

## ▶ GD10P

### Infrared IR gas detector



### Technical specifications

**Detected gases:**

Hydrocarbon vapors (several versions) and CO<sub>2</sub>

**Detection principle:**

IR-absorption, dual wavelength, dual path - Solid state IR source

**Autotest:** Continuous

**Calibration:** Factory set, no field recalibration

**Accuracy:**

- ±3% full scale between 0 and 50%
- ±5% full scale between 50 and 100%

**Response time:** T<sub>20</sub> = 1 sec. / T<sub>50</sub> = 2,5 sec. / T<sub>90</sub> = 6 sec.

**Power supply:**

24 VDC (18-32 VDC)-Power consumption approx. 3,5 W

**Output signal:** Current source 4-20 mA, load impedance max. 500

Ohm (current sink 4-20 mA optional)

**Environnement:** Humidity 100% HR

**Housing :**

Ex d IIC T6 Gb/Connexion Ex e Protection IP66/IP67 DIN 40050

**Material:** Stainless steel SIS2343 (ASTM 316)

**Dimensions/weight:** 264 x 104 x 106 mm (L, l, h) / Approx 2,9 kg

**Warranty:**

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

**Certifications :**

- ATEX : II 2 G / ex d e IIC T5/T6 Gb
  - CSA : C22.2 No 152-M1984 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)

### Product description

The **GD10P** gas detector has been designed with features that provide an effective response to the detection of gas hazards in a wide range of industrial environments like offshore petrochemicals. It differs from all other IR-sources models on the market because it uses a solid-state infrared source giving it unequalled stability and an exceptional lifespan.

Available in hydrocarbon or CO<sub>2</sub> (carbon dioxide) version, the Simtronics **GD10P** (now Oldham Teledyne) is the infrared gas detection reference on the market.

▶ **A gas detector with unrivaled performance**

The **GD10P** has a very solid optical unit providing the detector with unequalled stability, very fast response time and exceptional lifetime considerably reducing operating costs.

- 5 years full warranty - 15 years warranty on the IR-sources (Simtronics patent)
- Response time T<sub>90</sub> < 1,5s (methane)
- Certified SIL2 (SIL3 software)
- Optical fouling compensation
- Almost zero maintenance

▶ **Advantages of the infrared technology**

- Presence of oxygen is not required for correct measurement, which makes the **GD10P** suitable even in inert gas atmospheres.
- No possibility of H<sub>2</sub>S or silicon vapors poisoning unlike other technologies (catalytic).
- No saturation effects, so no false measurements: the detector is able to monitor gas concentration up to 100 % vol.
- The detector has a continuous self-test function & reports dirty optics and fault conditions to the control system.
- The gas flow rate has no influence on accuracy.
- Due to its reliability, the **GD10P** requires only a few functional tests and no on site special maintenance during its lifetime thus considerably reducing maintenance costs.

▶ **A worldwide recognized reputation**

The explosive gas detector (natural gas, LPG, hydrocarbons, solvents, alcohols) represents the vast majority of gas detection in the petrochemical sector where the infrared technology is preferred.

The **Simtronics GD10P gas detector** is one of the best compromises on the market with its infrared semiconductor technology giving it unequalled stability and an exceptional lifespan.

## Inox 316L - ATEX IECEx - 4-20 mA outpout source - HART

Gas	Measure range	Code
Acetone	0 - 100% LIE C3H6O - Source	GD10-P00-08DG-0XH-00
Acetylen	0 - 100% LIE C2H2 - Source	GD10-P00-02DG-0XH-00
Benzene	0 - 100% LIE C6H6 - Source	GD10-P00-13DG-0XH-00
Butane	0 - 100% LIE C4H10 - Source	GD10-P00-38DG-0XH-00
Carbon dioxide	1 %/vol. ppm CO2 - Source	GD10-P00-23AN-0XH-00
Carbon dioxide	3 %/vol. CO2 - Source	GD10-P00-23BH-0XH-00
Carbon dioxide	5 %/vol. CO2 - Source	GD10-P00-23BC-0XH-00
Carbon dioxide	10 %/vol. CO2 - Source	GD10-P00-23BD-0XH-00
Carbon dioxide	25 %/vol. CO2 - Source	GD10-P00-23BJ-0XH-00
Carbon dioxide	5 %/vol. CO2 (CH4 immune) - Source	GD10-P00-24BC-0XH-00
Carbon dioxide	0 - 100 %/vol. CO2 (CH4 immune) - Source	GD10-P00-24BG-0XH-00
Cyclohexane	0 - 100% LIE C6H12 - Source	GD10-P00-73DG-0XH-00
Ethane	0 - 100% LIE C2H6 (2,4 %/vol.) - Source	GD10-P00-56DG-0XH-00
Ethane	0 - 100% LIE C2H6 (2,4 %/vol.) - Sink	GD10-P00-56DG-0XJ-00
Ethanol	0 - 100% LIE C2H6O (3.1 %/vol.) - Source	GD10-P00-05EG-0XH-00
Ethanol	0 - 100% LIE C2H6O (3.3 %/vol.) - Source	GD10-P00-05DG-0XH-00
Ethylene	0 - 100% LIE C2H4 - Source	GD10-P00-03DG-0XH-00
Ethylene	0 - 100% LIE C2H4 - Sink	GD10-P00-03DG-0XJ-00
Hexane	0 - 100% LIE C6H14 - Source	GD10-P00-12DG-0XH-00
Methane	0 - 100 %/vol. CH4 (HC immune) - Source	GD10-P00-81BG-0XH-00
Methane	0 - 100% LIE CH4 (4.4 %/vol.) - Source	GD10-P00-17EG-0XH-00
Methane	0 - 100% LIE CH4 (5 %/vol.) - Source	GD10-P00-17DG-0XH-00
Methane	0 - 100% LIE CH4 (5 %/vol.) - Sink	GD10-P00-17DG-0XJ-00
Methane	0 - 100 %/vol. CH4 - Source	GD10-P00-17BG-0XH-00
Methane	0 - 100 %/vol. CH4 (Biogas) - Source	GD10-P00-18BG-0XH-00
Methane	0 - 100 %/vol. CH4 (Biogas) - Sink	GD10-P00-18BG-0XJ-00
Methanol	0 - 100% LIE CH4O - Source	GD10-P00-19DG-0XH-00
Methanol	0 - 100% LIE CH4O - Sink	GD10-P00-19DG-0XJ-00
Pentane	0 - 100% LIE C5H12 - Source	GD10-P00-11DG-0XH-00
Propane	0 - 100% LIE C3H8 (1.7 %/vol.) - Source	GD10-P00-09EG-0XH-00
Propane	0 - 100% LIE C3H8 (2.2 %/vol.) - Source	GD10-P00-09DG-0XH-00
Propane	0 - 100% LIE C3H8 (2.2 %/vol.) - Sink	GD10-P00-09DG-0XJ-00
Propane	0 - 100 %/vol. C3H8 (CH4 immune) - Source	GD10-P00-80BG-0XH-00
Propene	0 - 100% LIE C3H6 - Source	GD10-P00-07DG-0XH-00
Styrene	0 - 100% LIE C8H8 - Source	GD10-P00-15DG-0XH-00
Toluene	0 - 100% LIE C7H8 (1.2 %/vol.) - Source	GD10-P00-14DG-0XH-00

## Inox 316L - CSA - 4-20 mA outpout source - HART

Gas	Measure range	Code
Butane	0 - 100% LIE C4H10 - Source	GD10-P00-38DG-0BH-00
Carbon dioxide	0 - 3 %/vol. CO2 - Source	GD10-P00-23BH-0BH-00
Carbon dioxide	0 - 5 %/vol. CO2 - Source	GD10-P00-23BC-0BH-00
Carbon dioxide	0 - 5 %/vol. CO2 (CH4 immune) - Source	GD10-P00-24BC-0BH-00
Methane	0 - 100% LIE CH4 (5 %/vol.) - Source	GD10-P00-17DG-0BH-00
Methane	0 - 100% LIE CH4 (5 %/vol.) - Sink	GD10-P00-17DG-0BJ-00
Methane	0 - 100 %/vol. CH4 - Source	GD10-P00-17BG-0BH-00
Methane	0 - 100%/vol. CH4 (HC immune) - Source	GD10-P00-81BG-0BH-00
Propane	0 - 100% LIE C3H8 (2.2 %/vol.) - Source	GD10-P00-09DG-0BH-00
Propane	0 - 100 %/vol. C3H8 (CH4 immune) - Source	GD10-P00-80BG-0BH-00

Non contractual document. Any reproduction, even partial, is prohibited without prior agreement. © GazDetect.