

MIDAS S2 OZONE (O₃)

Sensor Cartridge Specifications

Selectable gases	Ozone (O ₃)
Cartridge Part Number	MIDAS S2-E-O3X 2-year extended warranty
Sensor Technology	Electrochemical sensor
Measuring Range	O ₃ 0 - 0.4ppm
Default Alarm 1	O ₃ 0.05ppm
Default Alarm 2	O ₃ 0.1ppm
LDL, LAL	O ₃ 0.036ppm
Resolution	O ₃ 0.002ppm
Accuracy	≤ ± 5% of measured value
Response Time t _{62:5}	Typical 22 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	≤ ± 15% of measured value at 20°C
Operating Humidity	15 to 90% non-condensing
Operating Pressure	90 – 110kPa
Calibration Gas	O ₃ 0.2ppm
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 O₃ 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 O ₃)
Ammonia	NH ₃	100	0 (Negative Drift)
Chlorine	Cl ₂	1	0.4 (Over Range)
Chlorine Dioxide	ClO ₂	1	0.4 (Over Range)
Chlorine Trifluoride	ClF ₃	1	0.4 (Over Range)
Fluorine	F ₂	0.1	0.1
Hydrazine	N ₂ H ₄	3	0.4 (Over Range)
Hydrogen Sulfide	H ₂ S	20	0.4 (Over Range)
Nitric Oxide	NO	50	0.07
Nitrogen Dioxide	NO ₂	10	0.4 (Over Range)
Sulfur Dioxide	SO ₂	20	0.4 (Over Range)
Hydrogen Chloride	HCl	4	0.4 (Over Range)
Hydrogen	H ₂	500	0 (Negative Drift)
Hydrogen Fluoride	HF	6	0.4 (Over Range)
Hydrogen Cyanide	HCN	10	0.114
Arsine	AsH ₃	0.2	0
Carbon Dioxide	CO ₂	5000	0
Carbon Monoxide	CO	100	0
Silane	SiH ₄	10	0
Phosphine	PH ₃	0.6	0
Ethylene Oxide	C ₂ H ₄ O	20	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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