

# HONEYWELL MIDAS<sup>®</sup>-M

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## Gas Monitoring System

### Bringing new visibility, reliability, and ease-of-use to gas detection in semiconductor processing and industrial manufacturing.

An easy-to-use, cost-effective addition to the Honeywell gas detection portfolio, the Honeywell Midas<sup>®</sup>-M Gas Detector uses reliable sensor technology to detect more than 35 key toxic, ambient, and flammable gases — easily, quickly, and error-free.

The device monitors points up to 30 meters (100 feet) away while using patented technology to regulate flow rates and ensure error-free gas detection.

The standard power supply and communications capabilities include three onboard relays (Form C), 0 mA to 21 mA analog output, and Modbus<sup>®</sup>/TCP Ethernet digital outputs for easy connectivity to control and alarm systems' ports for optimal connectivity and service interaction.

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. With the Midas-M Gas Detector, customers can get extended sensor calibration periods, patented diagnostics, and lower cost of ownership.



#### APPLICATIONS

- Semiconductor processing
- Light industrial manufacturing
- University laboratories
- Aerospace
- Wastewater

## FEATURES AND BENEFITS



#### CLEAR VISIBILITY

The Midas-M Gas Detector is equipped with bright LEDs and an intuitive interface that provides instant alerts to gas readings or alarm levels.



#### CALIBRATION COMPLETED

Factory-calibrated sensors reduce need for frequent gas testing.



#### EASY INSTALLATION

Compact in size making it suitable for crowded, complex process environments where space is at a premium, the Midas-M Gas Detector is simple to install with its plug-and-play capability.



#### POE PROTOCOL

The detector includes the innovative Power over Ethernet (PoE) protocol — a single Ethernet connection for all power, control and communication requirements.



#### INTEGRATED SECURITY

The Midas-M Gas Detector's interface includes password-protected menus to maintain system integrity.

**Honeywell**

# Midas®-M Specifications

**TABLE 1.**

## TRANSMITTER DIMENSION

Size (unit with Cartridge)	136 mm (H) x 83 mm (W) x 152 mm (D) (5.35 in x 3.27 in x 5.98 in)
Weight - Transmitter	1.3 kg (2.87 lb)
Weight - Cartridge	0.17 kg ~ 0.22 kg (0.38 lb ~ 0.49 lb) dependent on sensor type

## OPTIONAL RELAY DIMENSION

Size	137 mm (H) x 84 mm (W) x 41 mm (D) (5.39 in x 3.31 in x 1.61 in)
Weight	0.31 kg (0.68 lb)

## POWER REQUIREMENTS

Operating Voltage	24 VDC Nominal, -15 to 10% (20.4 VDC to 26.4 VDC)
Operating Voltage with Power Over Ethernet (PoE)	48 VDC PoE (IEEE 802.3af compliant)

## POWER CONSUMPTION

Transmitter unit (normal condition) <sup>1</sup>	Typ. 5 W
Transmitter unit (full load condition) <sup>2</sup>	≤ 11.45 W
Transmitter with Optional Relay	≤ 12.9 W

## OUTPUTS

Visual	Alarm, Power, Fault LEDs, and LCD with all the gas readings and events. LEDs: Power (Green), Alarm 1 (Red), Alarm 2 (Red), Fault (Yellow)
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
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
Analog	3 wire sink, 3 wire source, or 4 wire fully isolated; 0 mA to 21 mA for each channel
Digital Communications	Modbus/TCP Ethernet/Power over Ethernet (PoE)

## CERTIFICATIONS AND SPECIFICATION

CE marked  
Meets EN 50270:2015+AC:2016 and EN 61000-6-4:2007+A1  
ETL approved UL 61010-1:2012 Ed.3  
IEEE 802.3af-2003

## PERFORMANCE

Refer to individual sensor datasheets

## TRANSPORT SYSTEM

Flow Rate	600 mL/min
Transport Time	2 seconds to 25 seconds maximum
Sample Line Tubing	3.18 mm ID x 6.35 mm OD (0.125 in x 0.25 in)
Tubing Length	Up to 30 m (100 ft) with FEP tubing
Exhaust Line Tubing	4.76 mm ID x 6.35 mm OD (0.188 in x 0.25 in)
Exhaust Length	Up to 30 m (100 ft)
Ambient Port	In line air filter required

## OPERATING TEMPERATURE

0°C to 40°C (32°F to 104°F)

## WIRING REQUIREMENT

4-20 mA	2 wire, 14 AWG maximum
Digital	CAT5 Cable or equivalent: RJ45 connector

# Midas®-M Specifications

**TABLE 1. (continued)**

## GAS CONCENTRATION DISPLAY AND INTERFACE

<b>Instrument</b>	4-digit alphanumeric display with separate units, concentration bar graph for each channel and other icon driven indicators 4 button interface keypad
<b>Remote</b>	Internet browser access via Ethernet

## INSTALLATION DETAILS

<b>Mounting</b>	Wall mounted using pre-drilled holes on chassis. Options for DIN rail
<b>Material</b>	Cover: Plastic (Polycarbonate) Chassis/Mounting bracket: Zinc plated steel Red frame: Liquid coated aluminum

## WARRANTY

<b>Transmitter Unit</b>	1 year
<b>Sensor Cartridge</b>	2 years

<sup>1</sup> Normal condition: (1) No gas alarm, (2) Without tube and pressure/vacuum

<sup>2</sup> Full load condition: (1) All 4 channels gas alarm are on, (2) Maximum tubing length and pressure/vacuum on the inlet/exhaust line

## SMART SENSORS

Gas Name	Chemical Formula	Range	Sensor Part Number
Hydrogen Chloride	HCl	0 - 8 ppm	MMS-E2
Boron Trichloride	BCl <sub>3</sub>	0 - 8 ppm	MMS-E2
Dichlorosilane	SiH <sub>2</sub> Cl <sub>2</sub>	0 - 8 ppm	MMS-E2
Hydrogen Bromide	HBr	0 - 8 ppm	MMS-E2
Silane	SiH <sub>4</sub>	0 - 20 ppm	MMS-X2
Disilane	Si <sub>2</sub> H <sub>6</sub>	0 - 20 ppm	MMS-X2
Hydrogen	H <sub>2</sub>	0 - 1000 ppm	MMS-G2
Chlorine	Cl <sub>2</sub>	0 - 2 ppm	MMS-L2
Ammonia	NH <sub>3</sub>	0 - 100 ppm	MMS-A2
Carbon Monoxide	CO	0 - 100 ppm	MMS-C2
Phosphine	PH <sub>3</sub>	0 - 1200 ppb	MMS-R2
Ozone	O <sub>3</sub>	0 - 0.4 ppm	MMS-U2
Oxygen	O <sub>2</sub>	0 - 25% v/v	MMS-D2
Sulfur Dioxide	SO <sub>2</sub>	0 - 8 ppm	MMS-S2
Hydrogen Fluoride	HF	0 - 12 ppm	MMS-Z2
Boron Trifluoride	BF <sub>3</sub>	0 - 8 ppm	MMS-Z2
Tungsten Hexafluoride	WF <sub>6</sub>	0 - 12 ppm	MMS-Z2

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Manuals and other information about this product are available at:  
[www.honeywellanalytics.com/en/products/Midas-M](http://www.honeywellanalytics.com/en/products/Midas-M)



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