



Electrochemical Hydrogen Sensor

H2-MD-05



Specifications

Sensitivity Characteristics

Detection Gas	Hydrogen
Detection Range	0 ~ 40000 ppm
Maximum Overload	40000 ppm
Output Signal	5 ± 3 nA/ppm
Repeatability	< ± 2 %
Resolution	1 0 ppm
Typical Baseline Range (pure air)	< ± 50 ppm
Typical Response Time (t90, 20°C)	30 seconds
Typical Baseline Shift (−40 ~ 40°C)	< ± 50 ppm
Long Term Output Drift	< 2%/month
Expected Life Time	> 2 years

Performance data conditions: 20°C, 50%RH and 1013mBar, using MGK SENSOR recommended circuitry.

Operating Conditions

Operating Temperature	−40 ~ 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

Cap Color	Light blue
Weight	4.5 g (approx.)

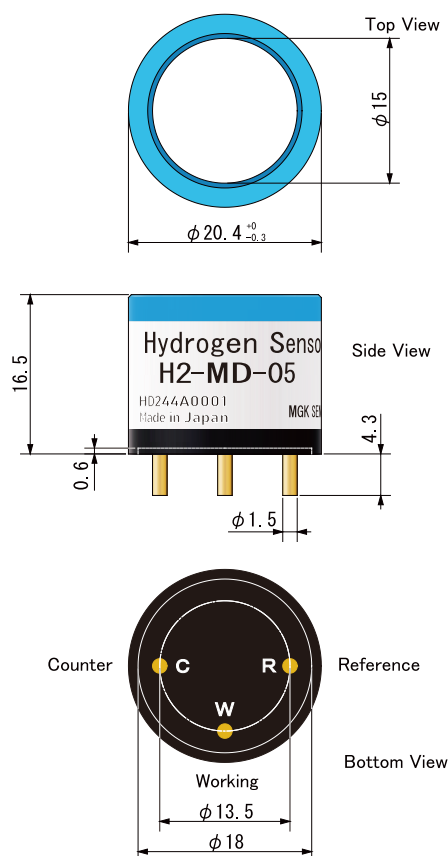
Typical Cross Sensitivity

Gas	Concentration (ppm)	Typical Hydrogen Concentration (ppm) Equivalent
Hydrogen	10000	10000
Carbon Monoxide	300	100
Hydrogen Sulfide	10	0
Sulphur Dioxide	20	0
Carbon Dioxide	5,000	0
Nitrogen Dioxide	10	0
Nitric Oxide	50	0
Ethylene	100	30
Ethanol	200	0
Ammonia	100	0

Design Features

- Linearity
- Quick Response
- Excellent Selectivity
- Stability
- High Reliability
- Perfect Leak-proof Structure

Appearance and Dimensions



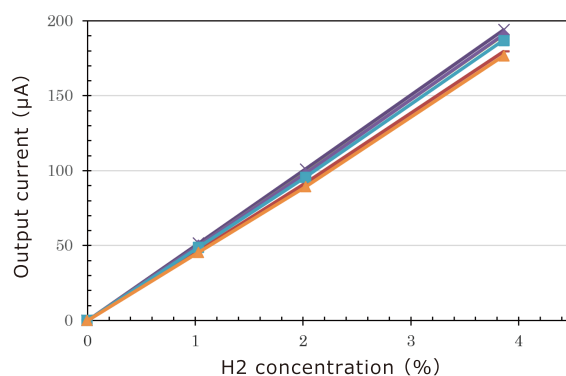
All dimensions in mm
All tolerance ± 0.1 mm unless otherwise stated

NOTE: Do not solder to electrode pins. Use exclusive sockets.
Do not blow organic solvents, paints, chemical agents, oils or high concentration gases onto sensor.

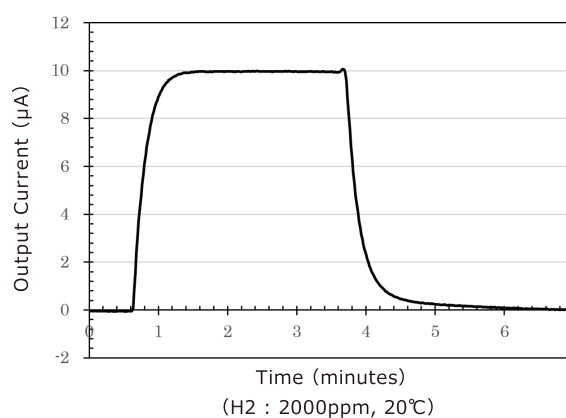
NOTE: H2-MD-05 DN-21102 May 2024

As the products may be use outside control of MGK SENSOR, the information provided is given without legal responsibility. Customer should test under their own conditions, to ensure that the sensors are suitable for their own requirements. In accordance with the company's policy of continued product improvement, MGK SENSOR reserves the right to make product changes without notice.

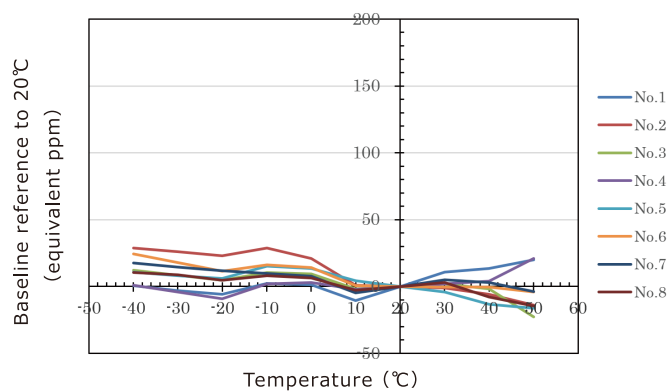
Linearity



Response and Recovery



Baseline Shift



Temperature Dependency

