

## **FLOW** EVO

Infrared gas sensor  $SO_2F_2$  // Sulfuryl Flouride // 100 ppm smartGAS item number: F3-412104-05000

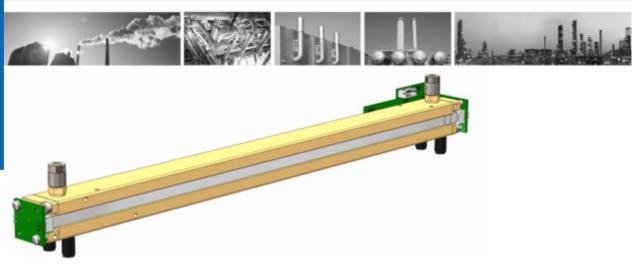


Illustration similar

- Pre calibrated
- Ready to use
- 3/5 mm gas line connectors
- 3.3 6 V DC supply voltage
- Modbus ASCII or RTU
- Status indication by LED
- Low drift

Non Dispersive Infrared (NDIR) gas sensor for gas analysis using dual wavelength technology. Designed for different applications such as emission monitoring or process control in a wide range of gas measurement systems.

The FLOW<sup>EVO</sup> sensor can easily be integrated into OEM systems, where long term stability, repeatability and reliable performance are required. It can be used in the food industry, for stack gas monitoring in incineration plants and fumigation but also in the field of environmental analysis. High-precision NDIR technology requires little maintenance compared to conventional chemical sensors and its small detection thresholds and long life expectancy qualify our NDIR sensors for numerous tasks in countless areas of scientific research.

Modbus ASCII or RTU data communication offer a variety of options to connect the  ${\sf FLOW}^{\sf EVO}$  sensor to a controller.

## **APPLICATION EXAMPLES**

FUMIGATION MONITORING
LEAK DETECTION
OCCUPATIONAL HEALTH AND SAFETY MONITORING



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General features

Measurement principle: Non Dispersive Infra-Red (NDIR), dual wavelength

Measurement range: 0 .. 100 ppm Full Scale (FS)

Gas supply: by flow (nearly atmospheric pressure)

Flow rate: 0.1 .. 1.0 l / min

Dimensions: 333 mm x 30 mm x 37 mm (L x W x H)

Warm-up time: < 2 minutes (start up time)

< 30 minutes (full specification)

Measuring response\*

Response time  $(t_{90})$ : Appr. 12 s @ 0.7 l / min

Digital resolution (@ zero): 0.01 ppm Detection limit (3  $\sigma$ ):  $\leq$  2 ppm Repeatability:  $\leq \pm 1$  ppm Linearity error (straight line deviation):  $\leq \pm 1$  ppm

Long term stability (span): ≤ consult factory
Long term stability (zero): ≤ consult factory

Influence of T, P, flow rate, other\*

Temp. dependence (zero):  $\leq \pm 0.3$  ppm per °C Temp. dependence (span):  $\leq \pm 0.4$  ppm per °C

Pressure dependence: + 0.100 % of measurement value / hPa

Flow rate dependence:  $\leq \pm 0.01$  ppm per 0.1 | / min

Cross sensitivity (zero) other gases: consult factory

Electrical inputs and outputs

Supply voltage: 3.3 V .. 6.0 V DC

Supply current (peak): < 400 mA @ 3.3 V, < 240 mA @ 5.0 V

Inrush current: < 600 mA
Average power consumption: < 800 mW

Digital output signal: Modbus ASCII / RTU via UART, autobaud, autoframe

Calibration: zero and span by SW

Climatic conditions

Operating temperature:  $0..+50\,^{\circ}\text{C}$ Storage temperature:  $-20..+60\,^{\circ}\text{C}$ Air pressure:  $800..1150\,\text{hPa}$ 

Ambient humidity: 0 .. 95 % relative humidity (not condensing)

\* Typical values related to 1013 hPa, Ta=22 °C, flow = 0.1 l / min for dry (non-condensing) and clean sample gas. Stated values exclude calibration gas tolerance.

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For more information, please visit www.smartgas.eu or contact us at sales@smartgas.eu

Please consult smartGAS sales for parts specified with other temperature and measurement ranges.

At first initiation and depending on application and ambient conditions recalibration is recommended. Recurring cycles of recalibration are recommended.