

# GD10P-CO2

## IR Point Gas Detector

Fast reliable response  
No field recalibration  
Solid state IR-source

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. Suitable for use in SIL 2 systems.

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

### Features

Solid state IR sources (SimSource™)

High IR source flash rate

True dual path, double compensation optical design

Selectable response rate

Dual layer weather protector

Early dirty optics warning

Integral termination compartment

Low power consumption

Independently heated mirror and lens

### Benefits

Superior long term performance compared to filament lamps

Improved stability and speed of response

No recalibration, monitors and accounts for all changes in optical path

Fastest IR point detector on the market, ideal for speed critical applications

No mesh, gauze, hydrophobic filters or sinters = No delay, no failure on demand

Improved preventative maintenance

Reduced installation time, the unit is ready out of the box

Reduces load on UPS

High performance detection in rough environmental conditions



## Technical Data

### GENERAL

Detection method	IR-absorption, dual wavelength, dual path
IR-Source	Solid state IR source, 50Hz flash
Gases detected	CO2
Self-test	Continuous
Calibration	Factory set, no field recalibration
Configuration	HART (response time, fault levels)

### PERFORMANCE

Lifetime stability	±7% of full scale (FS) reading	
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)
Start-up time	Less than 60 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	24 V DC, range 18-32 V DC
Power consumption	Approx. 3.5 W
Connection	3 wires (0.5mm <sup>2</sup> - 1.5mm <sup>2</sup> )
Cable entry	M20 EExe cable gland

### TEMPERATURE RANGE

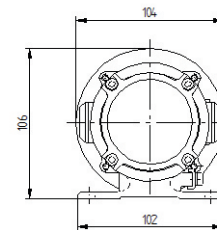
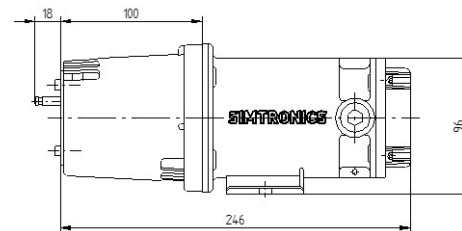
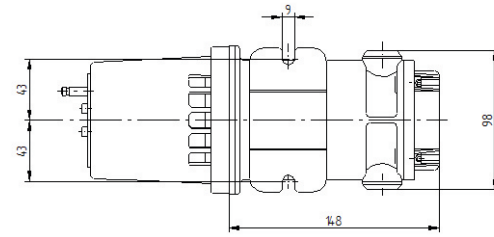
Storage	-40°C to + 70°C
Operating	-20°C to + 65°C
Humidity (operation)	100% RH

### EXPLOSION PROOF HOUSING

Main compartment	EExd IIC T6
Terminal comp.	EExe
Protection category	IP66/IP67 DIN 40050
Housing material	Stainless steel SIS2343 (ASTM 316)
Weight	Approx. 2.9 kg
Dimensions	264L x 104W x 106H (mm)
	10.4 x 4.1 x 4.2 (inches)

### WARRANTY

5 years full warranty on complete instrument  
15 years warranty on the IR-sources



### APPROVALS

ATEX	07ATEX 1438
CSA	1773527
IECEX	NEM 07.006
INMETRO	AEX-11698
ABS	# 04-LD444057-PDA
SIL	Qualified for SIL2 and SIL3 systems

### 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