Dräger

Dräger Polytron 5720
Stationary gas detector (PIR 7200)

Quick, reliable and cost-effective detection of carbon dioxide in ambient air: the microprocessor-based Polytron 5720 transmitter is the result of more than 40 years of experience in measurement technology and contains a new, innovative IR sensor with drift-free optics. These optics are extremely resistant against deposits and insects in the beam.

D-39562-2011

PROVEN – AND STILL GETTING BETTER: DRÄGER MEASUREMENT TECHNOLOGY

Dräger has been developing and manufacturing sensors and gas detectors for industrial use for more than 40 years. And with each new device generation, we drive our measurement technology a bit further. With the Polytron 5720, you will definitely benefit from this experience and power of innovation. Its DrägerSensor is based on an open, double-compensated optical infrared system. This innovative design offers the following advantages:

– short response times
– low sensitivity to dust or dirt deposits on the optical surfaces and to insects in the measuring cuvette
– longer maintenance intervals
– drift-free output signal

– high signal stability thanks to an extremely light-efficient optics with a 4-beam signal-stabilizing system

OPTIONAL: THREE RELAYS FOR CONTROLLING EXTERNAL EQUIPMENT

Upon request, the Dräger Polytron 5720 can 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. Audio alarms, signal lights, or similar devices can, thus, be controlled locally – without an additional cable between the transmitter and a central controller. The sensor signal can be evaluated using the 4 to 20 mA signal.

D-39563-2011

Dräger Polytron 5720
Flameproof transmitter for monitoring carbon dioxide.

D-39564-2011

Dräger Polytron 5720
With e-box attached: version for increased safety wiring.
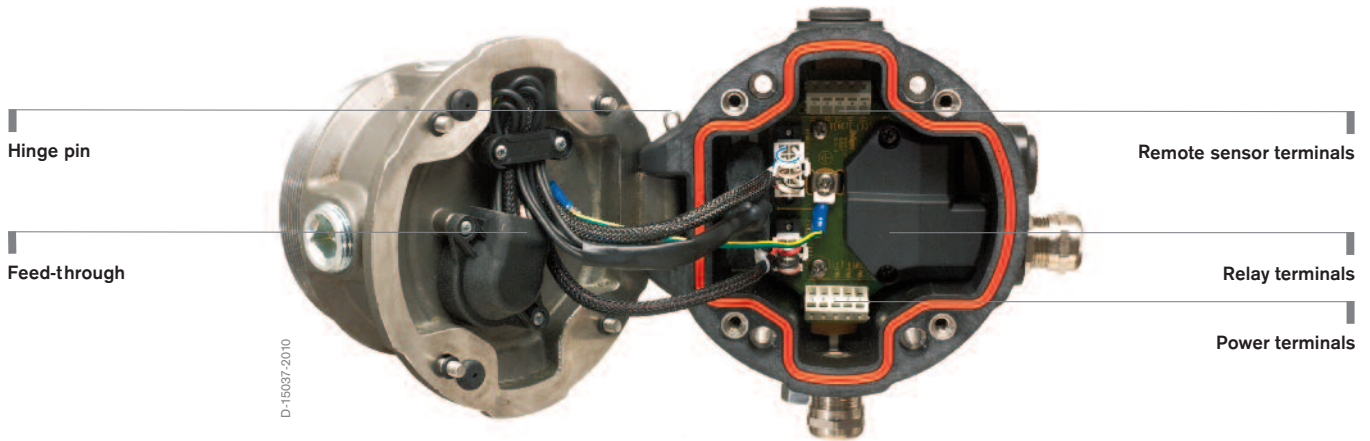
Same design, same operating principle: The Polytron 5000 series

The Dräger Polytron 5720 is part of the Polytron 5000 series. All transmitters of this series have the same design and user interface, which guarantees a uniform operating philosophy. Your advantage: less training requirement and easier maintenance.

Other transmitters of the Polytron 5000 serie:

– **Dräger Polytron 5000**
  (EC stationary gas detector)
– **Dräger Polytron 5200**
  (CatEx stationary gas detector)
– **Dräger Polytron 5310**
  (DSIR stationary gas detector)
– **Dräger Polytron 5700**
  (PIR 7000 stationary gas detector)

DRÄGER POLYTRON 5000 WITH
E-BOX / DOCKING STATION ATTACHED

Hinge pin   Remote sensor terminals

Feed-through   Relay terminals

                                                                      Power terminals

D-15037-2010

OPTIONAL: TWO MOUNTING SETS FOR EASY FLANGE-MOUNTING

The housing has four mount holes. Two different mounting sets are available for installing the Polytron 5720: a duct-mount and a pipe mount set. This means that the transmitter can be easily installed anywhere – e.g., on a smooth wall, a pipe or an exhaust duct.

QUICK AND EASY WIRING

The electronics and the bezel form a single unit. Simply pull them out of the housing. Then insert the three-wire cable into the terminals – either through the Ex-e cable gland or through the seal on the conduit. Finally, plug the terminal block into the PCB.

EASY AND COST-EFFECTIVE: SINGLE-OPERATOR CALIBRATION

The transmitter settings can be changed and maintenance carried out without opening the housing. Declassification of the hazardous, classified area is not necessary. Use the magnetic wand to quickly and easily select menu items and functions. An additional hand held terminal is not required.

FURTHER ADVANTAGES:

– Available as flameproof or increased safety version
– Aluminum or 316 L stainless steel housing for the most extreme industrial conditions
– Extremely user-friendly software thanks to a minimum number of menu items
– Backlit display: easy to read, even in the dark and without a flashlight
– Traffic light status indicator (green = no danger, yellow = error, flashing red = gas alarm)
– Beam block warning signal if the optics are heavily contaminated
– Measuring ranges in the ppm and Vol.% range

TECHNICAL DATA

Dräger Polytron 5720

Type	Explosion proof 'd' or combined increased safety 'de' transmitter		
Gases	Carbon dioxide		
Ranges	Discrete values for ppm or vol%; user selectable		0 to 0.2 up to 30 vol%
Display	4-digit backlit LCD; 3 status LEDs (green/yellow/red)		
Electrical data	Signal Output	Normal operation	4 to 20 mA
		Maintenance	steady 3.4 mA or 4 mA ± 1 mA 1 Hz modulation; user selectable
		Fault	< 1.2 mA
	Supply Voltage		10 to 30 VDC, 3-wire
	Relay Rating (option)		Two alarm, one fault relay, SPDT 5 A @ 230 VAC, 5 A @ 30 VDC, resistive load
Ambient conditions (see also sensor data sheet)	Temperature		- 40 to + 176 °F / - 40 to + 80 °C
	Pressure		20.7 to 38.4 inch Hg / 700 to 1300 mbar
	Humidity		0 to 100 %RH, non-condensing
Enclosure	Transmitter housing		epoxy-coated copper free aluminum or 316L stainless steel
	Enclosure Rating		NEMA 4X & 7, IP 65/66/67
	Cable Entry		¾" NPT female conduit or M20 cable gland
	Size (l x w x d, approx.)	without e-Box	5.9" x 11.4" x 5.1" / 150 x 290 x 130 mm
		with e-Box.	7.1" x 11.8" x 7.4" / 180 x 300 x 190 mm
	Weight (approx.)	without e-Box, aluminum	8.5 lbs / 3.9 kg
		without e-Box, stainless steel 316	12.6 lbs / 5.7 kg
		with e-Box, aluminum	11.5 lbs / 5.2 kg
		with e-Box, stainless steel 316	15.6 lbs / 7.1 kg
Approvals *)	UL **)		Class I, Div 1, Groups A, B, C, D; Class II, Div 1, Groups E, F, G Class I, Zone 1, Group IIC; T-Code T4/T6 -40°C ≤ Ta ≤ +40/+80°C
	CSA **), ***)		Class I, Div 1, Groups A, B, C, D; Class II, Div 1, Groups E, F, G Class I, Zone 1, Group IIC; T-Code T4/T6 -40°C ≤ Ta ≤ +40/+80°C
	ATEX, IECEx		II 2G Ex d IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'd' version
			II 2G Ex de IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'e' version;
			II 2D Ex tb IIIC T80/130°C Db, -40°C ≤ Ta ≤ +40/+80°C
	CE-mark		ATEX (directive 94/9/EC) Electromagnetic compatibility (directive 2004/108/EC) Low voltage (directive 2006/95/EC)

*)   All e-Box versions are only ATEX / IECEx approved
**)   with relay Ta ≤ 70 °C
***) pending

ORDER INFORMATION

Dräger Polytron 5720 Type CO_2

	Aluminum 'd'	SS316L 'd'	Aluminum 'e'	SS316L 'e'
Without relays	45 44 200	45 44 202	45 44 204**)	45 44 208**)
With relays	45 44 201	45 44 203	45 44 205***)	45 44 209***)
Remote version w/o relays			45 44 206*)	45 44 210*)
Remote version w/relays			45 44 207*)	45 44 211*)

*)   order Dräger PIR 7200 Remote 'e' Version and e-Box 68 12 275 separately
**)   order e-Box 68 12 420 for power only wires separately
***) order e-Box 68 12 275 for power and/or relay wires separately

Magnetic Wand (for menu access; blue body, white logo)	45 44 101

e-Box Power only version (includes 1 cable gland) / Docking Station	68 12 420
e-Box Power, Relay and/or Remote version (includes 2 cable glands) / Docking Station	68 12 275
Cable Gland e-Box	68 12 868

Pipe Mount Kit	45 44 198
Duct Mount Kit Polytron 5720 for PIR 7X00	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

Polytron 5720 Status Indicator PIR for 7200	68 11 920
Polytron 5720 Splash Guard for PIR 7200	68 11 912
Polytron 5720 Flow Cell for PIR 7200	68 11 910
Polytron 5720 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

Junction Box Aluminum for Remote Mount 'd'	45 44 099
Junction Box Stainless Steel for Remote Mount 'd'	45 44 098
Spacer	68 12 617

Dräger PIR 7200 CO_2 for Remote 'e' Version	68 12 290