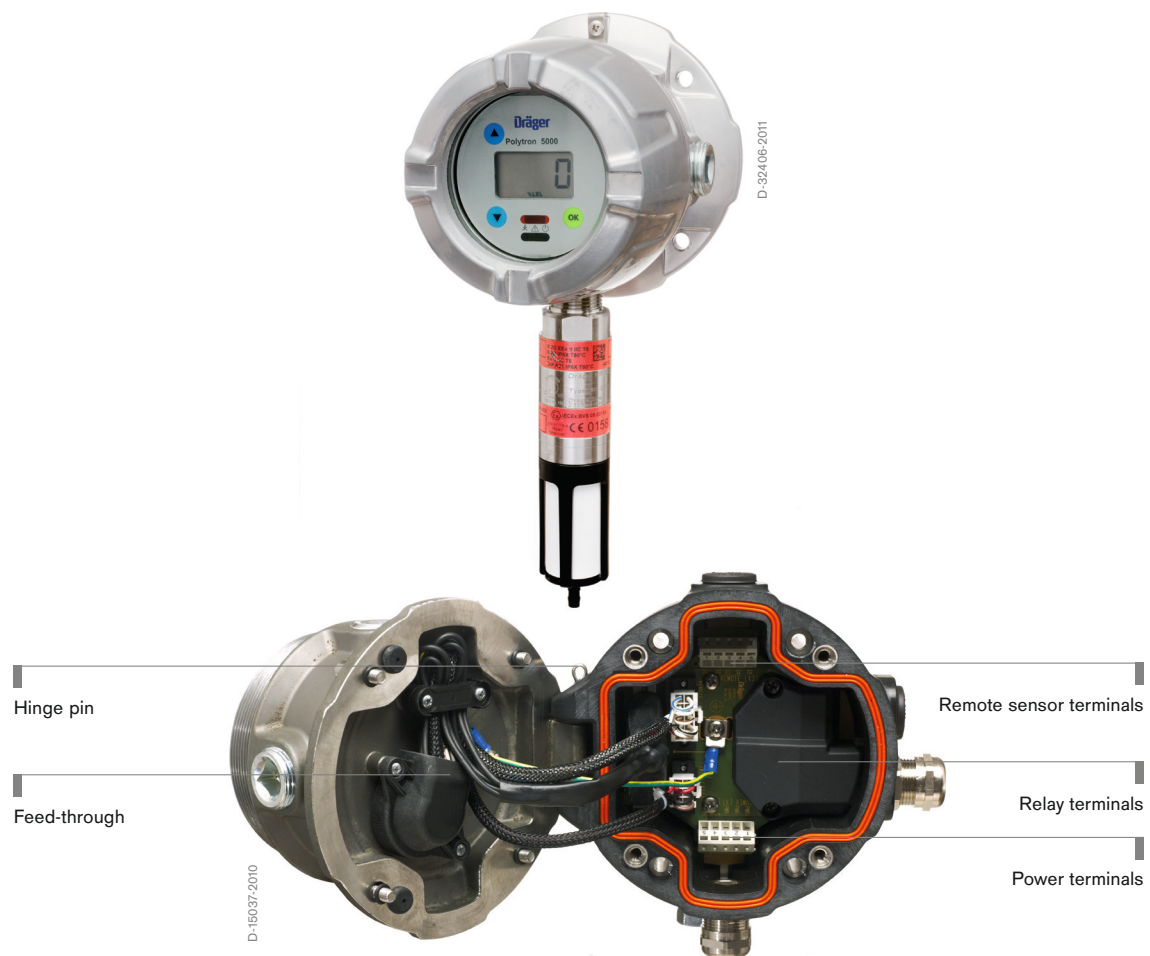# Dräger Polytron® 5310
Flammable Gas Detection

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

Hinge pin

Feed-through

Remote sensor terminals

Relay terminals

Power terminals

Benefits

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 ambientconditions

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.

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. Anadditional 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

Benefits

– 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)

System components

ST-8821-2005

DrägerSensor IR

Upgrade from Catalytic bead to infrared technology with ease using the DrägerSensor IR. The Sensor IR can replace catalytic ex-sensors (pellistors) from the majority of manufacturers without replacing controllers, cables, junction boxes or control systems.

D-27777-2009

Dräger REGARD® 3900

The Dräger REGARD® 3900 is a standalone, self contained control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable between 1 and 16 channels, depending upon the type and quantity of input/output boards installed.

System components

2-669-95

Dräger REGARD® control system

Tried and tested thousands of times and infinitely flexible. The modular Regard® control system can be individually adapted to any monitoring task. Suitable for SIL 2 systems, the Regard® system is also ATEX approved, and meets EMC directive standards.

ST-335-2004

Dräger REGARD-1

The Dräger REGARD-1 is a standalone, self contained single channel control system for the detection of Toxic, Oxygen and Ex hazards. The control system is fully configurable for a single input from either a 4 to 20 mA transmitter or a Dräger Polytron SE Ex measuring head.

Accessories

D-85363-2013

Magnetic Wand

for menu access

Related Products

D-14979-2010

Dräger Polytron® 5700

Quick, reliable and cost-effective detection of combustible gases and vapors in ambient air: the microprocessor-based transmitter is the result of more than 40 years of experience in measurement technology and contains a new, innovative IR sensor with drift-free optics. These optics are extremely resistant against deposits and insects in the beam.

ST-8822-2005

Dräger PIR 3000

The Dräger PIR 3000 is an explosion proof infrared gas detector for continuous monitoring of combustible gases and vapors. Based on a stainless steel SS 316 enclosure as well as on a good measuring performance, this transmitter offers an excellent price-performance-ratio.

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.)	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 190 mm
	Weight (approx.)	without e-Box, aluminum	4.9 lbs / 2.2 kg
		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 -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;
			II 2D Ex tb IIIC T80/130°C Db, -40°C ≤ Ta ≤ +40/+65°C
	CE-mark		ATEX (directive 94/9/EC) Electromagnetic compatibility (directive 2004/108/EC) Low voltage (directive 2006/95/EC)

Technical Data

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

**) CSA pending

Ordering Information

Dräger Polytron 5310

	Aluminum 'd'	SS316L 'd'	Aluminum 'e'	SS316L 'e'
Without relays	45 44 370	45 44 372	45 44 374**)	45 44 378**)
With relays	45 44 371	45 44 373	45 44 375***)	45 44 379***)
Remote version w/o relays			45 44 376*)	45 44 380*)
Remote version w/relays			45 44 377*)	45 44 381*)

*) order respective Sensing Head DSIR Remote 'e' Version and e-Box 68 12 275 separately

**) order e-Box 68 12 420 for power only wires separately

***) order e-Box 68 12 275 for power and/or relay wires separately

Magnetic wand for menu access (blue body, white logo)	45 44 101
e-Box Power only version (includes 1 cable gland) / Docking Station	68 12 420
e-Box Power, Relay and/or Remote version (includes 2 cable glands) / Docking Station	68 12 275
Cable Gland e-Box	68 12 868
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

Remote 'e' Versions

Sensing Head DSIR complete Set e for remote 'e' versions	68 11 165
Sensing Head DSIR complete Set e2 for remote 'e' versions	68 11 265

Accessories

Process Adapter	68 11 330
Protection Labyrinth	68 11 135

Notes

CORPORATE HEADQUARTERS
Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany
www.draeger.com

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

**Locate your Regional
Sales Representative at:
www.draeger.com/contact**

SYSTEM CENTERS
P. R. CHINA
Draeger Safety Equipment
Co., Ltd.
A22 Yu An Rd, B Area,
Tianzhu Airport Industrial Zone,
Shunyi District, Beijing 101300
Tel +86 10 80 49 80 00
Fax +86 10 80 49 80 05

GERMANY
Dräger Safety AG & Co. KGaA
Revalstrasse 1, 23560 Lübeck
Tel +49 451 882-2794
Fax +49 451 882-4991

UNITED KINGDOM
Draeger Safety UK Ltd.
Blyth Riverside Business Park
Blyth, Northumberland NE24 4RG
Tel +44 1670 352 891
Fax +44 1670 544 475

REGION EUROPE SOUTH
Dräger Safety France SAS
25, rue Georges Besse
92182 Antony Cedex, France
Tel +33 1 46 11 56 00
Fax +33 1 40 96 97 20
Europe.South@draeger.com

USA
Draeger Safety, Inc.
505 Julie Rivers, Suite 150
Sugar Land, TX 77478
Tel +1 281 498 1082
Fax +1 281 498 5190

REGION ASIA PACIFIC
Draeger Safety Asia Pte Ltd
25 International Business Park
#04-20/21 German Centre
Singapore 609916
Tel +65 6308 9400
Fax +65 6308 9401
asia.pacific@draeger.com

**REGION CENTRAL AND SOUTH
AMERICA**
Dräger Panama Comercial
S. de R.L.
Complejo Business Park,
V tower, 10th floor
Panama City
Tel +507 377-9100
Fax +507 377-9130
contactcsa@draeger.com

REGION MIDDLE EAST, AFRICA
Dräger Safety AG & Co. KGaA
Branch Office
P.O. Box 505108
Dubai, United Arab Emirates
Tel +971 4 4294 600
Fax +971 4 4294 699
contactuae@draeger.com