

Technical Information

Electrochemical Formaldehyde Sensor ***NE-HCHO***

~ Industrial Use ~

(1) Design Features

Stability

High Reliability

Linearity

Low Power Consumption for Battery Operation

(2) Specifications

[Sensitivity Characteristics]

Detection Gas	Formaldehyde
Detection Range	0 ~ 50 ppm
Maximum Overload	100 ppm
Output Signal	80 ± 20 nA/ppm
Repeatability	± 2 %
Typical Baseline Range (pure air)	< ± 1 ppm
Typical Response Time (t ₉₀)	< 120 sec. (HCHO : 1 ppm)
Baseline Shift (- 20 ~ 50°C)	< 3 ppm
Expected Life Time	Over 2 years

[Operating Conditions]

Operating Temperature	- 20 ~ 50°C
Operating Humidity	15 ~90 % RH
Operating Pressure Range	1atm± 10 %
Recommended Load Resistor	10 Ω
Bias Voltage	Not required
Position Sensitivity	None
Recommended Storage Temp.	0 ~ 20°C
Storage Life	Less than 6 months

[Physical Characteristics]

Case Material	PPO
Cap Color	Black
Weight	5 g (approx.)

[Appearance and Dimensions]

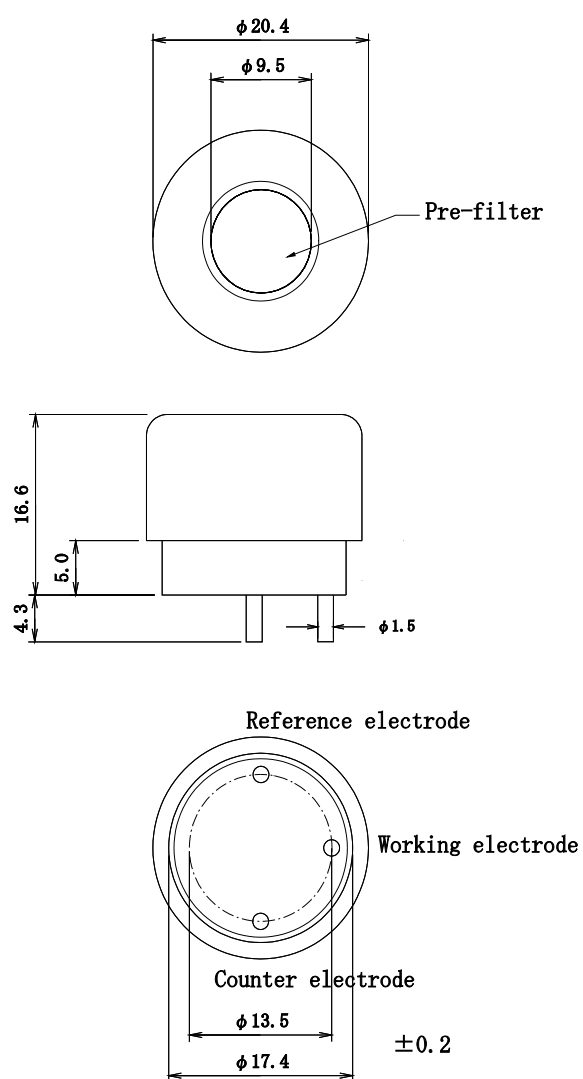


Fig.1 : Appearance and Dimensions of NE-HCHO

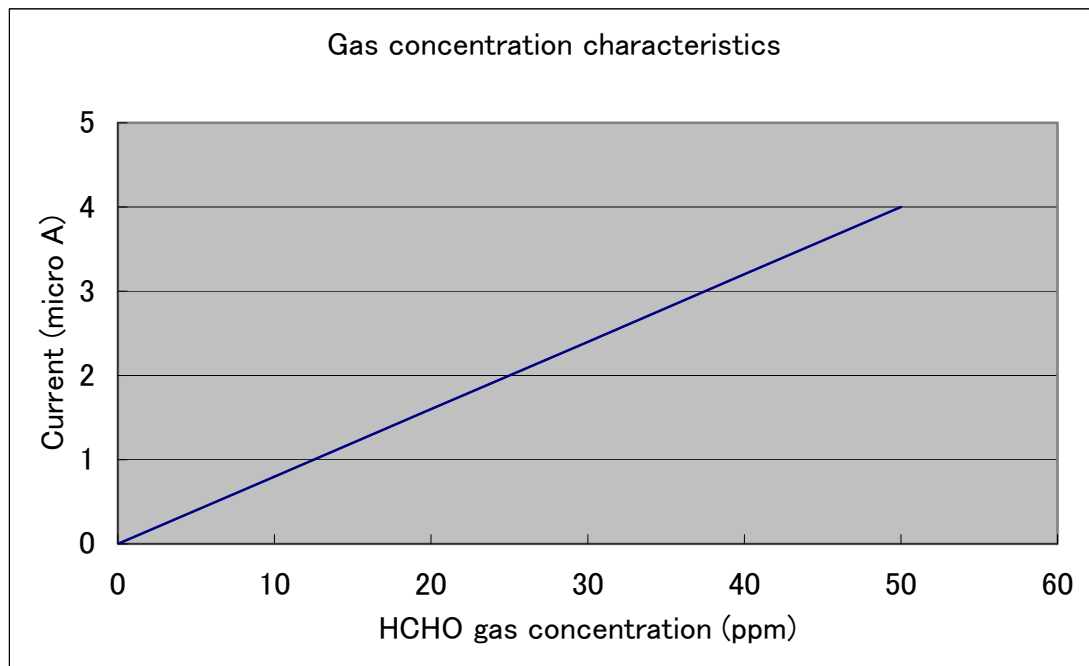
(3) Characteristics

(3-1) Cross Sensitivity

Table 1 : Cross Sensitivity of NE-HCHO

Gas	Concentration (ppm)	Typical Formaldehyde Concentration (ppm) Equivalent
Formaldehyde	10	10
Hydrogen Sulfide	10	62
Carbon-monoxide	100	<12
Carbon-dioxide	5,000	0
Hydrogen	100	<12
Sulfur-dioxide	30	<22
Ethylene	1,000	<7
Chlorine	10	<2
Methane	5,000	0
Nitric Oxide	10	-1 to 5
Nitrogen Dioxide	10	-8
Ammonia	100	0
Ethanol	100	<1*

Exposure time : * 30 minutes



[Notes]

- Use only within specified conditions.
- Sensor characteristics must be measured in clean air.
- Electrode pins must be correctly connected.
Wrong connection does not allow correct functions.
- Do not apply voltage directly to electrode pins.
- Do not bend pins.
- Do not put excess vibration or shocks.
- If sensor housing is damaged or scratched, do not use.
- Do not blow organic solvents, paints, chemical agents, oils, or high concentration gases directly onto sensors.
- Do not solder to pins of sensor directly.
Use exclusive sockets.
- Do not use contact grease when sensor connected to the sockets.
- Do not disassemble or change any parts.
- If sensor is used under irregular atmosphere, contact us.