



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 volume percentage or ppm. It uses a high-performance infrared Dräger PIR 7200 sensor that can be submerged in water without damage. A 3-wire 4-to-20 mA analogue output with relays makes it compatible with most control systems.

Dräger Polytron 5720 IR



Benefits

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 for, 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.

Same design, same operating principles

The Polytron 5720 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 LCD 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 5720 can also be supplied with three integrated relays on 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 5720 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 enabling 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. A special Flow Cell accessory allows one person to perform the full calibration of a remote sensor from the transmitter.

System Components

D-1501-2022



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-3967-2025



Dräger REGARD 3000 plus

The Dräger REGARD 3000 plus is a flexible control system that reliably monitors hazardous areas in your gas detection system and triggers alarms. Its modular design adapts to different system sizes and can be configured centrally or locally. A user-friendly dashboard and clear alarms provide transparency and safety.

Accessories

ST-11680-2007



Splash Guard

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

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-11699-2007



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.

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 analogue output with relays, it also offers HART®, Modbus and Fieldbus making it compatible with most control systems.

ST-11.660-2007



Dräger PIR 7200

The Dräger PIR 7200 is an explosion proof point infrared gas detector for continuous monitoring of carbon dioxide. Designed for the industrial use, the transmitter offers drift-free optics. And due to its robust product design the PIR 7200 can be operated even in harsh environments.

Technical Data

Dräger Polytron 5720 IR

Type	Explosion proof / flameproof enclosed transmitter ("d") or combined with increased safety ("d/e")			
Gases	Carbon dioxide			
Measuring range	0 to 10 Vol.-% (standard)			
	0 to 2,000 ppm ... 30 Vol.-% (configurable)			
Display	Backlit 4 digit LCD; 3 Status LEDs (green/yellow/red)			
Performance Characteristics	Accuracy/repeatability	Sensitivity	≤ ±0.1 % vol.	
		Long term drift	≤ ± 0.3 % vol. after 12 month	
	Response time	T90		
	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 (optional)		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 77 °C (-40 to 170 °F) without relay	
	-40 to 70 °C (-40 to 158 °F) with relay			
	Pressure	20.7 to 38.4 inch Hg / 700 to 1300 mbar		
	Humidity	0 to 100 % RH, non-condensing		
Housing	Transmitter housing	Powder coated copper free aluminum or stainless steel 316L		
	Sensor housing	stainless steel 316L		
	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.	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.	w/o docking station, aluminum	8.6 lbs / 3.9 kg	
		w/o docking station, stainless steel 316L	12.6lbs / 5.7 kg	
w/ docking station, aluminum		11.5 lbs / 5.2 kg		
w/ docking station, stainless steel 316L		15.7 lbs / 7.1 kg		

Technical Data

Approvals*

UL	Class I, Div 1, Groups 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 B, C, D;
	Class II, Div 1, Groups E, F, G;
	Class I, Zone 1, Group IIC; T-Code T6/T4
IECEX	Ex db IIC T6/T4 Gb, $-40 \leq Ta \leq +40/+80$ °C; 'd' version
	Ex db eb IIC T6/T4 Gb, $-40 \leq Ta \leq +40/+80$ °C; 'e' version
	Ex tb IIIC T80 °C/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 eb IIC T6/T4 Gb, $-40 \leq Ta \leq +40/+80$ °C; 'e' version
	II 2D Ex tb IIIC T80 °C/130 °C Db
CE markings	ATEX (Directive 2014/34/EU)
	Electromagnetic Compatibility (Directive 2014/30/EU)
	Low Voltage (Directive 2014/35/EU)
INMETRO	Ex db IIC T6/T4 Gb, $-40 \leq Ta \leq +40/+80$ °C; 'd' version
	Ex db eb IIC T6/T4 Gb, $-40 \leq Ta \leq +40/+80$ °C; 'e' version
	Ex tb IIIC T80 °C/T130 °C Db
KCs	Ex db IIC T6/T4 Gb, 'd' version
	Ex db eb IIC T6/T4 Gb, 'e' version
	Ex tb IIIC T80 °C/T130 °C Db

* All docking station versions are only ATEX/IECEX approved

Ordering Information

Dräger Polytron 5720 IR (incl. splash guard and status indicator)	Approval Code	Order Number
Dräger Polytron 5720 IR d A	ITR 0250	8344200
Dräger Polytron 5720 IR d A relay	ITR 0251	8344201
Dräger Polytron 5720 IR d S relay	ITR 0351	8344203
Polytron 5xx0 Kit (Custom configuration e.g. stainless steel housing)		8344500

Accessories	Order Number
Magnetic wand	4544101
Pipe mount bracket	4544198
Duct mount kit	6812300
Duct mount kit Flow Cell for PIR 7x00	6811945
Duct mount kit Bump Test Adapter for PIR 7x00	6811990
Status indicator for PIR 7200	6811920
Splash guard for PIR 7200	6811912
Flow Cell for PIR 7200	6811910
Bump Test Adapter for PIR 7200	6811930
Insect guard for PIR 7x00	6811609
Hydrophobic filter for PIR 7x00	6811890
Calibration adapter for PIR 7x00	6811610
PolySoft licence (1 year)	6828600
PolySoft licence (subscription)	6828601
PolySoft Premium licence (1 year)	8328639
PolySoft Premium licence (subscription)	8328640
Process cuvette for PIR 7x00, POM (Polyoxymethylene)	6811915
Process cuvette for PIR 7x00, stainless steel	6811415
Process cuvette for PIR 7x00, SGR	6813219
Aluminum junction box for remote sensor "d"	4544099
Stainless steel junction box for remote sensor "d"	4544098
Spacer	6812617
Dräger PIR 7200 for remote sensor "e" variant	6812290

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Corporate Headquarters

Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany
■ www.draeger.com

Region Europe

Dräger Safety AG & Co. KGaA
Revalstraße 1
23560 Lübeck, Germany
☎ +49 451 882 0
☎ +49 451 882 2080
✉ info@draeger.com

Region Asia Pacific

Draeger Singapore Pte. Ltd.
61 Science Park Road
The Galen #04-01
Singapore 117525
☎ +65 6872 9288
☎ +65 6259 0398

Region Middle East, Africa

Dräger Safety AG & Co. KGaA
Branch Office
P.O. Box 505108
Dubai, United Arab Emirates
☎ +971 4 4294 600
☎ +971 4 4294 699
✉ contactuae@draeger.com

Region Central and South America

Dräger Safety do Brasil Ltda.
Al. Pucuruí, 51/61 – Tamboré
06460-100 Barueri, São Paulo
☎ +55 (11) 4689-4900
✉ relacionamento@draeger.com



Locate your Regional Sales
Representative at:
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