

# Dräger Polytron 5310 Stationary gas detector (DSIR)

Quick, reliable and cost-effective detection of combustible gases and vapors in ambient air: the microprocessor-based Polytron 5310 transmitter is the result of more than 40 years of experience in measurement technology and contains a durable, poison-resistant IR sensor.



D-32403-2011

## 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 5310, you will definitely benefit from this experience and power of innovation:

- durable sensors
- short response times
- high sensitivity
- high accuracy
- low sensitivity to changing ambient conditions

## OPTIONAL: THREE RELAYS FOR CONTROLLING EXTERNAL EQUIPMENT

Upon request, the Dräger Polytron 5310 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.



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**Dräger Polytron 5310**  
Infrared DrägerSensor IR for the detection of combustible gases and vapors

### Same design, same operating principle: The Polytron 5000 series

The Dräger Polytron 5310 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 5700 (PIR 7000 stationary gas detector)
- Dräger Polytron 5720 (PIR 7200 stationary gas detector)

### OPTIONAL: TWO MOUNTING SETS FOR EASY FLANGE-MOUNTING

The housing has four mounting holes. Two different mounting sets are available for installing the Polytron 5310: 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)

## TECHNICAL DATA

Dräger Polytron 5310			
Type	Explosion proof 'd' or combined increased safety 'de' transmitter		
Gases	Combustible gases and vapors		
Ranges	0 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 + 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	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.)	11.6" x 5.8" x 5.1" / 295 x 150 x 130 mm	
	Weight (approx.)	aluminum	4.9 lbs / 2.2 kg
		stainless steel 316	8.8 lbs / 4.0 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 -40°C ≤ Ta ≤ +40/+65°C	
	CSA **)	Class I, Div 1, Groups A, B, C, D Class I, Zone 1, Group IIC; T-Code T6 / T4 -40°C ≤ Ta ≤ +40/+65°C	
	ATEX, IECEx	II 2G Ex d IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C; 'd' version	
		II 2G Ex de IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65 °C; 'e' version;	
	CE-mark	II 2D Ex tb IIIC T80/130°C Db, -40°C ≤ Ta ≤ +40/+65°C	
		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

\*\*) CSA pending

**ORDER INFORMATION****Dräger Polytron 5310**

	Aluminum 'd'	SS316L 'd'
Without relays	45 44 370	45 44 372
With relays	45 44 371	45 44 373

Magnetic wand for menu access (blue body, white logo)	45 44 101
Pipe Mount Kit	45 44 198
Duct Mount Kit Polytron 5200 / 5310	68 12 725
Junction Box Aluminum for Remote Mount 'd'	45 44 099
Junction Box Stainless Steel for Remote Mount 'd'	45 44 098

**Accessories**

Process Adapter	68 11 330
Protection Labyrinth	68 11 135

**HEADQUARTERS**

Dräger Safety AG & Co. KGaA  
Revalstrasse 1  
23560 Lübeck, Germany

[www.draeger.com](http://www.draeger.com)

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