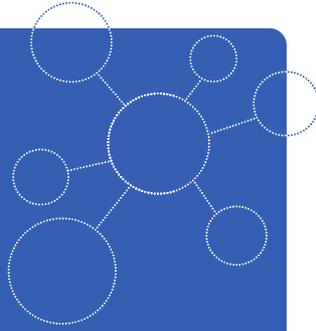
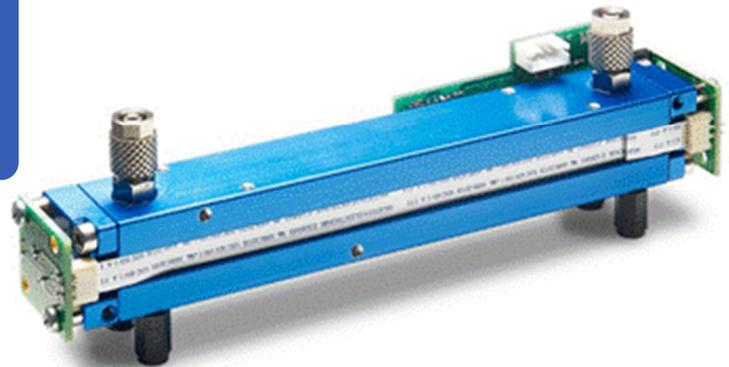


MADE IN GERMANY

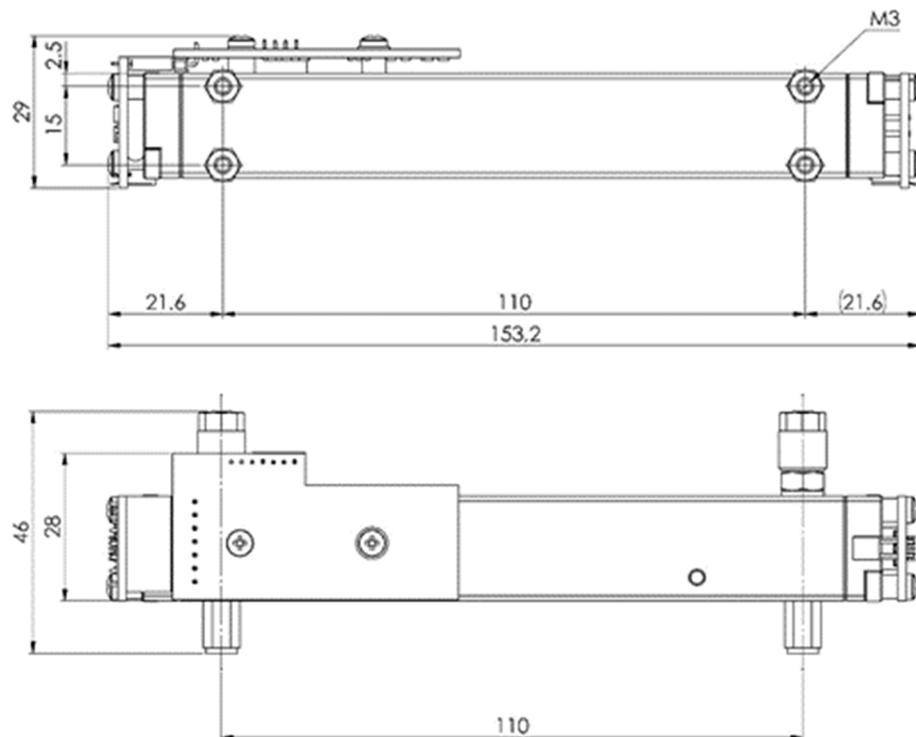


FLOW^{EVO}

Infrared gas Sensor
Sulfur Dioxide SO₂
2000 ppm
smartGAS item number: F3-432205-05000



- Pre calibrated
- Compact Design
- 3/5 mm gas line connector
- 3.3–6 V DC supply voltage
- Modbus ASCII or RTU
- Status indicated by LED
- Low drift



Application examples

Emission monitoring
Process control
Lab analysis
Environmental analysis

Available equipment

Gas cooler
Particle filter
Gas pump
Calibration Software
Mounting equipment

Available design in support

Mechanical Installation
Data communication
Gas pre-treatment

General features

| | | |
|------------------------|--|--|
| Measurement principle: | Non-Dispersive Infra-Red (NDIR), dual wavelength | |
| Measurement range: | 0 ... 2000 ppm Full Scale (FS) | |
| Gas supply: | by flow (nearly atmospheric pressure) | |
| Flow rate: | 0.1 ... 1.0 l / min | |
| Mounting dimensions: | 156 mm x 30 mm x 50 mm (L x W x H) | |
| Warm-up time: | < 2 minutes (start-up time) < 30 minutes (full specification) | |

Measuring response*

| | | |
|--|--------------------------------|--------------|
| Digital resolution: | 1 ppm | |
| Response time @ 0.7 l / min**: | <i>Standard:</i> | <i>Fast:</i> |
| t ₉₀ (10 to 90 % FS): | ≤ 11.6 s | ≤ 0.9 s |
| t _{0n} (0 to 90 % FS): | ≤ 15.9 s | ≤ 1.6 s |
| Detection limit (3 σ): | ≤ 12 ppm | ≤ 28 ppm |
| Repeatability: | ≤ ± 15 ppm | |
| Linearity error (straight line deviation): | ≤ ± 20 ppm | |
| Long term stability (zero): | ≤ ± 90 ppm over 1000 h period | |
| Long term stability (span): | ≤ ± 110 ppm over 1000 h period | |

Influence of T, P, flow rate, other*

| | |
|---------------------------------------|--|
| Temp. dependence (zero): | ≤ ± 2 ppm per °C |
| Temp. dependence (span): | ≤ ± 4 ppm per °C |
| Pressure dependence: | + 0.121 % of actual reading / hPa |
| Flow rate dependence: | ≤ ± 3 ppm per 0.1 l / min |
| Cross sensitivity (zero) other gases: | ≤ ± 10 ppm @ 10 Vol.-% CO ₂ in dry air |
| Gas dew point requirement: | < + 5°C dew point (stable), particle free and clean sample gas |

Electrical parameters

| | |
|----------------------------|--|
| Supply voltage | 3.3 V ... 6.0 VDC |
| 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, T_a = 22 °C, flow = 0.7 l / min for dry (not condensing) and clean sample gas. Stated values exclude calibration gas tolerance.

** Adjustable only via smartGAS Calibration-Tool SW.

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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.