GD10P
IR Point Gas Detector

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.
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 +65°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 (0.5mm² - 1.5mm²)
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 EEEx d IIC T6
Terminal comp. FFxe
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 [Sintars] 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

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