



Electro Optical Components, Inc.

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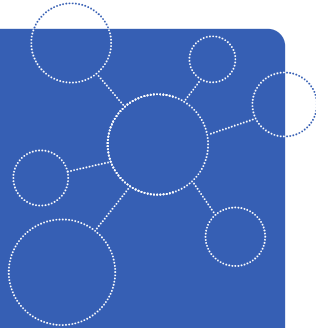
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smartGAS.

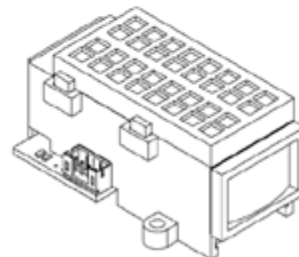
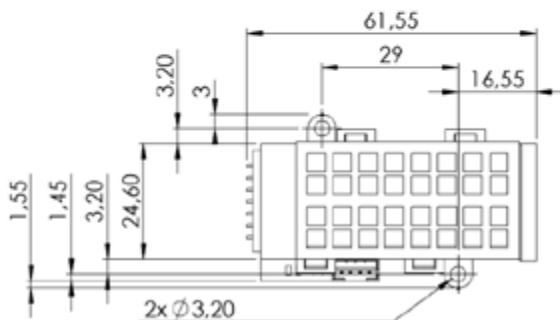
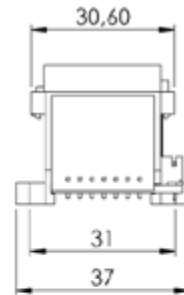
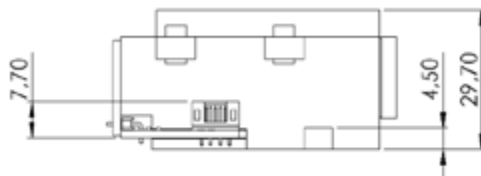
MADE IN GERMANY



BASIC^{EVO}

Infrared gas Sensor
Carbon Dioxide CO₂
5000 ppm
smartGAS item number: B3-212505-00000

- 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
Workplace security
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

BASIC^{EVO} | Carbon Dioxide CO₂ | B3-212505-00000

General features

Measurement principle:	Non Dispersive Infra-Red (NDIR), dual wavelength
Measurement range:	0 ... 5000 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):	≤ 35 ppm
Repeatability:	≤ ± 25 ppm
Linearity error (straight line deviation):	≤ ± 100 ppm
Long term stability (zero):	≤ ± 100 ppm over 12 month period
Long term stability (span):	≤ ± 350 ppm over 12 month period

Influence of T, P, flow rate, other*

Temp. dependence (zero):	≤ ± 7 ppm per °C
Temp. dependence (span):	≤ ± 15 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, T_a = 22 °C, flow = 0.7 l / min for dry (not condensing) and clean sample gas.
Stated values exclude calibration gas tolerance.

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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.