



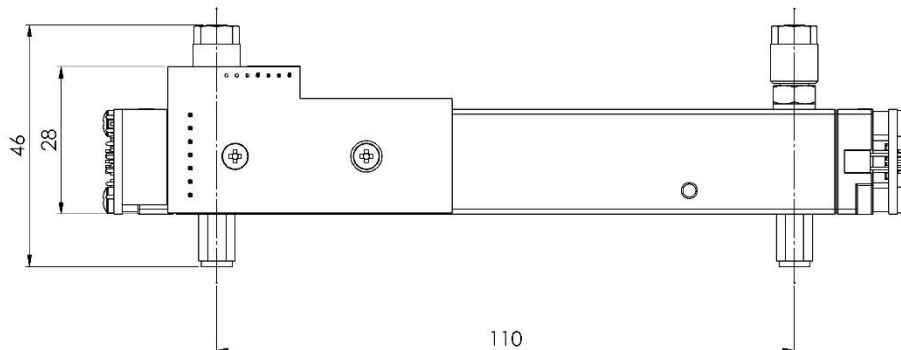
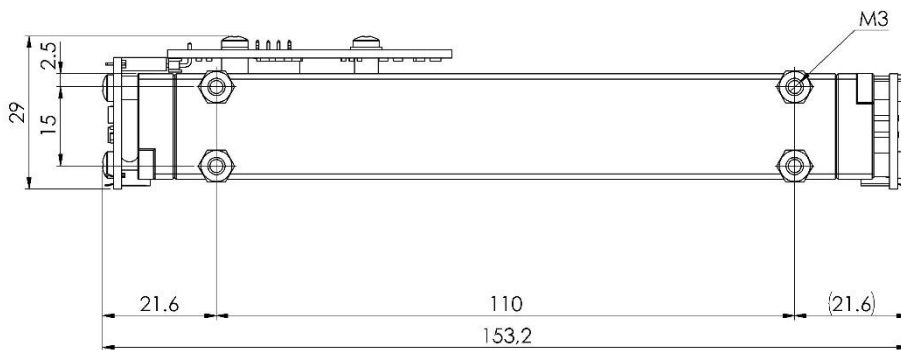
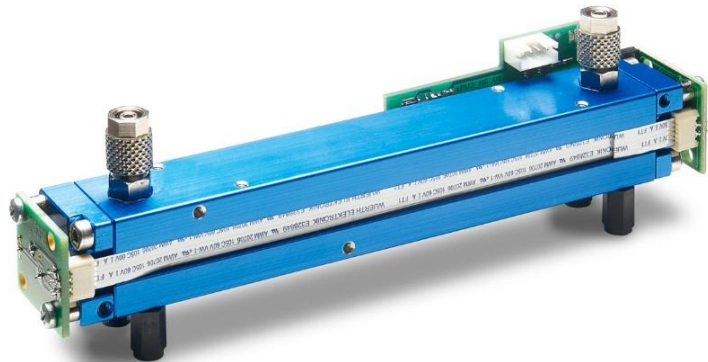
## FLOW<sup>EVO</sup>

Infrared gas sensor

C<sub>2</sub>H<sub>4</sub> // Ethylene // 2000 ppm

smartGAS item number: F3-032205-05000

- 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

FRUIT RIPENING // DEGREENING // PROCESS CONTROL // ANALYSING

**F3-032205-05000**
**C<sub>2</sub>H<sub>4</sub> // Ethylene // 2000 ppm**
**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 (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 <sub>90</sub> (10 to 90 % FS):	≤ 11.6 s	≤ 0.9 s
t <sub>on</sub> (0 to 90 % FS):	≤ 15.9 s	≤ 1.6 s
Detection limit (3 σ):	≤ 20 ppm	≤ 46 ppm
Repeatability:	≤ ± 20 ppm	
Linearity error (straight line deviation):	≤ ± 30 ppm	
Long term stability (zero):	≤ ± 250 ppm over 240 h period	
Long term stability (span):	≤ ± 300 ppm over 240 h period	

**Influence of T, P, flow rate, other\***

Temp. dependence (zero):	≤ ± 3 ppm per °C
Temp. dependence (span):	≤ ± 6 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 gases:	≤ + 40 ppm @ 10 Vol.-% CO <sub>2</sub> 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<sub>a</sub> = 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](http://www.smartgas.eu) or contact us at [sales@smartgas.eu](mailto: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.