OEM-PID series

Model SCU-OEM-PID2

Sensor Control Unit - PID module

for VOC detection

with built-in humidity/temperature compensation

Features:

- Measurement range: Full range 0 - 2,000 ppm (standard *)
  0 - 20,000 pm (dependent on gas)
  Range can be configured to:
  0.00 ... 100.00 ppm (0.01 resolution),
  0.0 ... 1.000.0 ppm (0.1 digit resolution)
  0 ... 2000 / 20,000 ppm (1 digit resolution)
  * related to Isobutylene standard
- Small and compact design
- PID signal linearization
- 10.6 eV lamp; Capable of more than 2 years sensor life
- Reliable high intensity, stable light output
- PID signal linearization for easy customization
- With temperature / humidity sensor built-in for better accuracy and real-time compensation
- Analogue output 4 ... 20 mA for user customisation
- Power supply 5 VDC
- RS232 interface for digital output and configuration
- Automatic self-cleaning and automatic self-zeroing option (patented)

Ultra perfection.

Riding on the achievements from legacy of precision and inner functionality.

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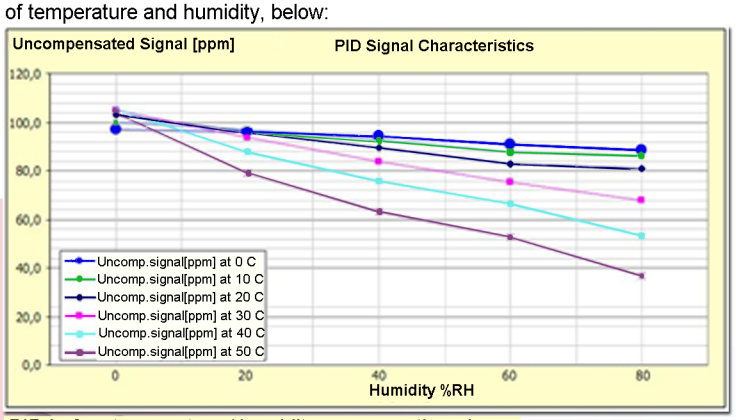
Model SCU OEM-PID2 Sensor Control Unit PID- module, is an OEM module for detection of volatile organic compounds, with an ionisation potential < 10.6 eV. With its built-in electronics and microcontroller, as well as a combined humidity / temperature sensor, it provides a flexible and easy-to-use adaption into your customised VOC measurement.

The module has a full detection range of 0 - 2,000 ppm (standard, based on Isobutylene), and capable to detect up to 20,000 ppm (dependent on gas). It can be customised to various options for measurement ranges, there is 0.00 ... 100.00 ppm (0.01 resolution), 0.0 ... 1,000.0 ppm (0.1 resolution) , and 0 ... 2000 / 20,000 ppm (1 ppm resolution) .

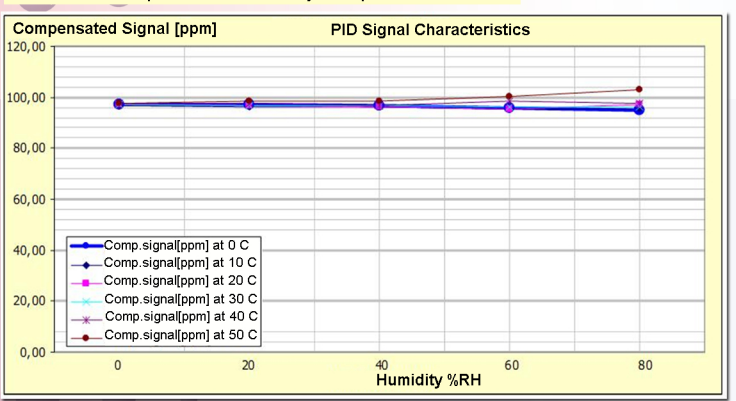
The OEM-PID2 uses a hollow cathode lamp (10.6 eV) as ionisation source. This lamp provides a high and stable light output, and its sensor life can last more than 2 years.

The RS232 digital interface supports reading measurement and diagostic results, remote calibration and configuration. The optinal analogue 4 - 20 mA output represents the linearized compensated concentration values in different scaling.

The built-in combined Temp/Humidity sensor allows to compensate the influence of temperature and humidity, below:

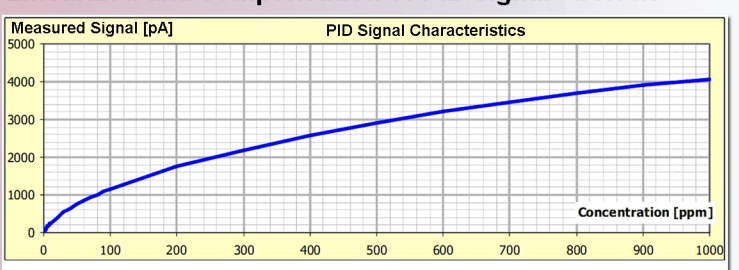


PID before temperature / humidity compensatin - above

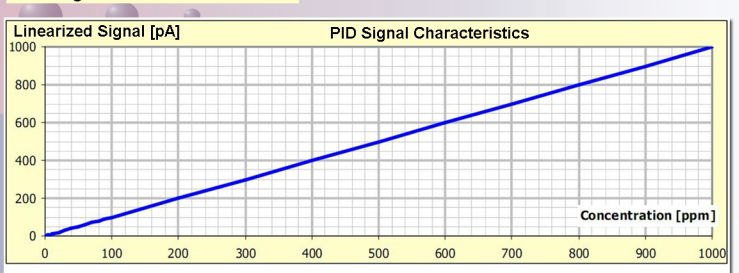


PID after temperature / humidity compensatin - above

Linearized and compensation of PID signal - below:



PID signal before linearization



PID signal after linearization

Specifications:

Measuring principle	Photo-ionization with 10.6 eV lamp	
Range[1] / Resolution	Full range	0 - 2,000 ppm (Standard *) 0 - 20,000 ppm (dependent on gas)
	Range can be configured to:	0.00 - 100.00 ppm (0.01 resolution) 0.00 - 1,000.0 ppm (0.1 resolution) 0 - 2,000 / 20,000 ppm (1 resolution)
	* based on Isobutylene	
Response time	T90 < 10 sec Isobutylene equivalent	
Signal Integrity	0 - 100 ppm > 98 % *	
Analogue output	4 ... 20 mA (optional)	
Digital Interface	RS232 for PC connection	
Lamp life time	More than 2 years	
Gas flow	Required 300 ... 500 ml/min (pump not included)	
Gas connection	Viton tube 1/8" OD - 1/16"ID (recommended) Dust and water protection filter (recommended)	
Supply voltage	5.0 V , approx. 2.5 W at 5.0 V	
Operating Cond.	Temperature: -20 degC to +60 degC Humidity: 0 - 98%RH (non-condensing)	
Storage Cond.	Temperature: -20 degC to +60 degC Humidity: 0 - 100%RH (non-condensing)	
Humidity comp.	Humidity compensation in the range of 0 to 90 %RH	
Physical Dim.	Weight: 60 g approx. Dimension: L55 x W 40 x H 55 (mm)	

* Resolution under laboratory conditions with certified calibration gas.

GDS INSTRUMENTS

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