

Dräger Polytron 5700

Fixed Gas Detector



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Infrared DrägerSensor PIR 7000 to detect combustible gases and vapors



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Including e-Box for increased safety wiring



The Dräger Polytron 5700 is an economical, microprocessor-based gas detector for continuous monitoring of combustible gases and vapors. Non-intrusive calibration and maintenance is performed using a magnetic wand to access the software through the enclosure window – no need to open the enclosure and obtain special work permits to perform routine calibrations.

EASY TO INSTALL

The enclosure provides four mounting holes. Using the pipe or duct mount kit the transmitter can be mounted on different structures. For easy wiring, bezel and electronics is one unit, and can be pulled out. The field wires, fed through a sealed conduit, are terminated at pluggable connectors on the printed circuit board. For the increased safety installation, the field wires are fed through M20 cable glands and terminated in the e-Box.

ONE MAN CALIBRATION

All setup and maintenance is performed without opening the transmitter or declassifying the hazardous area. Tapping a magnetic wand at the three buttons through the window gives full access to the menu and the calibration procedure. No need for an additional handheld terminal. For type 334 and 340 the extensive gas library of close to 50 gases each allows cross calibrations for e.g. vapors with readily available gases like Methane or Propane. All calculations and linearizations are done automatically.

STAND ALONE SYSTEM

With the three built-in relays, Dräger Polytron 5700 can be used as an independent stand-alone unit. Two adjustable gas alarm levels and a fault alarm make it convenient to switch warning devices on-site, without having to run cables back and forth to a central controller. The sensor signal can still be transmitted using the 4 to 20 mA signal output.

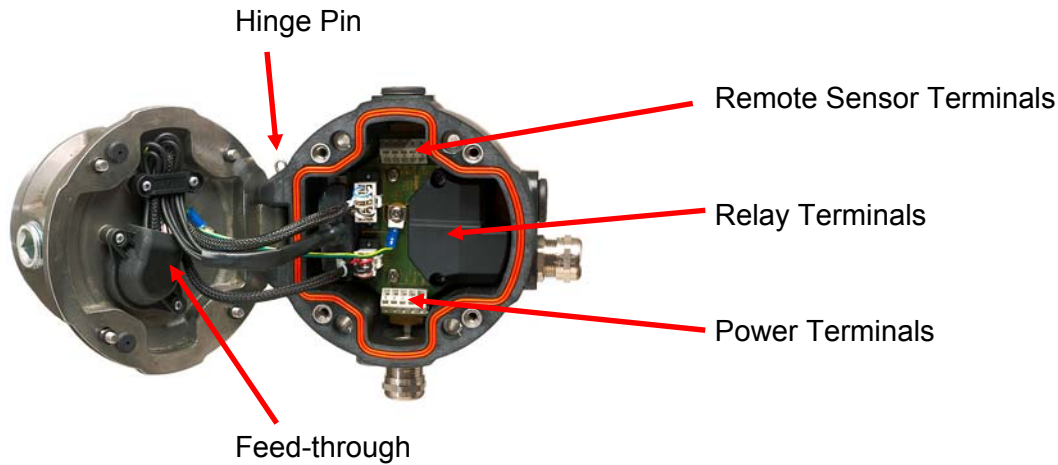
DRÄGERSENSOR TECHNOLOGY

The new, innovative and patented optical system ensures that the DrägerSensor PIR 7000 fulfills the requirements of “no false alarms”, longer intervals between maintenance and a drift-free signal output. The design is without beam splitter, but a set of various non-imaging reflectors for maximum light collection and a 4-beam signal stabilizing system. The double-compensated, open optical system guarantees a fast response and is virtually immune to dust, condensation, insects or built-up of deposits on the optical surfaces.

FEATURES AND BENEFITS

- Economical
- Non-intrusive calibration
- DrägerSensor technology
- Simple software menu
- Aluminum or 316L stainless steel enclosure
- Optional relays on board

PRINCIPLE OF THE E-BOX CONNECTION



Dräger Polytron 5000 with e-Box attached

PRODUCT MATRIX

		Aluminum 'd'	SS316L 'd'	Aluminum 'e'	SS316L 'e'
Polytron 5700	Without relays	4544220	4544222	4544224**)	4544228**)
	With relays	4544221	4544223	4544225 ***)	4544229 ***)
Type 334	Remote version w/o relays *)			4544226	4544230
	Remote version w/relays *)			4544227	4544231
Polytron 5700	Without relays	4544240	4544242	4544244**)	4544248**)
	With relays	4544241	4544243	4544245 ***)	4544249 ***)
Type 340	Remote version w/o relays *)			4544246	4544250
	Remote version w/relays *)			4544247	4544251

*) order Dräger PIR 7000 Remote 'e' Version and e-Box 6812275 separately

***) order e-Box 6812420 for power only wires separately

***) order e-Box 6812275 for power and/or relay wires separately

ORDER INFORMATION

Magnetic Wand (for menu access; blue body, white logo)	4544101
e-Box Power only version (includes 1 cable gland)	6812420
e-Box Power, Relay and/or Remote version (includes 2 cable glands)	6812275
Cable Gland e-Box	6812868
Pipe Mount Kit	4544198
Duct Mount Kit Polytron 57X0 for PIR 7X00	6812300
Duct Mount Kit Flow Cell for PIR 7X00	6811945
Duct Mount Kit Bump Test Adapter for PIR 7X00	6811990
Polytron 5700 Status Indicator for PIR 7000	6811625
Polytron 5700 Splash Guard for PIR 7000	6811911
Polytron 5700 Flow Cell for PIR 7000	6811490
Polytron 5700 Bump Test Adapter for PIR 7000	6811630
Insect Guard for PIR 7X00	6811609
Hydrophobic Filter for PIR 7X00	6811890
Calibration Adapter for PIR 7X00	6811610
Process Adapter for PIR 7X00, POM (Polyoxymethylene)	6811915
Process Adapter for PIR 7X00, Stainless Steel	6811415
Junction Box Aluminum for Remote Mount 'd'	4544099
Junction Box Stainless Steel for Remote Mount 'd'	4544098
Spacer	6812617
Dräger PIR 7000 334 for Remote 'e' Version	6811825
Dräger PIR 7000 340 for Remote 'e' Version	6811830



TECHNICAL DATA

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% CH ₄
	Type 340:	0 to 1000 ppm C ₃ H ₈ , 0 to 5 up to 100 %LEL
Display	4-digit backlit LCD; 3 status LEDs (green/yellow/red)	
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	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	epoxy-coated copper free aluminum or 316L stainless steel	
Enclosure Rating	NEMA 4X & 7, IP 65/66/67	
Cable Entry	3/4" 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
	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
	ATEX,	II 2G Ex d IIC T6/T4 Gb, $-40 \leq T_a \leq +40/+80$ °C; 'd' version
	IECEX	II 2G Ex de IIC T6/T4 Gb, $-40 \leq T_a \leq +40/+80$ °C; 'e' version II 2D Ex tb IIIC T80/130°C Db
CE-mark		electromagnetic compatibility (directive 2004/108/EC)

*) All e-Box versions are only ATEX / IECEx approved

***) with relay $T_a \leq 70$ °C

****) pending