



Description

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 a 5 year warranty.

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 optional fast response time and special fault levels as well as access to extended maintenance data.

Fast Reliable Response
No Field Recalibration
Solid State IR-Source



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

Model GD10P ■ IR Point Gas Detector

Reg 853-81 4559-R09

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

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

T₂₀ = 1 sec. (configurable 0.3 sec)

T₅₀ = 2.5 sec. (configurable 0.7 sec)

T₉₀ = 6 sec. (configurable 1.6 sec)

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: Configurable (HART)

Early Clean Optics - Prewarning (2 mA)

Dirty Optics - Dirt accumulation (1 mA)

Detector Failure - Internal fault (0 mA)

Electrical

Power Supply: 24 VDC range 18-32 VDC

Power Consumption: Approx. 3.5W

Connection: 3 wires (0.5mm² - 1.5mm²)

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)

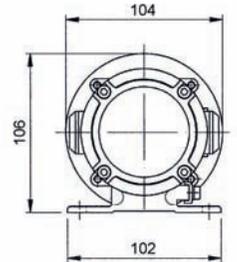
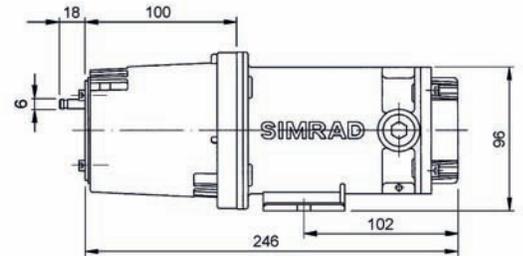
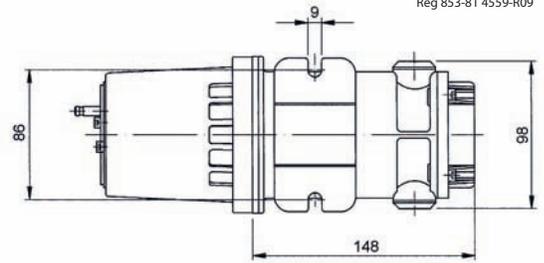
Weight: Approx. 2.9 kg (6.4 Lbs)

Dimensions:

264L x 104W x 106H (mm)

10.4 x 4.1 x 4.2 (inches)

Specifications subject to change without notice



Approvals

ATEX: 07ATEX1438

CSA: 1773527 (100% LEL Methane)

IECEX: NEM 07.0006

INMETRO: AEX-11698

ABS: # 04-LD444057-PDA

SIL: Qualified for SIL2 systems

MED: B - 5901

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

Warranty

5 years full warranty on complete instrument

15 years warranty on the IR-sources



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ISO 9001: 2008
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