



3M™ Simtronics™ GD10 P

IR Point Gas Detector

Presentation



The GD10P infrared gas 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.

The GD10P differs from all other infrared gas detectors because it uses a silicon based solid-state infrared source. The optical block is so stable that it comes with a 15 year warranty and provides an unparalleled detector stability, an unmatched service life and a ultra fast response time.

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.

The GD10P also features heated optics, HART interface, fail-safe operation and global approvals.

Features

- 5 years warranty*
- Solid state IR source (SimSource™) for superior long term performance
- Zero drift - no recalibration
- Fast Response Time $T_{90} < 1.5s$
- SIL 2 certified
- Early dirty optics warning for improved preventative maintenance

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IR Point Gas Detector

Technical data

General

Technology	IR-absorption, dual wavelength, dual path
IR-source	Solid state IR source
Gases detected	Hydrocarbons, see separate data sheet for CO ₂ detection
Self-test	Continuous
Calibration	Factory set, no field recalibration
Configuration	Via HART (response time, fault levels)

Performance

Accuracy	±3% FS between 0-50 % reading Refers to -20°C to +45°C ±5% FS between 50-100 % reading	
Response time	Methane T20 = 0.3 Sec T50 = 0.7 Sec T90 = 1.4 Sec	Other gases T20 < 1.0 Sec T50 < 2.5 Sec T90 < 6.0 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 + 65°C (-40°F to +149°F)
Humidity (Operation)	100% RH

Explosion proof housing

Protection category	IP66/IP67
Housing material	Stainless steel SIS2343 (ASTM316)
Weight	Approx. 2.9 Kg (6.4 Lbs)
Dimensions (LxWxH)	264 X 104 x 106 (mm) 10.4 X 4.1 X 4.2 (Inches)

Warranty

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

Approvals

ATEX	II 2 g / Ex d e IIC T5/T6 Gb
Csa	C22.2 No 152-M984 and ANSI/TSA 12.13.01-2000 Ex d e IIC T6 (for 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
Various	SIL 2 certified (software is SIL 3), ABS, MED

Versions

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

Other versions are available, please contact your dealer.

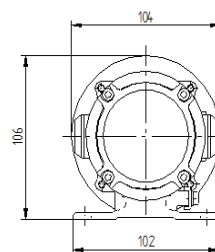
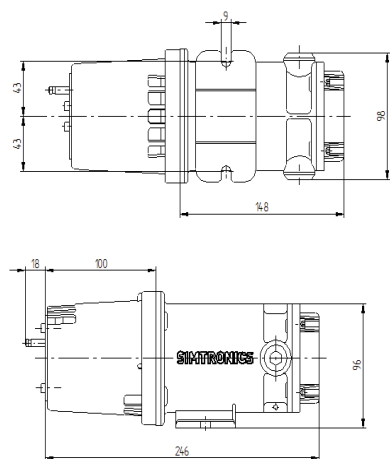
Front cover

Required, select one

- Weather protection	For standard point detector
- Sample flow housing	For sampling systems and testing
- Duct mount kit	For duct monitoring

Accessories

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



Simtronics is a world-class provider of sophisticated gas and flame detection systems. The company has more than 25 years' experience in supplying gas detection for use in applications ranging from plant boiler rooms to offshore petrochemical facilities. Simtronics' products are used worldwide to help protect life and assets.



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