HONEYWELL MIDAS® S2

Gas Monitoring System



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

The Midas® S2 is a highly modular design for easy-to-use, reliable, and trouble-free installation and is the latest addition to the Honeywell gas detection portfolio. The Midas S2 Gas Detector uses reliable sensor technology to detect more than 35 key toxic, ambient, and flammable gases.

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), 4 mA to 20 mA analog output, and Modbus TCP/IP, TCP Ethernet outputs for easy connectivity to control and alarm systems' ports for optimal connectivity and service interaction.

With flexible features and options, the Midas S2 works right out of the box and configures easily to meet your needs. Each plug-and-play sensor cartridge is pre-calibrated and 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 S2, customers can get extended sensor calibration periods, patented diagnostics, and a lower cost of ownership.

APPLICATIONS

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

FEATURES AND BENEFITS

CLEAR VISIBILITY

The Midas S2 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

IMPROVED SERVICEABILITY

Easy access to change the sensor and pump from the front of the equipment.

EASY INSTALLATION

Compact in size making it suitable for crowded, complex process environments where space is at a premium, the Midas S2 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 S2 Gas Detector's interface includes password-protected menus to maintain system integrity.

Honeywell

Midas® S2 Specifications

TABLE 1.	
TRANSMITTER DIMENSION	
Size (unit with Cartridge)	138.6 (H) x 55 (W) x 148 (D) mm (5.46 x 2.17 x 5.83 in)
Weight - Transmitter	1.03 kg (2.27 lb)
Weight - Sensor Cartridge	34~73 g (0.075~0.161 lb) dependent on sensor type
POWER REQUIREMENTS	
Operating Voltage	24 VDC Nominal, -15 to +10% (20.4 to 26.4 VDC)
Operating Voltage with Power Over Ethernet (PoE)	48 VDC PoE (IEEE 802.3af compliant)
POWER CONSUMPTION	
Transmitter unit (normal condition)[1]	Typ. <5 W
Transmitter unit (full load condition)[2]	≤ 12.95 W
OUTPUTS	
Visual	Power, alarm Fault LEDs and color TFT LCD
Relays	Alarm1, Alarm2, Fault relay rated 1.0A@30VDC or 0.5A@125VAC max
Analog	Sink/Source, 4-20mA
Digital Communications	Modbus/TCP Ethernet/Power over Ethernet (PoE)
DISPLAY	
Size/Color	2.4inch IPS panel with 16.7M display color
Viewing Angle	160 or higher degree viewing angle
Operation key	4-button interface keypad
TRANSPORT SYSTEM	
Flow Rate	500 mL/min
Sample Line Tubing	3.18mm ID X 6.35mm OD (0.125 X0.25in)
Sample Line Length	Up to 30 m (100 ft) with FEP tubing
Exhaust Line Tubing	4.76 mm ID X 6.35 mm OD (0.188 X 0.25 in)
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
WARRANTY	
Transmitter unit	1 year
Sensor cartridge	2 years

[1] Normal condition: (1) No gas alarm, (2) Without tube and pressure/vacuum
[2] Full load condition: (1) All 4 channels gas alarm are on, (2) Maximum tubing length and pressure/vacuum on the inlet/exhaust line

Midas® S2 Specifications

SMART SENSORS			
Gas Name	**Chemical Formula**	**Range**	**Sensor Part Number**
Hydrogen	H2	0-100% LEL	MIDAS S2-E-LEL
Methane	CH4	0-100% LEL	MIDAS S2-E-LEL
Propylene	C_3H_6	0-100% LEL	MIDAS S2-E-LEL
Boron Trichloride	BC13	0-8 ppm	MIDAS S2-E-HCL
Dichlorosilane	H_2Cl_2Si	0-8 ppm	MIDAS S2-E-HCL
Hydrogen Bromide	HBr	0-8 ppm	MIDAS S2-E-HCL
Hydrogen Chloride	HCl	0-8 ppm	MIDAS S2-E-HCL
Ammonia	NH3	0-100 ppm	MIDAS S2-E-NH3
Ozone	O3	0.036-0.4 ppm	MIDAS S2-E-O3X
Chlorine	Cl2	0-2 ppm	MIDAS S2-E-HAL
Hydrogen	H2	0-1000 ppm	MIDAS S2-E-H2X
Silane	SiH4	0-20 ppm	MIDAS S2-E-SHX
Disilane	Si2H6	0-20 ppm	MIDAS S2-E-SHX
Boron Trifluoride Low Level	BF3	0.72-8 ppm	MIDAS S2-E-HFX
Hydrogen Fluoride	HF	0-12 ppm	MIDAS S2-E-HFX
Tungsten Hexafluoride	WF6	1.05-12 ppm	MIDAS S2-E-HFX
Carbon Monoxide	CO	0-100 ppm	MIDAS S2-E-COX
Carbon Monoxide	CO	0-100 ppm	MIDAS S2-E-COH
Nitrogen Trifluoride	NF3	0-40 ppm	MIDAS S2-E-XHF
Methyl Fluoride	CH3F	0-120 ppm	MIDAS S2-E-XHF
Sulphur Dioxide	SO2	0-8 ppm	MIDAS S2-E-SO2
Hydrogen Sulphide	H2S	0-40 ppm	MIDAS S2-E-H2S

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THE FUTURE IS WHAT WE MAKE IT

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