

Dräger Polytron® 5200 CAT Detection of 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 ... DD 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 ... DD

The latest generation-type DD gas sensor is based on a 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. Audio alarms, signal lights or similar devices can thus be controlled locally without an additional cable between the transmitter and central controller.

Safe, robust housing for every application

The Polytron 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).

Make the impossible possible with the remote sensor

An available remote sensor conduit housing allows the sensor to be installed up to 30 metres (100 feet) away from the Polytron transmitter. The sensor splash guard with integrated tubing nipple enables one person to perform a full calibration of a remote mounted sensor from the transmitter.

System Components

D-27771-2009



Dräger REGARD® 3900

The Dräger REGARD® 3900 is a standalone, self contained control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable between 1 and 16 channels, depending upon the type and quantity of input/output boards installed.

ST-335-2004



Dräger REGARD®-1

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

Accessories

D-15035-2010



Docking station

The docking station is included with all transmitters in the Polytron® 5000 and Polytron® 8000 series for protection type “e”, increased safety. This also facilitates pre-assembly.

Accessories

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.

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	DD	0 to 100% LEL		
	LC	0 to 10% LEL		
Display	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, 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		
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		
		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		
	ATEX	Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C; 'd' version Ex db e IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C; 'e' version Ex tb IIIC T80/130°C Db		
		II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C; 'd' version II 2G Ex db e IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C; 'e' version II 2D Ex tb IIIC T80/130 °C Db		
		CE markings		
Performance approval (for DD sensor only)	ATEX (Directive 2014/34/EU)			
	Electromagnetic Compatibility (Directive 2014/30/EU)			
	Low Voltage (Directive 2014/35/EU)			

Technical Data

* All docking station versions are ATEX/IECEx approved

Ordering Information

Dräger Polytron® 5200 CAT

Dräger Polytron® 5200 CAT DD d A	83 44 150
Dräger Polytron® 5200 CAT DD d A relay	83 44 151
Dräger Polytron® 5200 CAT DD e A (incl. Docking Station)	83 44 154
Dräger Polytron® 5200 CAT DD e A relay (incl. Docking Station)	83 44 155
Dräger Polytron® 5xx0 Kit (Custom configuration e. g. stainless steel housing)	83 44 500

Accessories

Magnetic wand	45 44 101
Pipe bracket	45 44 198
Duct mounting kit	68 12 725
IR Connection Kit Polytron® 5000/8000	45 44 197
PolySoft	83 23 405
PolySoft premium	83 23 411
Splash guard	68 12 510
Gassing adaptor	PE incl. tubing 45 09 314
Viton® calibration adaptor	68 10 536
Stainless steel process adaptor for DD	68 12 470
Stainless steel process adaptor for LC	68 12 465
Viton® is a DuPont registered trademark.	