

## Dräger Polytron® 5720 IR Detection of carbon dioxide

The Dräger Polytron® 5720 IR is a cost effective explosion proof transmitter for the detection of carbon dioxide in percent volume or ppm. It uses a high performance infrared Dräger PIR 7200 sensor, which can be submerged in water without damage. A 3 wire 4 to 20 mA analog output with relays makes it compatible with most control systems.



## Benefits

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### Efficient, stable and robust – the Dräger PIR 7200

With its stainless steel 316L enclosure and drift free optics, the Dräger PIR 7200 is built for the harshest industrial and commercial outdoor environments. The unique 4 beam signal stabilizing system makes the sensor resistant to dust or dirt deposits on the optical surfaces. Environmental and ageing effects are compensated ensuring long term, drift free operation. The measuring range can be freely adjusted between 0 – 2,000 ppm and 0 – 30 % volume enabling a wide variety of applications.

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### Same design, same operating principle

The Dräger Polytron 5720 belongs to the 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 large graphic backlit display shows status information clearly and in an easy to use format. The measured gas concentration, selected gas type, and measuring unit are displayed during normal operation. Colored LEDs (green, yellow and red) provide additional alarm and status information. The Polytron 8520 is operated by means of a magnetic wand over contact surfaces.

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### Three relays for controlling external equipment

Upon request, the Dräger Polytron 5720 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.

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### Safe, robust housing for every application

Polytron 5720 features a Class I, Div. 1 rated explosion proof enclosure made from aluminium or stainless steel, making it suitable for a wide range of environmental conditions. The included splash guard features a chimney effect that actively draws ambient air inside enabling gases to be detected in under 10 seconds.

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### Make the impossible possible with the remote sensor

A remote explosion proof junction allows installation of the sensor up to 100' away from the transmitter in difficult to access areas. A convenient flow cell allows for remote bump testing or calibration from the Polytron display by using permanently attached tubing that takes the calibration gas to the sensor.

## System Components



D-6806-2016

### Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and highly expandable control system for monitoring various gases and vapors. Ideal for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 delivers exceptionally reliability and efficiency. An additional benefit is the controller's 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 customize the control units to the demands of your plant. You can also embed further features to existing alarms.

## Accessories



ST-11680-2007

### Splash guard

The Splash guard protects the sensor against splash water and dirt. Every Polytron® 8720 ships with the splash guard and an LED status indicator preinstalled.

## Accessories

D-85346-2013



### Duct mount kit

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

D-16965-2014



### Process cuvette SGR

For sampling and in-line applications – reduces the inner volume of the measuring cuvette, thus providing a faster speed of response under flow conditions – made of stainless steel

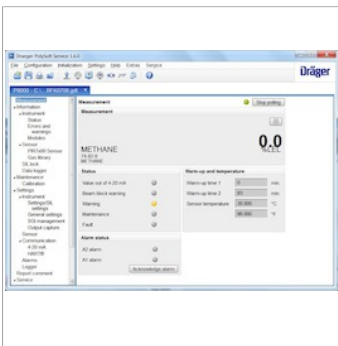
ST-11895-2007



### Flow Cell

Function test/calibration of the transmitter during high wind forces and/or high test gas concentration, including status display, suitable for process applications.

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 rides on top of the analog 4 to 20 mA signal. Out in the field, an available non-intrusive IR dongle easily connects Polytron® to Polysoft.

## Accessories



D-2950-2018

### Remote Sensor Junction Box

The explosion-proof junction box allows remote mounting of CatEx sensor with cabling lengths over 300 feet. A plug and play sensor interface makes installation easy.



D-85362-2013

### Pole Mounting Kit

Attach Polytron® 5000/8000 series to a pole or pipe using clamps (not included)



### Polytron® Calibration Kit

Basic calibration kit with zero gas cylinder and space for a span gas cylinder. Includes all the needed accessories in a convenient carrying case.

## Related Products



D-46490-2012

### Dräger Polytron® 8720 IR

The Dräger Polytron® 8720 IR is an advanced explosion proof transmitter for the detection of carbon dioxide in percent volume or ppm. It uses a high performance infrared Dräger PIR 7200 sensor, which can be submerged in water without damage. Besides a 3 wire 4 to 20 mA analog output with relays, it also offers HART®, Modbus and Fieldbus making it compatible with most control systems.



D-21869-2020

### Dräger PointGard 2720

The Dräger PointGard 2720 is a self-contained gas detection system for the continuous area monitoring of carbon dioxide (CO<sub>2</sub>) in ambient air. PointGard 2720's rugged, water-resistant housing comes complete with a horn and strobes, a built-in power supply, and is compatible with a remotely mounted Dräger PIR 7200 infrared CO<sub>2</sub> sensor.

## Technical Data

### Dräger Polytron® 5720 IR

|   |   |  |   |  |
|---|---|--|---|--|
| Type  | Explosion proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e") |  |   |  |
| Gases   | Carbon dioxide  |  |   |  |
| Measuring ranges                                | 0 to 10 vol. % (Standard)   |  |   |  |
|   | 0 to 2,000 ppm ... 30 vol. % (configurable)   |  |   |  |
| Display   | Backlit graphic LCD; 3 Status LEDs (green/yellow/red)   |  |   |  |
| Electrical data                                 | Signal output analog  | 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  |   |  |
|   | Power consumption (max.)  | w/o relay, non-remote  | 300 mA at 24 V  |  |
|   |   | w/ relay, remote   | 350 mA at 24 V  |  |
|   | Relay specification (option)  | 2 alarm relays and 1 fault relay, single-pole two-way contact 5 A @<br>230 VAC, 5 A @ 30 VDC, resistance-bound |   |  |
| Environmental conditions(see sensor data sheet) | Temperature   | -40 to +171 °F (-40 to +77 °C) 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 % r. h., non-condensing   |   |  |
| Housing   | Transmitter housing   | Epoxy coated copper-free aluminium or stainless steel SS316 L  |   |  |
|   | Sensor housing  | Stainless steel SS316 L  |   |  |
|   | Enclosure protection type   | NEMA 4X & 7, IP65/66/67  |   |  |
|   | Cable entry point   | 3/4" NPT threaded holes or M20 cable gland   |   |  |
|   | Dimensions (H x W x D), approx.   | 11.0" x 5.9" x 5.1" /<br>280 x 150 x 130 mm  |   |  |
|   | Weight, approx.   | 8.6 lbs / 3.9 kg   |   |  |
|   |   | 12.6lbs / 5.7 kg   |   |  |
| Approvals                                       | UL/CSA  | Class I, Div 1, Groups A, B, C, D;<br>Class I, Zone 1, Group IIC;<br>T-Code T6/T4<br>CSA C22.2 No. 152         |   |  |
|   |   | IECEX  | Ex db IIC T6/T4 Gb,<br>-40 ≤ Ta ≤ +40/+80 °C;                     |  |
|   |   |  | II 2G Ex db IIC T6/T4 Gb,<br>-40 ≤ Ta ≤ +40/+70 °C;               |  |
|   | ATEX  | ATEX (Directive 2014/34/EU)  |   |  |
|   | CE markings   | Electromagnetic Compatibility (Directive 2014/30/EU)   |   |  |
|   |   | Low Voltage (Directive 2014/35/EU)   |   |  |

\* All docking station versions are only ATEX/IECEX approved

## Ordering Information

### Dräger Polytron® 5720 IR (incl. splash guard and status indicator)

Dräger Polytron® 5720 IR d A

83 44 200

## Ordering Information

|   |           |
|---|-----------|
| Dräger Polytron® 5720 IR d A relay  | 83 44 201 |
| Dräger Polytron® 5720 IR d S relay  | 83 44 203 |
| Dräger Polytron® 8xx Custom Configuration Kit e.g. St. Steel & Relays – visit <a href="http://www.draeger.com/polytron">www.draeger.com/polytron</a> to configure yours | 83 44 500 |

| Accessories  | Order Number |
|--|--------------|
| Magnetic wand  | 45 44 101    |
| Pipe mount bracket                                   | 45 44 198    |
| Duct mount kit                                       | 68 12 300    |
| Duct mount kit Flow Cell for PIR 7x00                | 68 11 945    |
| Duct mount kit Bump Test Adapter for PIR 7x00        | 68 11 990    |
| Status indicator for PIR 7200                        | 68 11 920    |
| Splash guard for PIR 7200                            | 68 11 912    |
| Flow Cell for PIR 7200                               | 68 11 910    |
| Bump Test Adapter for PIR 7200                       | 68 11 930    |
| Insect guard for PIR 7x00                            | 68 11 609    |
| Hydrophobic filter for PIR 7x00                      | 68 11 890    |
| Calibration adapter for PIR 7x00                     | 68 11 610    |
| PolySoft licence (1 year)                            | 68 28 600    |
| PolySoft licence (subscription)                      | 68 28 601    |
| PolySoft Premium licence (1 year)                    | 83 28 639    |
| PolySoft Premium licence (subscription)              | 83 28 640    |
| Process cuvette for PIR 7x00, POM (Polyoxymethylene) | 68 11 915    |
| Process cuvette for PIR 7x00, stainless steel        | 68 11 415    |
| Process cuvette for PIR 7x00, SGR                    | 68 13 219    |
| Aluminium junction box for remote sensor "d"         | 45 44 099    |
| Stainless steel junction box for remote sensor "d"   | 45 44 098    |

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