

MIDAS-M

Fixed 4-in-1 Multi Gas Detector



gas detection | designed for support | gastech.com

MIDAS-M GAS DETECTOR

Fixed 4-in-1 Multi Gas Detector

Choose the Midas-M Fixed extractive, 4-in-1 multi gas detector to detect more than 30 gases -- precisely, easily, quickly, lower cost of ownership based on consumer experience design.

The Midas-M is a Fixed Extractive Single Point with 4-in-1 Multi Gas Detector that draws a sample locally or from a remote point to a sensor cartridge that is located inside the detector's chassis.

A side range of toxic, flammable and oxygen gas sensor cartridges are available that enable detection of gases used or generated in the Semiconductor and other manufacturing industries.

PLUG-AND-PLAY GAS DETECTION

With flexible features and options, the Midas-M Gas Detector works right out of the box and configures easily to meet your needs. Each plug-and-play sensor cartridge is pre-calibrated, so it's ready when you are. That means longer sensor life, quick and easy replacement, and no operator error due to incorrect or depleted sensors.

The Midas-M has flexible power and communications capabilities build in as standard. These include 3 on board relays, 0-21 mA analog output, Modbus/TCP outputs for signal and service connectivity as well as Power over Ethernet (POE) connection that enables a single Ethernet connection to be made for all power, control and communication requirements.

KEY FEATURES

- **Lower cost of ownership- Fixed Extractive Single Point with 4-in-1 Multi Gas Detector**
- **Easy to use interface – The Midas-M Gas Detector is equipped with large LCD display with individual multi colour back light and intuitive icons that provide instant alerts to gas readings or alarm levels.**
- **Easy installation and maintenance – The Midas-M Gas Detector comprises of 4 parts: The main module, the mounting bracket assembly, the sensor cartridge and the pump module**
- **Numerous applications – With feature rich capabilities that are easy to use, the Midas-M Gas Detector is suitable for various industry applications, including semiconductor processing, light industrial manufacturing, university laboratories, aerospace, wastewater and the others.**



OTHER FEATURES

- 4-in-1 multi smart sensor cartridge with on board * 'e-calibration' certificate
- Modular design for easy to use and service (front, pump, sensor cartridge, main and base)
- 3 built in relays (Form C) for Alarm 1, 2 and Fault
- Power over Ethernet (PoE) communication
- Keypad interface and remote web browser interface
- *Optional external relay module with nine relays
- *Optional Line Integrity Test (LIT) module to detect a leakage in tubing
- * Optional Alarm Verifier Module to reduce false alarm
- Password protected menu levels to preserve system integrity
- Bright LEDs and intuitive icon driven, large LCD display with individual multicolor backlit
- Factory-calibrated sensors to reduce need for frequent gas testing
- Isolated 0-21 mA analog output with fault and event reporting
- Modbus/TCP Ethernet
- Robust extractive pump system (2 year lifetime) sampling up to 100 feet
- CE marked for total immunity to Radio Frequency Interference
- Reflex® sensor health check for improved safety
- TempraSure™ temperature compensation technology as appropriate
- Event logging to review sensor history

* Respect to sequential release



Midas-M Gas Detector plug and play Smart Sensor Cartridge allows quick and easy sensor replacement

DETECTABLE GASES

Gas	Range
Hydrogen Chloride (HCl)	0-8 ppm
Boron Trichloride (BCl ₃)	0-8 ppm
Dichlorosilane (SiH ₂ Cl ₂)	0-8 ppm
Hydrogen Bromide (HBr)	0-8 ppm
Silane (SiH ₄)	0-20 ppm
Disilane (Si ₂ H ₆)	0-20 ppm
Hydrogen (H ₂)	0-1000 ppm
Chlorine (Cl ₂)	0-2 ppm
Ammonia (NH ₃)	0-100 ppm
Carbon Monoxide (CO)	0-100 ppm
Phosphine (PH ₃)	0-1200 ppb
Ozone (O ₃)	0-0.4 ppm
Oxygen (O ₂)	0-25% v/v
Sulfur Dioxide (SO ₂)	0-8 ppm
Hydrogen Fluoride (HF)	0-12 ppm
Boron Trifluoride (BF ₃)	0-8 ppm
Tungsten Hexafluoride (WF ₆)	0-12 ppm

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SPECIFICATIONS

Specifications subject to change without notice

Size:	136 mm (H) x 83 mm (W) x 152 mm (D)	Digital Communications	Modbus/TCP Ethernet/Power over Ethernet (PoE)
Weight	Transmitter: 1.3 kg, Cartridge: 0.17 kg ~ 0.22 kg dependent on sensor type	Flow Rate	600 mL/min
Optional Relay Dimension:	Size: 137 mm (H) x 84 mm (W) x 41 mm (D)	Transport Time	2 seconds to 25 seconds maximum
Weight:	0.31 kg	Sample Line Tubing	3.18 mm ID x 6.35 mm OD
Operating Voltage:	24 VDC Nominal, -15 to 10% (20.4 VDC to 26.4 VDC) With Power Over Ethernet (PoE) 48 VDC PoE (IEEE 802.3af compliant)	Tubing Length	Up to 30 m with FEP tubing
Transmitter unit	Typ. 5 W (normal condition) ≤ 11.45 W (full load condition)	Exhaust Line Tubing	4.76 mm ID x 6.35 mm OD
Transmitter with Optional Relay:	≤ 12.9 W	Exhaust Length	Up to 30 m
Visual Outputs:	Alarm, Power, Fault LEDs, and LCD with all the gas readings and events.	Ambient Port	Inline air filter required
LEDs:	Power (Green), Alarm 1 (Red), Alarm 2 (Red), Fault (Yellow)	Operating Temperature	0°C to 40°C
Relays in Transmitter:	(3) Relays for Alarm 1, Alarm 2 and Fault rated 1.0 A @ 30 Vdc or 0.5 A @ 125 Vac Max 10 uA @ 10 mV minimum, configurable as normally open or closed, latched or unlatched	4-20 mA Wiring Requirement	2 wire, 14 AWG maximum
Relays in Optional Relay:	8 relays for Alarm 1 and Alarm 2 of each channel and a relay for common fault rated 1.0 A @ 30 Vdc or 0.5 A @ 125 Vac Max 10 uA @ 10 mV minimum, configurable as normally open or closed, latched or unlatched	Digital Wiring Requirement	CAT5 Cable or equivalent: RJ45 connector
Analog Outputs	3 wire sink, 3 wire source, or 4 wire fully isolated; 0 mA to 21 mA for each channel	Instrument Display	4-digit alphanumeric display with separate units, concentration bar graph for each channel and other icon-driven indicators. 4 button interface keypad
		Remote Display	Internet browser access via Ethernet
		Mounting	Wall-mounted using pre-drilled holes on chassis. Options for DIN rail
		Material	Cover: Plastic (Polycarbonate) Chassis/Mounting bracket: Zinc plated steel Red frame: Liquid coated aluminum
		Warranty	Transmitter Unit: 1 year Sensor Cartridge: 2 years

*All products designed and tested to relevant approval standards



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