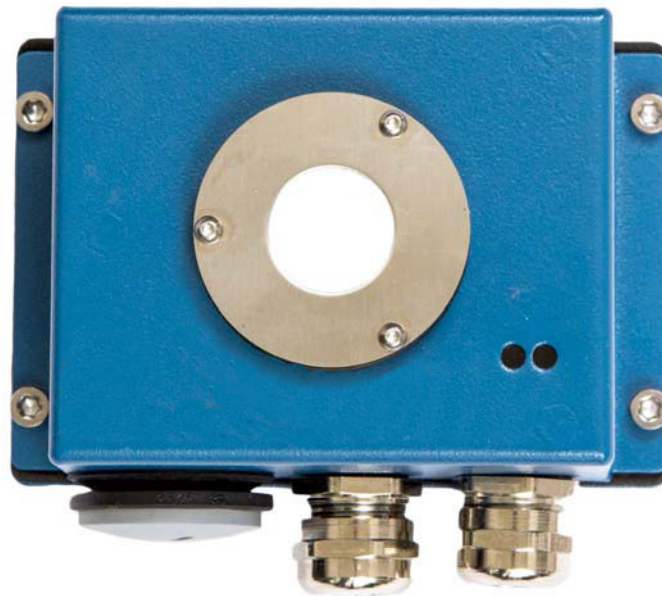


MODEL GEO-1090/CO₂

Gas sensor for detection of Carbon Dioxide CO₂



Mode of operation

The infra red sensor technology is diffusion based and carbon dioxide specific, housed in a robust metallic enclosure and designed for one-person calibration.

The outputs allow for user selection of 0-20mA, 4-20mA, 0-10Vdc and digital BUS. The BUS option is used in conjunction with the addressable KIMESSA CANline- 32-channel gas monitor panel, incorporating data logging and multi-optional programming capability. The CO₂-detector is available with a linearised measuring range from 5000 ppm up to 5.0 Vol. % and its output signal is temperature compensated from -30° C to +70° C.

A novel feature facilitates direct measurement of the gas level via a 3.5mm jack connection, enhancing the overall flexibility of the CO₂ sensor.

The GEO-1090/CO₂ is also designed for use with a hand held optical calibration tool called the CRC – Calibration Remote Control, permitting calibration of remote CO₂ sensors.



Technical specifications

Measuring range:	0...5000 ppm / linear
	0...10'000 ppm / linear
	0...25'000 ppm / linear
	0...50'000 ppm / linear
Response time t 90:	< 90 seconds
Operating temperature:	-30 °C ... +70 °C
Start up after reconditioning:	maximum 1 h
Pressure range:	atmospheric ± 10%
Air humidity:	5...95%
Location sensitivity:	none
Life-span at 20 °C:	depends on the application
Protection class:	IP 54
Weight:	550 gr
Output signal analogue:	4...20 mA/ 0...20mA/
(selectable with jumper)	0...10 VDC/ 2...10 VDC
Cable analogue:	3-core cable, shielded, 3x1.00m ²
Output signal BUS (digital)	CAN-Bus
Cable BUS (digital):	4-core cable, shielded, 4x1.00m ²
Supply voltage:	16.0...30.0 VDC

Cross sensitivity to other gases

Test gas	concentration of the test gas	display on the CO ₂ -Detector
Ammonia NH ₃	100 ppm	...
Chlorine Cl ₂	... ppm	...
Ethylene C ₂ H ₄	... ppm	...
Carbon Dioxide CO ₂	5000 ppm	5000 ppm
Carbon Monoxide CO	250 ppm	...
Propane C ₃ H ₈	5000 ppm	...
Sulphur Dioxide SO ₂	100 ppm	...
Hydrogen Sulphide H ₂ S	... ppm	...
Nitrogen Dioxide NO ₂	20 ppm	...
Nitric Oxide NO	48 ppm	...
Hydrogen H ₂	90 ppm	...

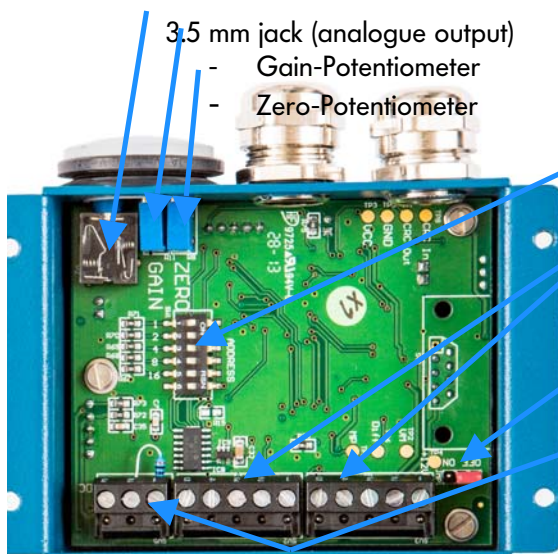
Inspection (Maintenance)

Annual calibration is advised (depending on the application). The **calibration gas** should be 75% of the measurement range, and must contain synthetic air as the carrier gas.

Dimensions

Length:	110 mm
With:	95 mm
Height:	68 mm

Electronic



3.5 mm jack (analogue output)
- Gain-Potentiometer
- Zero-Potentiometer

Dip-Switch for BUS-address

BUS-connectors

BUS end-resistor

Connector for:
4..20mA/0..20 mA/0...10 VDC/2...10 VDC
1 = V-
2 = Signal
3 = +24VDC