Dräger Polytron® 8310
Stationary gas detector (DSIR)

Quick, reliable and cost-effective detection of combustible gases and vapours in the ambient air: The Dräger Polytron® 8310, which contains a durable, poison-resistant IR sensor, can also be integrated into your digital fieldbus system, thus providing additional diagnostic functions.

SIMPLE INSTRUMENT MANAGEMENT THANKS TO DIGITAL COMMUNICATION

With its HART® ability, the Dräger Polytron 8310 allows remote access using the Dräger PolySoft 8000 software for the quick and convenient evaluation of the instrument status. Integration in existing management systems (e.g. PactWare) is also possible using DTM. In addition, fieldbus systems such as Foundation Fieldbus or Profibus are supported by corresponding interfaces.

POISON-RESISTANT AND FAIL-SAFE

The DrägerSensor IR offers several benefits: technological advantages such as poison resistance and a long service life. Another asset is the significantly reduced maintenance expenditure, as compared to pellistors. The DrägerSensor IR offers a high reliability and outstanding performance features, e.g. in terms of response times and long-term stability.

Dräger Polytron® 8310
Infrared DrägerSensor IR for the detection of combustible gases and vapours

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Same design, same operating principle: The Polytron 8000 series

The Dräger Polytron 8310 is part of the Polytron 8000 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 8000 series:

– Dräger Polytron 8000
  (EC stationary gas detector)
– Dräger Polytron 8200
  (CatEx stationary gas detector)
– Dräger Polytron 8700
  (PIR 7000 stationary gas detector)
– Dräger Polytron 8720
  (PIR 7200 stationary gas detector)

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 instrument generation, we drive our measurement technology a bit further. With the Polytron 8310, you will definitely benefit from this experience and power of innovation. For the more sophisticated DrägerSensor IR is also traditionally manufactured by Dräger.

OPTIONAL: THREE RELAYS FOR CONTROLLING EXTERNAL EQUIPMENT

On request, the Dräger Polytron 8310 can be equipped 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.

OPTIONAL: TWO MOUNTING SETS FOR EASY FLANGE-MOUNTING

The housing has four mounting holes. Two different mounting sets are available for installing the Polytron 8310: 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. Finally, plug the terminal block into the PCB.

FURTHER ADVANTAGES:

– Easy and cost-effective: one-man calibration
– Aluminium or 316L 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 flash light
– Traffic light status indicator (green = no danger, yellow = error, flashing red = gas alarm)
– Matrix display allows the flexible setting of measuring ranges and units

TECHNICAL DATA

DRÄGER POLYTRON® 8310

Type	Flameproof 'd' transmitter		
Gases	Combustible gases and vapours		
Measuring ranges	DSIR:	0 to 100% LEL	
Display	Backlit graphic LCD; 3 status LEDs (green/yellow/red)		
Electrical data	Analog 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
	Digital signal output		HART®
	Supply voltage		10 to 30 VDC, 3-wire
	Relay rating (option)		2 alarm, 1 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 1,300 mbar
	Humidity		0 to 100% RH, non-condensing
Enclosure	Transmitter housing		Epoxy-coated copper free aluminium or 316L stainless steel
	Enclosure rating		NEMA 4X & 7, IP 65/66/67
	Cable entry		¾" NPT female conduit
	Size (l × w × d, approx.)		11.6" × 5.8" × 5.1" / 295 × 150 × 130 mm
	Weight (approx.)	aluminium	4.9 lbs / 2.2 kg
		stainless steel	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
	CSA		Class I, Div 1, Groups A, B, C, D Class I, Zone 1, Group IIC; T-Code T6 / T4
	IECEx		Ex d IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65°C; Ex tb IIIC T80/130°C Db IP6x
	ATEX		II 2G Ex d IIC T6/T4 Gb, -40 ≤ Ta ≤ +40/+65°C; II 2D Ex tb IIIC T80/130°C Db IP6x
	CE markings		ATEX (Directive 94/9/EC) Electromagnetic Compatibility (Directive 2004/108/EC) Low Voltage (Directive 2006/95/EC)

ORDER INFORMATION

DRÄGER POLYTRON® 8310

	Aluminium	SS316L
Without relays	45 44 807	45 44 816
With relays	45 44 808	45 44 817

Magnetic wand for menu access (blue body, white logo)	45 44 101
Pipe Mount Kit	45 44 198
Duct Mount Kit	68 12 725
Junction Box Aluminium for Remote Mount	45 44 099
Junction Box Stainless Steel for Remote Mount	45 44 098

Accessories

Process Adapter	68 11 330
Protection Labyrinth	68 11 135