

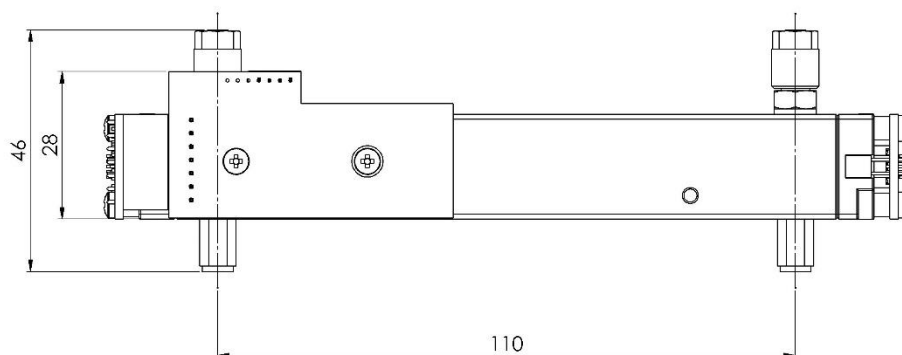
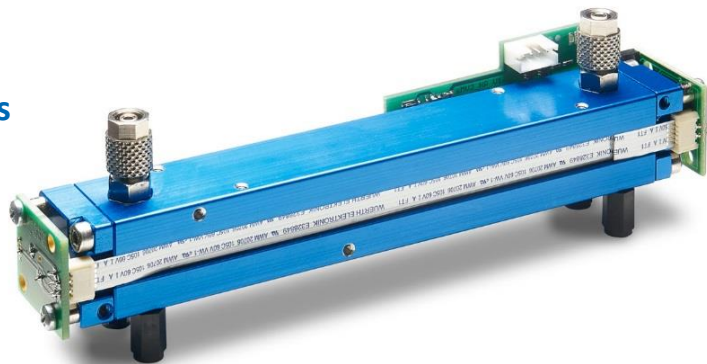
FLOW^{EVO}

Infrared gas sensor

CH₄ // Methane // 5000 ppm

smartGAS item number: F3-042505-05000

- 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



APPLICATION EXAMPLES

GAS ANALYSING // BIOGAS APPLICATION // ENVIRONMENTAL MONITORING

F3-042505-05000
CH4 // Methane // 5000 ppm
General features

Measurement principle:	Non Dispersive Infra-Red (NDIR), dual wavelength
Measurement range:	0 ... 5000 ppm Full Scale (FS)
Gas supply:	by flow (nearly atmospheric pressure)
Flow rate:	0.1 ... 1.0 l / min
Dimensions (with stands):	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 _{on} (0 to 90 % FS):	≤ 15.9 s ≤ 1.6 s
Detection limit (3 σ):	≤ 50 ppm ≤ 115 ppm
Repeatability:	≤ ± 50 ppm
Linearity error (straight line)	≤ ± 50 ppm
Long term stability (zero):	≤ ± 350 ppm over 1000 h period
Long term stability (span):	≤ ± 700 ppm over 1000 h period

Influence of T, P, flow rate, other*

Temp. dependence (zero):	≤ ± 10 ppm per °C
Temp. dependence (span):	≤ ± 15 ppm per °C
Pressure dependence:	+ 0.100 % of actual reading / hPa
Flow rate dependence:	≤ ± 6 ppm per 0.1 l / min
Cross sensitivity (zero) other	≤ + 250 ppm @ 10% CO2 in dry air

Electrical inputs and outputs

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.