Honeywell

Midas® Sensor Cartridge Specifications

Nitrous Oxide (N_2O)
MIDAS-I-N2O

Gas Measured	Nitrous Oxide (N_2O)
Cartridge Part Number	MIDAS-I-N2O 5 year extended warranty
Sensor Technology	Nondispersive Infrared (NDIR) sensor
Measuring Range	N_2O 0 – 1000ppm
Minimum Alarm 1 Set Point	250ppm
Lower Detection Limit	110ppm
Linearity	<± 10% of full scale
Repeatability	< ± 40ppm @20°C (68°F) ambient
Resolution	10ppm
Response Time $t_{62.5}$	≤ 30 seconds
Sensor Cartridge Life Expectancy	5 years
Operating Temperature	0°C to +40°C (32°F to 104°F)
Operating Humidity	0 to 95% RH non-condensing
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Calibration Gas	Nitrous Oxide (N_2O)
Bump Test Gas	Nitrous Oxide (N_2O)
Warm Up Time	To final zero: < 10 minutes
Storage Temperature	-20 °C to +50 °C (-4 °F to +122 °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 N_2O)
Carbon Dioxide	CO_2	5000	150
Silane	SiH_4	100	0 (Under LDL 100ppm)
Dichlorosilane	DCS	50	0 (Under LDL 100ppm)
TetraMethySilane	4MS	200	0 (Under LDL 100ppm)
Germane	GeH_4	50	0 (Under LDL 100ppm)
TriMethylSilane	3MS	100	0 (Under LDL 100ppm)
Arsine	AsH_3	100	0 (Under LDL 100ppm)

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-I-N2O_v4 06/22