GD10P

IR Point Gas Detector

Fast reliable response
No field recalibration
Solid state IR-source

The Simtronics GD10P detector is the benchmark for combustible gas detection on offshore installations. It has set the standard for gas detectors in the areas of safety, stability and low maintenance. GD10P comes with 5 years warranty.

SIL3 IEC 61508

HART COMMUNICATION PROTOCOL

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

These infrared gas detectors differ from all other models, because they utilise silicon based solid-state infrared 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.

For retrofit applications, a bridge interface is available allowing the detector to be connected directly to catalytic systems, using the existing cabling and control modules.

Supplied with worldwide performance and hazardous area approvals. Suitable for use in SIL 2 systems.

An industry standard HART® interface is used for configuration of the optical fast response time and special fault levels as well as access to extended maintenance data.

Features / Benefits

Features	Benefits
Solid state IR sources (SimSource™)	Superior long term performance compared to filament lamps
High IR source flash rate	Improved stability and speed of response
True dual path; double compensation optical design	No recalibration, monitors and accounts for all changes in optical path
Selectable response rate	Fastest IR point detector on the market, ideal for speed critical applications
Dual layer weather protector	No mesh, gauze, hydrophobic filters or sinters = No delay, no failure on demand
Early dirty optics warning	Improved preventative maintenance
Integral termination compartment	Reduced installation time, the unit is ready out of the box
Low power consumption	Reduces load on UPS
Independently heated mirror and lens	High performance detection in rough environmental conditions

SIMTRONICS
Fire & Gas

GD10P

www.simtronics.eu

Technical Data

GENERAL

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

PERFORMANCE

Lifetime stability *)	±5% of full scale (FS) reading	
Accuracy *)	±3% FS between 0-50 % reading	
	±5% FS between 50-100 % reading	
Response time	Methane	Other Gases
	T20 = 0.3 sec	T20 < 1.0 sec
	T50 = 0.7 sec	T50 < 2.5 sec
	T90 = 1.4 sec	T90 < 6.0sec
Start-up time *)	Less than 60 sec.	
	*) Refers to -20°C to + 45°C	

OUTPUT SIGNAL

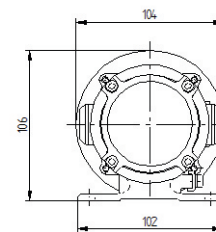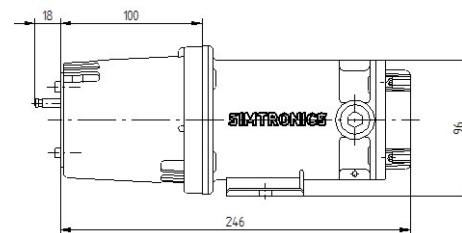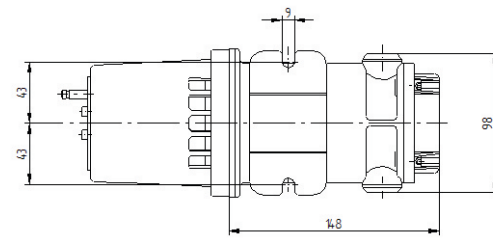|	
Standard	Current source 4 – 20 mA, max. load impedance 500 Ohm
Option	Current sink 4 – 20 mA
HART®	Maintenance and configuration
Detector warnings:	(Default)
-Early clean optics	Pre warning (2 mA)
-Clean optics	Dirt accumulation too high (1 mA)
-Detector failure	Internal fault (0 mA)
(Note: Warning levels are configurable)	

ELECTRICAL

Power supply	24 V DC, range18-32 V DC
Power consumption	Approx. 3.5 W
Connection	3 wires (0.5mm^2 - 2.5mm^2)
Cable entry	M20 EExe 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	EExd IIC T6
Terminal comp.	EExe
Protection category	IP66/IP67 DIN 40050
Housing material	Stainless steel SIS2343 (ASTM 316)
Weight	Approx. 2.9 kg (6.4 Lbs)
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	07ATEX1438
CSA	1773527 (100% LEL Methane)
IECEx	NEM 07.0006
INMETRO	AEX-11698
MED	B-5901
ABS	# 04-LD444057-PDA
SIL	Qualified for SIL2 and SIL3 systems

VERSIONS

Gas	Ranges
Methane	0-100%LEL, 0-100%Vol
Propane	0-100%LEL

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	Through wall installation

ACCESSORIES

Mosquito net	Extra insect protection
Sun shade	Shielding for extreme radiation exposure
Handheld Terminal	For maintenance

Specifications subject to changes without prior notice. E & OE. Reg 853-814559-R11

SIMTRONICS Fire & Gas

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