MGK SENSOR

Electrochemical Ozone Sensor
O3-MD-600H

Specifications

Sensitivity Characteristics

Detection Gas	Ozone
Detection Range	0 ~ 20 ppm
Maximum Overload	100 ppm
Output Signal	600 ± 200 nA/ppm
Repeatability	± 2 %
Resolution	0.05 ppm (typical)
Typical Baseline Range (pure air)	< ± 0.2 ppm
Typical Response Time (t90)	< 60 sec
Baseline Shift (20 ~ 40 degree C)	< 0.1ppm
Long Term Output Drift	< 2% / month
Expected Life Time	2 years

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

Operating Conditions

Operating Temperature	– 20 ~ 50 ℃
Operating Humidity	15 ~ 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

Gas	Concentration (ppm)	Typical Nitrogen Dioxide Concentration (ppm) Equivalent
Ozone	10	10
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

Top View
ϕ15
ϕ20.4 $^{+0}_{-0.3}$

Side View
16.5
0.6
ϕ1.5
4.3

Counter C R Reference
W
Working
ϕ13.5
ϕ18
Bottom View
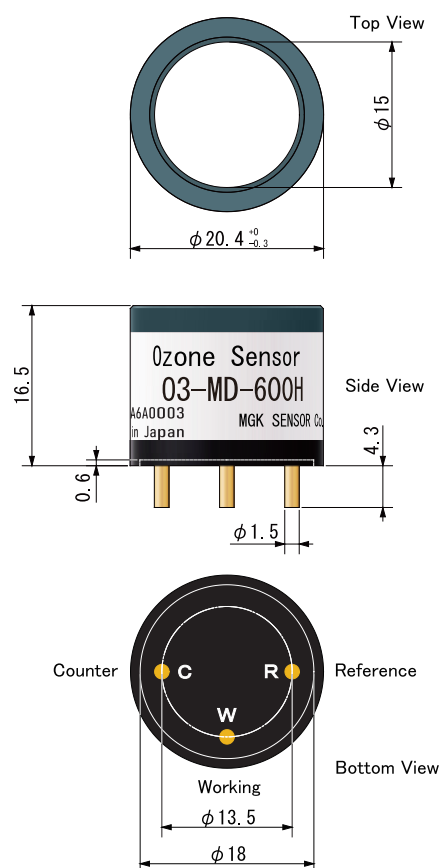
All dimensions in mm
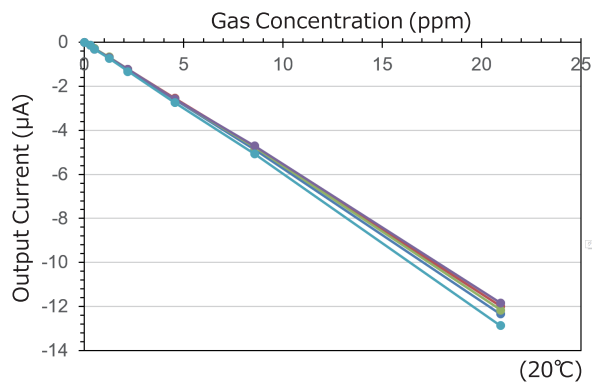All tolerance +/-0.1 mm unless otherwise stated

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.
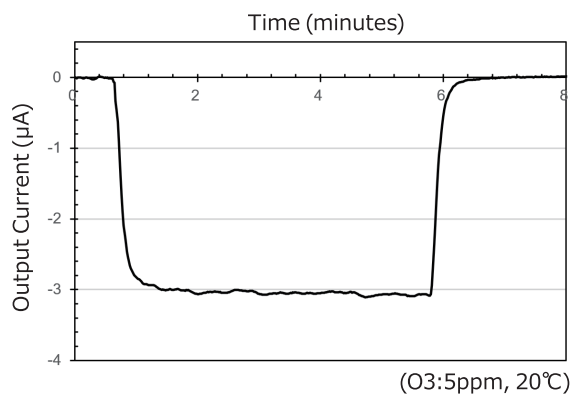
NOTE: O3-MD-600H DN201001-01

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 improvement, MGK SENSOR reserves the right to make product changes without notice.
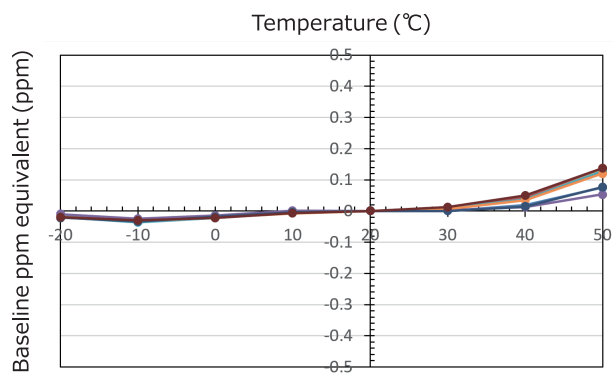
Typical Characteristics

Linearity

Gas Concentration (ppm)

Output Current (μA)

(20℃)

Response and Recovery

Time (minutes)

Output Current (μA)

(O3:5ppm, 20℃)

Baseline Shift

Temperature (℃)

Baseline ppm equivalent (ppm)

Temperature Dependency

% Sensitivity (reference to 20℃)

Temperature (℃)