

▶ Quasar 900

SafEye infrared open path gas detector



Technical specifications

Functionality: infrared open path for the detection of flammable hydrocarbons from C1 to C8

Trajectory lengths:

- Model 901: from 7m to 20m
- Model 902: from 15m to 40m
- Model 903: from 35m to 100m
- Model 904: from 80m to 200m

Spectral response (xenon flash lamp guaranteed for 10 years):

- Methane / Propane: 0 to 5 LEL.m
- Ethylene: 0 to 8 LEL.m
- Minimum detectable gas level: 0.15 LEL.m

Response time: < 3 seconds

Power supply: 18 to 32 VDC (24Vdc nominal)

Electrical connections: 3 or 4 wires

Power consumption:

- Transmitter/Source: 250 mA (300 mA peak)

Communication: 4-20mA, MODBUS®, HART

- Indicator light: 3 colour status LEDs (green: normal, yellow: fault, red: alarm)

Material: 316L stainless steel casing and pivoting support

Protection class: NEMA 250 Type 6P, IP66/IP68

Operating conditions:

- Temperature: -55 to +65°C
- Humidity: 0 to 95% RH (non-condensing)

Certifications:

- ATEX, IECEx
- CSA, FM, UL, ETL
- SIL2 according to IEC 61508

NB: To find out the LEL.m, simply multiply the size of a gas cloud by its concentration. For example 1 LEL.m corresponds to 100% LEL over a distance of 1 metre for a trajectory length of 100 meters

Product description

The **Quasar 900 SafEye** infrared open path gas detector is an innovative and relevant solution for the detection of hydrocarbons over long distances. It uses a xenon light source combined with an integrated electronic module to provide a high performance gas monitoring system with a very short response time.

Consisting of an infrared source and receiver that can be up to 200 meters apart, the **Quasar 900 SafEye** open path is capable of replacing 20 fixed point gas detectors even in challenging environments where dust, fog, rain, snow or vibrations can cause a severe reduction of signals.

The measurement principle is based on the analysis of atmospheric absorption compared to an area unaffected by the presence of gas. Each hazardous material is detected at a specific wavelength, selected according to its specific spectral absorption or "fingerprint". The detection process includes two separate filters, one transmitting radiation that is absorbed by a particular gas and one that is not receptive to it.

The **SafEye IR sensor** can detect several combustible hydrocarbons at the same time. It is therefore particularly suitable for installations requiring the monitoring of several gases simultaneously such as C1 to C8 hydrocarbons (methane, ethane, ethylene, propane, propylene, n-butane, isobutane, butadiene, isobutylene, alkanes, naphthenes, benzenes).

With a detection range that varies between 7 and 200 m depending on the model, the **SafEye Quasar 900** infrared open path gas detector is capable of identifying a multitude of hydrocarbon gases and recording up to 100 events in real time.

▶ **The advantages of the Quasar SafEye IR barrier:**

- Open path detection for combustible gases (C1 to C8 hydrocarbons)
- Up to 200m range, reducing the number of point gas detectors
- Heated optics for detection in the harshest weather conditions
- Three-colour LED indicator for quick indication of operating status
- Fully user-configurable to suit a wide range of applications
- Intrinsically safe communication port compatible with HART® pockets
- Fast response time (< 3 seconds)
- 100 last event storage
- ATEX, IECEx, FM, SIL2 certifications