

Z-Gard[®] S MPO Sensor

Reliable Gas Sensors for Commercial Applications



The Z-Gard MPO Sensor is designed for the commercial market to detect the presence of carbon monoxide, nitrogen dioxide and combustible gases.

The Z-Gard MPO Sensor communicates with one of several industry standard protocols, providing seamless integration with commercial automation systems. Factory default communication is via BACnet MS/TP; other protocols such as Modbus, APOGEE P1 and a proprietary protocol can easily be selected during installation.



Key Product Features

- Five sensor output options: Multiple Protocol Output (MPO), BACnet MS/TP, Modbus RTU, Modbus ASC, Z-Gard, APOGEE P1
- Multifunction-LED for sensor status on fault, calibration and normal operation
- Easy, non-intrusive one-person calibration of zero and span
- All metal construction
- Field-replaceable sensors



*Because every life has a **purpose...***

Z-Gard S Sensor Features

Sensor Communication

The Z-Gard S MPO Sensor is capable of connecting directly to a variety of building automation systems for stand-alone solutions. Sensor is capable of natively communicating with a BACnet controller via BACnet MS/TP. The Z-Gard MPO Sensor also communicates to other controllers via Modbus RTU, Modbus ASCII, Siemens APOGEE P1, or a proprietary protocol for MSA Z-Gard Controllers. Recommended mounting distance for Carbon Monoxide is around the breathing zone or 3–5 feet (0.9–1.5 m) from the floor. Nitrogen Dioxide is recommended around 3 feet (0.9 m) from the ceiling.

Electrochemical Carbon Monoxide	
DETECTION RANGE	0 to 100 ppm or 0 to 200 ppm
ACCURACY	± 5%, full scale at STP
HUMIDITY	0–95% RH
OPERATING TEMPERATURE RANGE	-4° to 104° F (-20° to 40° C)
Electrochemical Nitrogen Dioxide	
DETECTION RANGE	0 to 10 ppm
ACCURACY	± 10%, full scale at STP
HUMIDITY	0–95% RH
OPERATING TEMPERATURE RANGE	32° to 104° F (0° to 40° C)
Catalytic Combustible	
DETECTION RANGE	0 - 100% LEL
ACCURACY	± 5%, full scale at STP
HUMIDITY	0–95% RH
OPERATING TEMPERATURE RANGE	-4° to 104° F (-20° to 40° C)
MPO Sensors	
OPERATING POWER	24 VAC or DC, 100 mA (250 mA for combustible sensor)
SIGNAL OUTPUT	RS-485 (BACnet MS/TP, ModBus RTU/ASCII, APOGEE P1 & Z-Gard)
All Z-Gard S Sensors	
CALIBRATION	Factory-calibrated. Sensor can also be field-calibrated
ENCLOSURE	Powder-coated metal double-gang box with ¾" conduit opening
DIMENSIONS	5.5" (140 mm) H x 5.5" (140 mm) W x 2.2" (56 mm) D
CERTIFICATION	cCSAus C22.2 No. 61010-1; Fire, Shock and Safety Complies with California Title 24
ENVIRONMENT	Altitude: 0–6562 ft (0–2000 m), Pollution Degree 2
INSTALLATION	Installation Class II, Do Not Expose To Direct Sunlight

Ordering Information	
10178244	Z-Gard S MPO Sensor CO 0-100 ppm, electrochemical
10180580	Z-Gard S MPO Sensor CO 0-200 ppm, electrochemical
10178245	Z-Gard S MPO Sensor NO ₂ 0-10 ppm, electrochemical
10178246	Z-Gard S MPO Sensor combustible 0-100% LEL

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Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products. Specifications subject to change without notice.



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