

## FLOW<sup>EVO</sup>

Infrared gas sensor SO<sub>2</sub>F<sub>2</sub> // Sulfuryl Flouride // 100 ppm  
smartGAS item number: F3-412104-05000

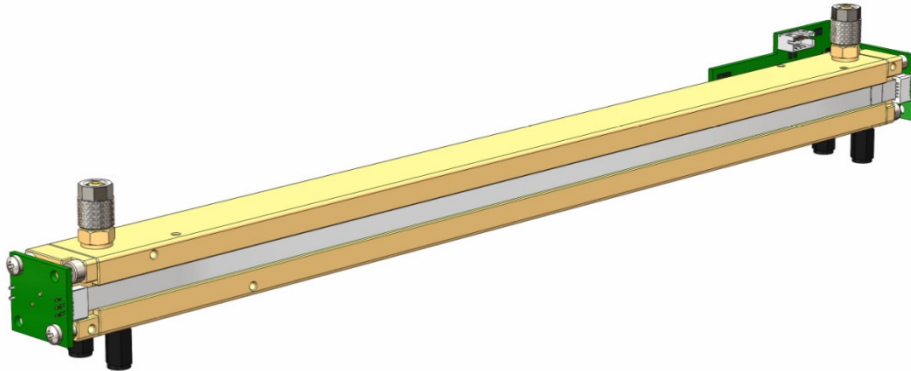


Illustration similar

- 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 FLOW<sup>EVO</sup> 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)<br>< 30 minutes (full specification) |
| Measuring response*  |  |
| Response time (t <sub>90</sub> ):  | Appr. 12 s @ 0.7 l / min   |
| Digital resolution (@ zero):   | 0.01 ppm   |
| Detection limit (3 σ):   | ≤ 2 ppm  |
| Repeatability:   | ≤ ± 1 ppm  |
| Linearity error (straight line deviation):   | ≤ ± 1 ppm  |
| Long term stability (span):  | ≤ consult factory  |
| Long term stability (zero):  | ≤ consult factory  |
| Influence of T, P, flow rate, other*   |  |
| Temp. dependence (zero):   | ≤ ± 0.3 ppm per °C   |
| Temp. dependence (span):   | ≤ ± 0.4 ppm per °C   |
| Pressure dependence:   | + 0.100 % of measurement value / hPa                             |
| Flow rate dependence:  | ≤ ± 0.01 ppm per 0.1 l / 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 °C   |
| Storage temperature:   | -20 .. + 60 °C   |
| Air pressure:  | 800 .. 1150 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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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.