

PREMIUM4^{EVO} for ripening // technical Data

Infrared gas sensor for flow with analogue and digital interfaces



- Pre calibrated
- Compact design
- 3/5 mm gas line connectors
- 12 - 24 V DC supply voltage
- Modbus ASCII or RTU
- (0)4-20mA or 0-2V /5V /10V
- Namur NE43 conform (option)
- Status indication by LED

Infrared gas sensor for process control and gas analysing using dual wavelength technology. Designed for different applications in a wide range of gas measurement systems. The PREMIUM4 EVO sensor is easy to be integrated into OEM systems, where long term stability, repeatability and reliable performance are required.

A wide supply voltage range, Modbus ASCII or RTU data communication, current and voltage interfaces (optional with Namur NE43) offer a variety of options to connect the PREMIUM4 EVO sensor.

Atmospheric pressure compensation, on board status LED, temperature compensation, low drift, ready to use calibration, a wide range of different gases and measurement ranges - all that makes the smartGAS PREMIUM4 EVO sensor the best choice also for your application and helps to save time and costs with design in.

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P4-030205-00000

ethylene C₂H₄

2.000 ppm

General features	
Model type:	P4-030205-00000
Measurement principle:	Non Dispersive InfraRed (NDIR)
Gas:	ethylene, C ₂ H ₄
Measurement range:	0 - 2.000 ppm
Gas supply:	Flow, with pump
Gas line connector:	3 mm internal, 5 mm outer diameter
Flow Rate:	0.2 to 0.8 l / min (const)
Dimensions Sensor:	153 mm x 30 mm x 43 mm (L x H X W)
Dimensions Interface:	72 mm x 55 mm x 23 mm (L x H X W)
Warm-up time Start up:	≤ 2 minutes
Warm-up time full spec:	≤ 30 minutes
measuring response ⁽¹⁾	
Response time (t ₉₀): ⁽¹⁾	appr. 20 s (@ 0.5 l/min)
Digital resolution:	1 ppm
Detection limit (3 σ):	≤ 20 ppm (typically)
Repeatability:	≤ ± 20 ppm
Linearity error: ⁽²⁾	≤ ± 30 ppm
Influencing Variable ⁽⁴⁾	
Temp. Dependence (zero):	≤ ± 0.1 % Full scale per °C
Temp. Dependence (span):	≤ ± 0.2 % Full scale per °C
Pressure Dependence (zero):	---
Pressure compensation:	Atmospheric
Electrical data	
Supply Voltage:	12-24 V DC
Power Consumption:	< 1 Watt
Digital output:	RS485 MODBUS ASCII / RTU
Unit intervall:	2 400 - 115 200 Baud
Analogue output:	0 (4) - 20 mA, Namur NE43 optional 0 - 2 V / 5 V / 10V
Calibration:	digital out: zero and span by software analogue out: Zero and span per jumper
optical display:	Status-, function and calibrationmods with LED
Climatic conditions	
Operating temperature:	-10 °C ... + 40 °C
Storage Temperature:	-20 °C ... + 60 °C
Air pressure:	800 to 1 200 hPa
Humidity:	0 % to 95 % rel. Humidity (not condensing)
Optional Accessories:	Micropump Filter

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At first initiation and depending on application and ambient conditions recalibration is recommended.

Please consult smartGAS Sales for parts specified with other temperature and measurement ranges

- 1) Relating to sample gas pressure 1013 hPa absolute, 0.5 l/ min gas flow and 25°C ambient and gas temperature
- 2) Stated linearity error excludes calibration gas tolerance of 2%
- 3) For dry and clean test gas at 25°C and 1013 hPa absolute - depending on the operation and ambient conditions values may differ
- 4) Relating to calibration conditions (see final check)

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