Dräger Polytron® 5720 IR
Toxic Gas Detection

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

Dräger. Technology for Life®

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 – 2000 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. 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 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).

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-27777-2009

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.
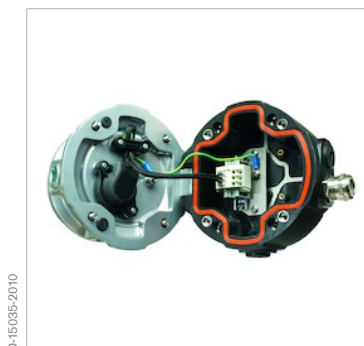

ST-335-2004

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

D-15035-2010

Docking station

The docking station is included with all the transmitters in the Polytron® 5000 and Polytron® 8000 series for protection type "e" increased safety. This also facilitates pre-assembly.

Accessories

ST-11680-2007

Splash guard

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

D-85345-2013

Duct mounting kit

The duct mount kit enables gas to be monitored inside the ventilation ducts, while the transmitter remains outside.

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 2000 ppm ... 30 Vol.-% (configurable)		
Display	Backlit graphic LCD; 3 Status 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	300 mA at 24 V
		w/ relay, remote	350 mA at 24 V
	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 without relay	
		-40 to 70°C 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 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	3.9 kg
		w/o docking station, SS316 L stainless steel	5.7 kg
		w/ docking station, aluminum	5.2 kg
		w/ docking station, SS316 L stainless steel	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 e 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 e 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)	

Technical Data

* All docking station versions are only ATEX/IECEx approved

Ordering Information

Dräger Polytron® 5720 IR

Dräger Polytron® 5720 IR d A	83 44 200
Dräger Polytron® 5720 IR d A relay	83 44 201
Dräger Polytron® 5720 IR e A (incl. Docking Station)	83 44 204
Dräger Polytron® 5720 IR e A relay (incl. Docking Station)	83 44 205
Dräger Polytron® 5xx0 Kit (Customized configuration, e. g. stainless steel housing)	83 44 500

Accessories

Magnetic wand	45 44 101
Pipe mounting bracket	45 44 198
Duct mounting set	68 12 300
Duct mounting set Flow Cell for PIR 7x100	68 11 945
Duct mounting set Bump Test adapter for PIR 7x100	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
Process adapter for PIR 7x00, POM (Polyoxymethylene)	68 11 915
Process adapter for PIR 7x00, stainless steel	68 11 415
Aluminum 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

Notes

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