Because every life has a purpose...

MSA Z-Gard® Sensors and Controllers
Because every life has a purpose...
Product Line Overview

Z-Gard S Sensor
A single, point diffusion sensor for the sensing of carbon monoxide, nitrogen dioxide and combustible gas (NEW!).

Z-Gard DS Sensor
A single, point diffusion sensor offering dual carbon monoxide and nitrogen dioxide sensing capabilities in one package.
Product Line Overview

**Z-Gard CX II Controller**

A highly configurable controller with up to 99 sensor inputs and 12 configurable relay outputs. The system supports 8 zones and has the option of communicating to building automation systems through BACNet.

**Z-Gard C Controller**

A flexible controller platform that can accept sensors communicating through 4-20 mA. The system supports up to eight sensor inputs.
Product Line Overview

Z-Gard C 485 Controller

_Platform accepts sensors communicating through RS485. Offers 8, 16 and 24 point configurations. Single and dual zone capability._

Z-Gard COmbo

_A cost effective controller with integrated CO sensor. Includes 3 integrated relays, horn and reset button. Up to 7 RS-485 Z-Gard S sensors can interface with the device._
Z-Gard S Sensor Configurations

- **Available Gases and Range**
  - Carbon Monoxide (CO) MOS – 100 and 200 ppm FS
  - CO Electrochemical Sensor – 100 and 200 ppm FS
  - NO$_2$ Electrochemical Sensor – 10 ppm FS
  - Combustible Gas – 100% LEL FS

- **Signal Output**
  - 4-20 mA
  - RS 485 Digital Communication

---

MOS: Metal Oxide Sensor
FS: Full Scale
## Sensor Specifications

<table>
<thead>
<tr>
<th>Sensor Type</th>
<th>Detection Range</th>
<th>Accuracy</th>
<th>Humidity</th>
<th>Operating Temperature Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid State CO</td>
<td>0 to 100 ppm or 0 to 200 ppm</td>
<td>+/- 5%, Full Scale</td>
<td>25 – 95% RH</td>
<td>0° to 40°C (4° to 104°F)</td>
</tr>
<tr>
<td>Electrochemical CO</td>
<td>0 to 100 ppm or 0 to 200 ppm</td>
<td>+/- 5%, Full Scale</td>
<td>0 – 95% RH</td>
<td>-20° to 40°C (-4° to 104°F)</td>
</tr>
<tr>
<td>Electrochemical NO₂</td>
<td>0 to 10 ppm</td>
<td>+/- 5%, Full Scale</td>
<td>0 – 95% RH</td>
<td>0° to 40°C (4° to 104°F)</td>
</tr>
<tr>
<td>Catalytic Combustible</td>
<td>0 to 100% LEL</td>
<td>+/- 5%, Full Scale</td>
<td>0 – 95% RH</td>
<td>-20° to 40°C (-4° to 104°F)</td>
</tr>
</tbody>
</table>
Calibration Improvements

Calibration of the new Z-Gard S sensors is easier than ever!

- Calibration adjustment for zero and span occur automatically.
- The user initiates zero calibration and span calibration through use of a magnet.
- All the user then needs to do is apply zero and span gas at the appropriate times.
# Controller Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Sensor Inputs</th>
<th>Zones</th>
<th>Signal Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z Gard C</td>
<td>8 points</td>
<td>single</td>
<td>4-20 mA</td>
<td>4-20mA High Select</td>
</tr>
<tr>
<td>Z Gard C485</td>
<td>8, 16, 24 points</td>
<td>8,16: single; 16, 24: 2 zones</td>
<td>RS 485</td>
<td>4-20mA High Select</td>
</tr>
<tr>
<td>Z Gard CXII</td>
<td>Up to 99 points</td>
<td>Up to 8</td>
<td>RS 485</td>
<td>BACnet; ModBus</td>
</tr>
<tr>
<td>Z Gard COMbo</td>
<td>CO on controller, plus 7 remote points</td>
<td>N/A</td>
<td>RS 485</td>
<td>4-20 mA High Select</td>
</tr>
</tbody>
</table>
CXII Controller

- Hosts up to 99 Z-Gard sensors.
- User-programmable zoning; up to 8 discrete zones, each with voting assignment.
- 4 internal relays for caution, warning, alarm and fault with ability to attach additional relay modules.
- Integral buzzer and optional field-mountable strobe.
- Modbus RTU or BACnet MS/TP communication for seamless integration with commercial and building automation systems.
Marketing Assets

- Go to www.msagasdetetection.com to view all of the available literature on the Z-Gard Product Line

**Product Brochures**
- Sensors
- Controllers
- COnmo

**MSA-U on Calibration**

**MSA-TV on Product Line**

**Product Line Presentation**

**CXII Menu Guide**

Because every life has a purpose...
Applications and Industries

Industries

- Underground Parking
- Enclosed Truck Docks
- Vehicle Maintenance Facilities
- Airport and Courier Transfer Stations
- Transit Facilities

Applications

- Ventilation Control, Personal Safety
- Energy Management
MSA Value Contributors

MSA sales and technical support
Authorized field service representatives
Varied Product Mix
Fast turnaround time
On-line product training
HVAC experience