Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

Ammonia (NH_3)
MIDAS-S-NH3, MIDAS-E-NH3

Gas Measured	Ammonia (NH_3)
Cartridge Part Number	MIDAS-S-NH3 1 year standard warranty MIDAS-E-NH3 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range (ppm)	NH_3 0 – 100ppm
Minimum Alarm 1 Set Point	12.5ppm
Repeatability	< ± 5% of measured value
Linearity	< ± 2% of measured value
Response Time $t_{62.5}$	< 10 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	< ± 0.1ppm / °C
Zero	< ± 1% of measured value / °C (0°C to 25°C)
Sensitivity	< ± 0.2% of measured value / °C (25°C to 40°C)
Operating Humidity (continuous)	15 – 90% rH
Effect of Humidity	
Zero	TBA
Sensitivity	TBA
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	TBA
Sensitivity	< ± 3% of measured value / 6 months
Calibration Gas	Ammonia (NH_3)
Challenge Gas (Bump Test)	Ammonia (NH_3)
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.

Note: Extended exposure to background concentrations of ammonia may shorten life time of sensor.

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 NH_3)
Arsine	AsH_3	0.2	0.07
Carbon Dioxide	CO_2	5000	0
Carbon Monoxide	CO	100	0
Chlorine	Cl_2	1	0
Ethanol	C_2H_5OH	1000	0
Hydrogen	H_2	10000	0
Hydrogen Chloride	HCl	10	-4
Hydrogen Sulphide	H_2S	20	2
Iso Propanol	C_3H_7OH	1000	0
Methanol	CH_3OH	1000	0
Nitrogen Dioxide	NO_2	10	-0.5
Phosphine	PH_3	300	0
Sulphur Dioxide	SO_2	20	-40

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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Toll-free: 800.538.0363

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