



Midas® Sensor Cartridge Specifications

Nitrogen Dioxide (NO₂)

MIDAS-E-NO₂, MIDAS-S-NO₂

Gas Measured	Nitrogen Dioxide (NO ₂)
Cartridge Part Number	MIDAS-S-NO ₂ 1 year extended warranty MIDAS-E-NO ₂ 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range	NO ₂ 0 – 12ppm
Minimum Alarm 1 Set Point	1.50ppm
Lower Detection Limit	1.35ppm
Linearity	< ± 10% of measured value
Repeatability	< ± 2% of measured value
Resolution	0.05ppm
Response Time t_{62.5}	≤ 15 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	< ± 0.01ppm / °C
Sensitivity	< ± 0.7% of measured value / °C
Operating Humidity	10 to 90% RH
Effect of Humidity	
Zero	No effect
Sensitivity	< ± 0.5% of measured value / % RH
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	No drift
Sensitivity	< 2% of measured value / month
Calibration Gas	Nitrogen Dioxide (NO ₂)
Bump Test Gas	Nitrogen Dioxide (NO 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.

Find out more

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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 NO ₂)
Carbon Monoxide	CO	300	0
Chlorine	Cl ₂	1	1
Hydrogen Sulfide	H ₂ S	15	-1.2
Nitric Oxide	NO	35	0
Sulfur Dioxide	SO ₂	5	0

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.