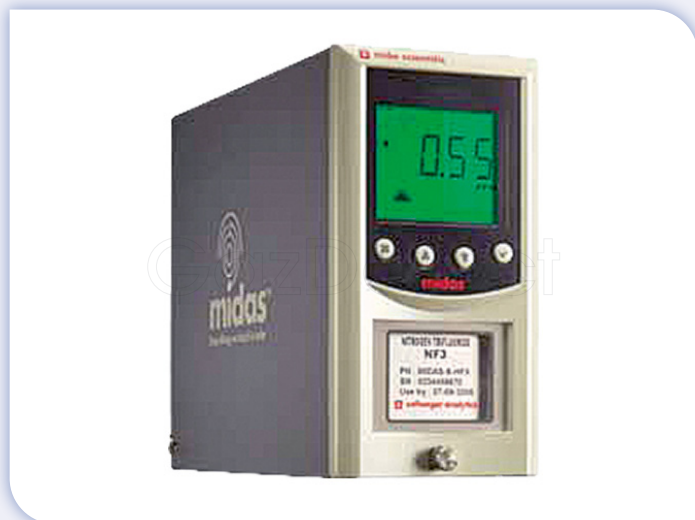


► Midas®

Toxic or corrosive gas detectors with pre-calibrated sensors



Technical specifications

Detected gases: AsH₃, B₂H₆, BCl₃, BF₃, Br₂, C₄F₆, C₅F₈, C₈H₂₀O₄Si, CH₂F₂, CH₃F, CH₄, Cl₂, ClO₂, CO, CO₂, F₂, GeH₄, H₂, H₂Cl₂Si, H₂S, HBr, HCl, HCN, HF, N₂O, NF₃, NH₃, NO, NO₂, O₂, O₃, PH₃, Si₂H₆, SiH₄, SO₂ and WF₆.

Sensors: Intelligent sensor cartridge with integrated electronic calibration certificate.

Display: 4-character alpha-numeric screen with separate units of measurement, flow rate as histogram and various other indicators (controlled by icon)

Keyboard: Membrane (4 keys)

Operating voltage: 24 V CC (nominal) +/- 10 %

Outputs:

- Linear 4-20 mA
- 3 configurable alarm relays, NO or NF
- Communication TCP/IP

Integrated suction pump system: Flow rate 500 ml/min

Sampling time: 2 to 30 seconds

Tubing length: Up to 30m (100 feet)

Record events: To view sensor history.

Material: Steel case with paint finish

Dimensions/ Weight: 120 x 63 x 150 mm (HxL xP) / 800 grams

Wall mounting: with 2 pre-punched holes on the rear frame

Operating temperature: 0 °C (32 °F) to 40 °C (104 °F)

Patented technology:

to confirm portable gas fumes and avoid inopportune alarms

Certifications:

ETL according to UL 61010B and CSA-C22.2 n° 1010.1-92

Product description

The **Midas®** is a gas monitoring system that allows you to respond quickly and reliably to the presence of practically all gasses used or generated in semiconductor and other manufacturing applications.

Thanks to its intelligent sensor cartridge with integrated electronic calibration certificate, the sensor replacement is quick and easy, without tools and without calibration.

► **Interchangeable pre-calibrated sensors**

With nearly 40 available gases, the Midas® enables precise measurement of gas in extremely low concentrations (in ppb).

It is therefore particularly suitable in processes requiring very fine measurements such as the semiconductor industry for example.

The sensor cartridges are pre-calibrated and configured alarm thresholds make periodical sensor replacements very simple and very fast.

► **Integrated sampling pump**

With a robust pump system, the Midas® can monitor points up to 30 meters (100 feet) away from the transmitter.

The flow rates are automatically regulated with patented control technology to guarantee infallible gas detection.

► **A complete and autonomous measurement controller**

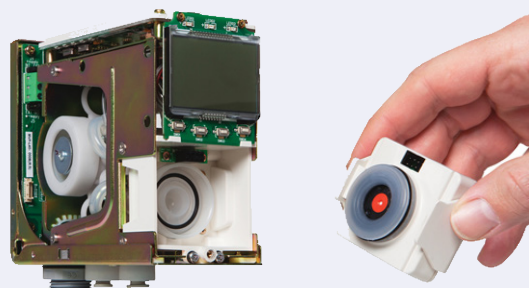
In its standard version, the Midas® incorporates a flexible power and communication platform with a large LCD screen, 4- button navigation, 3 integrated relays (alarms and defaults), a linear analog output as well as MODBUS/TCP Ethernet digital outputs.

This solution also uses the Power over Ethernet (POE) protocol, offering a single Ethernet connection and suitable for all requirements in terms of power supply, control and communications.

► **CxFx gas pyrolyzer module**

A pyrolyzer is available for CxFx (CH₃F, C₄F₆, C₅F₈ or NF₃) which require gas to be heated to « break » the gas molecule and thus measure it.

Schematic diagram





Gas	Formula	Measure range	Pyr.	Code
Ammonia	NH ₃	9-100 ppm		MIDAS-S-NH3
Arsine	AsH ₃	18-200 ppb		MIDAS-S-ASH
Brome	Br ₂	36-400 ppb		MIDAS-S-BR2
Hydrogen bromide	HBr	0,72-8 ppm		MIDAS-S-HCL
Chlorine	Cl ₂	0,18-2 ppm		MIDAS-S-HAL
Hydrogen chloride	HCl	0,72-8 ppm		MIDAS-S-HCL
Hydrogen cynide	HCN	1,8-20 ppm		MIDAS-S-HCN
Diborane	B ₂ H ₆	36-400 ppb		MIDAS-S-B2H
Dichlorosilane	H ₂ Cl ₂ Si	0,72-8 ppm		MIDAS-S-HCL
Difluoromethane	CH ₂ F ₂	16-240 ppm		MIDAS-S-CFX
		0-40 ppm		MIDAS-S-XCF
Nitric dioxide	NO ₂	1,05-12 ppm		MIDAS-S-NO2
Carbon dioxide (EC)	CO ₂	0,15-2,00 %/vol.		MIDAS-S-CO2
Carbon dioxide (IR)	CO ₂	0,15-5,00 %/vol.		MIDAS-I-CO2
Chloride dioxide	ClO ₂	36-400 ppb		MIDAS-S-BR2
Sulfur dioxide	SO ₂	0,7-8 ppm		MIDAS-S-SO2
Disilane	Si ₂ H ₆	1,8-20 ppm		MIDAS-S-SHX
Fluor	F ₂	0,36-4 ppm		MIDAS-S-HAL
Fluoromethane (R41)	CH ₃ F	8-120 ppm	Pyr.	MIDAS-S-CFX
		0-120	Pyr.	MIDAS-S-XHF
Hydrogen fluoride	HF	0,18-2 ppm		MIDAS-S-HFL
		1,05-12 ppm		MIDAS-S-HFX
Germane - Germanium tetrahydrure	GeH ₄	0-800 ppb		MIDAS-S-ASH
Hexafluorobutadiene	C ₄ F ₆	3-40 ppm	Pyr.	MIDAS-S-CFX
		7,2-80 ppm	Pyr.	MIDAS-S-CFH
		0-240 ppm	Pyr.	MIDAS-S-XCF
Tungsten hexafluoride	WF ₆	0,18-2 ppm		MIDAS-S-HFL
		1,05-12 ppm		MIDAS-S-HFX
Hydrogen	H ₂	90-1000 ppm		MIDAS-S-H2X
		6,5-100 % LEL		MIDAS-S-LEL
Hydrogen sulfide	H ₂ S	3,6-40 ppm		MIDAS-S-H2S
Methane	CH ₄	6,5-100 % LEL		MIDAS-S-LEL
Nitric oxide	NO	9-100 ppm		MIDAS-S-NOX
Carbon monoxide	CO	9-100 ppm		MIDAS-S-COX
Octafluorocyclopentene	C ₅ F ₈	3-40 ppm	Pyr.	MIDAS-S-CFX
Oxygen	O ₂	0,2-25 %/vol.		MIDAS-S-O2S
Ozone	O ₃	36-400 ppm		MIDAS-S-O3X
		36-700 ppb		MIDAS-S-O3H
Phosphine	PH ₃	0,11-1,2 ppm		MIDAS-S-PH3
Nitrous oxide (IR)	N ₂ O	100-1000 ppm		MIDAS-I-N2O
Silane	SiH ₄	0,18-2 ppm		MIDAS-S-SHL
		1,8-20 ppm		MIDAS-S-SHX
TEOS - Tetraethyl orthosilicate	C ₈ H ₂₀ O ₄ Si	3,6-40 ppm		MIDAS-S-TEO
Boron trichloride	BCl ₃	0,72-8 ppm		MIDAS-S-HCL
Boron trichloride	BF ₃	0,18-2 ppm		MIDAS-S-HFL
		0,72-8 ppm		MIDAS-S-HFX
Nitrogen trifluoride	NF ₃	0-40 ppm	Pyr.	MIDAS-S-XHF