Z Gard® S Sensor
Economical and Reliable Gas Sensor

MSA Z GARD™ S SENSOR

Carbon Monoxide Sensor

Sensor OK

POWER
24VDC
100mA

RANGE

OUTPUT

SERIAL #

The Z Gard S Sensor is designed to detect the presence of carbon monoxide and nitrogen dioxide gases in air. These sensors employ solid state or electrochemical sensors which generate a representative output signal proportional to the calibrated operating range. All Z Gard S Sensors are available with 2 output versions, a 4-20mA analog output, or an addressable RS-485 digital signal. The Z Gard S Sensor with RS-485 digital output is specifically designed to operate with any Z Gard C 485 Controller, operating as a system. The Z Gard S Sensor with 4-20mA can be installed as a stand-alone sensor typically integrated with the Z Gard C Controller, or common commercial equipment including PLC, DCS, or building automation systems.

Features

❱ 2 sensor output options: 4-20mA analog output or RS-485 digital signal.

❱ Standard housing is a 4" x 4" tamper-resistant commercial electrical PVC box with 3/4" PVC conduit opening. Sensor and electronics are housed in a steel cover plate box-mounted with 4 screws.

❱ Sensor status is shown by green OK LED, indicating proper device operation.

❱ Jumpers drive output to percentages of full-scale. This feature is useful for testing remote devices which may be connected to the sensor output.

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Specifications

Solid State Sensor	
Detection Range	CO 0-100 or 0-200 ppm. Other gases are available.
Sensor	Metal oxide sensing element
Accuracy	± 5% , full scale (FS) at 50% relative humidity
Humidity	0 - 95% RH
Operating Temperature Range	0˚ to 40˚C (32˚ to 104˚F)
Storage Temperature Range	-10˚to 50˚C (14˚ to 122˚F)

Electrochemical Sensor	
Detection Range Carbon Monoxide Nitrogen dioxide	Standard (0-100 ppm), Optional (0-200 ppm) Standard (0-100 ppm)
Sensors	Plug-in, electrochemical sensing elements
Accuracy	± 5% , full scale (FS)
Humidity	0 - 95% RH
Operating Temperature Range	0˚ to 40˚C (32˚ to 104˚F)
Storage Temperature Range	-10˚to 50˚C (14˚ to 122˚F)

All Z Gard Sensors	
Calibration	Factory-calibrated. Sensors can also be field-calibrated.
Standard Enclosure	Plastic double-gang connection box. Metal front plate secures sensor and circuit board
Dimensions	5.5"H x 5.5"W x 2.2"D
Certification	ENTELA (to CSA Standards)

Z Gard S 4-20 mA Sensors	
Operating Power 24 VAC or DC 24 VAC	100 mA used with MSA Z Gard Controllers or commercial DCS and PLC devices 100 mA used with commercial DCS and PLC devices
Signal Output	4-20 mA analog, 3-wire, point-to-point connection

Z Gard S RS-485 Sensors	
Operating Power	24 VDC, 100 mA used with MSA Z Gard C Controllers
Standard Enclosure	RS-485, 4-wire network connection
Dimensions	Network address jumpers, 1 to 127

Ordering Information

A Z Gard S Controller ATO order form is available from the MSA Preferred Products Catalog.
Call 1-800-MSA-INST (1-800-672-4678) to obtain a copy of the Preferred Products Catalog CD.

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