smartGAS.
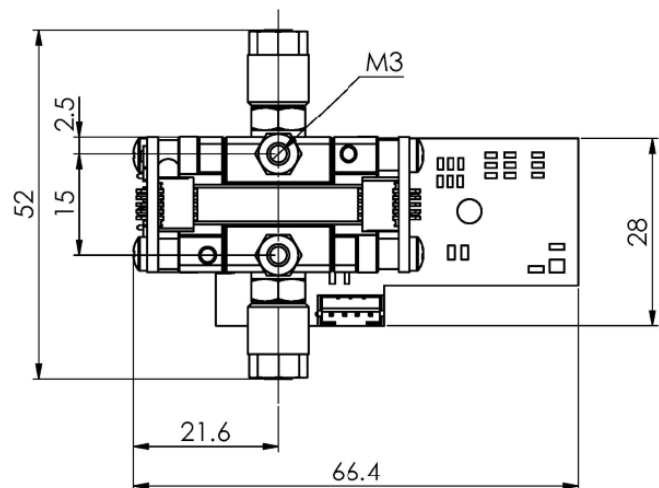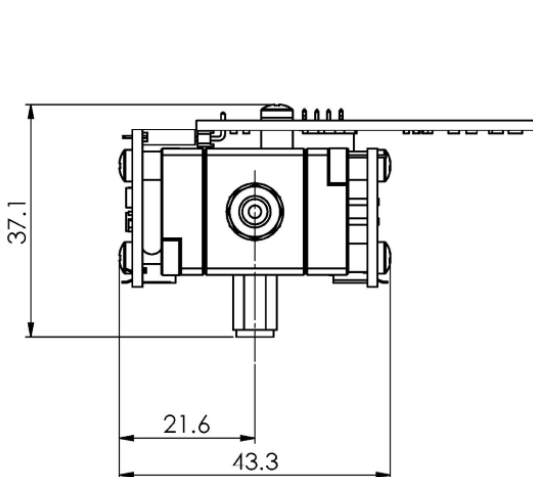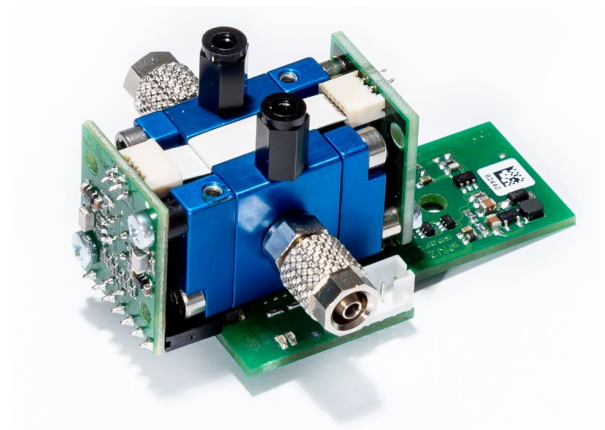
FLOW^{EVO}

**Infrared gas Sensor
Sulfur Hexafluoride SF$_6$
5000 ppm
smartGAS item number: F3-602505-05000**

- **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
Fix and portable SF6 leakage detection
Tracer gas measurement
SF6 analysis
High voltage cables and transformers
Laboratories

Available equipment
Gas cooler
Particle filter
Gas pump
Calibration Software
Mounting equipment

Available design in support
Mechanical Installation
Data communication
Gas pre-treatment

FLOW^{EVO} I Sulfur Hexafluoride SF₆ I F3-602505-05000

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
Mounting dimensions:	70 mm x 60 mm x 40 mm (L x W x H)
Warm-up time:	< 2 minutes (start-up time) < 30 minutes (full specification)

Measuring response*

	Standard:	Fast:
Digital resolution:	1 ppm	
Response time @ 0.7 l / min**:	*Standard*:	*Fast:*
t_{90} (10 to 90 % FS):	≤ 12.6 s	≤ 1.2 s
t_{on} (0 to 90 % FS):	≤ 17.7 s	≤ 4.4 s
Detection limit (3 σ):	≤ 6 ppm	≤ 10 ppm
Repeatability:	≤ ± 23 ppm	
Linearity error (straight line deviation):	≤ ± 40 ppm	
Long term stability (zero):	≤ ± 100 ppm over 1000 h period	
Long term stability (span):	≤ ± 370 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:	+ 0.100 % of actual reading / hPa
Flow rate dependence:	≤ ± 3.5 ppm per 0.1 l / min
Cross sensitivity (zero) other gases:	consult factory
Test gas 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, Ta = 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.