

GD10P CO₂

IR Point Gas Detector



Presentation

The GD10P-CO₂ uses state of the art IR gas measurement, to give a fast, reliable response. The GD10P has set the standard for gas detection in the areas of safety, stability and low maintenance. The GD10P comes with 5 years warranty

The GD10P-CO₂ has been designed with features that provide an effective response to the detection of CO₂ in a wide range of industrial environments from boiler plant rooms to offshore petrochemical installations.

The GD10P-CO₂ differs from all other point infrared gas detectors, because they utilise silicon based solid-state sources.

The complete optomechanical design and construction is so stable that an ultra fast speed of response can be achieved whilst providing unparalleled service life and detector stability, thus saving on maintenance and service costs.

We offer the longest combined detector and IR source warranty on the market.

Supplied with worldwide hazardous area approvals. Certified for use in SIL 2 system.

An industry standard HART® interface is used for configuration of special fault levels as well as access to extended maintenance data.

Features and benefits include an integral termination compartment for reduced installation time: the unit is ready out of the box, low power consumption which reduces load on UPS and independently heated mirror and lens for high performance detection in rough environmental conditions.

Features

- Solid state IR sources (SimSource™) for superior long term performance compared to filament lamps
- No recalibration, monitors and accounts for all changes in optical path thanks to true dual path, double compensation optical design
- Selectable response rate
- Dual layer weather protector (No mesh, gauze, hydrophobic filters or sinters = No delay, no failure on demand)
- Early dirty optics warning for improved preventative maintenance

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Technical Data

General

Detection method	Ir-absorption, dual wavelength, dual path
Ir-source	Solid state ir source, 50hz flash
Gases detected	CO ₂
Self-test	Continuous
Calibration	Factory set, no field recalibration
Configuration	Hart (response time, fault levels)

Performance

Accuracy	±5% Fs between 0-50 % reading	
	±7% Fs between 50-80 % reading	
Response time	T20 = 1 sec.	(0.3 Sec)
	T50 = 2.5 Sec	(0.7 Sec)
Configurable	T90 = 6 sec	(1.6 Sec)

Output signal

Standard	Current source 4 – 20 mA, max. Load Impedance 500 ohm
Option	Current sink 4 – 20 mA
Hart®	Maintenance and configuration
Detector warnings:	Configurable (HART)
- Early clean optics	Pre warning (2 mA)
- Dirty optics	Dirt accumulation (1 mA)
- Detector failure	Internal fault (0 mA)

Electrical

Power supply	24V dc, range (18 - 32v dc)
Power consumption	Approx. 3.5 W
Connection	3 Wires (0.5mm ₂ - 2.5 mm ₂)
Cable entry	M20 exe cable gland

Temperature range

Storage	-40°C to +70°C (-40°F to +158°F)
Operating	-40°C to +60°C (-40°F to +140°F)
Humidity (operation)	100% RH

Explosion proof housing

Protection category	IP66/IP67 din 40050
Housing material	Stainless steel sis2343 (astm316)
Weight	Approx. 2.9 Kg
Dimensions (lxwxh)	251 X 1 04 x 1 05 (mm) 9.89 X 4.1 X 4.13 (Inches)

Warranty

5 Years full warranty on a complete instrument
15 Years warranty on the ir-sources

Approvals

ATEX / IECEx / INMETRO	II 2G Ex de IIC T6 Gb
CSA	Ex de IIC T6 (Canada only) Class I, Division 2, Groups A, B, C, and D (USA and Canada)
Other	SIL2 (Software SIL3), ABS, MED

Versions

Standard ranges (volume) :
10000Ppm (1%) , 3%, 5% 10% and 100%
The 0-100% volume is also compensated for Methane interference.

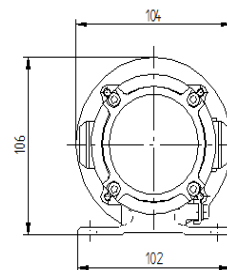
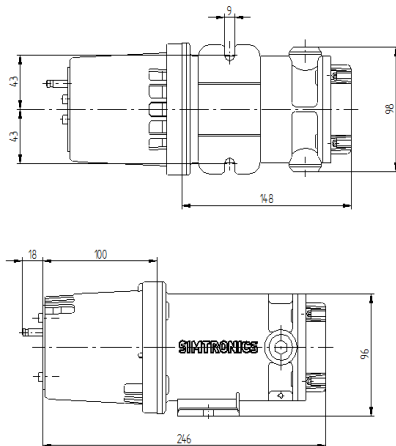
Other versions are available, please contact your dealer.

Front cover

Required, select one	
- Weather protection	For standard point detector
- Sample flow housing	For sampling systems and testing
- Duct mount kit	For through wall installation

Accessories

Mosquito net	Extra insect protection
Sun shade	Shielding for extreme radiation exposure



Teledyne Oldham Simtronics quality assurance programmes demand the continuous assessment and improvement of all our products. Information in this leaflet could thus change without notification and does not constitute a product specification. Please contact Teledyne Oldham Simtronics or their representative if you require more details.



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