Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

Hydrogen ppm (H_2)
MIDAS-S-H2X, MIDAS-E-H2X

Gas Measured	Hydrogen (H_2)
Cartridge Part Number	MIDAS-S-H2X 1 year standard warranty MIDAS-E-H2X 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	H_2 0 – 1000ppm
Minimum Alarm 1 Set Point	120ppm
Repeatability	< ± 5% of measured value
Linearity	< ± 5% of measured value
Response Time $t_{62.5}$	< 50 seconds
Sensor Cartridge Life Expectancy	≥ 24 months under typical application conditions
Operating Temperature **Effect of Temperature** Zero Sensitivity	0°C to +40°C (32°F to 104°F) < ± 0.17ppm / °C (0°C to 20°C) < ± 0.07ppm / °C (20°C to 40°C) < ± 3% of measured value / °C
Operating Humidity (continuous) **Effect of Humidity** Zero Sensitivity	10 – 90% rH No effect No effect
Operating Pressure	90 – 110 kPa
Effect of Position	No effect in typical application
Long Term Drift Zero Sensitivity	 No drift < ± 10% of measured value / 6 month
Calibration Gas	Hydrogen (H_2)
Challenge Gas (Bump Test)	Hydrogen (H_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 H_2)
Ammonia	NH_3	100	0
Arsine	AsH_3	0.2	0
Carbon Dioxide	CO_2	1000	0
Carbon Monoxide	CO	100	150
Chlorine	Cl_2	1	0
Chlorine Dioxide	ClO_2	1	0
Hydrogen Cyanide	HCN	20	0
Hydrogen Sulphide	H_2S	20	4
Iso Propanol	C_3H_7OH	1100	Yes
Methane	CH_4	1%	0
Nitrogen Dioxide	NO_2	10	-40
Ozone	O_3	0.25	0
Sulphur Dioxide	SO_2	5	0

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Toll-free: 800.538.0363

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