



# MCS-MAGNUM-MLB

## Description & Specifications



Part # MCS-MAGNUM-MLB



### Description

The **MCS-MAGNUM-MLB** enclosure is made of powder coated aluminum for durability and longevity. A left hand swing door is mounted with three seven-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the display and keypad.

The MCS-MAGNUM-MLB comes standard equipped with a Magnum micro controller board, a MCS-SI116-AO4, Keypad/LCD, 20 amp circuit breaker and a electrical outlet for plug-in power at the box.

The following warning lights and switches are included in the standard enclosure; MB-Alarm, MB-Warning, Run-SW, and Emer-SW. Additional options are available as shown below.

This box is intended for use in an environment protected from the weather.

### Options

**MCS-RS-485-EXTENDER**  
Cable for extending RS-485 port to front of control cabinet.



-232 ..... This adds RS-232 port on Keypad  
**MCS-RS-232-EXTENDER** ..... Cable for extending RS-232 port to front of control cabinet (only available with -232 Keypad option)

### Specifications

#### NEMA Rating – Type 1 Enclosure - IP20 Rating

Enclosure is intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment and is not protected from liquids.

#### ENCLOSURE – Medium Large Box

Dimensions..... 22”w, 28.5”h,8.0”d  
Mounting Holes..... Mounts with four pre drilled 15/32” holes

#### TEMPERATURE RANGE ENCLOSURE/Keypad/LCD

Operating Temp. of enclosure. .... -4°F to +158°F (-20°C to + 70°C)  
Operating Humidity..... 0-95% Non-Condensing  
Storage Temp. .... -22°F to +185°F (-30°C to + 85°C)

#### CONTROLLER SPECIFICATION

Microprocessor .....Zilog eZ80 Acclaim! @ 50mhz  
Sensor Inputs (SI).....12 inputs 0-5vdc (10-bit A/D)  
Digital Inputs.....4 inputs 0 or 5vdc only  
Relay Outputs (RO).....10 outputs 6.3amps @ 230vac  
Analog Outputs (AO) .....4 outputs 0-10vdc  
Printed Circuit Board .....Six layer with separate power and ground planes  
Input Power (Standard)..... 115 or 230vac ±10% 50/60Hz @77°F (25°C) ambient, 20VA max (Voltage is field selectable)  
MCS-I/O Comm Port .....1 @ 38,400 baud  
RS-485 Comm Port .....1 @ 19,200 baud  
Ethernet.....10/100 Mbps Ethernet  
Real Time Clock .....Battery backup  
Power Detection .....Automatic power fail reset

#### KEYPAD / LCD

Display.....128 x 64 dot pixel STN monochrome graphics LCD with 2.8” diagonal viewing area  
Color .....White characters on a blue background (Reversible)  
Keypad Size .....7.25”w x 8.50”h (6 mounting studs)  
Keypad Layout.....9 keys (3 function keys)  
Connection .....6 conductor shielded cable  
RS-485 Comm Port .....1 @ 19,200 baud

-MB-WIRELESS-MODEM ..... Cellular Modem with 1 yr subscription  
-MB-RO10-(24/115/230) ..... 10 relay output expansion board  
-MB-SI16-AO4-(24/115/230)..... 16 sensor input expansion board  
-MB-24VOLT-(115/230) ..... 115(230) to 24vac transformer  
-MB-RUN-LT#(1/2/3/4) ..... Green run indicator  
-MB-COMP#(1/2/3/4)..... Single compressor on/off switch  
-MB-BYPASS..... Momentary bypass push button  
-MB-ETHERNET ..... Industrial rated RS-232/Ethernet device  
-MB-ETHERNET-SW..... Ethernet switch and power supply  
-MB-BMS-GATEWAY ..... BacNet IP to MSTP/Lontalk  
-MB-EXV-DRIVER-xx ..... Control board for EXVs

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