

GD10P

IR Point Gas Detector

Fast reliable response
No field recalibration
Solid state IR-source

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

Cost

Our years of experience and the delivery of over 50 000 units have proven that Simrad GD10P has the lowest cost of ownership of all IR-point detectors available on the market.

NO FALSE GAS ALARMS

A false alarm, resulting in a production shut-down is extremely expensive. The dual wavelength, dual path concept, together with the electronic design, guarantees that there are no false gas alarms. The GD10P will give a fault signal and not a false gas alarm in case of failure in electronics, optical parts or contamination of optics.

NO FIELD RECALIBRATION

Field recalibration of gas detectors is time consuming (cost) and introduces a risk of mistakes (safety). This is why we have designed the GD10P with a stability to stay within the specifications for its service lifetime without recalibration. No other detector on the market has achieved this. The reduced maintenance cost alone will save the entire detector price in 2-3 years or less.

Technology

The detection concept is based on the measurement of infrared radiation passing through a volume of gas. The dual wavelength, dual path concept have been applied by Simtronics (former Simrad Optronics) with great success since 1986 in all types of operating conditions ranging from arctic to subtropical temperatures. With the GD10P, the company has succeeded in establishing an international benchmark for gas detection.

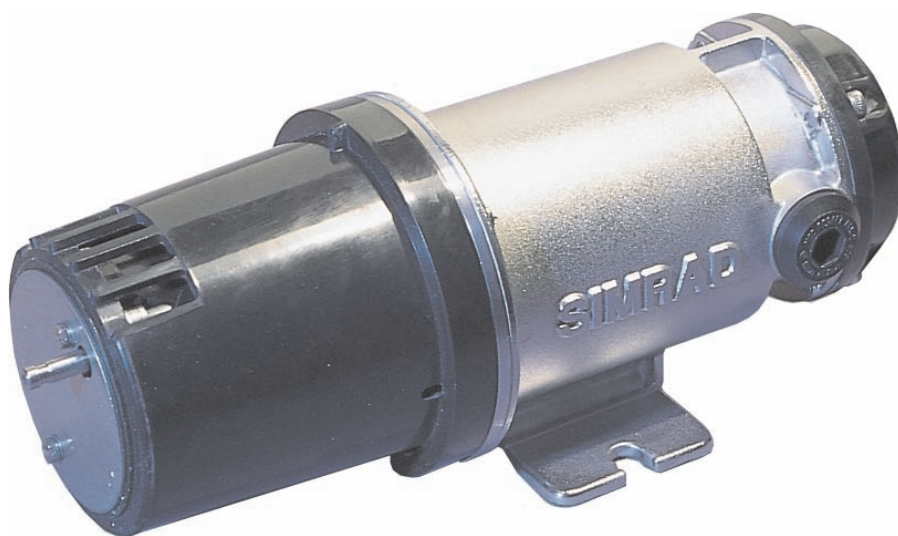
SOLID STATE IR-SOURCE

The silicon-based IR-source used in the GD10P is insensitive to shock and vibration, and does not need to be replaced during the detector service life.

Safety

The response time is among the fastest on the market, giving real world figures. We measure the response from the actual gas release, taking delays of the weather protection, initial detection, etc. into account. A high speed version is also available, with trip levels well below 1 second.

When it comes to detect gas leaks as disaster prevention, your IR point gas detectors are the main barrier. They should be fast, reliable and low maintenance. They should be GD10P.



Technical Data

GENERAL

Detection method	IR-absorption, dual wavelength, dual path
IR-Source	Solid state IR source, 50Hz flash
Gases detected	Hydrocarbons
Self-test	Continuous
Calibration	Factory set, no field recalibration

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. (Option 0.3 sec) T50 = 2.5 sec. (Option 0.7 sec) T90 = 6 sec. (Option 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
Option	HART®
Detector warnings:	
Early clean optics	Pre warning (1 mA pulse)
Clean optics	Dirt accumulation (1 mA) Option: Dirt accumulation (2mA)
Detector failure	Internal malfunction in the detector (0 mA)

ELECTRICAL

Power supply	24 V DC, range 18-32 V DC
Power consumption	Approx. 3.5 W
Connection	3 wires (0.5mm ² - 1.5mm ²)
Cable entry	M20 EExe cable gland

TEMPERATURE RANGE

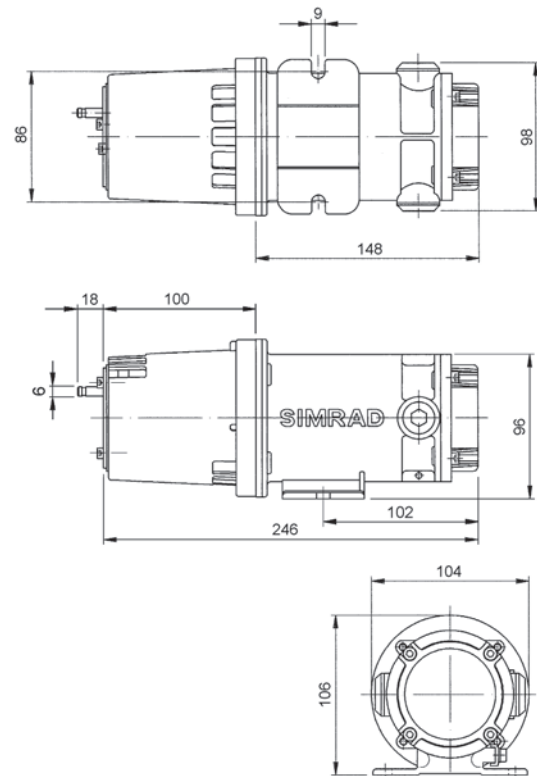
Storage	-40°C to + 70°C
Operating	-40°C to + 65°C
Humidity (operation)	100% RH

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

WARRANTY

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



APPROVALS

ATEX	Directive 94/9/EC, EMC directive 89/336/EEC Article 4
CSA	Standard C22.2 No.152-M1984
SAA (Simtars)	AS 2380.1 / 2380.2 / 2380.6
UL	Class I, Groups C/D, Div. 1
ABS	# 04-LD444057-PDA
SIL	Qualified for SIL2 systems

VERSIONS

Gas	Ranges
Methane	0-100%LEL, 0-100%Vol
Propane	0-100%LEL
Other versions are available, please contact your dealer.	

ACCESSORIES

Weather protection	Standard (Included)
Sample flow housing	For sampling systems and testing
Duct mount kit	Through wall installation
Mosquito net	Extra insect protection
Sun shade	Shielding for extreme radiation exposure