**Midas®**

Toxic or corrosive gas detectors with pre-calibrated sensors

---

**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, CSF8 or NF3) which require gas to be heated to « break » the gas molecule and thus measure it.

---

**Technical specifications**

**Detected gases:** AsH3, B2H6, BCl3, BF3, Br2, C4F6, C5F8, C8H20O4Si, CH2F2, CH3F, CH4, Cl2, 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 innoportune alarms

**Certifications:** ETL according to UL 61010B and CSA-C22.2 n° 1010.1-92
<table>
<thead>
<tr>
<th>Gas</th>
<th>Formula</th>
<th>Measure range</th>
<th>Pyr.</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>NH₃</td>
<td>9-100 ppm</td>
<td></td>
<td>MIDAS-S-NH₃</td>
</tr>
<tr>
<td>Arsine</td>
<td>AsH₃</td>
<td>18-200 ppb</td>
<td></td>
<td>MIDAS-S-ASH</td>
</tr>
<tr>
<td>Brome</td>
<td>Br₂</td>
<td>36-400 ppb</td>
<td></td>
<td>MIDAS-S-BR₂</td>
</tr>
<tr>
<td>Hydrogen bromide</td>
<td>HBr</td>
<td>0,72-8 ppm</td>
<td></td>
<td>MIDAS-S-HCL</td>
</tr>
<tr>
<td>Chlorine</td>
<td>Cl₂</td>
<td>0,18-2 ppm</td>
<td></td>
<td>MIDAS-S-HAL</td>
</tr>
<tr>
<td>Hydrogen chloride</td>
<td>HCl</td>
<td>0,72-8 ppm</td>
<td></td>
<td>MIDAS-S-HCL</td>
</tr>
<tr>
<td>Hydrogen cyanide</td>
<td>HCN</td>
<td>1,8-20 ppm</td>
<td></td>
<td>MIDAS-S-HCN</td>
</tr>
<tr>
<td>Diborane</td>
<td>B₂H₆</td>
<td>36-400 ppb</td>
<td></td>
<td>MIDAS-S-BZH</td>
</tr>
<tr>
<td>Dichlorosilane</td>
<td>H₂Cl₂Si</td>
<td>0,72-8 ppm</td>
<td></td>
<td>MIDAS-S-HCL</td>
</tr>
<tr>
<td>Difluoromethane</td>
<td>CH₂F₂</td>
<td>16-240 ppm</td>
<td></td>
<td>MIDAS-S-CFX</td>
</tr>
<tr>
<td>Nitric dioxide</td>
<td>NO₂</td>
<td>1,05-12 ppm</td>
<td></td>
<td>MIDAS-S-NO₂</td>
</tr>
<tr>
<td>Carbon dioxide (EC)</td>
<td>CO₂</td>
<td>0,15-2,00 %/vol.</td>
<td></td>
<td>MIDAS-S-CO₂</td>
</tr>
<tr>
<td>Carbon dioxide (IR)</td>
<td>CO₂</td>
<td>0,15-5,00 %/vol.</td>
<td></td>
<td>MIDAS-S-IR</td>
</tr>
<tr>
<td>Chloride dioxide</td>
<td>Cl₂O₂</td>
<td>36-400 ppb</td>
<td></td>
<td>MIDAS-S-BR₂</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
<td>SO₂</td>
<td>0,7-8 ppm</td>
<td></td>
<td>MIDAS-S-SO₂</td>
</tr>
<tr>
<td>Disilane</td>
<td>Si₂H₆</td>
<td>1,8-20 ppm</td>
<td></td>
<td>MIDAS-S-SH</td>
</tr>
<tr>
<td>Fluor</td>
<td>F₂</td>
<td>0,36-4 ppm</td>
<td></td>
<td>MIDAS-S-HAL</td>
</tr>
<tr>
<td>Fluoromethane (R41)</td>
<td>CH₃F</td>
<td>8-120 ppm</td>
<td>Pyr.</td>
<td>MIDAS-S-CFX</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>HF</td>
<td>0,18-2 ppm</td>
<td>Pyr.</td>
<td>MIDAS-S-HFL</td>
</tr>
<tr>
<td>Germane - Germanium tetrahydure</td>
<td>GeH₄</td>
<td>0-800 ppb</td>
<td></td>
<td>MIDAS-S-ASH</td>
</tr>
<tr>
<td>Hexafluorobutadiene</td>
<td>C₄F₆</td>
<td>3-40 ppm</td>
<td>Pyr.</td>
<td>MIDAS-S-CFX</td>
</tr>
<tr>
<td>Tungsten hexafluoride</td>
<td>WF₆</td>
<td>0,18-2 ppm</td>
<td>Pyr.</td>
<td>MIDAS-S-HFL</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>H₂</td>
<td>90-1000 ppm</td>
<td></td>
<td>MIDAS-S-H₂</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>H₂S</td>
<td>3,6-40 ppm</td>
<td></td>
<td>MIDAS-S-H₂S</td>
</tr>
<tr>
<td>Methane</td>
<td>CH₄</td>
<td>6,5-100 % LEL</td>
<td></td>
<td>MIDAS-S-LEL</td>
</tr>
<tr>
<td>Nitric oxide</td>
<td>NO</td>
<td>9-100 ppm</td>
<td></td>
<td>MIDAS-S-NOX</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>CO</td>
<td>9-100 ppm</td>
<td></td>
<td>MIDAS-S-COX</td>
</tr>
<tr>
<td>Octafluorocyclopentene</td>
<td>C₅F₈</td>
<td>3-40 ppm</td>
<td>Pyr.</td>
<td>MIDAS-S-CFX</td>
</tr>
<tr>
<td>Oxygen</td>
<td>O₂</td>
<td>0,2-25 %/vol.</td>
<td>Pyr.</td>
<td>MIDAS-S-O₂S</td>
</tr>
<tr>
<td>Ozone</td>
<td>O₃</td>
<td>36-400 ppm</td>
<td></td>
<td>MIDAS-S-O₃X</td>
</tr>
<tr>
<td>Phosphine</td>
<td>PH₃</td>
<td>0,11-1,2 ppm</td>
<td></td>
<td>MIDAS-S-PH₃</td>
</tr>
<tr>
<td>Nitrous oxide (IR)</td>
<td>N₂O</td>
<td>100-1000 ppm</td>
<td></td>
<td>MIDAS-S-N₂O</td>
</tr>
<tr>
<td>Silane</td>
<td>SiH₄</td>
<td>0,18-2 ppm</td>
<td></td>
<td>MIDAS-S-SH</td>
</tr>
<tr>
<td>TEOS - Tetraethyl orthosilicate</td>
<td>C₈H₂₀O₄Si</td>
<td>3,6-40 ppm</td>
<td></td>
<td>MIDAS-S-TEO</td>
</tr>
<tr>
<td>Boron trichloride</td>
<td>BC₃</td>
<td>0,72-8 ppm</td>
<td></td>
<td>MIDAS-S-HCL</td>
</tr>
<tr>
<td>Boron trichloride</td>
<td>BF₃</td>
<td>0,18-2 ppm</td>
<td></td>
<td>MIDAS-S-HFL</td>
</tr>
<tr>
<td>Nitrogen trifluoride</td>
<td>NF₃</td>
<td>0-40 ppm</td>
<td>Pyr.</td>
<td>MIDAS-S-XHF</td>
</tr>
</tbody>
</table>