



# Electrochemical Sulfur Dioxide Sensor

## SO2-MD-500



### Design Features

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

### Specifications

#### Sensitivity Characteristics

Detection Gas	Sulfur Dioxide
Detection Range	0 ~ 20ppm
Maximum Overload	150ppm
Output Signal	500 ± 100 nA/ppm
Repeatability	± 2%
Resolution	0.1ppm
Typical Baseline Range (pure air)	-0.2ppm to +0.5ppm
Typical Response Time (t90)	< 25seconds
Baseline Shift (-20 ~ 40°C)	< 0.2ppm
Long Term Output Drift	< 2% / month
Expected Life Time	> 2years

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

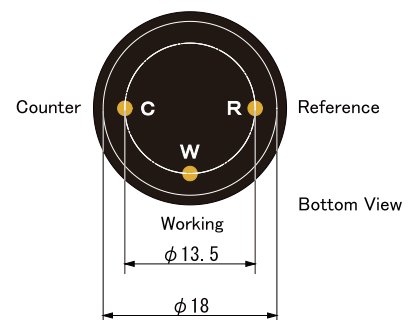
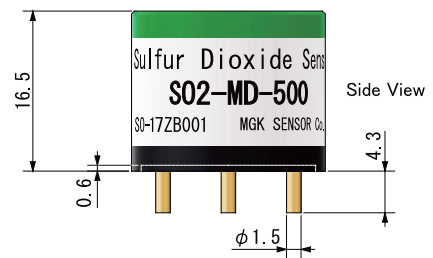
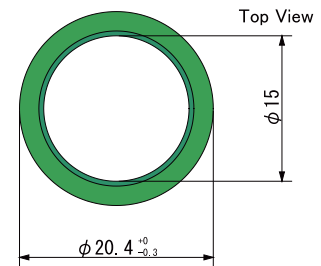
#### Operating Conditions

Operating Temperature	-30 ~ 50°C
Operating Humidity	15 ~ 90% RH
Operating Pressure Range	Atmospheric ± 10%
Recommended Load Resistor	10Ω
Bias Voltage	0mV
Position Sensitivity	None
Recommended Storage Temp.	0 ~ 20°C
Storage Life	6months

#### Physical Characteristics

Cap Color	Green
Weight	4.5 g (approx.)

### Appearance and Dimensions



All dimensions in mm

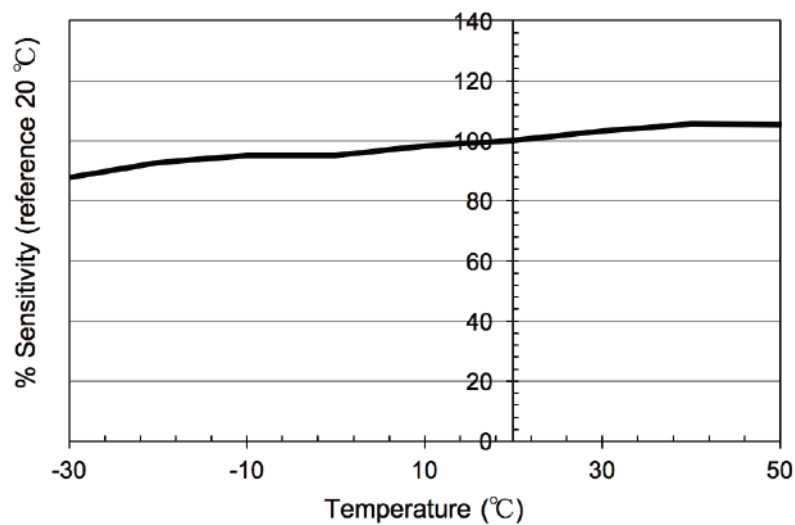
All tolerance +/-0.1 mm unless otherwise stated

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.

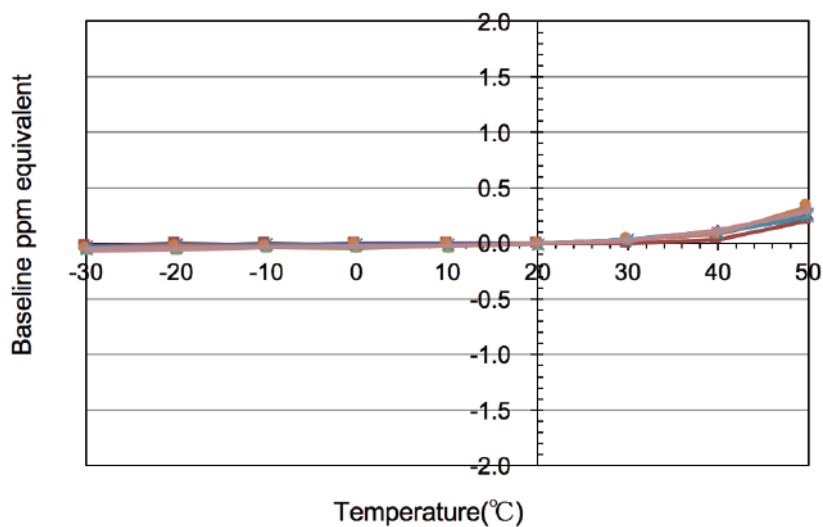
## Typical Cross Sensitivities

Gas	Concentration (ppm)	Typical Sulfur Dioxide Concentration (ppm) Equivalent
Sulfur Dioxide	20	20
Carbon Monoxide	300	< 1
Carbon Dioxide	5000	0
Hydrogen	400	< 1
Hydrogen Sulfide	15	0
Nitric Oxide	50	1
Nitrogen Dioxide	10	- 10
Ammonia	20	0
Chlorine	5	- 1

## Temperature Dependency



## Baseline Shift



**NOTE:** SO2-MD-500 DN-2061 Sep. 2013

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.

