

## Midas<sup>®</sup> SENSOR CARTRIDGE SPECIFICATIONS

### Ozone (O<sub>3</sub>) MIDAS-S-O3X, MIDAS-E-O3X



Technical Data	
Gas Measured	Ozone (O <sub>3</sub> )
CARTRIDGE PART NUMBER	MIDAS-S-O3X 1 year standard warranty MIDAS-E-O3X 2 year extended warranty
SENSOR TECHNOLOGY	3 electrode electrochemical cell
MEASURING RANGE (PPM)	O <sub>3</sub> 0 – 0.4 ppm
MINIMUM ALARM 1 SET POINT	0.050 ppm
REPEATABILITY	< ± 5 % of measured value
LINEARITY	< ± 5 % of measured value
RESPONSE TIME T <sub>62.5</sub>	< 60 seconds
SENSOR CARTRIDGE LIFE EXPECTANCY	≥ 24 months under typical application conditions
OPERATING TEMPERATURE EFFECT OF TEMPERATURE	0° to + 40°C (32° to 104°F)
ZERO SENSITIVITY	< ± 0.0018 ppm / °C < ± 0.5% / °C
OPERATING HUMIDITY (CONTINUOUS) EFFECT OF HUMIDITY	15 – 90 % rH
ZERO SENSITIVITY	Abrupt changes will cause a short term drift < ± 1 % of measured value / % rH
OPERATING PRESSURE	90 - 110 kPa
EFFECT OF POSITION	No effect in typical application
LONG TERM DRIFT	
ZERO SENSITIVITY	No drift < 5 % of measured value / 6 months
CALIBRATION GAS	Ozone (O <sub>3</sub> )
CHALLENGE GAS (BUMP TEST)	Chlorine (Cl <sub>2</sub> )
WARM UP TIME	< 10 minutes
STORAGE TEMPERATURE	+ 5° to + 25°C (+ 41° 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<sup>®</sup> 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 / VAPOR	CHEMICAL FORMULA	CONCENTRATION APPLIED (PPM)	READING (PPM HF)
Ammonia	NH <sub>3</sub>	100	-3
Arsine	AsH <sub>3</sub>	0.2	0
Carbon Dioxide	CO <sub>2</sub>	5000	0
Carbon Monoxide	CO	100	0
Chlorine	Cl <sub>2</sub>	1	1.2
Chlorine Dioxide	ClO <sub>2</sub>	1	1.5
Chlorine Trifluoride	ClF <sub>3</sub>	1	1 (Theoretical)
Fluorine	F <sub>2</sub>	0.1	0.1
Hydrazine	N <sub>2</sub> H <sub>4</sub>	3	-3
Hydrogen	H <sub>2</sub>	3000	0
Hydrogen Sulfide	H <sub>2</sub> S	20	1.6
Nitric Oxide	NO	100	1
Nitrogen	N <sub>2</sub>	100 %	0
Nitrogen Dioxide	NO <sub>2</sub>	10	6
Sulfur Dioxide	SO <sub>2</sub>	20	-0.2

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