Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

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

Gas Measured	Carbon Monoxide (CO)
Cartridge Part Number	MIDAS-S-COX 1 year standard warranty MIDAS-E-COX 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	CO 0 – 100ppm
Minimum Alarm 1 Set Point	12.5ppm
Repeatability	< ± 2% of measured value
Linearity	< ± 2% of measured value
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 Sensitivity	 < ± 0.035ppm / °C < ± 0.8% of measured value / °C
Operating Humidity (continuous) **Effect of Humidity** Zero Sensitivity	15 – 90% rH < ± 0.02ppm of measured value / % rH No effect
Operating Pressure	70 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift Zero Sensitivity	 < 2ppm / year < ± 5% of measured value / year
Calibration Gas	Carbon Monoxide (CO)
Challenge Gas (Bump Test)	Carbon Monoxide (CO)
Warm Up Time	< 10 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 / Vapor	Chemical Formula	Concentration Applied (ppm)	Reading (ppm CO)
Acetone	$(CH_3)_2CO$	1000	0
Acetylene	C_2H_2	40	80
Ammonia	NH_3	100	0
Carbon Monoxide	CO	100	100
Chlorine	Cl_2	2	0
Ethanol	C_2H_5OH	2000	3
Ethylene	C_2H_4	100	110
Hydrogen	H_2	100	35
Hydrogen Sulphide	H_2S	25	0
Iso Propanol	C_3H_7OH	200	0
Nitric Oxide	NO	50	8
Nitrogen Dioxide	NO_2	800	20
Sulphur Dioxide	SO_2	50	0.5

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