Threshold Formaldehyde HCHO Detection Sensor (0-20ppm)

$20.90

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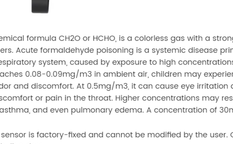
Introduction

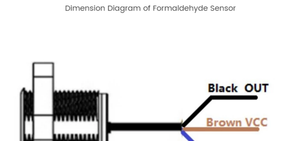
This formaldehyde gas sensor differs from most gas sensors on the market as it does not provide specific gas concentration data. Instead, it detects whether the surrounding environment exceeds or falls below a fixed threshold. It operates on a wide voltage range of 5-24V, with high and low-level outputs. The sensor is equipped with an indicator light for easy observation of its status, making it user-friendly. When the sensor detects a gas concentration above the threshold, it outputs a high-level signal and the indicator light illuminates. Conversely, when the concentration falls below the threshold, it outputs a low-level signal and the indicator light turns off.



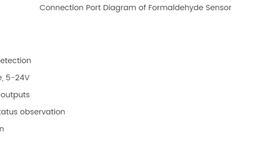
Formaldehyde, with the chemical formula CH2O or HCHO, is a colorless gas with a strong, pungent odor. It is soluble in alcohols and ethers. Acute formaldehyde poisoning is a systemic disease primarily characterized by damage to the eyes and respiratory system, caused by exposure to high concentrations of formaldehyde vapor. When the concentration reaches 0.08-0.09mg/m3 in ambient air, children may experience mild wheezing. At 0.1mg/m3, there may be odor and discomfort. At 0.5mg/m3, it can cause eye irritation and tear production. At 0.6mg/m3, it can cause discomfort or pain in the throat. Higher concentrations may result in nausea, vomiting, coughing, chest tightness, asthma, and even pulmonary edema. A concentration of 30mg/m3 can be fatal.

Note: The threshold of this sensor is factory-fixed and cannot be modified by the user. Custom threshold parameters can be set for bulk orders.

If you need to measure formaldehyde concentration accurately, we recommend the **MEMS Formaldehyde HCHO Gas Detection Sensor.**



Dimension Diagram of Formaldehyde Sensor



Connection Port Diagram of Formaldehyde Sensor

Features

- Threshold-based detection
- Wide voltage range, 5-24V
- High and low-level outputs
- Indicator light for status observation
- User-friendly design

Applications

- Indoor air quality monitoring
- Safety and occupational health
- Environmental monitoring
- Smart home systems
- Research and development

Specification

- Power Supply Voltage: 5-24V
- High level output range: 5-24V (Output high voltage = supply voltage)
- Load Current: <100mA
- Static Current: <10mA
- Detectable Gas: Formaldehyde (CH2O, HCHO)
- Resolution: 0.01ppm
- Repeatability: <2% of the output value
- Threshold: 0.06ppm=0.075mg/m3 (Factory-fixed threshold, cannot be modified by the user)
- Maximum Load: 20ppm
- Response Time: <15s
- Zero-Point Output: -0.10-0.02ppm
- Output Mode: High-level and low-level signals
- Line sequence: Black line -OUT, Brown line -VCC, Blue line -GND
- Pressure Range: 1±0.1 standard atmospheric pressure
- Lifespan: 3 years (in air)
- Storage Environment: 10°C - 30°C
- Operating Temperature Range: -10°C - 50°C
- Operating Humidity Range: 15% - 90% RH
- Long-Term Stability: <2% of the signal value per month
- Dimensions: L*W*H=30.35*47.4*47.4mm
- Cable Length: 50cm
- Housing Material: Black PCV0 flame-retardant material

Shipping List

- Formaldehyde Detection Sensor x1

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