



# Electro Optical Components, Inc.

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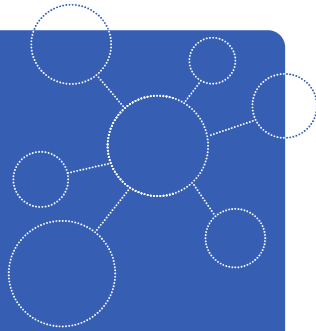
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## smartGAS.

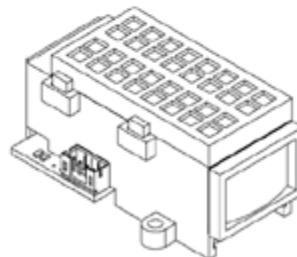
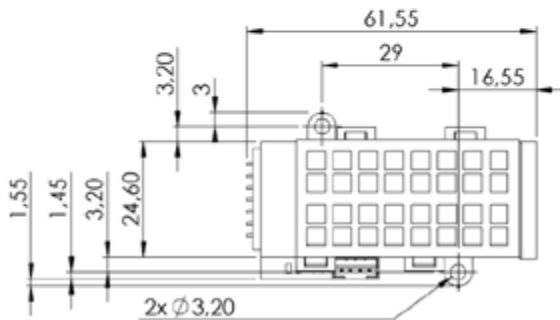
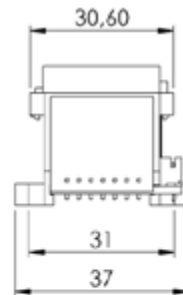
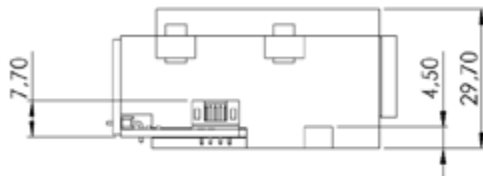
MADE IN GERMANY



### BASIC<sup>EVO</sup>

Infrared gas Sensor  
Refrigerant R407c  
1000 ppm  
smartGAS item number: B3-802105-03000

- 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  
 Food storage rooms  
 Industrial Refrigeration  
 Food Transport  
 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<sup>EVO</sup> | Refrigerant R407c | B3-802105-03000**

**General features**

Measurement principle:	Non Dispersive Infra-Red (NDIR), dual wavelength
Measurement range:	0 ... 1000 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 <sub>90</sub> ):	appr. 60 s
Digital resolution:	1 ppm
Detection limit (3 σ):	≤ 10 ppm
Repeatability:	≤ ± 10 ppm
Linearity error (straight line deviation):	≤ ± 20 ppm
Long term stability (zero):	≤ ± 30 ppm over 12 month period
Long term stability (span):	≤ ± 30 ppm over 12 month period

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

Temp. dependence (zero):	≤ ± 1.5 ppm per °C
Temp. dependence (span):	≤ ± 3 ppm per °C
Pressure dependence:	+ 0.100 % of actual reading / hPa

**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:	< 450 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:	-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<sub>a</sub> = 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](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.