

Midas[®] GAS DETECTOR SPECIFICATIONS

Gas Monitoring System



Transmitter Dimension	
Size (unit with Sensor)	5.91 (H) x 2.56 (W) x 6.02 (D) in (150 x 65 x 153 mm)
Weight (unit with Sensor)	1.76 lb (0.8 kg)
NF ₃ Pyrolyzer Dimension	
Size (unit with Sensor)	2.75 (H) x 2.48 (W) x 3.35 (D) in (70 x 63 x 85 mm)
Weight (unit with Sensor)	0.9 lb (0.41 kg)
High-Temperature PFC Pyrolyzer Dimension	
Size (unit with Sensor)	3.9 (H) x 4.0 (W) x 5.5 (D) in (100 x 101 x 140 mm)
Weight (unit with Sensor)	3 lb (1.36 kg)
OP3 Pyrolyzer Dimension	
Size (unit with Sensor)	5.2 (H) x 2.4 (W) x 3.9 (D) in (132 x 60 x 98 mm)
Weight (unit with Sensor)	2.65 lb (1.20 kg)
NP1 Pyrolyzer Dimension	
Size (unit with Sensor)	5.02 (H) x 2.56 (W) x 5.29 (D) in (128 x 65 x 134 mm)
Weight (unit with Sensor)	1.8 lb (0.81 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	0.125 in ID x 0.25 in OD
Tubing Length	Up to 100 ft (30 m) with FEP tubing
Exhaust Line Tubing	0.25 in ID x 0.375 in OD
Exhaust Length	Up to 100 ft (30m)
Ambient Point	In line air filter required
Operating Temperature	
Unit with Sensor	32° to 104°F (0° to 40°C)
Unit with Sensor and Pyrolyzer	32° to 86°F (0° to 30°C)
Wiring Requirement	
4-20mA	2 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	MIDAS-T-OOP: 1 year MIDAS-T-NP1: 2 years
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

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 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 ₂ H ₆	36-400 ppb	MIDAS-E-B2H
Dichlorosilane	H ₂ Cl ₂ Si	0.72-8 ppm	MIDAS-E-HCL
Difluoromethane**	CH ₂ F ₂	16-240 ppm	MIDAS-E-XCF
Disilane	Si ₂ H ₆	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 ₄ F ₆	3-40 ppm	MIDAS-E-CFX
Hydrogen (%LEL)	H ₂	6.5-100% 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 ₂ S	3.6-40 ppm	MIDAS-E-H2S
Methane (%LEL)	CH ₄	6.5-100% LEL	MIDAS-E-LEL*
Methyl Fluoride**	CH ₃ F	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-HFX for OOP, XHF for NP1
Octofluorocyclopentene**	C ₅ F ₈	3-40 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

www.norrscope.com
Contact: sales@norrscope.com

Midas detectors are not ETL approved for monitoring in or sampling from classified areas above 25% LEL