Honeywell

Midas® Sensor Cartridge Specifications

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

Gas Measured	Ammonia (NH_3)
Cartridge Part Number	MIDAS-S-NH3 1 year extended warranty MIDAS-E-NH3 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range	NH_3 0 – 100ppm
Minimum Alarm 1 Set Point	12.5ppm
Lower Detection Limit	11ppm
Linearity	<± 2% of measured value
Repeatability	<± 5% of measured value
Resolution	0.5ppm
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	
Zero	<± 0.1ppm / °C
Sensitivity	<± 1% of measured value / °C
Operating Humidity	10 to 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)
Bump Test Gas	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.

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 Measured	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 Chloride	HCl	10	-4
Hydrogen Sulfide	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
Sulfur Dioxide	SO_2	20	-40
Hydrogen	H_2	10000	0

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
Korea Tel: +82 (0)2 6909 0300
Singapore Tel: +65-65803776
Australia Tel: +61-3-94642770
Japan Tel: +81-3-6730-7320
India Tel: +91-124 4752700

H_MIDAS-E-NH3_v3 06/22