

Dräger Polytron 5000

Fixed Gas Detector



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Electrochemical DrägerSensor to detect toxic gases and Oxygen



The Dräger Polytron 5000 is an economical, microprocessor-based gas detector for continuous monitoring of toxic gases and Oxygen in ambient air. 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 two wire cable, fed through a sealed conduit, is terminated in a pluggable connector at the printed circuit board.

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. The embedded sensor memory contains all relevant sensor data. This enables the use of pre-calibrated sensors.

DRÄGERSENSOR TECHNOLOGY

High sensitivity, long term stability and no false alarms are the hallmark of the new and improved third generation of sensors. Sensors are the keystones of any gas detection system. Fastest response to the target gas combined with minimal interference by other gases or environmental influences as well as the sensor life-time determine the reliability and the operating cost of a system.

FEATURES AND BENEFITS

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

ORDER INFORMATION

Dräger Polytron 5000 aluminum enclosure without sensor; UL, CSA, ATEX ***)	4544120
Dräger Polytron 5000 316L stainless steel enclosure without sensor; UL, CSA, ATEX ***)	4544122
Dräger Polytron 5000 aluminum enclosure without sensor; general purpose	4544165
Magnetic wand for menu access (blue body, white logo)	4544101
Pipe Mount Kit	4544198
Duct Mount Kit Polytron 5000	6812725
Splash Guard	6812510
Calibration Adapter PE	4509314
Calibration Adapter PE, Europe	6806978
Calibration Adapter Viton	6810536
DrägerSensor O ₂ LS	6809630
DrägerSensor CO	6809605
DrägerSensor H ₂ S zero-bias	6810435
DrägerSensor H ₂ S LC	6809610
DrägerSensor H ₂ S HC	6809710
DrägerSensor H ₂	6809685
DrägerSensor Cl ₂ **)	6809665
DrägerSensor EO *)	6810740
DrägerSensor NH ₃ LC **)	6809680
DrägerSensor NH ₃ HC **)	6809645
DrägerSensor NO *)	6809625
DrägerSensor NO ₂ **)	6809655
DrägerSensor SO ₂ **)	6809660
DrägerSensor H ₂ O ₂ LC **)	6809705

TECHNICAL DATA

Type	Explosion proof transmitter	
Gases and Ranges	Toxic gases and Oxygen in discrete pre-set values, user selectable	
FSD	Full Scale Deflection	
	O ₂	25 Vol%
	CO	50 / 100 / 200 / 300 / 500 ppm
	H ₂ S zero-bias	10 / 20 / 50 / 100 ppm
	H ₂ S LC	10 / 20 / 50 / 100 ppm
	H ₂ S HC	100 / 200 / 300 / 500 ppm
	H ₂	500 ppm
	Cl ₂ **)	5 / 10 / 20 / 50 ppm
	EO *)	20 / 50 / 100 / 200 ppm
	NH ₃ LC **)	50 / 100 / 200 ppm
	NH ₃ HC **)	300 / 500 ppm
	NO *)	50 / 100 / 200 ppm
	NO ₂ **)	5 / 10 / 20 / 50 / 100 ppm
	SO ₂ **)	5 / 10 / 20 / 50 / 100 ppm
	H ₂ O ₂ LC **)	5 / 10 / 20 / 50 / 100 / 200 / 300 ppm
Display	3-digit LCD	
Signal Output	Normal operation	4 to 20 mA
	Maintenance	4 mA ± 1 mA 1 Hz modulation, or steady 3 mA user selectable
	Fault	< 2 mA
Supply Voltage	16 to 30 VDC, 2-wire	
Ambient Conditions	Temperature	- 40 to + 150 °F / - 40 to + 65 °C
(see also	Pressure	20.7 to 38.4 inch Hg / 700 to 1300 mbar
sensor data sheet)	Humidity	0 to 100 %RH, non-condensing
Enclosure	Transmitter housing	epoxy-coated copper free aluminum or 316L stainless steel
	Sensor housing	316L stainless steel
Enclosure Rating	NEMA 4X & 7, IP 65/66/67	
Cable Entry	3/4" NPT female conduit entry	
Size (l x w x d, approx.)	9.5" x 5.8" x 5.1" / 240 x 150 x 130 mm	
Weight (approx.)	aluminum	5.9 lbs / 2.7 kg
	stainless steel	9.7 lbs / 4.4 kg

Approvals ***)	UL, 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 T6 / T4
	ATEX, IECEx	II 2G Ex d IIC T6/T4 Gb, $-40^{\circ}\text{C} \leq T_a \leq +40/+65^{\circ}\text{C}$ II 2D Ex tb IIIC T80/130°C Db

CE-mark electromagnetic compatibility (directive 2004/108/EC)

*) Notice: Gases which react with moisture will not repeatable pass through the wire mesh, if the transmitter is installed in a non-climate controlled environment. If it can be ensured, that condensation on the wire mesh will not occur; all sensors can be used in the explosion proof versions 4544120, 4544122. Otherwise, these sensors should only be used with Polytron 5000 General Purpose 4544165.

***) Notice: Only to be used with Polytron 5000 General Purpose 4544165.

***) CSA Pending

technical data subject to change without notice



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