

## Midas<sup>®</sup> SENSOR CARTRIDGE SPECIFICATIONS

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



Gas Measured	Hydrogen Cyanide (HCN)
<b>Cartridge Part Number</b>	MIDAS-S-HCN 1 year standard warranty MIDAS-E-HCN 2 year extended warranty
<b>Sensor Technology</b>	3 electrode electrochemical cell
<b>Measuring Range (ppm)</b>	HCN 0 – 20ppm
<b>Minimum Alarm 1 Set Point</b>	2.4ppm
<b>Repeatability</b>	< ± 2% of measured value
<b>Linearity</b>	< ± 4% of measured value
<b>Response Time <math>t_{92.5}</math></b>	< 15 seconds
<b>Sensor Cartridge Life Expectancy</b>	≥ 24 months under typical application conditions
<b>Operating Temperature</b>	0°C to +40°C (32°F to 104°F)
<b>Effect of Temperature</b>	< ± 0.008ppm / °C (0°C to 20°C) < ± 0.03ppm / °C (20°C to 40°C)
<b>Zero Sensitivity</b>	< ± 2.5% of measured value / °C
<b>Operating Humidity (continuous)</b>	15 – 90% rH
<b>Effect of Humidity</b>	
<b>Zero Sensitivity</b>	TBA < ± 1% of measured value / % rH
<b>Operating Pressure</b>	90 – 110kPa
<b>Effect of Position</b>	No effect in typical application
<b>Long Term Drift</b>	
<b>Zero Sensitivity</b>	No effect < ± 2% of measured value / month
<b>Calibration Gas</b>	Hydrogen Cyanide (HCN)
<b>Challenge Gas (Bump Test)</b>	Sulphur Dioxide (SO <sub>2</sub> )
<b>Warm Up Time</b>	< 10 minutes
<b>Storage Temperature</b>	+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<sup>®</sup> 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 <sub>2</sub> S	15	90
Ethylene	C <sub>2</sub> H <sub>4</sub>	100	< 25
Nitrogen Dioxide	NO <sub>2</sub>	5	-20 to <-10
Nitric Oxide	NO	35	-17.5 to 0
Sulphur Dioxide	SO <sub>2</sub>	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

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

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