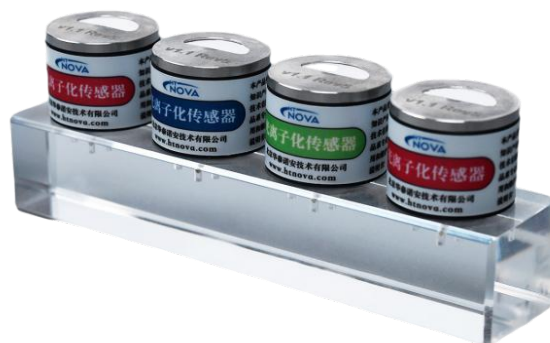


OEM/ODM PID GAS Sensor

Demand for hazardous-material monitoring is increasing as awareness grows of the risks associated with chemicals used in industrial processes and the need to protect people and the environment. Volatile organic compounds (VOCs) are among the most important targets: they can be detected with high sensitivity using photoionization detection (PID). As VOC monitoring requirements expand, so does demand for reliable PID sensors.



We provide OEM/ODM customization for full-range PID gas sensors with selectable ionization energies and measurement ranges from 0 to 10,000 ppm. Available in both 4-series and 7-series formats, our plug-and-play designs deliver sensitive, stable signals for thousands of volatile organic compounds (VOCs) across diverse industries.

Our standard general-purpose sensors offer broad range coverage and fast response. The weather-resistant version features enhanced moisture and dust protection for demanding outdoor environments with high humidity or airborne particulates. For continuous monitoring, the long-life online version incorporates a patented durable filter membrane, delivering strong long-term stability and lower maintenance costs in 24/7 operation.

Our high-precision version is optimized for exceptionally low baseline noise and excellent trace-VOC detection across a wide dynamic range, making it ideal for cleanrooms, advanced laboratories, and other demanding environments. The selective version is optimized for low-ionization-energy compounds and enables accurate detection of aromatic hydrocarbons, including benzene-series compounds.

For applications requiring an expanded detection range, our high-energy light-source solutions can detect substances beyond the reach of conventional PID sources, including formaldehyde, methanol, ethylene, chlorinated hydrocarbons, and unsaturated fluorocarbons. Intrinsically safe, explosion-proof designs are also available for specialized applications.

Typical Applications

General Environmental & Indoor Monitoring

- ▶ Indoor and outdoor air quality monitoring
- ▶ Continuous monitoring
- ▶ Area monitoring
- ▶ Environmental monitoring
- ▶ Smart cities
- ▶ IoT

Industrial Safety & Chemical Leak Detection

- ▶ Industrial health and safety
- ▶ Confined space entry
- ▶ Leak detection and repair LDAR
- ▶ Fugitive emissions
- ▶ LEL measurement
- ▶ Process control
- ▶ Soil contamination
- ▶ Survey

Semiconductor & High-end Cleanroom Precision Applications

- ▶ Semiconductor fabrication
- ▶ Cleanroom
- ▶ Glove boxes
- ▶ Fertility labs

BTEX-Specific Monitoring

- ▶ Benzene monitoring
- ▶ BTEX monitoring
- ▶ Fracking

Specialized Industry Applications

- ▶ Arson investigation
- ▶ HVAC
- ▶ Pharmaceutical
- ▶ Fruit ripening and storage
- ▶ Chromatography
- ▶ Agriculture

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OEM/ODM PID GAS Sensor

Technical Data Sheet

Performance:

Range	Minimum detection limit	T90 response time	Sensitivity
5ppm	1ppb	<4	>500 mv/ppm
10ppm	1ppb	<4	>240 mv/ppm
20ppm	1ppb	<4	>120 mv/ppm
50ppm	3ppb	<4	>40 mv/ppm
100ppm	3ppb	<4	>20 mv/ppm
200ppm	3ppb	<4	>10 mv/ppm
1,000ppm	30ppb	<4	>2.0 mv/ppm
2,000ppm	60ppb	<4	>1.0 mv/ppm
5,000ppm	150ppb	<4	>0.5 mv/ppm@100ppm
10,000ppm	500ppb	<4	>0.4 mv/ppm@100ppm

Power & Signal:

- Supply voltage : 3.2 V~5 V
- Current: 24~30 mA (110 for 100 ms at start up)
- Power consumption: 100 mW at 3.3 V
- Output signal: 0~3.1V

Operating conditions:

- Temperature range: -40~60 °C
- Relative humidity range: 0~99% RH (non condensing)

Approvals:

- Intrinsically Safe: Ex ia IIC T4 Ga

Lifetime:

- Sensor life: >5 years
- Lamp life*: 1000V/100KHz power supply, 24/7 uninterrupted operation, continuous lighting over 7000h

* The data regarding lifetime have been obtained under continuous laboratory operation on a large number of lamps. The typical lifetime set forth above means that radiant power has decreased on average ≤20% after this lifetime. The actual lifetime of an individual lamp may vary significantly from this value.

Disclaimer:

This data sheet is subject to change without notice. Please always make sure to use the latest version. Errors and omissions excepted.

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