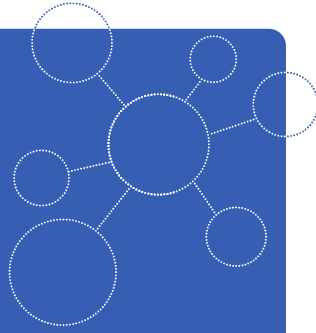
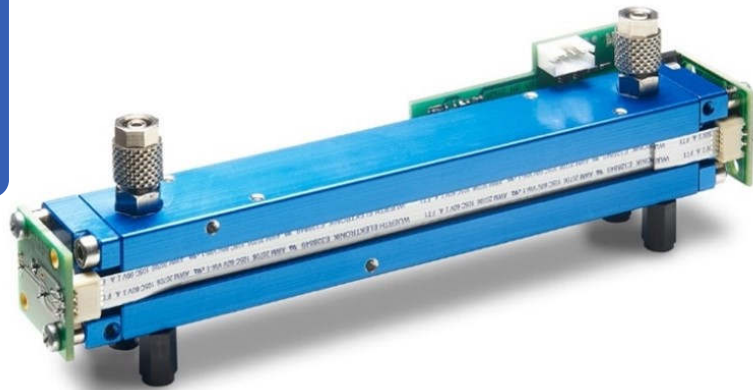


MADE IN GERMANY

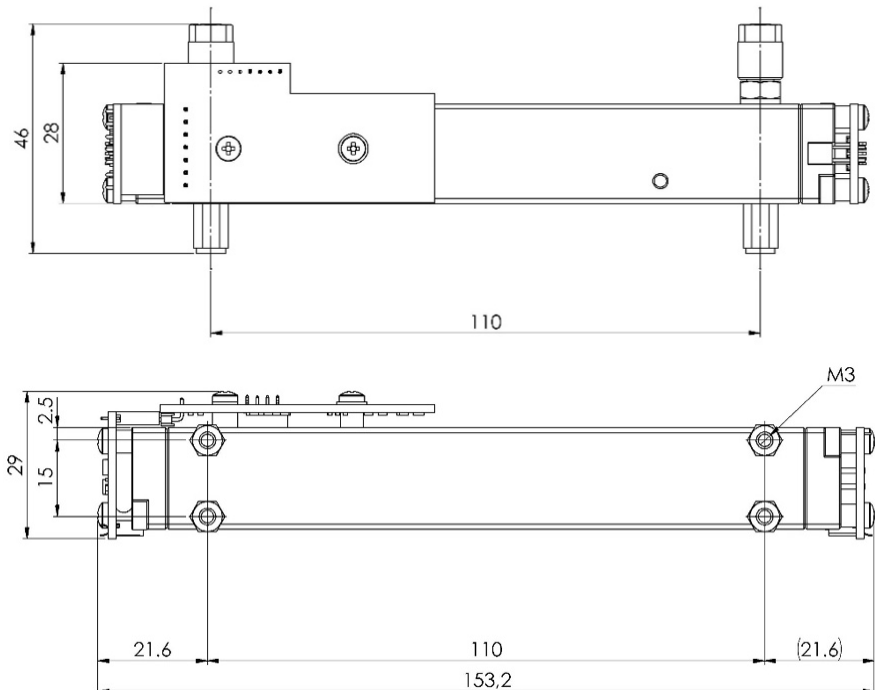


FLOW^{EVO}

Infrared gas Sensor
Methane CH₄
5 Vol.-%
smartGAS item number: F3-042506-05000



- 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

Gas analysis
Biogas application
Environmental monitoring

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 ... 5 Vol.-% 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: | 0.001 Vol.-% | |
| 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): | ≤ 15.6 s | ≤ 1.6 s |
| Detection limit (3 σ): | ≤ 0.03 Vol.-% | ≤ 0.07 Vol.-% |
| Repeatability: | ≤ ± 0.05 Vol.-% | |
| Linearity error (straight line deviation): | ≤ ± 0.05 Vol.-% | |
| Long term stability (zero): | ≤ ± 0.044 Vol.-% over 1000 h period | |
| Long term stability (span): | ≤ ± 0.315 Vol.-% over 1000 h period | |

Influence of T, P, flow rate, other*

| | |
|---------------------------------------|--|
| Temp. dependence (zero): | ≤ ± 0.01 Vol.-% per °C |
| Temp. dependence (span): | ≤ ± 0.01 Vol.-% per °C |
| Pressure dependence: | + 0.100 % of actual reading / hPa |
| Flow rate dependence: | ≤ ± 0.02 Vol.-% per 0.1 l / min |
| Cross sensitivity (zero) other gases: | consult factory |
| 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.