Fixed Gas Detection Systems

smart GasDetection Technologies

Transmitter IR22 D with display and horn

For monitoring combustible gases (HC) and CO_2

SIL

GfGsafety.com

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The IR22 D infrared transmitter uses the adsorption spectra of gases for targeted monitoring of specific combustible gases and CO_2. The measurement method allows reliable monitoring even under difficult conditions, such as a low percentage of oxygen in the ambient air.

Selective and insensitive

Not only is the method highly selective, it is also extremely insensitive to sensor toxins and, unlike for example catalytic sensors, can monitor the concentration of combustible gases even when there is little or no oxygen in the gas mixture.

Communicates analog and digital

The measured values and status information of the IR22 D can be transmitted either analog (4-20 mA or 0.2-1 mA) or digital (RS-485). This allows not only the use in combination with any GfG controller, but also the connection to programmable logic controllers (PLC).

Protection level and display elements

The compact housing for wall mounting is protected against splash water and dust (IP54). It has a 2.2" display with integrated horn and two status LEDs. The display shows the gas type and unit as well as the current measured value. Backlit green in measuring mode, the display changes to red in the event of an alarm. An acoustic warning signal sounds at the same time. The status LEDs are used to indicate operational readiness (green) and special states (yellow).

One-man calibration and adjustment

All service and maintenance work can be performed by a single technician. A calibration adapter facilitates regular function checks. It ensures the safe and steady supply of test gas during maintenance.

Variants for every requirement

The basic version of the IR22 is sufficient for many applications. If a measured value display on site is desired, there is also a variant with display and acoustic alarm.

IR22 Basic variant
IR22 D with display to show the current measured value

In combination with GfG's powerful controllers, both variants are the right choice for a wide range of of use cases.

Overview of the gases and measuring ranges:
Other gases on request.

» Carbon dioxide	(CO_2)	0 to 1.0 % by volume
		0 to 5.0 % by volume
		0 to 10.0 % by volume
		0 to 25.0 % by volume
		0 to 50.0 % by volume
» Methane	(CH_4)	0 to 100 % LEL
		0 to 5.0 % by volume
» Difluormethane/R32	(CH_2F_2)	0 to 100 % LEL
		0 to 14.0 % by volume
» Propane	(C_3H_8)	0 to 100 % LEL
		0 to 2.0 % by volume

IR22 D transmitter with one cable entry for analog connection

IR22 D Technical Data:

Measuring principle:	infrared (IR)
Measuring ranges [1]:	0 to 100 % LEL 0 to 50 % by volume
Gas supply:	Diffusion or gassing per calibration adapter
Lifetime of the sensor:	> 5 years
Response time:	t_{90} < 50 s
Temperature:	-25 to +50 °C
Humidity:	0 to 95 % r. h. (non-condensing)
Air pressure:	80 to 130 kPa
Output signal:	
Analog:	0.2-1 mA or 4-20 mA
Digital:	RS-485
Power supply:	12 to 30 V DC
Housing:	Plastic
Protection class:	IP54
Dimensions:	96 x 123 x 49 mm (W x H x D)
Weight:	170 - 195 g[1]
Approvals / Certifications:	
Functiona	
Safety (SIL):	DIN EN 61508-2: 2011

[1] Sensor dependent

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