



Electro Optical Components, Inc.

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

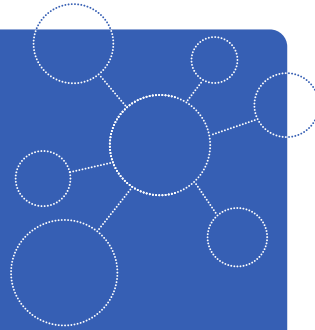
Toll Free: 855-EOC-6300

www.eoc-inc.com | info@eoc-inc.com



smartGAS.

MADE IN GERMANY



PAS

Photoacoustic gas Sensor

Ethylene C₂H₄

200 ppm

smartGAS item number: PA-032204-00000



- 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:	1 ... 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 σ):	≤ 1 ppm
Repeatability:	≤ 1% of measured value plus ± 0.5 ppm
Long term stability (zero):	≤ ± 1.0 ppm over 24 h period
Long term stability (span):	≤ 1% of value ± 2 ppm 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, T_a = 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 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.