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.

Backlit display

Dräger PIR 7200

Menu control

LED status display

D-39563-2011

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

An available remote sensor condulet housing allows the PIR sensor to be installed up to 30 metres away from the Polytron transmitter. A special Flow Cell accessory allows one person to perform the full calibration of a remote sensor from the transmitter.

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

ST-11680-2007

Splash guard

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

Accessories

D-85345-2013

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

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.

D-46490-2012

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.

ST-11660-2007

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	4 seconds (w/o splash guard)
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	Epoxy-coated copper free aluminium or SS316 L stainless steel	
	Sensor housing	SS316 L stainless steel	
	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, SS316 L stainless steel	12.6lbs / 5.7 kg
		w/ docking station, aluminum	11.5 lbs / 5.2 kg
		w/ docking station, SS316 L stainless steel	15.7 lbs / 7.1 kg
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 ≤ Ta ≤ +40/+80 °C; ›d‹ version	
		Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; ›e‹ version	
		Ex tb IIIC T80/130 °C Db	
	ATEX	II 2G Ex db IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; ›d‹ version	
		II 2G Ex db eb IIC T6/T4 Gb, -40 ≤ Ta ≤ +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)	

* All docking station versions are only ATEX/IECEx approved

Ordering Information

Dräger Polytron® 5720 IR	Approval Code	Order Number
(incl. splash guard and status indicator)		
Dräger Polytron® 5720 IR d A	ITR 0250	83 44 200
Dräger Polytron® 5720 IR d A relay	ITR 0251	83 44 201
Dräger Polytron® 5720 IR d S relay	ITR 0351	83 44 203
Polytron® 5x0 Kit		83 44 500
(Custom configuration e.g. stainless steel housing)		

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
Spacer	68 12 617
Dräger PIR 7200 for remote sensor "e" variant	68 12 290
HART® is a registered trademark of the HART Communication Foundation.	
Windows® is a registered trademark of Microsoft Corporation.	

Notes

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