Midas®

Honeywell

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

Midas®

Features:

- Over 35 gases available with extended 2 year warranty*
- Smart sensor cartridge with on board ‘e-calibration’ certificate
- 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 Midas Pyrolyzer module that connects to any Midas Gas Detector
- Password protected menu levels to preserve system integrity
- Bright LEDs and intuitive icon driven, large multicolor backlit LCD display
- Factory-calibrated sensors to reduce need for frequent gas testing
- Isolated 0-21 mA analog output with fault and event reporting
- Modbus/TCP Ethernet for easy connectivity to all control and alarm systems ports for control connectivity and service interaction
- Robust extractive pump system (2 year lifetime) sampling up to 30 meters (100 feet)
- CE marked
- Reflex® sensor health check for improved safety
- TempraSure™ temperature compensation technology as appropriate
- Event logging to review sensor history

* Standard 1 year warranty

Choose the Midas Gas Detector to detect more than 35 gases — easily, quickly and error-free. All with extended sensor calibration periods, patented diagnostics and lower cost of ownership.

The Midas Gas Detector uses reliable sensor technology to detect many key toxic, ambient and flammable gases in a plant. 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. Thanks to Honeywell’s use of advanced robotics, the Midas Gas Detector offers unbeatable quality and reliability:

Improved visibility and ease of use
The Midas Gas Detector is equipped with bright LED lights and an intuitive, interactive interface that provides instant alerts to gas readings or alarm levels. The interface also includes password-protected menus for configuration, test and calibration.

Easy installation
Compact in size with an easy-to-handle metal chassis, the Midas Gas Detector is simple to install. That’s especially important in complex process environments where space is at a premium.

Numerous applications
With feature-rich capabilities that are easy to use, the Midas Gas Detector is suitable for many industry applications, including semiconductor processing, light industrial manufacturing, university laboratories, aerospace, wastewater and more.

Compact size is perfect for gas detection where space is at a premium.

Single Point Extractive Gas Detector



Plug-and-play gas detection

With flexible features and options, the Midas Gas Detector works 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 standard power supply and communications capabilities include three onboard relays, 0-21 mA analog output and Modbus/TCP Ethernet digital outputs. Plus, the Midas Gas Detector includes the innovative Power over Ethernet (PoE) protocol - a single Ethernet connection for all power, control and communication requirements. Thanks to the Midas architecture, cost-effective integration with PLC and Fieldbus systems is greatly simplified.

Midas Cartridge Detectable Gases

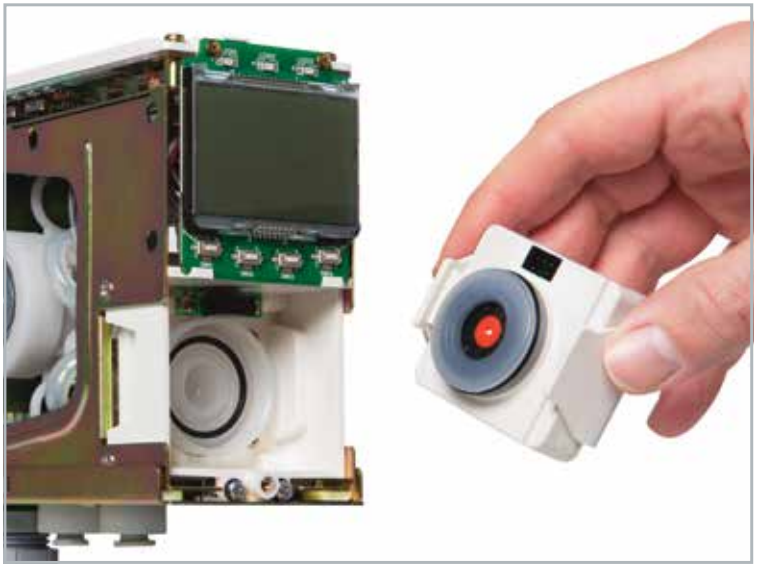
Gas Name	Chemical Formula
Ammonia	NH_3
Arsine	AsH_3
Boron Trichloride	BCl_3
Boron Trifluoride	BF_3
Bromine	Br_2
Carbon Dioxide	CO_2
Carbon Monoxide	CO
Chlorine	Cl_2
Chlorine Dioxide	ClO_2
Diborane	B_2H_6
Dichlorosilane	H_2SiCl_2
Difluoromethane*	CH_2F_2
Disilane	Si_2H_6
Fluorine	F_2
Germane	GeH_4
Hexaflourobutadiene*	C_4F_6
Hydrogen (% LEL)	H_2
Hydrogen (ppm)	H_2
Hydrogen Bromide	HBr
Hydrogen Chloride	HCl
Hydrogen Cyanide	HCN
Hydrogen Fluoride	HF
Hydrogen Sulfide	H_2S
Methane (% LEL)	CH_4
Methyl Flouride*	CH_3F
Nitric Oxide	NO
Nitrous Oxide	N_2O
Nitrogen Dioxide	NO_2
Nitrogen Trifluoride*	NF_3
Octoflourocyclopentene*	C_5F_8
Oxygen	O_2
Ozone	O_3
Phosphine	PH_3
Silane	SiH_4
Sulfur Dioxide	SO_2
Tetra Ethyl Ortho Silicate	TEOS
Tungsten Hexafluoride	WF_6

*Gases require Midas Pyrolyzer

Midas® Pyrolyzer

Offered as an option, the Midas Pyrolyzer allows for the detection of NF_3 and other CFX gases. Cost of ownership is low, as the Pyrolyzer has a replaceable heater assembly with a lifespan of greater than two years. Even more, thanks to our new proprietary catalyst to improve efficiency in gas conversion, the Pyrolyzer delivers automatic flow control, temperature control, and fast and accurate performance. Additionally, the Pyrolyzer can run from a Midas Gas Detector that's powered by either PoE or 24 VDC.

Midas Gas Detector with Midas Pyrolyzer



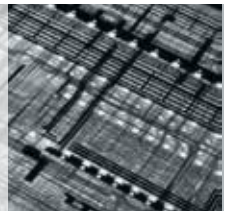
Midas Gas Detector plug-and-play sensor cartridge allows quick and easy sensor replacement

Specifications

Transmitter Dimension	
Size (unit with Sensor)	150 (H) x 65 (W) x 153 (D) mm (5.91 x 2.56 x 6.02 in)
Weight (unit with Sensor)	0.8 kg (1.76 lb)
NF_3 Pyrolyzer Dimension	
Size (unit with Sensor)	70 (H) x 63 (W) x 85 (D) mm (2.75 x 2.48 x 3.35 in)
Weight (unit with Sensor)	0.41 kg (0.9 lb)
High-Temperature Pyrolyzer Dimension	
Size (unit with Sensor)	132 (H) x 60 (W) x 98 (D) mm (5.2 x 2.36 x 3.86 in)
Weight (unit with Sensor)	2.65 lb 1.2 kg
Power Requirements	
Operating Voltage	24VDC, -15 to +10%
Operating Voltage with Power over Ethernet (PoE)	48 VDC via PoE
Power Consumption	
Transmitter Unit	<5 W
With Pyrolyzer (Option)	<12.95 W
With Lonworks®	<8 W
With Lonworks® and Pyrolyzer	<15.95 W
Outputs	
Visual	Alarm, Power and Fault LEDs, LCD display with all gas readings and events
Relays	3 relays for Alarm1, Alarm 2 and Fault rated 30VDC, 1 A or 125VAC, 0.5 A; configurable NO or NC, latched or unlatched
Analog	3 wire sink, 3 wire source or 4 wire fully isolated, 0 to 21mA
Digital Communications	Modbus®, TCP Ethernet, Power over Ethernet (PoE), Lonworks®
Service Port	RS232C, PPP protocol
Certification and Specification	
	CE marked Meets EN 50270:2006 (Type2) and EN 61000-6-4:2007 ETL approved UL 61010-1 Ed:3 IEEE 802.3af-2003
Performance	
	Refer to Individual Cartridge Datasheets
Transport System	
Flow Rate	500 mL/min
Transport Time	2 to 30 seconds maximum
Sample Line Tubing	3.175 mm (0.125 in) ID x 6.35 mm (0.25 in) OD
Tubing Length	Up to 30 m (100 ft) with FEP tubing
Exhaust Line Tubing	6.35 mm (0.25 in) ID x 9.5 mm (0.375 in) OD
Exhaust Length	Up to 30m (100 ft)
Ambient Point	In line air filter required
Operating Temperature	
Unit with Sensor	0°C to 40°C (32F° to 104°F)
Unit with Sensor and Pyrolyzer	0° to 30°C (32F° to 86°F)

Wiring Requirement	
4-20mA	3-4 wire, 14 AWG maximum
Digital	CAT5 Cable or equivalent; RJ45 connector
Gas Concentration Display and Interface	
Instrument	4-digit alphanumeric display with separate units, flow rate bar graph and other icon driven indicators. 4 button interface keypad
Remote	Option for PC / PDA Internet browser access via Ethernet
Warranty	
Transmitter Unit	1 year
Sensor cartridge	1 year standard, 2 years extended warranty
Expected Pyrolyzer Life	2 year life (24 month warranty)
Installation Details	
Mounting	Wall mounted using pre-drilled holes on chassis. Options for DIN rail or vertical bracket mounting
Remote	Cover: Painted steel Chassis/Mounting Bracket: Zinc plated steel

Midas Cartridge Detectable Gases



Midas Cartridge Detectable Gases			
Gas Name	**Chemical Formula**	**Range**	**Sensor Part Number**
Ammonia	NH_3	9-100 ppm	MIDAS-E-NH3
Arsine	AsH_3	18-200 ppb	MIDAS-E-ASH
Boron Trichloride	BCl_3	0.72-8 ppm	MIDAS-E-HCL
Boron Trifluoride	BF_3	0.72-8 ppm	MIDAS-E-HFX
Boron Trifluoride (Low Level)	BF_3	0.18-2 ppm	MIDAS-E-HFL
Bromine	Br_2	0.036-0.4 ppm	MIDAS-E-BR2
Carbon Dioxide	CO_2	0.15-2.0%	MIDAS-E-CO2
Carbon Dioxide	CO_2	0.15-2.0%	MIDAS-I-CO2
Carbon Dioxide	CO_2	0.15-5.0%	MIDAS-I-CO2
Carbon Dioxide	CO_2	0.015-0.2%	MIDAS-I-CO2
Carbon Monoxide	CO	9-100 ppm	MIDAS-E-COX
Chlorine	Cl_2	0.18-2 ppm	MIDAS-E-HAL
Chlorine Dioxide	ClO_2	0.036-0.4 ppm	MIDAS-E-BR2
Diborane	B_2H6	36-400 ppb	MIDAS-E-B2H
Dichlorosilane	H_2Cl_2Si	0.72-8 ppm	MIDAS-E-HCL
Difluoromethane**	CH_2F_2	16-240 ppm	MIDAS-E-XCF
Disilane	Si_2H6	1.8-20 ppm	MIDAS-E-SHX
Fluorine	F_2	0.36-4 ppm	MIDAS-E-HAL
Germane	GeH_4	70-800 ppb	MIDAS-E-ASH
Hexafluorobutadiene**	C_4F_6	1.7-40 ppm	MIDAS-E-XCF
Hydrogen (%LEL)	H_2	8-100% LEL	MIDAS-E-LEL*
Hydrogen (ppm)	H_2	90-1000 ppm	MIDAS-E-H2X
Hydrogen Bromide	HBr	0.72-8 ppm	MIDAS-E-HCL
Hydrogen Chloride	HCl	0.72-8 ppm	MIDAS-E-HCL
Hydrogen Cyanide	HCN	1.8-20 ppm	MIDAS-E-HCN
Hydrogen Fluoride	HF	1.05-12 ppm	MIDAS-E-HFX
Hydrogen Fluoride (Low Level)***	HFL	0.18-2 ppm	MIDAS-E-HFL
Hydrogen Sulfide	H_2S	3.6-40 ppm	MIDAS-E-H2S
Methane (%LEL)	CH_4	8-100% LEL	MIDAS-E-LEL*
Methyl Fluoride**	CH_3F	8-120 ppm	MIDAS-E-XHF
Nitric Oxide	NO	9-100 ppm	MIDAS-E-NOX
Nitrogen Dioxide	NO_2	1.05-12 ppm	MIDAS-E-NO2
Nitrogen Trifluoride**	NF_3	3.6-40 ppm	MIDAS-E-XFH
Nitrous Oxide	N_2O	100-1000 ppm	MIDAS-I-N2O
Octofluorocyclopentene**	C_5F_8	2-40 ppm	MIDAS-E-XCF
Oxygen	O_2	0.2-25% v/v	MIDAS-E-O2X
Ozone	O_3	0.065-0.7 ppm	MIDAS-E-O3H
Ozone (Low Level)	O_3	0.036-0.4 ppm	MIDAS-E-O3X
Phosphine	PH_3	110-1200 ppb	MIDAS-E-PH3
Silane	SiH_4	1.8-20 ppm	MIDAS-E-SHX
Silane (Low Level)	SiH_4	0.18-2 ppm	MIDAS-E-SHL
Sulfur Dioxide	SO_2	0.7-8 ppm	MIDAS-E-SO2
Tetra Ethyl Ortho Silicate	TEOS	3.6-40 ppm	MIDAS-E-TEO
Tungsten Hexafluoride	WF_6	1.05-12 ppm	MIDAS-E-HFX
Tungsten Hexafluoride (Low Level)	WF_6	0.18-2 ppm	MIDAS-E-HFL

*MIDAS-E-LEL Cartridge carries a 2-year warranty but can be calibrated up to 5 years

**Gases require Midas Pyrolyzer

***Due to US Government regulations, this range may be subject to restrictions requiring special licensing for certain countries

Our Product Range

Honeywell

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 four 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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