

Electrochemical Ozone Sensor

O3-MD-900H



Specifications

Sensitivity Characteristics

Detection Gas	Ozone	
Detection Range	$0\sim 10~{ m ppm}$	
Maximum Overload	50 ppm	
Output Signal	900 ± 350 nA/ppm	
Repeatability	± 2 %	
Resolution	0.03ppm (typical)	
Typical Baseline Range (pure air)	< ± 0.1ppm	
Typical Response Time (t90)	< 60 sec	
Baseline Shift (20 \sim 40 degree C)	< 0.07ppm	
Long Term Output Drift	< 2% / month	
Expected Life Time	2 years	

Performance data conditions: $20\,^{\circ}$ C,50%RH and 1013mBar, using MGK SENSOR recommended circuitry.

Operating Conditions

Operating Temperature $-20 \sim 50 ^{\circ} \! \mathrm{C}$	
Operating Humidity	$15\sim 90\%$ RH
Operating Pressure Range	1atm ± 10 %
Recommended Load Resistor	33 Ω
Bias Voltage	Not required
Position Sensitivity None	
Recommended Storage Temp.	0 ~ 20 ℃
Storage Life	Less than 6 months

Physical Characteristics

Cap Color	Dark green
Weight	4.5 g (approx.)

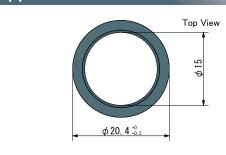
Typical Cross Sensitivities

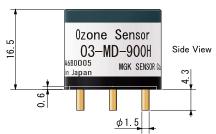
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Gas	Concentration (ppm)	Typical Nitrogen Dioxide Concentration (ppm) Equivalent
Ozone	5	5
Hydrogen	500	0
Carbon Monoxide	300	0
Carbon Dioxide	5,000	0
Sulphur Dioxide	5	0
Hydrogen Sulfide	10	-2
Nitrogen Dioxide	10	10
Nitric Oxide	30	0
Ethanol	100	0
Chlorine	1	1
Ethylene	100	0

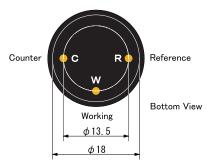
Design Features

- High Sensitivity
- Excellent Selectivity
- Linearity
- 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.

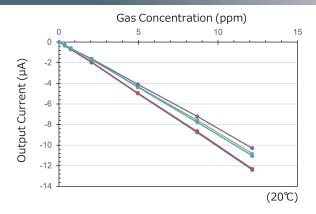
NOTE: 03-MD-900H DN201002-01

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

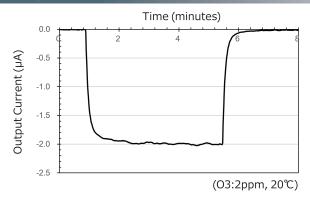
In accordance with the company's policy of continued product improvement, MGK SENSOR reserves the right to make product changes without notice.

Typical Characteristics

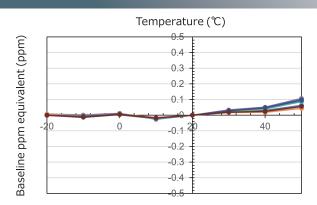
Linearity



Response and Recovery



Baseline Shift



Temperature Dependency

