Honeywell

Midas® Sensor Cartridge Specifications

Carbon Monoxide (CO)
MIDAS-E-COH, MIDAS-S-COH

Gas Measured	Carbon Monoxide (CO)
Cartridge Part Number	MIDAS-S-COH 1 year standard warranty MIDAS-E-COH 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range	CO 0 – 100ppm
Minimum Alarm 1 Set Point	12.5ppm
Lower Detection Limit	11ppm
Linearity	<± 2% of measured value
Repeatability	<± 2% of measured value
Resolution	0.5ppm
Response Time $t_{62.5}$	≤ 60 seconds
Sensor Cartridge Life Expectancy	≥ 24 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature	
Zero	<± 0.035ppm / °C
Sensitivity	<± 0.8% of measured value / °C
Operating Humidity	10 to 90% RH
Effect of Humidity	
Zero	<± 0.02ppm of measured value / % RH
Sensitivity	No effect
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	< 2ppm / year
Sensitivity	<± 5% of measured value / year
Calibration Gas	Carbon Monoxide (CO)
Bump Test Gas	Carbon Monoxide (CO)
Warm Up Time	< 20 minutes
Storage Temperature	+5°C to +25°C (+41°F 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® 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)
Hydrogen Sulfide	H_2S	15	-0.5 < x$ < +0.5
Sulfur Dioxide	SO_2	5	0
Nitrogen Dioxide	NO_2	5	<0.5
Hydrogen	H_2	100	-0.5 < x$ < +0.5
Nitric Oxide	NO	35	12
Ethene	C_2H_4	100	60

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.

Find out more
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