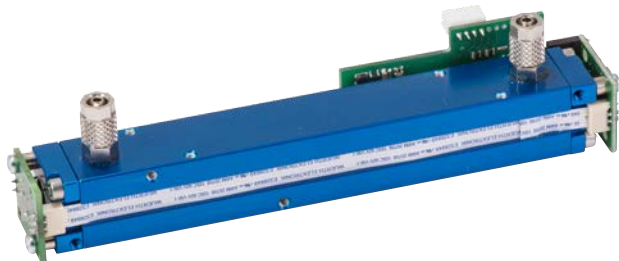


smartMODUL FLOW^{EVO}

SO₂ // SULFUR DIOXIDE // 2000 ppm

Infrared gas sensor SO₂ 2000 ppm // F3-432205-05000



- 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 process control and gas analysing using dual wavelength technology. Designed for different applications such as emission monitoring or process control in a wide range of gas measurement systems.

The FLOW^{EVO} sensor can easily be integrated into OEM systems, where long term stability, repeatability and reliable performance are required. It can be used in the food industry, for stack gas monitoring in incineration plants but also in the field of environmental analysis. High-precision NDIR technology requires little maintenance compared to conventional chemical sensors and its small detection thresholds and long life expectancy 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^{EVO} sensor to a controller.

SO₂ // SULFUR DIOXIDE SENSOR

EMISSION MONITORING

PROCESS CONTROL

LAB ANALYSING

RESEARCH

ENVIRONMENTAL ANALYSING

FOOD INDUSTRY

FLOW^{EVO} SO₂ // SULFUR DIOXIDE // 2000 ppm

Infrared gas sensor SO₂ 2000 ppm // F3-432205-05000

blue performance

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
Dimensions:	156 mm x 30 mm x 37 mm (L x W x H)
Warm-up time:	< 2 minutes (start up time) < 30 minutes (full specification)
Measuring response	
related to Pa = 1013 hPa, Ta = 25 °C, flow = 0.7 l /min	
Response time (t ₉₀):	Appr. 12 s @ 0.7 l / min
Digital resolution (@ zero):	1 ppm
Detection limit (3 σ):	≤ 12 ppm
Repeatability:	≤ ± 15 ppm
Linearity error (straight line deviation):	≤ ± 20 ppm
Long term stability (span):	≤ ± 40 ppm over 1000 h period
Long term stability (zero):	≤ ± 40 ppm over 1000 h period
Influence of T, P, flow rate, other	
related to Pa = 1013 hPa, Ta = 25 °C, flow = 0.7 l /min	
Temp. dependence (zero):	≤ ± 2 ppm per °C
Temp. dependence (span):	≤ ± 4 ppm per °C
Pressure dependence:	+0.121 % / hPa
flow rate dependence:	≤ ± 3 ppm per 0.1 l / min
cross sensitivity (zero) other gases:	≤ ± 10 ppm @ 10% CO ₂ in dry air
gas dew point requirement:	< + 5 °C
Electrical inputs and outputs	
Supply voltage:	3.3V .. 6.0V DC
Supply current (peak):	< 400mA @ 3.3V, < 240mA @ 5.0V
Inrush current:	< 450mA
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)

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Please consult smartGAS Marketing 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.