 lb) – Pumped 3.3 kg (7.3 lb) – Diffusion 205 (h) x 180 (w) x 125 (d) mm (8.1“ x 7.1“ x 4.9“) – Diffusion 291 (h) x 191 (w) x 125 (d) mm (11.5“ x 7.5“ x 4.9“)
EMC	– EMC Directive 2014/30/EU
Certification	II 2G db ib IIC T4 Gb Class 1, Div 1 Groups ABCD T4 ISO9001:2015

* All specifications quoted are at calibration point and under the same ambient conditions. Specifications are based on isobutylene calibration at 20 °C and 1000 mBar.
** When set to continuous measurement
Modbus® is a registered trademark of Schneider Electric

Flame Detectors

04

Flame Detectors

Dräger Flame 1350 (UV/IR) Flame Detection

The Dräger Flame 1350 combines UV and IR sensors to detect hydrocarbon-based fires. These powerful sensors and complex algorithms provide increased safety and fewer false alarms.

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Flame Detectors

Dräger Flame 1350	
Dräger Flame 1350, Stainless Steel, 2 x ¾? NPT	3724440
Dräger Flame 1350, Aluminum, 2 x ¾? NPT	3724441
Dräger Flame 1350, Stainless Steel, 2 x M25	3724442
Dräger Flame 1350, Aluminum, 2 x M25	3724443
Accessories	
Dräger FS-5000	4209307
Bracket Standard – 316 Stainless Steel	3718732
Bracket Marine – 316 Stainless Steel	3701298
Sealing Kit Detector – metric	3701303
Sunshield – Flame 1x00/3x00/5x00	3701299
Mounting Kit – 2" pole	3701300
Mounting Kit – 3" pole	3701301
Mounting Kit – 4" pole	3701302
Air Shield – Flame stainless steel (grey)	3724460
Air Shield – Flame aluminium (red)	3724461
Duct Mount – Flame stainless steel	3724462
Adaptor Bracket – Flame stainless steel	3724463
Modem – USB HART Flame	3724464
Charger – Flame Simulator FS-5000	3724465
Converter – USB to RS485 Flame	3724466

Flame Detectors

Dräger Flame 1350		
Type	Explosion-proof UV/IR flame detector	
Spectral range	0.18 to 0.2 µm and 3 to 5 µm	
Field of view	Horizontal 90°, vertical 90°	
Response time	5 seconds (typical)	
Sensitivity settings	Low (10 m), Standard (20 m) and High (30 m)	
Measuring range*	n-Heptane/Petrol	30 m (100 ft)
*Fire pan 0.1 m² (1ft²), flare 0.6 m (3 ft)		
Electrical data		
Relay	Alarm and fault	
Signal output	0 to 20 mA	
Communication	RS485, HART® 7	
Supply voltage	24 VDC nominal (18 to 32 VDC)	
Power consumption	Minimum 3 W / Maximum 12 W with heating	
Housing		
Material	Aluminium or stainless steel, powder-coated	
Cable gland	Dual M25 or ¾"NPT	
Weight	2.5 kg (5.5 lbs.) aluminium or 6 kg (13.2 lbs.) stainless steel	
Protection class	IP66, NEMA 4X	
Environmental conditions		
Temperature	-60 to +85 °C (-76 to +185 °F)	
Approvals		
ATEX	Ex II 2 G Ex db IIC T4 Gb IP66	
IECEx	Ex II 2 G Ex db IIC T4 Gb IP66	
FM/FMC	Class 1 Zone 1 AEx db IIC T4	
	Class 1 Div. 1, Groups B, C, D T4	
EAC TR CU	Pending	
CCCF	Pending	
INMETRO, PESO, etc.	On request	
Functional Safety	SIL2 (IEC 61508-1-3)	
Certificate of conformity of the measuring functionality	EN 54-10 (VdS)	

Dräger Flame 1500 (IR3)
Flame Detection

The Dräger Flame 1500 flame detector uses its triple IR sensor to detect hydrocarbon fires even at great distances. It provides excellent false alarm immunity as approved by FM while maintaining a response time of under 4 seconds.

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Flame Detectors

Dräger Flame 1500 (includes standard mounting bracket, no blind plugs)	Order No.
Dräger Flame 1500, Aluminum, 2 x M25	3721519
Dräger Flame 1500, Aluminum, 2 x ¾" NPT	3721517
Dräger Flame 1500, Stainless Steel, 2 x M25	3721518
Dräger Flame 1500, Stainless Steel, 2 x ¾" NPT	3721516
Accessories	
Dräger FS-5000 Flame Simulator	4209307
Bracket Marine – 316 stainless steel	3701298
Sunshield – Flame 1x00/3x00/5x00	3701299
Mount Kit – 2" pole	3701300
Mount Kit – 3" pole	3701301
Mount Kit – 4" pole	3701302

Flame Detectors

Dräger Flame 1500		
Type	Explosion-proof multi-spectrum (triple) IR flame detector	
Spectral range	Three wavelengths in the range from 3 µm to 8 µm	
Field of View	Horizontal 90°, vertical 90°	
Sensitivity	4 seconds (typical)	
Response Time	Low 15 m, Medium 30 m (standard) and High 60 m	
Signal output	n-Heptane/gasoline	60 m (200 ft)
	Methanol	42 m (136 ft)
	Methane	50 m (165 ft)
Electical Data		
Relay	Alarm and fault	
Signal output	0 to 20 mA	
Communication	RS485, HART® 7	
Supply voltage	24 VDC nominal (18 to 32 VDC)	
Power consumption	Minimum 3 W / maximum 12 W with heating	
Housing		
Material	Aluminum or stainless steel, powder-coated	
Cable gland	Dual M25 or ¾"NPT	
Weight	2.5 kg (5.5 lbs.) Aluminum or 6 kg (13.2 lbs.) stainless steel	
Protection class	IP66, NEMA 4X	
Environmental conditions		
Temperature	-60 to +85 °C (-76 to +185 °F)	
Approvals		
ATEX	Ex II 2 G Ex db IIC T4 Gb IP66, EN54-10 Class 1	
IECEx	Ex II 2 G Ex db IIC T4 Gb IP66, FME 07.0002	
FM/FMC	FM 3260 performance approval	
	Class 1 Zone 1 AEx db IIC T4	
	Class 1 Div. 1, Groups B, C, D T4	
EAC TR CU	Pending	
CCCF	Pending	
INMETRO, PESO, etc.	Pending	
Functional Safety	SIL2 certified	
DNV-GL Marine.	Pending	

*Fire pan 0.1 m²(1ft²), flaring fire 0.6 m (3 ft)

Dräger Flame 1750 H_2 (IR3)
Flame Detection

The Dräger Flame 3000 is an imaging based explosion proof flame detector. This visual flame detection system uses digital image processing and advanced algorithms to process and interpret flame characteristics. This principle offers an extended field of view and fewer false alarms.

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Flame Detectors

Dräger Flame 1750 H_2	
Dräger Flame 1750 H_2, Aluminium, 2 x M25	3724447
Dräger Flame 1750 H_2, Aluminium, 2 x ¾" NPT	3724445
Dräger Flame 1750 H_2, Stainless steel, 2 x M25	3724446
Dräger Flame 1750 H_2, Stainless steel, 2 x ¾" NPT	3724444
Accessories	
Dräger FS-5000	4209307
Bracket Standard – 316 Stainless Steel	3718732
Bracket Marine – 316 Stainless Steel	3701298
Sealing Kit Detector – metric	3701303
Sunshield – Flame 1x00/3x00/5x00	3701299
Mounting Kit – 2" pole	3701300
Mounting Kit – 3" pole	3701301
Mounting Kit – 4" pole	3701302
Air Shield – Flame stainless steel (grey)	3724460
Air Shield – Flame aluminium (red)	3724461
Duct Mount – Flame stainless steel	3724462
Adaptor Bracket – Flame stainless steel	3724463
Modem – USB HART Flame	3724464
Charger – Flame Simulator FS-5000	3724465
Converter – USB to RS485 Flame	3724466

Flame Detectors

Dräger Flame 1750 H_2		
Type	Explosion-proof UV/IR flame detector	
Spectral range	0.18 to 0.2 µm and 3 to 5 µm	
Field of view	Horizontal 90°, vertical 90°	
Response time	4 seconds (typical)	
Sensitivity settings	Standard (30 m) and High (40 m)	
Measuring range*	n-Heptane/Petrol	30 m (100 ft)
	n-Heptane	12 m (30 ft)
	Methane	30 m (100 ft)
*Fire pan 0.1 m² (1ft²), flare 0.6 m (3 ft)		
Electrical data		
Relay	Alarm and fault	
Signal output	0 to 20 mA	
Communication	RS485, HART® 7	
Supply voltage	24 VDC nominal (18 to 32 VDC)	
Power consumption	Minimum 3 W / Maximum 12 W with heating	
Housing		
Material	Aluminium or stainless steel, powder-coated	
Cable gland	Dual M25 or ¾"NPT	
Weight	2.5 kg (5.5 lbs.) aluminium or 6 kg (13.2 lbs.) stainless steel	
Protection class	IP66, NEMA 4X	
Environmental conditions		
Temperature	-60 to +85 °C (-76 to +185 °F)	
Approvals		
ATEX	Ex II 2 G Ex db IIC T4 Gb IP66	
IECEx	Ex II 2 G Ex db IIC T4 Gb IP66	
FM/FMC	Class 1 Zone 1 AEx db IIC T4	
	Class 1 Div. 1, Groups B, C, D T4	
EAC TR CU	Pending	
CCCF	Pending	
INMETRO, PESO, etc.	On request	
Functional Safety	SIL2 (IEC 61508-1-3)	
Certificate of conformity of the measuring functionality	EN 54-10 (VdS)	

Flame Detectors

Dräger Flame 3000
Flame Detection

The Dräger Flame 3000 is an imaging based explosion proof flame detector. This visual flame detection system uses digital image processing and advanced algorithms to process and interpret flame characteristics. This principle offers an extended field of view and fewer false alarms.

Ordering Information

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Flame Detectors

Dräger Flame 3000	
Dräger Flame 3000 with 2x ¾" NPT ports aluminium housing	4209465
Dräger Flame 3000 with 2x ¾" NPT ports stainless steel housing	4209478
Accessories	
Dräger FS-5000 Test Lamp	4209307
Blind plug 3/4" NPT nickel plated brass (qty 3)	8344041
Flame 1x00/3x00/5x00 Vertical Bracket	NA10660
Bracket Marine - 316 St. Steel	3701298
Sealing Kit Detector - metric	3701303
Sunshield - Flame 1x00/3x00/5x00	3701299
Mount Kit - 2" pole	3701300
Mount Kit - 3" pole	3701301
Mount Kit - 4" pole	3701302

Flame sensitivity		
Fuel	**Flame Size**	**Distance**
n-Heptane pan fire	1 foot x 1 foot pan	200 feet (60m)
n-Heptane: direct sunlight	1 foot x 1 foot pan	200 feet (60m)
n-Heptane: modulated sunlight	1 foot x 1 foot pan	200 feet (60m)
n-Heptane: modulated black body	1 foot x 1 foot pan	200 feet (60m)
n-Heptane: Arc welding	1 foot x 1 foot pan	200 feet (60m)
n-Heptane: 1000 W lamp	1 foot x 1 foot pan	200 feet (60m)
Ethanol	1 foot x 1 foot pan	100 feet (30m)
Methane Jet Fire	36" plume	86 feet (26m)
Gasoline	1 foot x 1 foot pan	200 feet (60m)
JP4	2 foot x 2 foot pan	300 feet (90 m)
Tri-ethylene glycol	1 foot x 1 foot pan	50 feet (15m)
Diesel	1 foot x 1 foot pan	165 feet (50m)
Crude oil (heavy fuel)	20 inch x 20 inch pan	165 feet (50m)
Silane	24" plume	56 feet (17m)

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Flame Detectors

Dräger Flame 3000		
Type	Explosion proof visual flame detector	
Spectral range	Near Infrared	
Field of view	Horizontal 120°, vertical 80°	
Response Time	4 seconds (typical)	
Detection range (Pan fire 0.1 m²/1 ft²)	Methane	26 m (85 ft)*
	Ethanol	30 m (100 ft)
	n-heptane/petrol	60 m (200 ft)
	JP4	90 m (300 ft)**
	Diesel	50 m (165 ft)
	Ethylene glycol	20 m (65 ft)
	Crude oil	50 m (165 ft)***
* Plume fire 0.9 m (3 ft), ** Pan fire 0.4 m² (4 ft²), *** Pan fire 0.25 m² (2.7 ft²)		
Ambient Conditions		
Weight (in g)	-60 to +85 °C (-76 to +185 °F)	
Pressure	915 to 1,055 hPa	
Humidity	0 to 95 % RH, non-condensing	
Electrical Data		
Relay		Alarm and fault
Signal Output		0 to 20 mA
	Fault	0 mA
	Optical Fault	2 mA
	Operating mode	4 mA
	Alarm	18 mA
Supply Voltage		24 VDC nominal (18 to 32 VDC)
Power Input		2.8 W (typical)
Housing		
Material	Aluminum or Stainless Steel	
Cable Gland	¾“NPT	
Weight	2.5 kg (5-5 lbs) Aluminum or 6 kg (13.2 lbs) Stainless Steel	
Dimensions (D x L)	200 x 100 mm (7.9 x 3.9 inch)	
Protecting Class	IP66, NEMA 4X	
Approvals		
ATEX	II 2 G Ex d IIC T4	
IECEx	Ex d IIC T4	
FM/CFM	Class 1 Division 1 Groups B, C and D T4 Class 1 Zone 1 AEx/Ex d IIC T4	
Declaration of Conformity of Performance	FM3260 (Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling), FM3600, FM3615, FM3810, ANSI/NFPA 72	

Dräger Flame 5000
Flame Detection

In today's industrial workplaces, flame detection is essential for protecting both people and facilities. The Dräger Flame 5000 is an explosion-proof flame detector based on advanced color imaging technology. Each detector operates as a standalone unit and incorporates an integrated closed circuit television (CCTV) system, digital signal processing, and software algorithms to process live video images and interpret the characteristics of a flame.

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Flame Detectors

Dräger Flame 5000	
Dräger FS-5000	4209307
Dräger Flame 5000, 3/4 NPT, Relay, NTSC video mode, w. Hart, Aluminium	4209310
Dräger Flame 5000, 3/4 NPT, 4-20mA, NTSC video mode, w. Hart, Aluminium	4209350
Dräger Flame 5000, 3/4 NPT, Relay, NTSC video mode, w. Hart, Stainless Steel	4209322
Dräger Flame 5000, 3/4 NPT, 4-20mA, NTSC video mode, w. Hart, Stainless Steel	4209356

Flame Detectors

Dräger Flame 5000		
Type	Color imaging based visual flame detector	
Field of View	Horizontal 90°	
Sensitivity	0.1 m^2 gasoline fire at 44 m, (1 sq. ft fire at 144 ft)	
Response Time	4 seconds, typical; configurable up to 30 seconds	
Signal output	Analog	0 to 20 mA
	or 2 Relays for Fault & Alarm	Ratings 125 VAC, 0.5 A; 30 VDC, 2A (optional)
	Standard RS 485	
Supply Voltage		18 to 30 VDC, current consumption 6 watts (typical)
Ambient Conditions	Temperature	-60 °C to +85 °C, -76 °F to +185 °F
	Pressure	915 to 1,055 hPa, 27.9 to 31.2 inch of Hg
	Humidity	0 to 99 %RH, non-condensing
Enclosure		IP 66, NEMA 4X
Cable Entry		M20, M25 or 3/4" NPT
Dimensions (L x D, approx)		200 x 100 mm, 7.9 x 3.9 inches
Weight (approx)		2.5 kg, 5.5 lbs (2.8 kg, 6.2 lbs stainless steel)
Approvals	ATEX	II 2 G EEx d IIC T4
	IECEx	Ex d IIC T4
	FM/CFM	Class I, Division 1 Groups B, C and D
		Class I, Zone 1, AEx d IIC; T5

Area Monitoring

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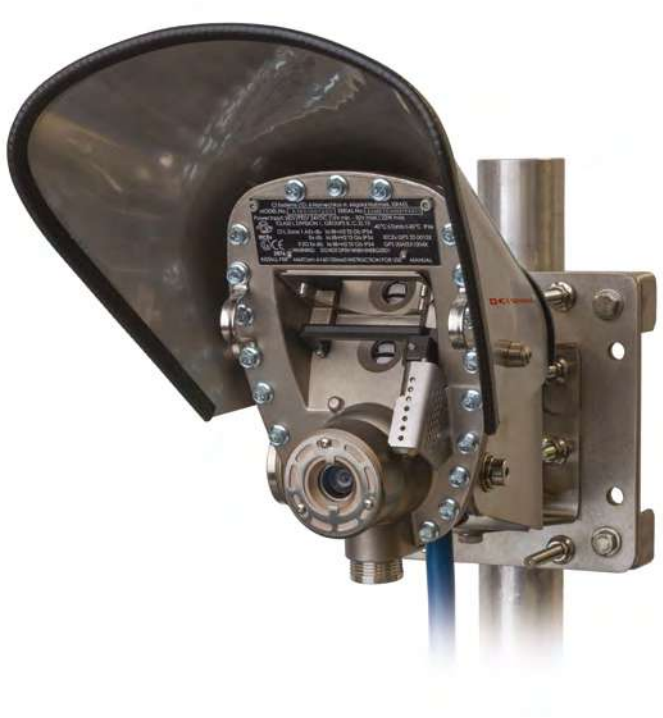
Area Monitoring

Area Monitoring



MetCam Gas Camera
Optical Area Monitoring

The MetCam is an explosion-proof gas camera that continuously monitors large areas for hazardous methane leaks and fugitive emissions. The device automatically quantifies the source and intensity of the leak using advanced algorithms and transmits alarms via analog 4–20mA/HART® or RS485 Modbus. Visualization is via ONVIF® certified Ethernet.

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Area Monitoring

MetCam Camera	
All MetCams include a terminated 1 meter long armored multi-ethernet pigtail cable with connectors.	
Cameras	
MetCam Gas Camera System, 3/4" NPT	NA01029
MetCam Gas Camera System, 3/4" NPT, Extended Temp	NA01030
MetCam Gas Camera System, 3/4" NPT, Extended Temp NH3	NA11659
ChemiCam Gas Camera System (includes weather shade & mount)	NA11681
Recommended Accessories	
Pan-Tilt for Pole Mounting Set for MetCam	NA01031
Tilt Mount Set for MetCam	3703421
Sun-Rain Shield Assembly for MetCam	NA01032
Installed 3 meter XP Cable Pigtail for MetCam (required)	NA01034
Functional Test Target for MetCam (methane only)	NA01033

Additional target gases available on request:
Hydrocarbons
Methane
Methanol
Isobutane
Ethylene
n-Butane
Isopentane
Ethylene Oxide
Butadiene
Refrigerants
R1234ze
R1234yf
R134A
Others
Nitrous Oxide
Sulfur Dioxide
Sulfur Hexafluoride
Acetic Acid

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Area Monitoring

MetCam Camera	
Camera characteristics	
Measuring gas	**Methane (standard)** (other gases available upon request listed on next page)
Type	Explosion proof / flameproof (Ex d) optical gas imaging camera with transmitter
Response time	< 10 seconds
Range	10 to 50 m
Field of view	Horizontal 68°; vertical 23°
Lower detection threshold	> 60 g/h
Self-calibration	Every 3 to 5 minutes
	Interval depending on the change in ambient temperature
Communication/Protocol	Giga Ethernet
	Modbus half-duplex
	ONVIF Protocol – Profile S conformant
	HART® Protocol
Electrical data	
User interface	Green/red status LED Webserver over Ethernet
Output signals	4–20 mA / 16 mA / 20 mA (stepped), HART®
RS 485	RS-485 Modbus for reporting observed gas flow rate
LAN	Giga bit Ethernet – Optional LTE upon request
Supply voltage	24 VDC (16–32 VDC)
Power consumption	Max. 22 W
Environmental conditions	
Temperature range	Operation: -13 to +104 °F (-25 to +40 °C)
	Optional: -40 to +140 °F (-40 to +60 °C)
Housing	
Material	Stainless steel 316L
Protection class	IP66, NEMA 4X
Cable gland	1 M25 or 3/4" NPT
Weight	< 9.9 lb (< 4.5 kg)
Dimensions	6.1 x 9.3 x 7.2 in (156 × 236 × 183 mm)

Area Monitoring

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MetCam Camera	
Approvals	
ATEX/ IECEx	Ex II 2G
	Ex db ia IIB+H2 T5 Gb
	Ex db ia mb IIB+H2 T5 Gb (MetCam Wifi)
	40 °C ≤ Tamb ≤ 60 °C
US & Canada (QPS File LR1524)	Class I, Division 1, Groups B, C, D, T6
	Class I, Zone 1 AEx db ia IIB+H2 T5 Gb
	-40 °C ≤ Tamb ≤ 60 °C
	Class I, Division 1, Groups B,C,D T6 Ex db ia mb IIB+H2 T5 Gb (MetCam Wifi) Class I, Zone 1, AEx db ia mb IIB+H2 T5 Gb (MetCam Wifi)
Applicable Standards	CSA C22.2 No. 60079-0:2015, No. 60079-1: 2016, No. 60079-11: 2014, No. 60079-18: 2018 No. 30-1986 (R2016), No. 60529:16 UL 60079-0:2013, UL 60079-1:2015, UL 60079-11:2013, UL 60079-18: 2015, UL 1203 5th Ed. (2015), IEC/ANSI 60529-2004

Dräger Polytron® 8900 UGLD
Ultrasonic Gas Leak Detector

The Dräger Polytron® 8900 UGLD transmitter is an early warning area monitor for detecting high-pressure gas leaks in outdoor industrial process environments. Thanks to an ultrasonic acoustic sensor, it responds earlier than conventional gas detectors because it registers the sound of leaking gas instead of measuring the concentration of accumulated gas clouds. As gas escapes, leaks are immediately detected in the surrounding area, regardless of the wind direction.

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Area Monitoring

Dräger Polytron® 8900 UGLD	Approval Code	Order No.
Dräger Polytron® 8900 UGLD d S 4-20/HART® Relay Stainless Steel Ex d housing with 4-20 mA HART® output and 3 Relays	ETR 0521	8328030

Accessories		Orcer No.
Magnetic Wand		4544101
Remote Sensing Head with wall mount kit		8328021
Connecting cable with plug for the Remote Sensing Head	5 m	8323305
	15 m	8323315
	30 m	8323330
UGLD Calibration and Bump Test Kit w/o Air Cylinder		8328042
Zero Air Gas Cylinder 112L for Calibration and Bump Test Kit		6813239
Pole Mount Kit		4544198
Weathercap Set A P5/6/8xxx		3702198
PolySoft Basic (one year license)		8328600
PolySoft Basic (Subscription – yearly fee)		8328601
IR Connection Kit (requires PolySoft)		4544197

Area Monitoring

Dräger Polytron® 8900 UGLD		
Type	Explosion proof / flameproof enclosed transmitter (“d”)	
Gases	Flammable and toxic gases such as hydrogen, methane, ethylene, propane, CO_2, nitrogen and hydrogen sulphide	
Measurement ranges	0–100 % or 55–110 dB; typical alarm setting 10 % UGLD signal above background	
Display	Back-lit graphic LCD display; 3 status LEDs (green/yellow/red)	
Sensor Type	PVCC coated piezoelectric microphone with built-in automatic self-test sound generator	
Sensor Performance	Response Time	< 3 sec.
	Minimum Pressure	2 bar (29 psi) Methane
	Coverage Radius	6.5ft–65 ft depending on gas type, leak rate and background noise
	Frequency Range	18 kHz–80 kHz
Electrical data		
Analogue signal output	Normal operation	4 to 20 mA
	Maintenance	Constant 3.4 mA or
		mA ±1 mA
		Hz modulation; (adjustable)
	Fault	< 1,2 mA
Digital signal output	HART® del	
Power supply	10 to 30 V DC, 3-wire del	
Power consumption	w/ relay, remote	100 mA at 24 V
Relay specification	Two alarm relays and one error relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC	

Environmental conditions (See sensor data sheet)	
Temperature	-40 to +70 °C (-40 to 158 °F) with relays
Pressure	700 to 1,300 mbar
Humidity	0 to 100 % relative humidity
Housing	
Transmitter housing	Stainless steel SS316L
Sensor housing	Polyamide 6
Housing protection type	NEMA 4X & 7, IP65/66/67
Cable entry	Three ¾" NPT thread openings
Dimensions (H × W × D),	280 x 150 x 130 mm
Weight, approx.	5.0 kg

Area Monitoring

Dräger Polytron® 8900 UGLD	
Approvals	
UL	Class I, Div 1, Groups A, B, C, D;
	Class I, Zone 1, Group IIC;
	T-Code T4
	-40 °C ≤ Ta ≤ +70 °C
CSA	Class I, Div 1, Groups A, B, C, D;
	T-Code T4
	-40 °C ≤ Ta ≤ +70 °C
IECEx	Ex db [ia Ga] IIC T4 Gb,
	-40 °C ≤ Ta ≤ +70 °C
	Ex db eb [ia Ga] IIC T4 Gb, -40 ≤ Ta ≤ +70°C; Variant with "e" Junction Box;
ATEX	II 2G Ex db [ia Ga] IIC T4 Gb,
	-40 °C ≤ Ta ≤ +70 °C
	II 2G Ex db eb [ia Ga] IIC T4 Gb, -40 ≤ Ta ≤ +70°C; Variant with "e" Junction Box;
CENELEC	EN 50724 certification*
CE Markings	ATEX (Directive 2014/34/EU)
	Electromagnetic compatibility (Directive 2014/30/EU)
	Low voltage (Directive 2014/35/EU)
Marine approval	DNV-GL
SIL 2	Certificate TÜV Süd

* Pending

Compliance Systems

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Compliance Systems

smartGAS Transmitters for Refrigerant Leaks, N_2O and SF_6

The smartGAS transmitter platform provides reliable ppm-level monitoring of refrigerants, SF_6, and N_2O using compact NDIR technology. Designed for leak detection, occupational exposure monitoring, and environmental applications, the IP54 rated transmitter delivers a standard 4–20 mA output for seamless integration into virtually any control system.

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Compliance Systems

SmartGAS Transmitters (includes wall mount brackets)	Order No.
Refrigerant Transmitter Broadband Pro 1 0-2000 ppm (4-20mA)	3742190
Refrigerant Transmitter Broadband Pro 2 0-2000 ppm (4-20mA)	3742189
N_2O Transmitter 0-500 ppm (4-20 mA)	3742188
SF_6 Transmitter 0-1500 ppm (4-20 mA)	AG01621
Accessories	
Calibration Adapter	AG01625
R134a 1000 ppm N2 103L Cal Gas for calibrating the Broadband Refrigerant Transmitter	NA10798
500 cc valve C10 regulator, 5/8"–18 UNF, for calibration	4557020
USB to Serial PC Adapter RS-232/422/485 for smartGAS Transmitter configuration. Windows software available for download.	3704901

Broad Band Refrigerant Gas Detection Transmitter |	
Measuring principle	Non-dispersive infrared (NDIR), dual wavelength
Measuring range	0 ... 2000 ppm full measuring range (Full Scale = FS) (1000 ppm customisable)
Gas supply	Diffusion
Installation dimensions	151 mm x 80 mm x 95 mm (L x W x H)
	Further dimensions in technical drawing
Warm-up time	< 2 minutes (warm-up phase)
	< 11 minutes (run-in phase)
	< 30 minutes (operation according to specification)
Protection class	IP54
Electrical connection	Cable diameter without adapter connection max. 1.5 mm²
	Cable diameter with adapter connection max. 2.5 mm²
Measuring properties *	
Response time (t90)	Approx. 30 s
Digital resolution	1 ppm
Detection limit (3 σ)	≤ 1 % [FS]
Repeatability	≤ ± 2 % [FS]
Linearity error (straight line deviation)	≤ ± 2 % [FS] @R134a |
Long-term stability (zero-point)	≤ ± 6 % [FS] over 12 months
Long-term stability (span)	≤ ± 5 % [FS] over 12 months

Compliance Systems

Ambient influence *	
Temp. dependence (zero)	≤ ± 0.3 % [FS] per °C
Temp. dependence (span)	≤ ± 0.6 % [FS] per °C
Pressure dependence	+/- 0.1 % [FS] x (difference between measured air pressure and reference air pressure)

* Reference temperature: Ta = 22 °C, reference air pressure: 1013 hPa
Tolerances based on volumetric flow rate = 0.7 l/min for dry (non-condensing) and clean sample gas. The specified values do not include a calibration gas tolerance

Electrical parameters	
Supply voltage	12 V. . . 28 VDC
Supply current (peak)	< 85 mA @ 12 V, < 45 mA @ 28 V
Inrush current	< 100 mA
Average power consumption	< 1000 mW
Digital output signal	Modbus ASCII / RTU via RS 485, autobaud, autoframe
Analogue output signal	0(4)-20 mA, max. 500 Ω / 0-2 V / 0-5 V / 0-10 V (DC)
Calibration	Zero calibration and adjustment using software or buttons

Climatic conditions	
Operating temperature	-20 ... + 40 °C
Storage temperature	-20 ... + 60 °C
Air pressure	800 ... 1150 hPa
Ambient humidity	0 ... 95 % relative humidity (non-condensing)

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Compliance Systems

Broad Band Refrigerant Gas Detection Transmitter	
Detected gases	
3742190 Broadband Pro B1	Target gas (tolerance for calibration with target gas / tolerance for calibration with R134a)
	R22 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R23 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R32 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R123 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R125 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R404a (≤ ± 3 % [FS] / ≤ ± 12 % [FS])
	R407a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R407c (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R407f (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R449a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R410a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R452a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R454b (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R455a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R507 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R513a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R515b (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R1233zd (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R1234yf (≤ ± 3 % [FS] / ≤ ± 15 % [FS])
	R1234ze (≤ ± 3 % [FS] / ≤ ± 10 % [FS])

Compliance Systems

Broad Band Refrigerant Gas Detection Transmitter	
Detected gases	
3742189 Broadband Pro B2	Target gas (tolerance for calibration with target gas / tolerance for calibration with R134a)
	R444A (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R11 (≤ ± 7 % [FS] / ≤ 30 % [FS])
	R457A (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R152a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R218 (≤ ± 4 % [FS] / ≤ ± 20 % [FS])
	R404a (≤ ± 3 % [FS] / ≤ ± 12 % [FS])
	R245fa (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R457C (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R422d (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R459a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R465a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R472a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R472b (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R508b (≤ ± 3 % [FS] / ≤ ± 15 % [FS])
	R507 (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R513a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R512a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R514a (≤ ± 3 % [FS] / ≤ ± 10 % [FS])
	R1234yf (≤ ± 3 % [FS] / ≤ ± 15 % [FS])
	R1234ze (≤ ± 3 % [FS] / ≤ ± 10 % [FS])

Dräger VarioGard Central Unit Control System

The Dräger VarioGard Central Unit is at the center of a cost-efficient, modular gas detection system. A digital Bus makes it possible to connect and manage up to 100 transmitters for various gases.

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Compliance Systems

Dräger VarioGard Central Unit	
Dräger VarioGard Central Unit, German 230 V AC	8315150
Cable gland, M20 x 1.5 (pack of 10)	8315420
Instruction for Use	9023572
Dräger VarioGard Central Unit, English 230 V AC	8315350
Dräger VarioGard Central Unit, English 115 V AC	8315370
Dräger VarioGard Central Unit, German 230 V AC, switch cabinet version	8315160

Dräger VarioGard Central Unit	
Type	Control unit for a Dräger VarioGard system
Display	LCD; 2 lines, 20 characters; for concentrations, alarms and menu
Status indicator	3-colour LED; operation, alarm, service
Input	6 function keys
Alarm output	Internal horn, red status LED, LCD and alarm relay
Outputs	5 configurable, potential-free, normally-open relays for alarms and faults
Electrical connections	Power connection, relay outputs, system bus line, battery module, remote acknowledgement terminal, PC port
Ambient Conditions	
Temperature	-20 to 40°C / -4 to 104°F
Humidity	10 to 95 % RH, non-condensing
Druck	700 to 1,300 hPa
Housing	
Housing	Plastic ABS, light grey RAL 7035, IP65
	M25 x 1.5 mains power connection
	M20 x 1.5 (other)
Dimensions	240 x 200 x 90 mm / 9.4 x 7.9 x 3.5 inch (W x H x D)
Weight	2.2 kg / 4.9 lbs
Approvals	
CE mark	RFI/EMC 89/336/EEC
	SELV 7 2/23/EEC
	TÜV Rheinland VDI 2053

Dräger VarioGard 2300 IR
Detector for flammable gases and vapors

The Dräger VarioGard Central Unit is at the center of a cost-efficient, modular gas detection system. A digital Bus makes it possible to connect and manage up to 100 transmitters for various gases.

Compliance Systems

Dräger VarioGard 2300 IR	Order No.
Dräger VarioGard 2300 IR EX	3721953
Power supply explosion-protected area	
Magnetic Wand	4544101
Calibration adapter VarioGard 3xx0/23x0	8322015
Cable inlet M20 x 1.5 (set of 10)	8315420
Software-Set VarioGard (incl. USB Adapter)	8322016
Instruction for Use VarioGard 23x0	9033492

Dräger VarioGard 2300 IR		
Type	Transmitter for the measurement of concentrations of gases in the ambient air	
Gases and measuring ranges	LPG	0 to 100 % LEL
	Methane	0 to 100 % LEL
Display	3-colour LED (green, yellow, red): Operation, Maintenance, Alarm	
Input	2 function buttons	
Alarm output	Horn and red LED	
Alarms	8 adjustable alarm thresholds	
Electrical Data		
Wiring	3-wire	
Communication	4 to 20 mA	
Supply voltage	16 to 30 VDC	
Housing		
Material	Plastic ABS light grey RAL 7035	
Protection Class	IP65	
Dimensions	124mm x 94mm x 63mm (W x H x D)	
Weight	400 g	
Cable inlet	M20 x 1,5; 6 to 12 mm	
Ambient Conditions		
Temperature	-20 °C to +50 °C / -4 °F to +122 °F	
Humidity	10 to 95 % RH, non-condensing	
Pressure	700 to 1,300 hPa / 23.6 to 32.5 inch Hg	

Dräger VarioGard 2320 IR
Detector for toxic gases and oxygen

The Dräger VarioGard 2300 IR is a transmitter with a 4-20 mA output signal and integrated infrared sensor. It detects carbon dioxide in non Ex areas, such as breweries and wineries.

Compliance Systems

Dräger VarioGard 2320 IR	Order No.
Dräger Dräger VarioGard 2320 IR	
Dräger VarioGard 2320 IR CO_2	3721955
Accessories	
Magnetic Wand	4544101
Calibration adapter VarioGard 3xx0/23x0	8322015
Cable inlet M20 x 1.5 (set of 10)	8315420
Software-Set VarioGard (incl. USB Adapter)	8322016
Instruction for Use VarioGard 23x0	9033492

Dräger VarioGard 2320 IR		
Type	Transmitter for the measurement of concentrations of gases in the ambient air	
Gases and measuring ranges	CO_2	0 to 5 Vol.-%
Display	3-colour LED (green, yellow, red): Operation, Maintenance, Alarm	
Input	2 function buttons	
Alarm output	Horn and red LED	
Alarms	8 adjustable alarm thresholds	
Electrical Data		
Wiring	3-wire	
Communication	4 to 20 mA	
Supply voltage	16 to 30 VDC	
Housing		
Material	Plastic ABS light grey RAL 7035	
Protection Class	IP65	
Dimensions	124mm x 94mm x 63mm (W x H x D)	
Weight	400 g	
Cable inlet	M20 x 1,5; 6 to 12 mm	

Dräger X-node
Wireless gas monitoring system

Dräger X-node is a battery powered toxic gas monitoring solution for continuous ambient air monitoring and analysis. It uses LoRaWAN technology to continuously monitor an area for up to 12 months per charge. X-node transmits gas concentration, temperature, humidity, and pressure to a Bluetooth® app and the cloud for data visualization.

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Compliance Systems

Dräger X-node Transmitter		Order No.
Dräger X-node Transmitter US902-928		5601026
Dräger X-node Hub		
X-node App CSV download upgrade. 1 year license. Price per X-node / year		3739006
X-node App CSV download upgrade. 3 year license. Price per X-node / 3 years		3739007
LoRaWAN indoor gateway Milesight UG65 with 12 months of data service		NA01174
LoRaWAN outdoor gateway Milesight UG67 with 12 months of data service		NA01175
X-node Hub Premium (per month, min. 12 months)		3740116
Sensor		
DrägerSensor® AC	0 - 30 ppm	6810595
DrägerSensor® Cl_2	0 - 100 ppm	6809665
DrägerSensor® CO	0 - 1,000 ppm	6809605
DrägerSensor® CO_2	0 - 10,000 ppm	6800482
DrägerSensor® CO LH	0 - 300 ppm	6812570
DrägerSensor® CO LS	0 - 5,000 ppm	6809620
DrägerSensor® H_2	0 - 3,000 ppm	6809685
DrägerSensor® H_2 HC MEC	0 - 4 %Vol	6800335
DrägerSensor® H_2O_2 HC	0 - 7,000 ppm	6809675
DrägerSensor® H_2O_2 LC	0 - 300 ppm	6809705
DrägerSensor® H_2S	0 - 100 ppm	6810435
DrägerSensor® H_2S HC	0 - 1,000 ppm	6809710
DrägerSensor® H_2S LC	0 - 100 ppm	6809610
DrägerSensor® HCl	0 - 100 ppm	6809640
DrägerSensor® HCN LC	0 - 50 ppm	6813200
DrägerSensor® Hydride SC	0 - 1 ppm	6809980
DrägerSensor® NH_3 TH	0 - 10000 ppm	6800055
DrägerSensor® NH_3 AL	0 - 300 ppm	6813735
DrägerSensor® NH_3 FL	0 - 300 ppm	6813260
DrägerSensor® NH_3 TL	0 - 300 ppm	6813095
DrägerSensor® NO	0 - 200 ppm	6809625
DrägerSensor® MEC NO	0 - 200 ppm	6812785
DrägerSensor® NO_2 LC	0 - 20 ppm	6813205
DrägerSensor® O_2 LS	0 - 25 Vol%	6809630
DrägerSensor® MEC O_2	0 - 25 Vol%	6812740
DrägerSensor® O_3	0 - 5 ppm	6814005
DrägerSensor® OV1	0 - 100 ppm	6810740
DrägerSensor® OV2	0 - 100 ppm	6810745
DrägerSensor® PH_3 HC MEC	0 - 2000 ppm	3715662
DrägerSensor® PH_3AsH_3	0 - 10 ppm	6809695
DrägerSensor® SO_2	0 - 100 ppm	6809660
DrägerSensor® UGLD	0 - 100% / 55 - 110 dB	8328045
MEC-Key Adapter		
MEC-Key (required for MEC sensors)		6812695

Compliance Systems

Dräger X-node	
Automation	Information via X-node Hub and X-node app
Measuring gases	Oxygen and toxic gases such as Cl_2, CO, CO_2, H_2, H_2O_2, H_2S, NH_3, NO, NO_2, O_3
Measuring ranges	See sensor data sheet
Memory function	Real time clock with backup
	Datalogger: 1 week on X-node; 6 months in X-node Hub
Electrical data	
Battery type	Lithium polymer battery, rechargeable
Battery life	Up to 12 months
Operating voltage	3.6 V
Alarm	Discrete notification via X-node Device, X-node Hub
Display	3-colour LED
Interface	BLE and LoRa 915 MHZ
Radio	
Transmission Range	Approx. 2 miles outdoors
Max. radiated power:	Bluetooth® LE: <= 20 dBm EIRP
	LoRa: <= 8.75 dBm EIRP
Operating frequency:	Bluetooth® LE: 2402 – 2480 MHz
	LoRa (US): 915 MHz
Housing	
Housing material	Polycarbonate
Protection class	IP65
Dimension	Ca. 170 x 90 mm (6.9" x 3.5")
Weight	Ca. 300 g (0.66 lbs)
Environmental conditions	
Temperature	-20 °C to +50 °C (-4 °F to 122 °F)
Humidity	5 % to 95 % r.h.
Pressure	700 hPa to 1300 hPa
Approval	
Electrical Safety	CE
Radio and Telecommunications Directive This device complies with Part 15 of the FCC Rules	EN 300 328 V2.2.2
	EN 300 220-1 V3.1.1
	EN 300 220-2 V3.1.1
	EN 62311:2008
	EN 62368-1:2014
	EN 50270: 2015 Susceptibility type 2
	EN 301 489-1 V2.2.3
	EN 6100-6-3:2007 + A1:2011
RoHS	EN IEC 63000:201

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Terms and Conditions

1. Scope of Application, General

1.1 Any delivery of goods and provision of services (hereinafter collectively "Goods") by Dräger* to the Customer, with the exception of construction works shall be subject to these General Terms and Conditions ("GTC") set forth herein. These GTC form a constituent part of all offers, orders and agreements between Dräger and the Customer.

1.2 Deviating terms and conditions - unless agreed to in writing - do not apply. Dräger and the Customer may agree to terms and conditions deviating from these GTC, such terms shall then have priority over these GTC. These GTC apply even if Dräger provides the Goods with knowledge but without actual acceptance of deviating terms and conditions of the Customer.

1.3 Dräger provides construction works in accordance with the German Standard Building Contract Terms, Part B (Verdingungsordnung für Bauleistungen, Teil B - "VOB/B"). The VOB/B shall be supplemented in a subordinate manner by Sections 2.2, 3, 4, 6 and 11 to 13 of these GTC.

2. Scope of Performance

2.1 Offers by Dräger shall always be non-binding. Orders shall be deemed accepted only if Dräger confirms same or carries out the order.

2.2 The offer by Dräger shall govern the scope of performance. Statements as to weight and measurements in brochures and offers are according to best knowledge but are not guaranteed properties (Beschaffenheitsgarantie). The right to reasonable performance and construction modifications is reserved. The functions of software shall be limited to the description in the performance specifications. To the extend reasonably acceptable to the Customer Dräger may use components that are as good as new or that have been rendered as good as new.

2.3 Technical norms serve as performance specification only, provided Dräger does not expressly provide a guarantee in the form of a full guarantee for compliance with such technical norm. Guarantees as to properties (Beschaffenheitsgarantie) or shelf life (Haltbarkeitsgarantie) must be in writing.

2.4 Dräger shall retain, without limitation, any and all ownership rights, copyrights and industrial property rights in drawings, technical documents and other data, information and documentation in material or immaterial form, including in electronic form; these may not be disclosed to third parties without written consent.

2.5 In case of resale of Goods the Customer is responsible to comply with all applicable export rules and regulations. The Customer shall defend and indemnify Dräger from all costs and claims based on the violation of export rules and regulations by the Customer."

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