

## 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<br>±1 mA 1 Hz modulation;<br>(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<br>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<br>-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" /<br>280 x 150 x 130 mm   |   |
|  |   | w/ docking station   | 11.0" x 7.1" x 7.5" /<br>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;<br>Class II, Div 1, Groups E, F, G;<br>Class I, Zone 1, Group IIC; T-Code T6/T4   |   |   |
|  |   | CSA  | Class I, Div 1, Groups A, B, C, D;<br>Class I, Zone 1, Group IIC;<br>T-Code T6/T4 CSA C22.2 No. 152 |   |
|  |   |  | IECEX   | Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'd' version<br>Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'e' version<br>Ex tb IIIC T80/130 °C Db |
|  | ATEX  | II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C; 'd' version<br>II 2G Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+70 °C; 'e' version<br>II 2D Ex tb IIIC T135 °C Db |   |   |
|  |   | CE markings  |   | ATEX (Directive 2014/34/EU)<br>Electromagnetic Compatibility (Directive 2014/30/EU)<br>Low Voltage (Directive 2014/35/EU)                       |

## Technical Data

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

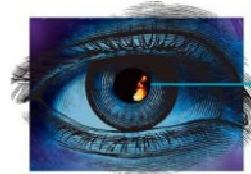
\* All docking station versions are ATEX/IECEx approved

## 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.                  |                 |              |



# Dräger



**MICROPACK**  
**FIRE & GAS**

## Head Office

Ahjar Safety  
Street 81  
Misfa industrial Area  
Muscat  
Tel:+968-24437157  
Fax:24437158

[www.ahjarsafety.com](http://www.ahjarsafety.com)

Email: [safety@ahjartech.om](mailto:safety@ahjartech.om)