Dräger Polytron 5200
Dräger Polytron 5310

Fixed Gas Detector

Dräger Polytron 5200
Catalytic bead DrägerSensor Ex PR DD to detect combustible gases and vapors

Dräger Polytron 5310
Infrared DrägerSensor IR to detect combustible gases and vapors

The Dräger Polytron 5200 / 5310 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.

STAND ALONE SYSTEM

With the three built-in relays, Dräger Polytron 5200 and Dräger Polytron 5310 can be used as an independent standalone 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 Dräger Polytron 5000 series offers two sensing principles: catalytic combustion or infrared.

Dräger Polytron 5200

The interior design of the new DD catalytic bead sensor offers an extremely high sensitivity and long-term stability. Higher sensitivity also means shorter response times, higher accuracy and improved stability of the sensor signal. The advanced poison resistant DrägerSensor Ex PR DD has a significantly longer lifetime.

The instrument can also be equipped with a special low drift DrägerSensor Ex PR LC for the reliable detection of gas concentrations between 0 and 10 %LEL. This allows for the detection of small leaks at a very early stage.
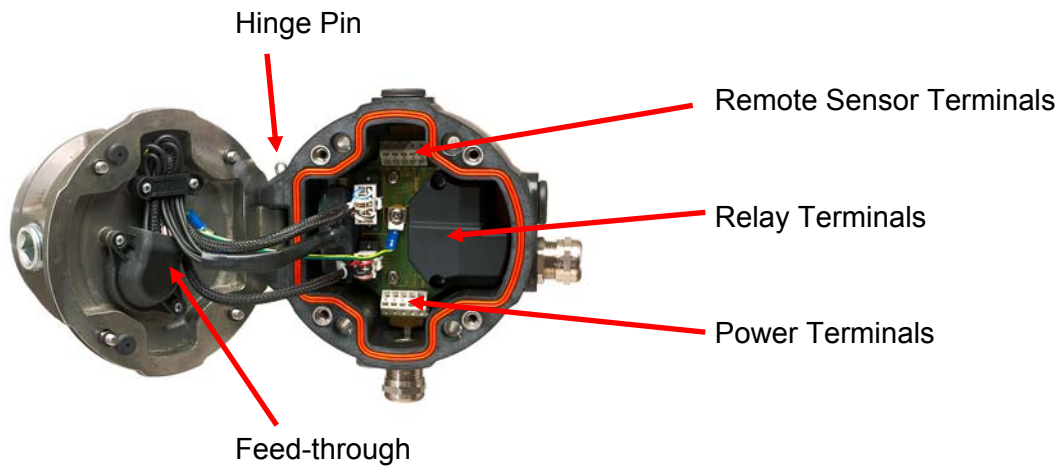
Dräger Polytron 5310

The DrägerSensor IR is the sensor of choice, where 'poisonous' gases might be in the ambient air. Over time, these can damage the catalyst of a catalytic bead sensor, decreasing its sensitivity. In order to reduce maintenance costs for recalibration and exchange, the infrared technology offers a superior solution.

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

Hinge Pin

Remote Sensor Terminals

Relay Terminals

Power Terminals

Feed-through

Dräger Polytron 5000 with e-Box attached

PRODUCT MATRIX

		Aluminum 'd'	SS316L 'd'	Aluminum 'e'	SS316L 'e'
Polytron 5200 DD	Without relays	4544150	4544152	4544154 **)	4544158 **)
	With relays	4544151	4544153	4544155 ***)	4544159 ***)
	Remote version w/o relays *)			4544156	4544160
	Remote version w/relays *)			4544157	4544161
Polytron 5200 LC	Without relays	4544130	4544132	4544134 **)	4544138 **)
	With relays	4544131	4544133	4544135 ***)	4544139 ***)
	Remote version w/o relays *)			4544136	4544140
	Remote version w/relays *)			4544137	4544141
Polytron 5310 DSIR	Without relays	4544370	4544372	4544374 **)	4544378 **)
	With relays	4544371	4544373	4544375 ***)	4544379 ***)
	Remote version w/o relays *)			4544376	4544380
	Remote version w/relays *)			4544377	4544381

*) order respective Sensing Head Polytron SE Ex Remote 'e' Version <u>and</u> 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 5200 / 5310	6812725
Junction Box Aluminum for Remote Mount 'd'	4544099
Junction Box Stainless Steel for Remote Mount 'd'	4544098

Remote 'e' Versions for Dräger Polytron 5200 DD

Sensing Head Polytron SE Ex PR DD M1 for remote 'e' versions	6812711
Sensing Head Polytron SE Ex PR DD M2 for remote 'e' versions	6812710
Sensing Head Polytron SE Ex PR DD M3 for remote 'e' versions	6812718
Sensing Head Polytron SE Ex HT DD M for remote 'e' versions	6812720

Remote 'e' Versions for Dräger Polytron 5200 LC

Sensing Head Polytron SE Ex PR LC M1 for remote 'e' versions	6812722
Sensing Head Polytron SE Ex PR LC M2 for remote 'e' versions	6812721
Sensing Head Polytron SE Ex PR LC M3 for remote 'e' versions	6812719

Remote 'e' Versions for Dräger Polytron 5310

Sensing Head DSIR complete Set e for remote 'e' versions	6811165
Sensing Head DSIR complete Set e2 for remote 'e' versions	6811265

Accessories Dräger Polytron 5200 DD or Dräger Polytron 5200 LC

Splash Guard	6812510
Calibration Adapter PE	4509314
Calibration Adapter PE, Europe	6806978
Calibration Adapter Viton	6810536
Process Adapter (stainless steel, with lock nut M30 x 1.5) for DD	6812470
Process Adapter (stainless steel, with lock nut M36 x 1.5) for LC	6812465

Accessories Dräger Polytron 5310

Process Adapter	6811330
Protection Labyrinth	6811135

TECHNICAL DATA

Type	Explosion proof 'd' or combined increased safety 'de' transmitter	
Gases	Combustible gases and vapors	
Ranges	DD:	0 to 100 %LEL
	LC:	0 to 10 %LEL
	DSIR:	0 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 DD, LC	– 40 to + 176 °F / – 40 to + 80 °C
	DSIR	– 40 to + 149 °F / – 40 to + 65 °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.)	DD	without e-Box 7.0" x 5.8" x 5.1" / 180 x 150 x 130 mm
		with e-Box 7.3" x 7.1" x 7.4" / 185 x 180 x x190 mm
	DSIR	without e-Box 11.6" x 5.8" x 5.1" / 295 x 150 x 130 mm
		with e-Box 11.9" x 7.1" x 7.4" / 300 x 180 x x190 mm
Weight (approx.)	without e-Box, aluminum	4.9 lbs / 2.2k g
	without e-Box, stainless steel 316	8.8 lbs / 4.0 kg
	with e-Box, aluminum	7.7 lbs / 3.5 kg
	with e-Box, stainless steel 316	11.9 lbs / 5.4 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 T6 / T4
	CSA ****)	Class I, Div 1, Groups A, B, C, D
		Class I, Zone 1, Group IIC; T-Code T6 / T4
	ATEX,	II 2G Ex d IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'd' version
	IECEx	II 2G Ex de IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+80 °C; 'e' version
		II 2D Ex tb IIIC T80/130°C Db

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

*) Dräger Polytron 5200 LC and all e-Box versions are only ATEX / IECEx approved
**) Dräger Polytron 5310 Ta ≤ +40/+65 °C
***) Dräger Polytron 5200 DD with relays Ta ≤ +70 °C
****) CSA pending

technical data subject to change without notice