

Product description

Safety point gas detectors for industrial safety applications for trace (ppm) detection of fugitive emissions of H₂S, CO and CO₂ and for CH₄ leak detection in %LEL.



Typical applications

CO₂

Modified atmospheres, Indoor air quality, Stowaway detection, Cellar and gas stores, Marine vessels, Greenhouses, Landfill gas, Confined spaces, Composting platforms, Cryogenics, Industrial, Plant rooms, Ventilation management, Mining, Incubators, Shipping containers, Refrigeration plant, ...

CH₄

Bio-ethanol plants, Landfill sites, Sewage treatment plants, Biogas & biomethane production, LNG/LPG storage & bottling plants, Natural gas plants, Mining, CBM (Coal bed methane)...

H₂S

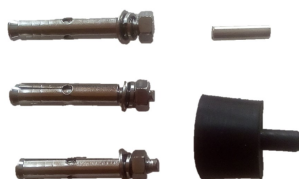
Tunnelling, Sewage treatment plants, Landfill sites, Biogas plants, Composting platforms, Fibre production, ...

CO

Underground parking, emission control in engine rooms or from coal, gas and oil boilers, mining (slow combustion of coal), metal refining, heat treatment...

Highlights

- Diffusion mode detection principle
- Advanced non-dispersive infrared (NDIR) technique for detection of Methane and Carbon dioxide.
- Industrial electrochemical (ECD) sensors for detection of Hydrogen sulphide and Carbon monoxide
- All-in-one transmitter: 4 digit display, 4-20mA output, RS485, 2 gas alarm relays (positive safety)
- Magnetic key for non-intrusive local configuration and calibration unit.
- Suitable for use in hazardous zone 1 and 2.
 - Exd IIC T6 Gb enclosure (IEC EN 60079-0)
 - Ex ia IIC T6 NDIR sensors (IEC EN 60079-11)
- Rugged IP65 transmitter enclosure in aluminium die casting with blue epoxy protective coating, windowed cover
- Stainless steel sensor enclosure with fritted filter.
- No poisoning of NDIR sensors
- Low cost and long service life
- Delivered with 3 fixing screw, magnet



Product specifications

Safety

Transmitter enclosure	Suitable for use in hazardous zone 1 and 2.
Infrared sensors	Exd IIC T6 Gb (IEC EN 60079-0) (certificate No. 11.3147 - CNEX)
Electrochemical sensors	Ex ia IIC T6 (IEC EN 60079-11) (certificate No. GYB101873 - Ex NEPSI)
	Not certified for hazardous areas

Mechanical

Transmitter enclosure	IP65 Aluminium die cast, blue epoxy protective coating, windowed cover 2 cable entries M20 (with stainless steel cable gland and closing tap) Dimensions : L 175 x W 150 x H 108 mm / Ø 104 mm - Weight : 1.5 kg Stainless steel AISI 304, with fritted protective filter, IP54
Sensor enclosure	

Electrical

Supply voltage	12 to 24 VDC
EMC conformity	Compliant to EN 50081-1 and EN 50082-1
Wiring terminal	

1	2	3	4	5	6	7	8	9	10
TA	TB	HIGH	HIGH	LOW	LOW	V+	V-	IOUT	GND

1: TA (RS485+) / 2: TB (RS485-) / 3 & 4: High alarm contact
5 & 6: Low alarm contact / 7: VDC+ / 8: VDC- / 9: 4-20mA+
10: GND (4-20mA-)

Electronics

Display	4 digits 7 segments LED display
Analogue output	4-20mA, source type
Digital outputs	2 built-in relays for low and high gas alarms, positive safety configuration Alarm threshold: freely configurable for each relay
Communication	Serial RS485 with proprietary communication protocol
Reset function	Restores the factory settings in the case of user's wrong operation

Sensors

	Type	Range	Precision	Display	T90	Lifetime
CH₄	NDIR	0-100%LEL	≤ ± 5% FS	1%	≤30s	5-8 years
CO₂	NDIR	0-5000 ppm 0-10%vol	≤ ± 3% FS	1 ppm 0.01%	≤30s	5-8 years
H₂S	ECD	0-100 ppm	≤ ± 3% FS	1 ppm	≤60s	≥ 2 years
CO	ECD	0-500 ppm	≤ ± 3% FS	1 ppm	≤30s	≥ 2 years

Sensor calibration	Auto-zeroing function (recommended each 1 to 3 months) 2 points zero and span calibration is recommended each 3 to 6 months
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Environmental

Operating temp. range	NDIR : - 40°C to + 50°C / ECD : -20°C to +40°C
Operating RH range	0 - 95% RH non condensing
Operating pressure range	800 to 1200 hPa



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