



Hydrogen ppm (H₂)
MIDAS-S-H2X
MIDAS-E-H2X

Hydrogen ppm (H₂)

MIDAS-S-H2X

MIDAS-E-H2X



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.



Technical Data	
Gas Measured	Hydrogen (H₂)
Cartridge Part Number	MIDAS-S-H2X 1 year standard warranty MIDAS-E-H2X 2 year extended warranty
Sensor Technology	3 electrode electrochemical cell
Measuring range (ppm)	H ₂ 0 – 1000 ppm
Minimum Alarm 1 Set Point	120 ppm
Lower Detectable Limit (LDL)	90 ppm
Repeatability	< ± 5 % of measured value
Linearity	< ± 5 % of measured value
Response Time t_{92.5}	< 50 seconds
Sensor Cartridge Life Expectancy	≥ 24 months under typical application conditions
Operating Temperature	0° to + 40°C (32° to 104°F)
Effect of Temperature	< ± 0.17 ppm / °C (0° to 20°C) < ± 0.07 ppm / °C (20° to 40°C)
Zero	< ± 3 % of measured value / °C
Sensitivity	
Operating Humidity (continuous)	10 – 90 % rH
Effect of Humidity	
Zero	No Effect
Sensitivity	No Effect
Operating Pressure	90 – 110 kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	No Drift
Sensitivity	< ± 10 % of measured value / 6 month
Calibration Gas	Hydrogen (H ₂)
Challenge Gas (Bump Test)	Hydrogen (H ₂)
Warm Up time	< 10 minutes
Storage Temperature	+ 5° to + 25°C (+ 41° 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.

As with all electrochemical sensor cells, dramatic output changes in reported concentrations can be expected under rapidly changing environmental conditions. Please ensure sensors are located in areas not prone to sudden changes in humidity and temperature.

Actual readings may be affected by flow rates (although Midas® automatically controls flow rate 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.

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 H2)
Ammonia	NH ₃	100	0
Arsine	AsH ₃	0.2	0
Carbon Dioxide	CO ₂	1000	0
Carbon Monoxide	CO	100	150
Chlorine	Cl ₂	1	0
Chlorine Dioxide	ClO ₂	1	0
Hydrogen Cyanide	HCN	20	0
Hydrogen Sulfide	H ₂ S	20	4
Iso Propanol	C ₃ H ₇ OH	1100	Yes
Methane	CH ₄	1%	0
Nitrogen Dioxide	NO ₂	10	-40
Ozone	O ₃	0.25	0
Sulfur Dioxide	SO ₂	5	0

MDA Scientific has developed a sophisticated range of highly sensitive gas detection equipment, designed to perform in ways that define new gas detection performance levels providing total solutions to protect people, improve production efficiency and reduce costs.

The MDA Scientific range of toxic gas detection



Single Point Monitor

The SPM overcomes the difficulty of ensuring that basic units for toxic gas monitoring are accurate and free of interference from environmental conditions or other chemicals by using our interference-free Chemcassette® detection technique. The SPM can also be used outdoors and has heating and cooling options to suit environmental conditions.



Vertex

Vertex provides a flexible, cost-effective monitoring solution that can adapt to changing needs. Using advanced Chemcassette® software and optics technologies, Vertex can monitor from 8 to 72 points of gas detection, up to 9 gas families and more than 40 gases.



Model IR-148

The Model IR-148 detects solvents and gases such as HCFCs, HFCs and PFCs that are otherwise difficult to monitor without the effect of cross-interfering gases.



Midas®

Midas® can measure virtually all the toxic and flammable gases found in manufacturing and storage applications. The range is in fact a universal transmitter design that differs significantly from the Lifeline II range which had separate passive, extractive and pyrolyzer variants with different footprints and performance characteristics.



CM4

CM4 provides monitoring of toxic gases at four locations, up to 300 feet away – detection of ppb levels of toxic gases at multiple points. Points are monitored continuously. Leaks are detected within seconds.

Find out more

www.honeywellanalytics.com

Customer business centre Europe and the rest of the world



IN-USA

The IN-USA range of microprocessor controlled analyzers detect trace amounts of ozone (O₃) gas. Systems can be configured with relays and different signal output options for integration within life safety networks. High levels of signal sensitivity and resistance to false alarm are enabled by the use of advanced ultraviolet (UV) lamp detection systems.



Chemcassette®

The Chemcassette® detection system is the heart of an MDA toxic gas monitoring system. Chemcassettes® use a dry reagent medium to collect and analyze air to detect gas leaks. When the Chemcassette® is exposed to a target gas, it changes color in direct proportion to the concentration of gas present. MDA Scientific monitors read color intensity changes and determine the gas concentration by comparison to a known gas response pre-programmed into the instrument.

Please Note:

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.
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