

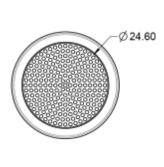


Photoionization Detector (PID) Sensors

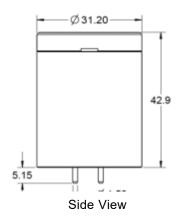
7-Series

Senovol PID sensors are designed for the detection of a wide variety of volatile organic compounds (VOCs). In general, any compound with ionization energy (IE) lower than that of the lamp photons can be measured. Based on its proprietary ultraviolet (UV) lamp technology, Senovol PID sensors have the advanced features of high UV outputs, and long lamp life spans.

Product Dimensions



Top View



Pin3:Vout
Pin3:Vout
Pin3:Vout
Pin1:Vcc
Pin1:Vcc

All dimensions in mm

Performance

Photon energy 10.6 eV

Measurement range $0 \sim 10000 \text{ ppm}$ Resolution $1 \sim 1000 \text{ ppb}$ Response time (T90) < 5 secondsBaseline shift (20°C) $70 \pm 30 \text{mV}$

Linearity linear from 0.05 ~3.0 V

Electrical

Supply voltage $3.3 \sim 5.5 \text{ V}$ Working current < 180 mA at 3.3 VOutput signal $0.05 \sim 3.3 \text{ V}$

Mechanical

Enclosure Stainless steel Weight 80 grams

Environmental

Temperature range $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ Pressure range $1 \text{ atm } \pm 10\%$ Humidity range $0\% \sim 99\%\text{RH}$ Non-condensing

Lifetime

Storage temperature 0 °C ~ 30 °C

Operating lifetime 5 years (excluding lamp and

electrodes)

Typical lamp life 20,000 hours

Storage life 2 years in original packaging

Warranty 24 months

Approvals

CE

Pending Intrinsic safety certification

Installation

Output signals from the sensor pins are different. Inappropriate use of the pins in product design will affect the sensor functionality. Exposure to high concentrations of solvent vapors should be avoided under any condition. Mechanical overstress may cause deformation of the sensor enclosure and damage the internal components including the lamp. If the sensor is used in extreme environmental conditions, please contact us for more details

Pin Out Details Pin 1 - VCC Pin 2 - GND Pin 3 - VOUT

sales@eursense.com www.eursense.com



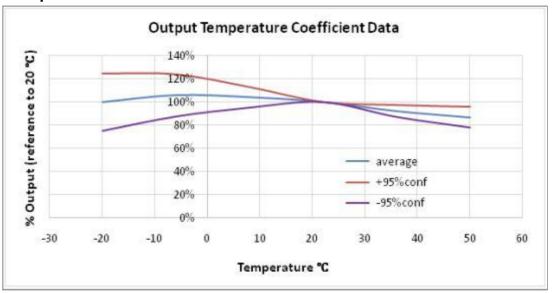
Product Selection

| Product Name | Part Number | Measurement Range | Photon Energy | Resolution | Sensitivity | Response Time |
|-----------------|---------------|----------------------|------------------|------------|--------------|------------------|
| 7PID-5 | PID-106K-0050 | 0 ~ 5 ppm | 10.6 eV | 0.5 ppb | > 200 mV/ppm | < 5 s |
| 7PID-10 | PID-106K-0100 | 0 ~ 10 ppm | 10.6 eV | 1 ppb | > 100 mV/ppm | < 5 s |
| 7PID-20 | PID-106K-0200 | 0 ~ 20 ppm | 10.6 eV | 1 ppb | > 60 mV/ppm | < 5 s |
| 7PID-100 | PID-106K-1000 | 0 ~ 100 ppm | 10.6 eV | 10 ppb | > 10 mV/ppm | < 5 s |
| 7PID-200 | PID-106K-2000 | 0 ~ 200 ppm | 10.6 eV | 20 ppb | > 5 mV/ppm | < 5 s |
| 7PID-1000 | PID-106K-1001 | 0 ~ 1,000 ppm | 10.6 eV | 100 ppb | > 1 mV/ppm | < 5 s |
| 7PID-2000 | PID-106K-2001 | 0 ~ 2,000 ppm | 10.6 eV | 200 ppb | > 0.5 mV/ppm | < 5 s |
| 7PID-5000 | PID-106K-5001 | 0 ~ 5,000 ppm | 10.6 eV | 500 ppb | > 0.2 mV/ppm | < 5 s |
| 7PID-10000 | PID-106K-1002 | 0 ~ 10,000 ppm | 10.6 eV | 1,000 ppb | > 0.1 mV/ppm | < 5 s |

Note

The performance data in this document is taken by applying isobutylene to the PID sensor using Senovol lab testers. The PID sensor may perform differently if gases other than isobutylene are used.

Sensitivity Temperature Data



Safety Note

If the sensor is used in certain instruments for life critical applications, it is required to read the instrument user's guide carefully and comply with the calibration procedures by using the certified target calibration gas before each use. Failure to do so may cause serious injury and/or fatality. It is highly recommended for customers to validate the sensor performance using this document as a reference for their product designs or applications.