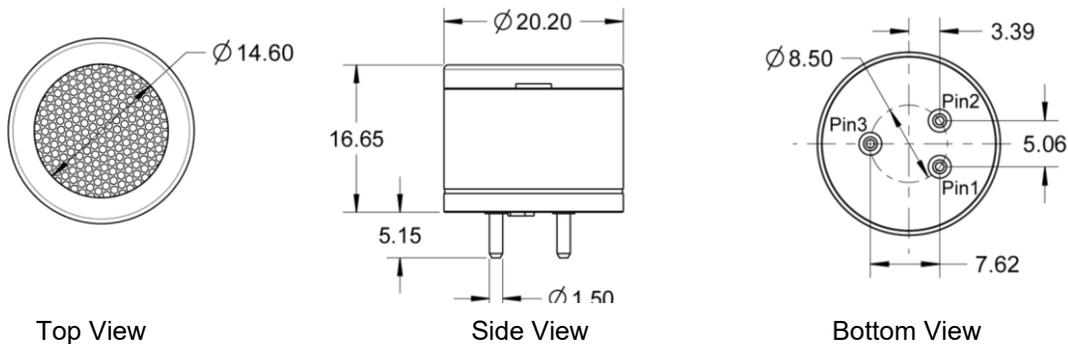


Senovol 9.8 eV PID sensors are designed for selective detection of volatile organic compounds (VOCs) with ionization energies below 9.8 eV. Using Senovol's proprietary ultraviolet (UV) lamp technology, these sensors deliver high UV output, long lamp life, and stable performance for applications requiring enhanced selectivity and reliability.

Product Dimensions



All dimensions in mm

Performance

Photon energy	9.8 eV
Measurement range	0 ~ 2,000 ppm benzene
Resolution	1 ~ 500 ppb benzene
Response time (T90)	< 5 seconds
Zero signal (20°C)	70 ±15 mV
Linearity	linear from 0.045 ~ 2.5 V

Electrical

Supply voltage	3.2 ~ 5.5 V
Working current	< 35 mA at 5 V
Output signal	0.045 ~ 2.5 V

Mechanical

Enclosure	Stainless steel
Weight	15 grams

Environmental

Temperature range	-20°C ~ +50°C
Pressure range	1 atm ± 10%
Humidity range	0 % ~ 99 %RH Non-condensing

Life Time

Storage Temp	0 °C ~ 30 °C
Operating lifetime	5 years (excluding lamp and electrodes)
Typical lamp life	10,000 hours
Storage life	2 years in original packaging
Warranty	12 months

Approvals

CE
IECEx and ATEX approvals available upon request

Installation

The 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

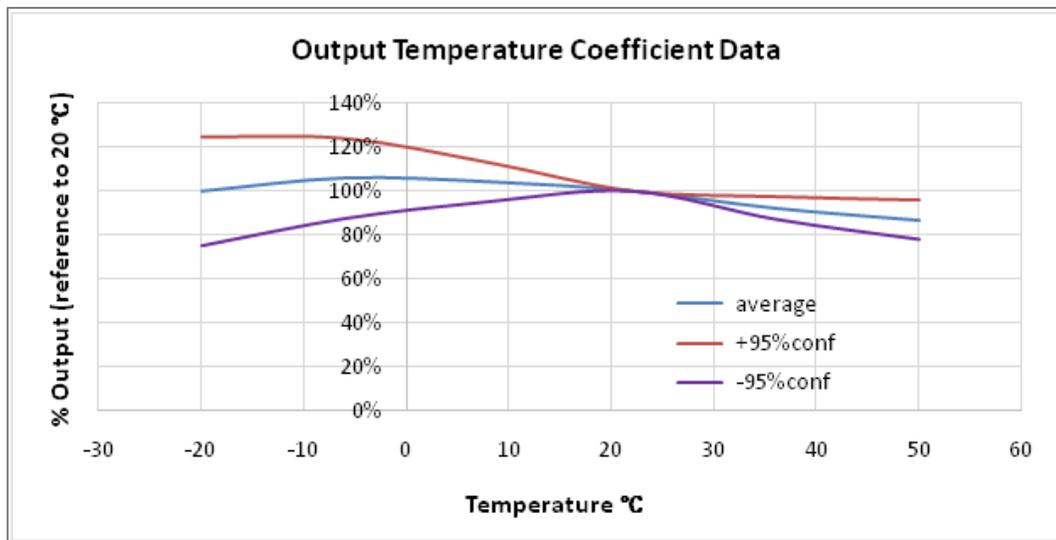
Product Selection

Product Name	Part Number	Measurement Range	Photon Energy	Resolution	Sensitivity	Response Time
4PID-10 (9.8eV)	PID-098S-0100	0 ~10 ppm	9.8 eV	1 ppb	> 100 mV/ppm	< 5 s
4PID-20 (9.8eV)	PID-098S-0200	0 ~ 20 ppm	9.8 eV	2 ppb	> 60 mV/ppm	< 5 s
4PID-50 (9.8eV)	PID-098S-0500	0 ~ 50 ppm	9.8 eV	3 ppb	> 30 mV/ppm	< 5 s
4PID-100 (9.8eV)	PID-098S-1000	0 ~100 ppm	9.8 eV	5 ppb	> 15 mV/ppm	< 5 s
4PID-200 (9.8eV)	PID-098S-2000	0 ~ 200 ppm	9.8 eV	50 ppb	> 5 mV/ppm	< 5 s
4PID-2000 (9.8eV)	PID-098S-2001	0 ~ 2,000 ppm	9.8 eV	500 ppb	> 0.5 mV/ppm	< 5 s

Note

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

Sensitivity Temperature Data



Note

This sensor is used in gas detection instruments. The instrument's user guide must be read carefully, and all calibration procedures must be followed using certified target calibration gas before each use to ensure accuracy. Customers are strongly advised to validate sensor performance for their specific product designs or applications, using this document as a reference.