



Flammable Group (Hydrogen, Methane)

MIDAS-S-LEL

MIDAS-E-LEL

Flammable Group (H₂ & CH₄)

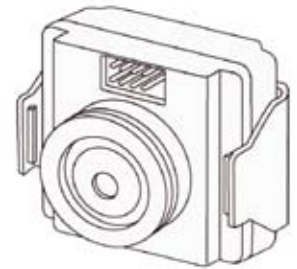
MIDAS-S-LEL

MIDAS-E-LEL



Flammable Group (H₂ & CH₄) Midas[®] sensor cartridges are intended for use only with Honeywell Analytics' Midas[®] gas detector system. Please refer to the Midas[®] Technical Manual for further details.

The Midas[®] Flammable Group (H₂ & CH₄) catalytic bead (pellistor) sensor is specifically designed to directly detect combustible species; namely Hydrogen (H₂) and Methane (CH₄). See details below regarding other detectable gases. Consult the Technical Manual to configure the Midas[®] transmitter to read the desired gas type.



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
Lower Detectable Limit (LDL)	8% LEL
Repeatability	< ± 10% of measured value
Linearity	< ± 10% of measured value
Response Time t _{92.5}	< 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	Methane (CH ₄)
Challenge Gas (Bump Test)	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

General Specification



Midas® is a registered trademark of Honeywell Analytics.

All data refers to catalytic bead sensor as tested with H₂ gas from an approved source.

Actual readings may be affected by flow rates (although Midas® automatically controls flow rates within specified ranges) and absorption on tubing and other gas path surfaces.

All sensors are shipped pre-calibrated to traceable national standards. Dependent on actual operating conditions and overall exposure to gases, each sensor may not require in-field calibration for up to 24 months subject to any requirements to calibrate from local regulations or site practices.

Calibration and challenge gases should be from a certified and reliable source.

¹ Above 25% LEL, Midas® extractive gas detection system is not ETL approved for monitoring in or from certified areas.

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 / Vapour 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 ₂ H ₄	1.35%v	43
Hydrogen Chloride	HCl	10	0
Hydrogen Sulphide	H ₂ S	10	0
Iso Propanol	C ₃ H ₇ OH	1.0%v	31
Methane	CH ₄	2.5%v	55
Nitric Oxide	NO	10	0
Nitrogen Dioxide	NO ₂	10	0
Propane	C ₃ H ₈	1.0%v	35
Sulphur Dioxide	SO ₂	10	0

Our Product Range



Fixed Gas Monitoring

Honeywell Analytics offers a wide range of fixed gas detection solutions for a diverse array of industries and applications including: Commercial properties, industrial applications, semiconductor manufacturers, energy plants and petrochemical sites.

- » Detection of flammable, oxygen and toxic gases (including exotics)
- » Innovative use of 4 core sensing technologies – paper tape, electrochemical cell, catalytic bead and infrared
- » Capability to detect down to Parts Per Billion (ppb) or Percent by Volume (%v/v)
- » Cost effective regulatory compliance solutions

Portable Gas Monitoring

When it comes to personal protection from gas hazards, Honeywell Analytics has a wide range of reliable solutions ideally suited for use in confined or enclosed spaces.

These include:

- » Detection of flammable, oxygen and toxic gases
- » Single gas personal monitors – worn by the individual
- » Multi-gas portable gas monitors – used for confined space entry and regulatory compliance
- » Multi-gas transportable monitors – used for temporary protection of area during site construction and maintenance activities

Technical Services

At Honeywell Analytics, we believe in the value of great service and customer care. Our key commitment is providing complete and total customer satisfaction. Here are just a few of the services we can offer:

- » Full technical support
- » Expert team on hand to answer questions and queries
- » Fully equipped workshops to ensure quick turnaround on repairs
- » Comprehensive service engineer network
- » Training on product use and maintenance
- » Mobile calibration service
- » Customised programmes of preventative/corrective maintenance
- » Extended warranties on products

Find out more

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