

MIDAS S2

NITROGEN DIOXIDE (NO₂)

Sensor Cartridge Specifications

Selectable gases	Nitrogen Dioxide (NO ₂)
Cartridge Part Number	MIDAS S2-E-NO2 2-year extended warranty
Sensor Technology	Electrochemical sensor
Measuring Range	NO ₂ 0 - 12ppm
Default Alarm 1	NO ₂ 1.5ppm
Default Alarm 2	NO ₂ 3ppm
LDL, LAL	NO ₂ 1.05ppm
Resolution	NO ₂ 0.05ppm
Accuracy	≤ ± 10% of measured value
Response Time t ₆₂₋₅	Typical 5 seconds
Sensor Cartridge Life Expectancy (Expiration Period)	24 months under typical application conditions Extendable for 1 year through calibration after 24 months
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature Sensitivity	≤ ± 10% of measured value at 20°C
Operating Humidity	10 to 90% non-condensing
Operating Pressure	90 – 110kPa
Calibration Gas	NO ₂ 6ppm
Warm Up Time	< 10 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on the test data with NO₂ gas under normal Lab test conditions (20-25 C, 0 - 60%RH, normal atmosphere pressure); observed performance may vary based on the actual monitoring system and the sampling conditions employed.



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CROSS SENSITIVITIES

Each Midas S2 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	0 (Negative Drift)
Nitric Oxide	NO	35	0
Sulfur Dioxide	SO ₂	5	0
Hydrogen Chloride	HCl	4	0
Silane	SiH ₄	10	0
Hydrogen	H ₂	500	0
Phosphine	PH ₃	0.6	0
Ozone	O ₃	0.2	0
Hydrogen Fluoride	HF	6	0
Ethylene Oxide	C ₂ H ₄ O	20	0
Nitric Oxide	NO	50	0
Carbon Dioxide	CO ₂	10000	0
Hydrogen Cyanide	HCN	10	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.

For more information

automation.honeywell.com

**Honeywell Process
Measurement and Control**

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