MIDAS S2
SULFUR DIOXIDE (SO_2)

Sensor Cartridge Specifications

SELECTABLE GASES	SULFUR DIOXIDE (SO_2)
Cartridge Part Number	MIDAS S2-L-SO_2
Sensor Technology	Electrochemical sensor
Measuring Range	SO_2 0 - 8ppm
Default Alarm 1	SO_2 1ppm
Default Alarm 2	SO_2 2ppm
LDL, LAL	SO_2 0.7ppm
Resolution	SO_2 0.05ppm
Accuracy	≤ ± 5% of measured value
Response Time $t_{62\text{-}5}$	Typical 2 seconds
Sensor Cartridge Life Expectancy (Expiration Period)	36 months under typical application conditions Extendable for 1 year through calibration after 36 months
Operating Temperature Effect of Temperature Sensitivity	0°C to +40°C (32°F to 104°F) ≤ ± 10% of measured value at 20°C
Operating Humidity	15 to 90% non-condensing
Operating Pressure	60 – 120kPa
Calibration Gas	SO_2 4ppm
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 SO_2 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.

Continuous exposure to low humidity may lower sensor output.

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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 SO2)
Phosphine	PH_3	0.6	1.5
Hydrogen Cyanide	HCN	10	4.4
Nitrogen Dioxide	NO_2	6	0 (Negative Drift)
Silane	SiH_4	10	8 (Over Range)
Carbon Monoxide	CO	300	0 (Negative Drift)
Hydrogen Chloride	HCl	4	0
Hydrogen	H_2	500	0
Chlorine	Cl_2	1	0
Ammonia	NH_3	50	0
Ozone	O_3	0.2	0
Hydrogen Fluoride	HF	6	0
Ethylene Oxide	C_2H_4O	20	0
Hydrogen Sulfide	H_2S	20	0
Nitric Oxide	NO	50	0
Carbon Dioxide	CO_2	10000	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
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