



Midas® Sensor Cartridge Specifications

Sulfur Dioxide (SO₂) MIDAS-E-SO₂, MIDAS-S-SO₂

Gas Measured	Sulfur Dioxide (SO ₂)
Cartridge Part Number	MIDAS-S-SO ₂ 1 year standard warranty, MIDAS-E-SO ₂ 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range	SO ₂ 0 – 8ppm
Minimum Alarm 1 Set Point	1.00ppm
Lower Detection Limit	0.90ppm
Linearity	< ± 10% of measured value
Repeatability	< ± 2% of measured value
Resolution	0.05ppm
Response Time t_{62.5}	≤ 5 seconds
Sensor Cartridge Life Expectancy	≥ 24 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature	
Zero	< ± 0.03ppm / °C
Sensitivity	< ± 0.4% of measured value / °C
Operating Humidity	15 to 90% RH
Effect of Humidity	
Zero	No effect
Sensitivity	< ± 1% of measured value / % RH
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	TBA
Sensitivity	< ± 2% of measured value / year
Calibration Gas	Sulfur Dioxide (SO ₂)
Bump Test Gas	Sulfur Dioxide (SO ₂)
Warm Up Time	< 10 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on ideal test environment; observed performance may vary based on the actual monitoring system and the sampling conditions employed.

Cross Sensitivities

Each Midas® sensor is potentially cross sensitive to other gases and this may cause a gas reading when exposed to other gases than those originally designated. The table below presents typical readings that will be observed when a new sensor cartridge is exposed to the cross sensitive gas (or a mixture of gases containing the cross sensitive species)

Gas Measured	Chemical Formula	Concentration Applied(ppm)	Reading (ppm SO ₂)
Carbon Monoxide	CO	300	<3
Hydrogen Sulfide	H ₂ S	15	0
Nitric Oxide	NO	35	0
Nitrogen Dioxide	NO ₂	5	-5

Interference differs from cartridge to cartridge and over cell life. It is not recommended to calibrate with cross sensitivity factors. The target gas should be used for calibration.

Find out more

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