

Z-Gard[®] DS MPO Sensor

Reliable Gas Sensors for Commercial Applications



The Z-Gard DS MPO Sensor is designed to detect the presence of carbon monoxide and nitrogen dioxide gases in parking garages, vehicle storage areas or wherever else these two toxic gases could be found. The DS offers the benefit of two points of detection in one enclosure.

Z-Gard sensors employ electrochemical sensors, which generate an output signal proportional to the calibrated operating range. 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
- Switch drive output to percentages of full-scale. This feature is useful for testing remote devices which may be connected to the sensor output
- Easy, non-intrusive one-person calibration of zero and span
- Field replaceable sensors



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

Z-Gard S Sensor Features

Sensor Communication

All Z-Gard DS MPO Sensors are 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, all configurable through a simple switch on the sensor board. Z-Gard Sensors with RS-485 digital output are specifically designed to operate as a system with any Z-Gard C 485 or Z-Gard CXII Controller. Z-Gard Sensors can be installed as stand-alone sensors typically integrated with the Z-Gard Controller, or common commercial equipment including PLC, DCS, or building automation systems. The recommended mounting distance for the Z-Gard DS is around the breathing zone or 3–5 ft. (0.9–1.5 m) from the floor.

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)
4-20 mA Sensors	
OPERATING POWER	24 VAC or DC, 150 mA (250 mA for combustible sensor)
SIGNAL OUTPUT	4-20 mA, 3-wire non-isolated, 4-wire isolated
RS-485 Sensors	
OPERATING POWER	24 VAC or DC, 100 mA (250 mA for combustible sensor)
SIGNAL OUTPUT	RS-485, digital communication
Z-Gard DS Sensors	
CALIBRATION	Factory calibrated. Sensor can also be field calibrated.
ENCLOSURE	Polycarbonate enclosure
DIMENSIONS	10.5" H (267 mm) x 8.5" W (216 mm) x 4.5" D (114 mm)
CERTIFICATION	cCSAus; C22.2 NO. 61010-1; Conforms to UL 61010-1

Ordering Information	
10180328	Z-Gard DS MPO Sensor CO 0-100 ppm and NO ₂ 0-10ppm, electrochemical

BACnet is a registered trademark of ASHRAE.

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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