The MCS-MAGNUM-8 DOOR-12 is a unit for converting an MCS-8 Micro Controller system to the MCS-MAGNUM Micro Controller.

The MCS-MAGNUM-8 DOOR-12 consists of a MCS-MAGNUM control board along with a keypad, LCD display and a RS-485 connection on front of door frame for easy PC access.

The MCS-MAGNUM is a durable microprocessor based controller designed for the hostile environments in the HVAC/R industry. It is designed to be the primary manager of the package it is controlling.

The Magnum provides flexibility with setpoints and control options that can be selected prior to commissioning a system or when the unit is live and functioning. Displays, alarms and other interfaces are accomplished in a clear and simple language that informs the user as to the status of the controller.

A RS-485 port is also provided for communication with Building Management Systems (BMS). Other new features include the integration of BACnet IP, Modbus IP and Modbus RTU into the Magnum. A MCS-BMS-GATEWAY is also available that allows communication via BACnet MSTP and LonWorks, or the data format is available to allow the user to communicate directly.

A complete software support package, MCS-CONNECT is available for your PC, allowing for system configuration, dynamic online display screens, remote communication, graphing and more.

**Options**

-24 ............24vac input power ±10%

50/60Hz @ 77°F (25°C) ambient

-232 ............RS-232 port on back of Keypad

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**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.

**Panel Enclosure**

Dimensions…………………………….17"w, 12.125"h, 4.5”d approx.  

Cutout/ Mounting …………………. 15.75"w, 10.875"h, Drill 10 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)…………………12vdc  

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

**POWER SUPPLY NOT INCLUDED, consult MCS-SALES for information on Power Supply sold for this controller.**