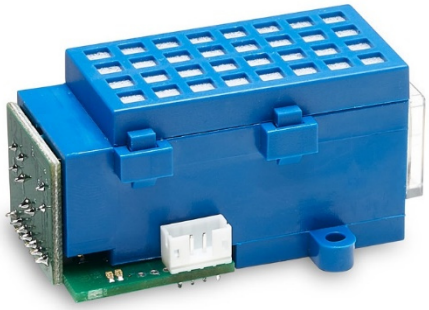
smartGAS.

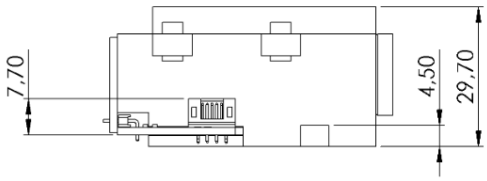
MADE IN GERMANY

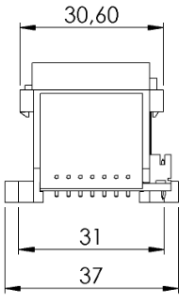
BASIC^{EVO}

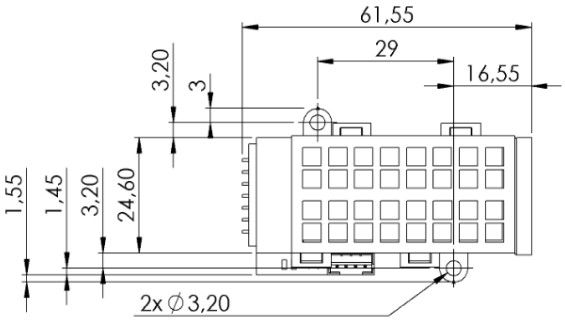
Infrared gas Sensor
Carbon Dioxide CO_2
10.000 ppm
smartGAS item number: B3-212106-00000

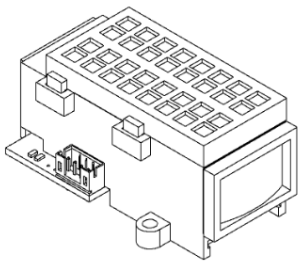


- **Pre calibrated**
- **Low drift**
- **Gas entry by diffusion**
- **3.3 - 6 V DC supply voltage**
- **Modbus ASCII or RTU**
- **Status indication by LED**









Application examples
Hotel air conditioning
Office buildings
Supermarkets
Industrial refrigeration
Research

Available equipment
Connect Interface
Wall mount enclosure
Calibration software
Mounting equipment

Available design in support
Mechanical installation
Data communication
also, as complete Transmitter

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BASIC^{EVO} I Carbon Dioxide CO_2 I B3-212106-00000

General features

Measurement principle:	Non Dispersive Infra-Red (NDIR), dual wavelength
Measurement range:	0 … 10000 ppm Full Scale (FS)
Gas supply:	by diffusion (atmospheric pressure)
Mounting dimensions:	62 mm x 37 mm x 30 mm (L x W x H)
Warm-up time:	< 2 minutes (start up time) < 11 minutes (fade in finished) < 30 minutes (full specification)

Measuring response*

Response time (t_{90}):	appr. 60 s
Digital resolution:	1 ppm
Detection limit (3 σ):	≤ 70 ppm
Repeatability:	≤ ± 80 ppm
Linearity error (straight line deviation):	≤ ± 250 ppm
Long term stability (zero):	≤ ± 200 ppm over 12 month period
Long term stability (span):	≤ ± 500 ppm over 12 month period

Influence of T, P, flow rate, other*

Temp. dependence (zero):	≤ ± 14 ppm per °C
Temp. dependence (span):	≤ ± 30 ppm per °C
Pressure dependence:	+ 0.156 % of actual reading / hPa

Electrical parameters

Supply voltage	3.3 V … 6.0 VDC
Supply current (peak):	< 500 mA @ 3.3 V, < 240 mA @ 5.0 V
Inrush current:	< 1000 mA
Average power consumption:	< 900 mW
Digital output signal:	Modbus ASCII / RTU via UART, autobaud, autoframe
Calibration:	zero and span by SW

Climatic conditions

Operating temperature:	-20 … + 40 °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.

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.