

Dräger Polytron 5700 Stationary gas detector (PIR 7000)

Quick, reliable and cost-effective detection of combustible gases and vapors in ambient air: the microprocessor-based 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.



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 5700, you will definitely benefit from this experience and power of innovation. Its sensors are 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

LIBRARY CONTAINING UP TO 100 GASES (TYPES 334 AND 340):

Each of the gases listed there can, for example, be cross-calibrated with vapors and preset gases, such as methane or propane. All calculations and linearizations are performed automatically.

OPTIONAL: THREE RELAYS FOR CONTROLLING EXTERNAL EQUIPMENT

Upon request, the Dräger Polytron 5700 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,

Same design, same operating principle: The Polytron 5000 series

The Dräger Polytron 5700 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 5720 (PIR 7200 stationary gas detector)

D-24246-2010



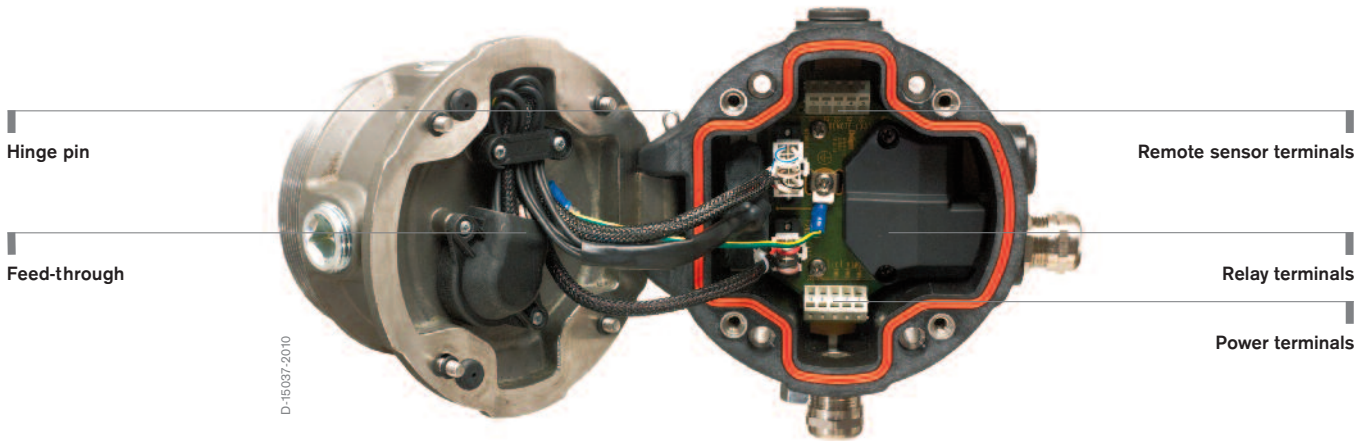
Dräger Polytron 5700
Flameproof transmitter for monitoring combustible gases and vapors.

D-14979-2010



Dräger Polytron 5700
With e-box attached: version for increased safety wiring.

DRÄGER POLYTRON 5000 WITH E-BOX / DOCKING STATION ATTACHED



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.

OPTIONAL: TWO MOUNTING SETS FOR EASY FLANGE-MOUNTING

The housing has four mounting holes. Two different mounting sets are available for installing the Polytron 5700: 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, %LEL and Vol.% range

TECHNICAL DATA

Dräger Polytron 5700

Type	Explosion proof 'd' or combined increased safety 'de' transmitter			
Gases	Combustible gases and vapors			
Ranges	Discrete values for ppm, %LEL or vol%; user selectable	Type 334:	0 to 20 up to 100 %LEL, 0 to 100 % vol% CH4	
		Type 340:	0 to 1000 ppm C3H8, 0 to 5 up to 100 %LEL	
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

Polytron 5700 Type 334 and Type 340

	Aluminum 'd'	SS316L 'd'	Aluminum 'e'	SS316L 'e'
Without relays (Type 334)	45 44 220	45 44 222	45 44 224**)	45 44 228**)
With relays (Type 334)	45 44 221	45 44 223	45 44 225***)	45 44 229***)
Remote version w/o relays (Type 334)			45 44 226*)	45 44 230*)
Remote version w/relays (Type 334)			45 44 227*)	45 44 231*)
Without relays (Type 340)	45 44 240	45 44 242	45 44 244**)	45 44 248**)
With relays (Type 340)	45 44 241	45 44 243	45 44 245***)	45 44 249***)
Remote version w/o relays (Type 340)			45 44 246*)	45 44 250*)
Remote version w/relays (Type 340)			45 44 247*)	45 44 251*)

*) order Dräger PIR 7000 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 57X0 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 5700 Status Indicator for PIR 7000	68 11 625
Polytron 5700 Splash Guard for PIR 7000	68 11 911
Polytron 5700 Flow Cell for PIR 7000	68 11 490
Polytron 5700 Bump Test Adapter for PIR 7000	68 11 630
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 7000 334 for Remote 'e' Version	68 11 825
Dräger PIR 7000 340 for Remote 'e' Version	68 11 819