

Dräger Polytron® 5200 CAT Detector for flammable gases and vapours

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 that will detect most flammable gases and vapours. A 3-wire 4 to 20 mA analogue output with relays makes it compatible with most control systems.



Benefits

Fast and stable – the DrägerSensor® Ex

The DrägerSensor® Ex is based on the proven catalytic bead principle. Innovative dual active elements result in good long-term zero stability. Dräger has raised the bar for poison resistance yet again. Its long service life ensures that ownership costs remain low. Performance measurement has also been improved. The innovative gas inlet enables the sensor to detect gas within a matter of seconds.

Same design, same operating principles

Polytron 5200 belongs to the Dräger Polytron 5000 series. All transmitters in this series have the same design and user interface. This allows for uniform operation with reduced training and maintenance requirements.

The backlit display shows status information clearly with quick access to functions using a non-intrusive magnetic wand. The gas concentration and measurement unit are displayed during normal operation. Coloured LEDs (green, yellow and red) provide additional alarm and status information.

Three relays for controlling external equipment

The Dräger Polytron 5200 can also be supplied with three integrated relays upon request. This enables you to use it as an independent gas detection system with two adjustable concentration alarms and one fault alarm. 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 5200 features a Class I, Div. 1 rated explosion-proof enclosure made from aluminum or stainless steel, making it suitable for a wide range of environmental conditions. A protection type “e” version includes a convenient docking station that allows installation in hazardous atmospheres without running conduit (where approved) and this also facilitates pre-assembly.

Make the impossible possible with the remote sensor

The remote sensor connection housing allows you to install the sensor separately from the transmitter. This allows you to simply place the sensor closer to the gas cloud in hard-to-reach locations. The display remains visible at eye level. Since the sensor is connected via an intrinsically safe connection, no conduit cabling is required. The connection also allows 'hot replacement' of the sensor in the hazardous area.

System Components



D-6806-2016

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.

Accessories



D-24487-2020

Remote Calibration Adapter DQ

The Remote Calibration Adapter DQ comes with inner thread to connect the sensor...DQ for calibration or bump-test to check the current sensor's sensitivity in areas of poor access.

Accessories



D-85372-2013

Remote Calibration Adapter LC

The Remote Calibration Adapter LC comes with inner thread to connect the sensor...LC for calibration or bump-test to check the current sensor's sensitivity in areas of poor access.



D-85369-2013

Splash guard

The Splash guard protects the sensor against splash water and dirt.



D-85345-2013

Duct mount kit

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

Related Products



D-797-2016

Dräger Polytron® 8200 CAT

The Dräger Polytron® 8200 CAT is an advanced explosion-proof transmitter for the detection of flammable gases in the lower explosion limit (LEL). It uses a catalytic bead DrägerSensor® Ex that will detect most flammable gases and vapours. In addition to a 3-wire 4 to 20-mA analogue output with relays it also offers HART®, Modbus and Fieldbus protocols, making it compatible with most control systems.



D-1115B-2011

Dräger PEX 3000

The transmitter Dräger PEX 3000 detects flammable gases and vapours in concentrations below their lower explosive limit (100 % LEL). It increases the explosion protection of your plant. Its catalytic bead sensor provides a long-term stable measuring signal and responds to gas within a few seconds.

Technical Data

Dräger Polytron® 5200 CAT

Type	Explosion-proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")			
Gases	flammable gases and vapours			
Measuring ranges	DQ	0 to 100 % LEL		
	LC	0 to 10 % LEL		
Display	Backlit 4 digit LCD; 3 Status LEDs (green/yellow/red)			
Performance Characteristics	Accuracy/repeatability	Zero	≤ 1 % LEL	
		Span	≤ 1 % LEL	
		Long-term drift	≤ 3 % LEL after 6 months	
	Response time	T50	< 7 seconds (methane)	
		T90	< 13 seconds (methane)	
	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, 3-wire		
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	
	Pressure	20.7 to 38.4 inch Hg / 700 to 1,300 mbar		
	Humidity	0 to 100 % RH, non-condensing		
Housing	Transmitter housing	Epoxy coated copper-free aluminum or SS316 L stainless steel		
	Sensor housing	303 Stainless steel		
	Enclosure protection type	NEMA 4X & 7, IP65/66/67		
	Cable entry point	3/4 NPT threads or M20 cable gland		
	Approx. Dimensions (H x W x D)	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.	Aluminium w/o docking station	4.9 lbs / 2.2 kg	
SS316 L w/o docking station		8.8 lbs / 4.0 kg		
Aluminium w/ docking station		7.7 lbs / 3.5 kg		
SS316 L w/ docking station		11.9 lbs / 5.4 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/+80 °C; 'd' version		
		Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'e' version		
		Ex tb IIIC T80/130 °C Db		
ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C; 'd' version			
	II 2G Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C; 'e' version			
	II 2D Ex tb IIIC T135 °C Db			
CE markings	ATEX (Directive 2014/34/EU)			
	Electromagnetic Compatibility (Directive 2014/30/EU)			
	Low Voltage (Directive 2014/35/EU)			

Technical Data

Performance approval (for DQ sensor only) TÜV 19 ATEX 8435X

* All docking station versions are ATEX/IECEx approved

Ordering Information

Dräger Polytron® 5200 CAT	Approval Code	Order Number
Dräger Polytron® 5200 CAT DQ d A	XTR 0210	83 44 150
Dräger Polytron® 5200 CAT DQ d A relay	XTR 0211	83 44 151
Dräger Polytron® 5200 CAT DQ d S	XTR 0310	83 44 152
Dräger Polytron® 5200 CAT DQ d S relay	XTR 0311	83 44 153
Dräger Polytron® 5200 CAT DQ e A (incl. Docking Station)	XTR 021I	83 44 154
Dräger Polytron® 5200 CAT DQ e A relay (incl. Docking Station)	XTR 021J	83 44 155
Dräger Polytron® 5xx0 Kit (Custom configuration e.g. stainless steel housing)		83 44 500
Accessories		Order Number
Magnetic wand		45 44 101
Pipe mount bracket		45 44 198
Duct mounting 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
Weather protection kit Dräger Polytron® 5/6/8xxx		37 02 198
Gassing adaptor	PE, Europe	68 06 978
	PE incl. tubing	45 09 314
Viton® calibration adaptor		68 10 536
Remote calibration adapter for DQ		68 12 480
Remote calibration adapter for LC		68 12 482
Process adapter (stainless steel, with union nut M30 x 1.5) for DQ		68 12 470
Process adapter (stainless steel, with union nut M36 x 1.5) for LC		68 12 465
Viton® is a DuPont registered trademark.		
HART® is a registered trademark of the HART Communication Foundation.		
Windows® is a registered trademark of Microsoft Corporation.		

Notes

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