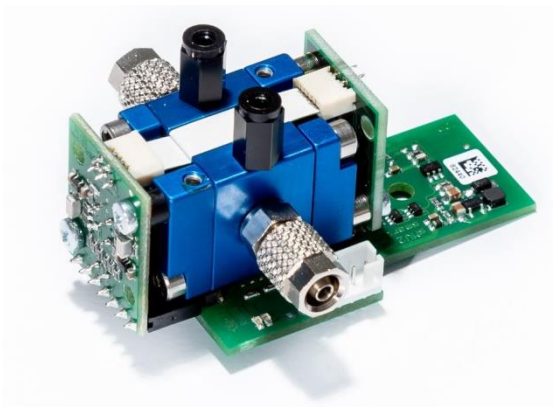


## FLOW<sup>EVO</sup>

Infrared gas sensor SO<sub>2</sub>F<sub>2</sub> // Sulfuryl Flouride // 4 Vol.-%  
smartGAS item number: F3-412406-05000



- Pre calibrated
- Compact design
- 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 fumigation and pest control.

The FLOW<sup>EVO</sup> sensor can easily be integrated into OEM systems, where long term stability, repeatability and reliable performance are required. The high-precision NDIR technology requires little maintenance compared to conventional chemical sensors and its small detection limits and long life time 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**  
**PEST CONTROL**  
**PROCESS CONTROL**

## FLOW <sup>EVO</sup>

Infrared gas sensor SO<sub>2</sub>F<sub>2</sub> // Sulfuryl Flouride // 4 Vol.-%  
 smartGAS item number: F3-412406-05000

| General features   |  |
|--|--|
| Measurement principle:   | Non Dispersive Infra-Red (NDIR), dual wavelength                 |
| Measurement range:   | 0 .. 4 Vol.-% Full Scale (FS)                                    |
| Gas supply:  | by flow (nearly atmospheric pressure)                            |
| Flow rate:   | 0.1 ... 1.0 l / min  |
| Dimensions:  | 70 mm x 60 mm x 40 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):   | 0.001 Vol.-%   |
| Detection limit (3 σ):   | ≤ 0.004 Vol.-%   |
| Repeatability:   | ≤ ± 0.02 Vol.-%  |
| Linearity error (straight line deviation):   | ≤ ± 0.04 Vol.-%  |
| Long term stability (span):  | ≤ ± 0.04 Vol.-% over 1000 h period                               |
| Long term stability (zero):  | ≤ ± 0.07 Vol.-% over 1000 h period                               |
| Influence of T, P, flow rate, other*   |  |
| Temp. dependence (zero):   | ≤ ± 0.001 Vol.-% per °C  |
| Temp. dependence (span):   | ≤ ± 0.001 Vol.-% per °C  |
| Pressure dependence:   | + 0.1 % of measurement value / hPa                               |
| Flow rate dependence:  | ≤ ± 0.003 Vol.-% 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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For more information, please visit [www.smartgas.eu](http://www.smartgas.eu) or contact us at [sales@smartgas.eu](mailto: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.