



Dräger Polytron 8200 CAT

Detection of flammable gases and vapours

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.

Dräger Polytron 8200 CAT



Benefits

Fast and stable: The DrägerSensor Ex ... DQ

The built-in type-DQ gas sensor is based on the proven catalytic bead measuring principle. It has excellent long-term stability with outstanding poison resistance. And this is the reason for its durability. Due to the novel gas inlet opening, the sensor responds to gas in only a few seconds. This allows you to react immediately with countermeasures and prevent the development of a flammable atmosphere.

Easy device management via digital communication

The Dräger Polytron 8200 is equipped with digital interfaces allowing for quick and easy remote interrogation of the transmitter's state. Integration with existing asset management systems such as PACTware™ is possible via DTM. In addition to the common HART® communication system, the fieldbus interfaces PROFIBUS® PA, FOUNDATION fieldbus™ H1 and Modbus RTU are also available.

Same design, same operating principle

The Dräger Polytron 8200 belongs to the Polytron 8000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements. The large graphic backlit display shows status information clearly and in an easy to use format. The measured gas concentration and measuring unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information. You can evaluate the sensor signal by using the 4 to 20 mA output. The Polytron 8200 is operated by means of a magnetic wand over contact surfaces.

Three relays for controlling external equipment

Upon request, the Dräger Polytron 8200 can also be supplied with three integrated relays. This enables you to use it as an independent gas detection system with two arbitrarily adjustable concentration alarms and one fault alarm. Audible alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application

The Polytron 8200 is explosion-proof and conforms to explosion protection type "d". For the increased safety type 'e' protection, an additional terminal box is available. This also makes pre-assembly easier. Depending on the environmental conditions, you can choose the Dräger Polytron 8200 with either an aluminium or stainless steel housing.

Make the impossible possible with the remote sensor

The remote sensing head allows you to install the sensor separately from the transmitter. This allows you to simply place the sensor closer to the gas cloud in hard-to-reach locations. The display remains visible at eye level.

Data logger

The Polytron 8200 has a data logger, which records measuring and event data from prior years.

System Components

D-4806-2016



Dräger REGARD 7000

The Dräger REGARD 7000 is a modular and therefore highly expandable control system for monitoring various gases and vapours. Suitable for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD 7000 also features exceptional reliability and efficiency. An additional benefit is the backward compatibility with the REGARD.

D-1130-2010



Dräger REGARD 3900 Series

The devices of the Dräger REGARD 3900 series can be used as standalone controllers. You can configure up to 16 measuring channels. In addition, the modular setup enables you to customise the control units to the demands of your plant. You can also embed further features to existing alarms.

D-39957-2021



Dräger REGARD 3000

Monitor various gases and vapours with the modular Dräger REGARD 3000 control system. Its multi-coloured status light signals the status of your gas detection system. The controller allows you to combine three different modules: Input, Relay and Gateway module. You can connect up to four analogue transmitters and eight relays in combination.

Accessories

D-15035-2010



Docking station

A docking station is available for the increased-safety protection type "e" version. This also makes pre-assembly easier. The docking station is included with all transmitters in the Polytron 5000 and Polytron 8000 series with increased safety.

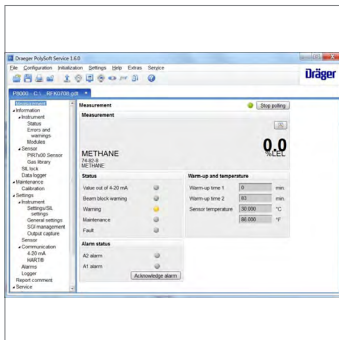
D-85345-2013



Duct mount kit

The duct mount kit enables gas monitoring inside ventilation ducts while keeping the transmitter outside.

D-4316-2019



Dräger PolySoft software

The optional Dräger PolySoft Windows® software is used for configuration, firmware upgrades, diagnostics, and downloading the Polytron's built in datalogger. All from the comfort of your control room using the digital HART® signal that is modulated on top of the analog 4 – 20 mA signal. Out in the field, an available non-intrusive IR dongle easily connects Polytron to PolySoft.

Related Products

D-32407-2011



Dräger Polytron 5200 CAT

The Dräger Polytron 5200 CAT is a cost-effective, explosion-proof transmitter designed for detecting flammable gases and vapours. It uses the catalytic DrägerSensor Ex... DQ. Due to the 3-wire operation and the 4 to 20 mA analogue output, you can combine the transmitter with most evaluation systems in your gas detection system.

D-1047-2024



Dräger PEX 3000

The Dräger PEX 3000 transmitter detects flammable gases and vapours in concentrations below their lower explosive limit (100 % LEL). It helps you to increase the explosion protection of your plant. Its heat-tone sensor reacts to gas within just a few seconds, and the measurement signal remains particularly stable over the long term.

D-6572-2023



Dräger PointGard 3200

The Dräger PointGard 3200 is a complete 1-channel gas detection system for measuring combustible gases or vapours in ambient air. In its robust yet compact housing with IP66 protection class, you have all the necessary alarm equipment needed.

Technical Data

Dräger Polytron 8200 CAT

Type	Explosion-proof transmitter ("d") or combined with increased safety ("d/e")		
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	≤ 3% LEL after 6 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/ 4-wire	
Power supply	10 to 30 V DC	
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	Powder coated copper-free aluminium or stainless steel SS316 L	
Sensor housing	Stainless steel 303 or 316L	
Housing protection type	NEMA 4X, IP65/66/67	
Cable gland	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

Technical Data

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
Humidity	0 to 100% R. Humidity, non-condensing
Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar

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 II, Div 1, Groups E, F, G;	
	Class I, Zone 1, Group IIC;	
	T-Code T6/T4	
IECEX	4-20-mA HART®	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "d" version
		Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "e" version; Ex tb IIIC T135 °C Db
		Ex db ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "d" version
	PROFIBUS® & FF	Ex db eb ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "e" version; Ex tb IIIC T135 °C Db
		II 2G Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "e" version; II 2D Ex tb IIIC T135 °C Db
		II 2G Ex db ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "d" version
ATEX	4-20-mA HART®	II 2G Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "e" version; II 2D Ex tb IIIC T135 °C Db
		II 2G Ex db ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "d" version
		II 2G Ex db eb ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "e" version; II 2D Ex tb IIIC T135 °C Db
	PROFIBUS® & FF	II 2G Ex db ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "d" version
		II 2G Ex db eb ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "e" version; II 2D Ex tb IIIC T135 °C Db
		II 2G Ex db ia IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C "d" version

Technical Data

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
Performance approval (for DQ sensor only)	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	

Ordering Information

Dräger Polytron® 8200 CAT

	Approval code	Order number
Dräger Polytron 8200 CAT DQ d A 4-20/HART®	XTR 0410	83 44 439
Dräger Polytron 8200 CAT DQ d A 4-20/HART® Relais	XTR 0411	83 44 440
Dräger Polytron 8200 CAT DQ d S 4-20/HART®	XTR 0510	83 44 448
Dräger Polytron 8200 CAT DQ d S 4-20/HART® relay	XTR 0511	83 44 449
Dräger Polytron 8200 CAT DQ e A 4-20/HART® relay (incl. Docking Station)	XTR 041I	83 44 457
Dräger Polytron 8200 CAT DQ e A 4-20/HART® relay (incl. Docking Station)	XTR 041J	83 44 458
Dräger Polytron 8200 CAT DQ d S 4-20/HART® (incl. Docking Station)	XTR 051I	83 44 466
Dräger Polytron 8xx0 Kit (Custom configuration; e.g. stainless steel housing)		83 44 800

Accessories

	Order number
DrägerSensor PR NPT DQ	68 14 150
DrägerSensor PR NPT DQ S	37 01 800
DrägerSensor LC NPT	68 10 675
Dräger Polytron SE Ex PR M1 DQ	68 12 711
Dräger Polytron SE Ex PR M2 DQ	68 12 710
Dräger Polytron SE Ex PR LC M1	68 12 722
Dräger Polytron SE Ex PR LC M2	68 12 721
Dräger Remote Sensor DQ NPT Alu	37 06 933
Dräger Remote Sensor DQ NPT Steel	37 06 934
Magnetic wand	45 44 101
Pipe mount kit	45 44 198
Duct mount kit	68 12 725
IR Connection Kit Polytron 5000/8000	45 44 197
PolySoft licence (1 year)	83 28 600
PolySoft licence (subscription)	83 28 601
Splash guard	68 12 510

Ordering Information

Weather Shield Set A Polytron 5/6/8xxx		37 02 198
Gassing adapter	PE, Europe	68 06 978
	PE incl. tubing	45 09 314
Calibration adapter Viton®		68 10 536
Remote calibration adapter for DQ		68 12 480
Remote calibration adapter for LC		68 12 482
Process adapter (stainless steel, with M30 x 1.5 union nut) for DQ		68 12 470
Process adapter (stainless steel, with M36 x 1.5 union nut) for LC		68 12 465

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