

Z GARD® C CONTROLLERS

Economical and Reliable Microprocessor-Based Controller



Z Gard C Controllers are economical, microprocessor-based gas monitoring products which can solve a variety of alarm and control applications. The Z Gard C Controller can accept 4 to 20 mA or RS-485 inputs from MSA Z Gard S Sensors. Controllers are available that can accept inputs from 1 to 8 remote sensors. Single and four point controllers feature an easy-to-read display, 4-20mA analog output, relay outputs, and audible alarm. The eight point version also features a keypad user interface located on the front panel of the controller which is used to control many of the output functions of the unit.

➔ Sensor Communication

All of the Z Gard C Controllers accept either 4-20mA or RS-485 serial input from the remote sensors. The Z Gard C Controllers automatically detect the type of sensor connected and determines its full-scale value. The set points and the readout display are automatically adjusted to match the sensor's operating range.

➔ Display

A large LED readout displays the active channel number and the corresponding sensor gas level. For multi-point units, the display scans through the active channels at 2-second intervals.

➔ Outputs

Relays - Standard relay outputs for warning and alarm levels facilitate interfacing to externally connected devices.

Status LEDs - located on front panel of Z Gard C Controller providing quick indication of system status.

Fail Safe Operation - If the analog input signal from any of the remote sensors falls below 3.8mA, the Sensor Fail LED will turn ON, and the fault relay will be de-energized. Should the Z Gard Controller experience a corrupt data signal from any associated inputs, the System OK LED will turn OFF. The fault relay will also be de-energized.

Audible Alarm - integral to each Z Gard C Controller, features an alarm reset and local audible alarm silence pushbutton.

4-20 mA high select option - available on all controllers. Provides an analog output signal derived from the highest gas concentration level that is being reported by the remote sensor inputs. The 4-20mA high-select signal represents readings from 0 to 100% full-scale.

Specifications

Power Requirements

	Power	Current
1-point:	110 VAC 50/60 Hz \pm 10%	0.15A
1-point:	220 VAC 50/60 Hz \pm 10%	0.10A
4-point:	110 VAC 50/60 Hz \pm 10%	0.50A
4-point:	220 VAC 50/60 Hz \pm 10%	0.25A
8-point:	110 VAC 50/60 Hz \pm 10%	1.00A
8-point:	220 VAC 50/60 Hz \pm 10%	0.50A

Signal Input 4-20mA, 3-wire connection or RS-485, 4-wire connection

Relays Contact Rating 10 amps, 1/8 HP, 125 VAC
6 amps, 1/8 HP, 220 VAC
5 amps, 30 VDC

Number of Relays

1-point:	3 relays total, Form C
4-point:	6 relays total, Form C
8-point:	10 relays total, Form C
Relay Action	Energized/non-energized; latching/non-latching

Digital Readout 4-digit LED with sequential scanning feature

Digital Readout Scale 1- and 4-point: 0 to 999 ppm
8-point: 0 to 9999 ppm

Temperature Range

Operating	-10 to +40°C (14 to 104°F)
Storage	-20 to +50°C (4 to 104°F)

Enclosure

Standard	Metal NEMA 1
Optional	Fiberglass NEMA 4X design

Weight

1-point:	9.1 lb (4.12 kg)
4- & 8-point:	13.2 lb (6 kg)

Dimensions

1-point:	11" H (292mm) x 10" W (254mm) x 3.75" D (95mm)
4-point:	15" H (381mm) x 12" W (304mm) D x 3.75" (95mm)
8-point:	13.5" H (340 mm) x 11.5" W (290 mm) x 5.5" D (139mm)

Certification ENTELA (to CSA Standards)

Ordering Information

A Z Gard C Controller ATO (Assemble To Order) form is available in the MSA Preferred Products Catalog. Call 1-800-MSA-INST (1-800-672-4678) to obtain a copy of the Preferred Products Catalog CD-Rom.

For information on Z Gard S Sensors, see Data Sheet 07-2087.

Note: This Data Sheet contains only a general description of the product shown. While uses and performance capabilities are described, under no circumstances should the product be used except by qualified, trained personnel, and not until the instructions, labels or other literature accompanying the product have been carefully read and understood and the precautions therein set forth followed. Only they contain the complete and detailed information concerning this product.

Data Sheet 07-2086-MC
June 2006

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