

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 condulet 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



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.



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



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.

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Accessories



Splash guard

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



Duct mount kit

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

Technical Data

Dräger Polytron® 5200 CAT

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|---------------------------|---|--|---|--|
| Туре | 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 | | |
| D'andre | LC | 0 to 10% LEL | | |
| Display | | 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, s | single-pole two-way contact 5 A @ | |
| | | 230 VAC, 5 A @ 30 VDC, resistance-bound | | |
| Environmental conditions | Temperature | -40 to 80°C (-40 to 176°F) with | out relay | |
| (see sensor data sheet) | | -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 | w/o docking station | 11.0" x 5.9" x 5.1" / | |
| | (H x W x D) | | 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 ≤ | Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80°C; 'd' version | |
| | | Ex db e IIC T6/T4 Gb, $-40 \le Ta \le +40/+80^{\circ}C$; 'e' version | | |
| | | Ex tb IIIC T80/130°C Db | | |
| | ATEX | II 2G Ex db IIC T6/T4 Gb, -40 \leq Ta \leq +40/+80°C; 'd' version | | |
| | | II 2G Ex db e IIC T6/T4 Gb, $-40 \le Ta \le +40/+80$ °C; 'e' version | | |
| | | II 2D Ex tb IIIC T80/130 °C Db | | |
| | 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 | | |
| | (for DD sensor only) | | | |

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 | |
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| 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 | | |

| A0003301103 | | |
|--|-----------------|-----------|
| Magnetic wand | | 45 44 101 |
| Pipe bracket | | 45 44 198 |
| Duct mounting kit | | 68 12 725 |
| IR Connection Kit Polytron® 50 | 00/8000 | 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 | r for LC | 68 12 465 |
| Viton® is a DuPont registered tr | ademark. | |
| | | |

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