3M™ Simtronics™ 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 wi th 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 and SIL 3 systems.

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 Configurable	T20 = 1 sec. (0.3 Sec) 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: - Early clean optics - Dirty optics - Detector failure	Configurable (HART) Pre warning (2 mA) Dirt accumulation (1 mA) 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 + 65°C (-40°F to +149°F)
Humidity (operation)	100% RH

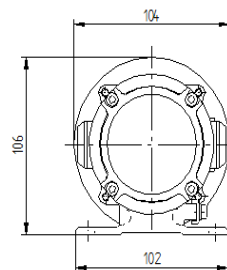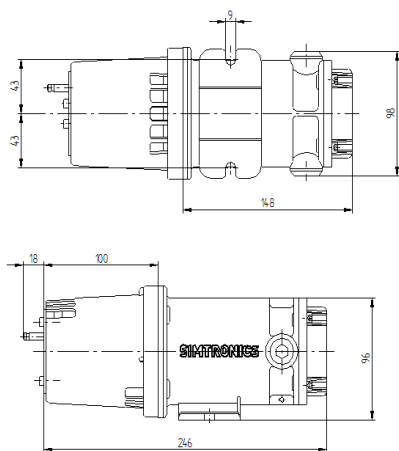| Explosion proof housing	
Main compartment	Exd iic t6
Terminal comp.	Exe
Protection category	IP66/IP67 din 40050
Housing material	Stainless steel sis2343 (astm316)
Weight	Approx. 2.9 Kg
Dimensions (lxwxh)	251 X 1 04 × 1 05 (mm) 9.89 X 4.1 X 4.13 (Inches)

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

Approvals	
ATEX	Ii 2G ex d e IIC T5/T6 Gb
CSA	Ex d e IIC T6 (canada only) Class i, division 2, groups A, B, C, and D (for usa and canada)
IECEX	Ex d e IIC T5/T6 Gb
INMETRO	Ex d e IIC T6 Gb
Abs	# 04-Ld444057-pda
Sil 2/3	Tüv 968/fsp 1186.00/15

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

3M 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.