Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

Hydrogen Cyanide (HCN)
MIDAS-S-HCN, MIDAS-E-HCN

Gas Measured	Hydrogen Cyanide (HCN)
Cartridge Part Number	MIDAS-S-HCN 1 year standard warranty MIDAS-E-HCN 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	HCN 0 – 20ppm
Minimum Alarm 1 Set Point	2.4ppm
Repeatability	< ± 2% of measured value
Linearity	< ± 4% of measured value
Response Time $t_{62.5}$	< 15 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	< ± 0.008ppm / °C (0°C to 20°C)
Zero	< ± 0.03ppm / °C (20°C to 40°C)
Sensitivity	< ± 2.5% of measured value / °C
Operating Humidity (continuous)	15 – 90% rH
Effect of Humidity	
Zero	TBA
Sensitivity	< ± 1% of measured value / % rH
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	No effect
Sensitivity	< ± 2% of measured value / month
Calibration Gas	Hydrogen Cyanide (HCN)
Challenge Gas (Bump Test)	Sulphur Dioxide (SO_2)
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 HCN)
Carbon Monoxide	CO	300	< 15
Hydrogen Sulphide	H_2S	15	90
Ethylene	C_2H_4	100	< 25
Nitrogen Dioxide	NO_2	5	-20 to <-10
Nitric Oxide	NO	35	-17.5 to 0
Sulphur Dioxide	SO_2	20	40 to 75

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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