Honeywell

Midas® SENSOR CARTRIDGE SPECIFICATIONS

Flammable Group (Hydrogen, Methane)
MIDAS-S-LEL, MIDAS-E-LEL

Gas Measured	Hydrogen (H_2)
Cartridge Part Number	MIDAS-S-LEL 1 year standard warranty MIDAS-E-LEL 2 year extended warranty
Sensor Technology	Pellistor (catalytic bead)
Measuring Range	0 – 100% LEL[1]
Minimum Alarm 1 Set Point	9% LEL
Repeatability	< ± 10% of measured value
Linearity	< ± 10% of measured value
Response Time $t_{62.5}$	< 5 seconds
Sensor Cartridge Life Expectancy	≥60 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature	
Zero	< ± 1% fsd
Sensitivity	< ± 3% fsd
Operating Humidity (continuous)	20 – 90% RH
Effect of Humidity	
Zero	< ± 1% fsd
Sensitivity	< ± 2% fsd
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	< ± 3% fsd / year
Sensitivity	< ± 3% fsd / year
Calibration Gas	Hydrogen (H_2), Methane (CH_4)
Challenge Gas (Bump Test)	Hydrogen (H_2), Methane (CH_4)
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
It is recommended that the calibration and bump test gas should be the same as measuring gas

Other Detectable Gases

The following additional gases can be detected with this sensor cartridge. Sensor performance and characteristics will be representative of the data as tabulated above. Consult the Technical Manual to set up the Midas® transmitter with the designated identification code for each of the following gas types.

Detectable Gas	Chemical Formula	Measuring Range
Methane	CH_4	0 – 100% LEL[1]

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 (% LEL)
Ammonia	NH_3	10	0
Carbon Dioxide	CO_2	10	0
Carbon Monoxide	CO	10	0
Chlorine	Cl_2	10	0
Ethylene	C_2H_4	1.35%v	43
Hydrogen Chloride	HCl	10	0
Hydrogen Sulphide	H_2S	10	0
Iso Propanol	C_3H_7OH	1.0%v	31
Methane	CH_4	2.5%v	55
Nitric Oxide	NO	10	0
Nitrogen Dioxide	NO_2	10	0
Propane	C_3H_8	1.0%v	35
Sulphur Dioxide	SO_2	10	0
Acetylene	C_2H_2	1.2	26

Find out more
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