



# Electro Optical Components, Inc.

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403

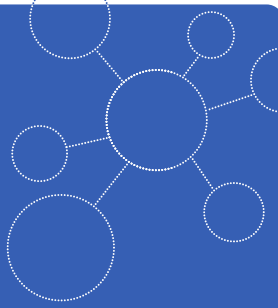
Toll Free: 855-EOC-6300

[www.eoc-inc.com](http://www.eoc-inc.com) | [info@eoc-inc.com](mailto:info@eoc-inc.com)



## smartGAS.

MADE IN GERMANY



**PAS**

Photoacoustic gas Sensor  
Nitrogen monoxide NH<sub>3</sub>  
200 ppm  
smartGAS item number: PA-242204-00000



- Self-controlled or partially control via a connected PLC
- Compact Design
- Zero-calibration by external command or automatic
- Measured values continuously accessible via UART data stream
- Status indicated by LED
- Automatic compensation of the water vapor cross-sensitivity
- Designed for 24/7 operation

#### Application examples

Gas analysis  
Biogas application  
Environmental monitoring  
Process control  
Emission monitoring

#### Available equipment

Gas cooler  
Particle filter  
Gas pump  
Mounting equipment  
Galvanically isolated output

#### Available design in support

Mechanical Installation  
Data communication  
Gas pre-treatment

## General features

Measurement principle:	Photoacoustic
Measurement range:	0 ... 200 ppm Full Scale (FS)
Gas supply:	by flow (nearly atmospheric pressure)
Flow rate:	0.1 ... 2.0 l / min
Mounting dimensions:	127 mm x 96.5 mm x 200 mm (L x W x H)
Warm-up time:	≤ 10 minutes

## Measuring response\*

Digital resolution:	0.1 ppm
Detection limit (3 $\sigma$ ):	≤ 1 ppm
Repeatability:	≤ 1% of measured value plus ± 1 ppm
Long term stability (zero):	≤ ± 1ppm over 24 h period
Long term stability (span):	≤ 1% of value ± 2ppm over 24 h period

## Electrical parameters

Power Supply	12 Volts DC ± 1%
Power consumption:	10 minute heat up approx.45 Watts / Operation approx. 15 Watts
Communication:	TTL-UART and digital I/O's
Calibration:	Zero-calibration by external command or automatic

## Climatic conditions

Operating temperature:	+10°C – +40 °C
Storage temperature:	+10°C – +40 °C
Air pressure:	800 – 1150 hPa
Ambient humidity:	0 – 95 % relative humidity (not condensing); Housing has to be purged with dry air or nitrogen.

\* Typical values related to 1013 hPa, Ta = 0 °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.