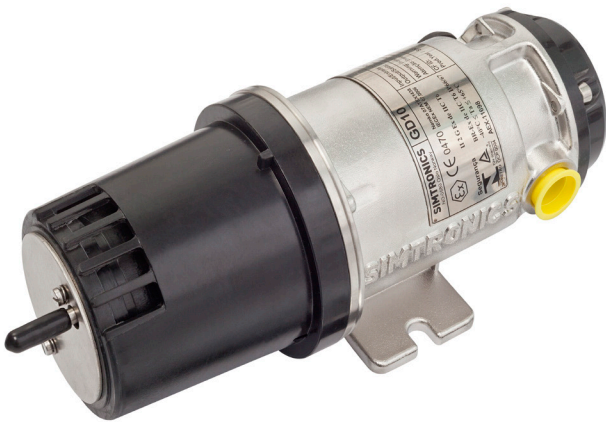


GD10P CO₂

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

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) |
| Configurable | T50 = 2.5 Sec (0.7 Sec) 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 (lwxhx) | 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.

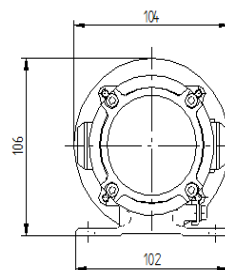
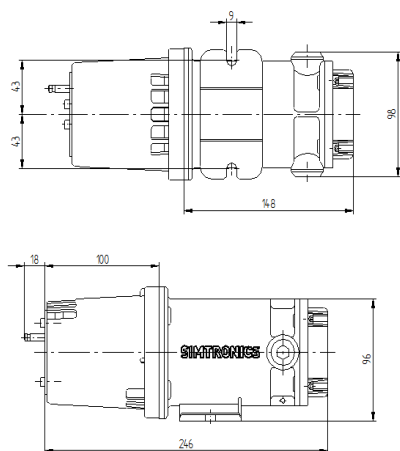
Other versions are available, please contact your dealer.

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 Gas & Flame Detection 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.



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