Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

Nitrous Oxide (N_2O)
MIDAS-I-N2O

Gas Measured	Nitrous Oxide (N_2O)
Cartridge Part Number	MIDAS-I-N2O
Sensor Technology	Nondispersive Infrared (NDIR) sensor
Measuring Range (ppm)	N_2O 0 – 1,000ppm
Minimum Alarm 1 Set Point	125ppm
Repeatability	< ± 40ppm @20°C (68°F) ambient
Resolution	10ppm
Linearity	< ± 10% of measured value
Response Time t_{90}	< 30 seconds @20°C (68°F) ambient
Sensor Cartridge Life Expectancy	5 years
Operating Temperature	0°C to +40°C (32°F to 104°F)
Operating Humidity (continuous)	0 to 95% non-condensing
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Calibration Gas	Nitrous Oxide (N_2O)
Challenge Gas (Bump Test)	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 / Vapor	Chemical Formula	Concentration applied (ppm)	Reading (ppm N_2O)
Carbon Dioxide	CO_2	5,000	150
Silane	SiH4	100	0 (Under LDL 100ppm)
Dichlorosilane	DCS	50	0 (Under LDL 100ppm)
TetraMethySilane	4MS	200	0 (Under LDL 100ppm)
Germane	GeH4	50	0 (Under LDL 100ppm)
TriMethylSilane	3MS	100	0 (Under LDL 100ppm)
Arsine	AsH3	100	0 (Under LDL 100ppm)

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