

MIDAS S2

CARBON MONOXIDE (CO)

Sensor Cartridge Specifications

Selectable gases	Carbon Monoxide (CO)
Cartridge Part Number	MIDAS S2-E-COX 2-year extended warranty
Sensor Technology	Electrochemical sensor
Measuring Range	CO 0 – 100ppm
Default Alarm 1	CO 12.5ppm
Default Alarm 2	CO 25ppm
LDL, LAL	CO 9ppm
Resolution	CO 0.5ppm
Accuracy	≤ ± 5% of measured value
Response Time t_{62-5}	Typical 4 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	15 to 90% non-condensing
Operating Pressure	70 – 110kPa
Calibration Gas	CO 50ppm
Warm Up Time	< 20 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)



The sensor data listed is based on the test data with CO 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 CO)
Acetylene	C ₂ H ₂	40	80
Ethanol	C ₂ H ₅ OH	2000	3
Ethylene	C ₂ H ₄	100	100 (Over Range)
Hydrogen	H ₂	500	100 (Over Range)
Nitric Oxide	NO	50	21.5
Nitrogen Dioxide	NO ₂	800	20
Sulphur Dioxide	SO ₂	50	0.5
Acetone	(CH ₃) ₂ CO	1000	0
Ammonia	NH ₃	100	0
Chlorine	Cl ₂	2	0
Hydrogen Sulfide	H ₂ S	25	0
Iso Propanol	C ₃ H ₇ OH	200	0
Hydrogen Chloride	HCl	4	0
Silane	SiH ₄	10	0
Phosphine	PH ₃	0.6	0
Hydrogen Fluoride	HF	6	0
Ethylene Oxide	C ₂ H ₄ O	20	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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