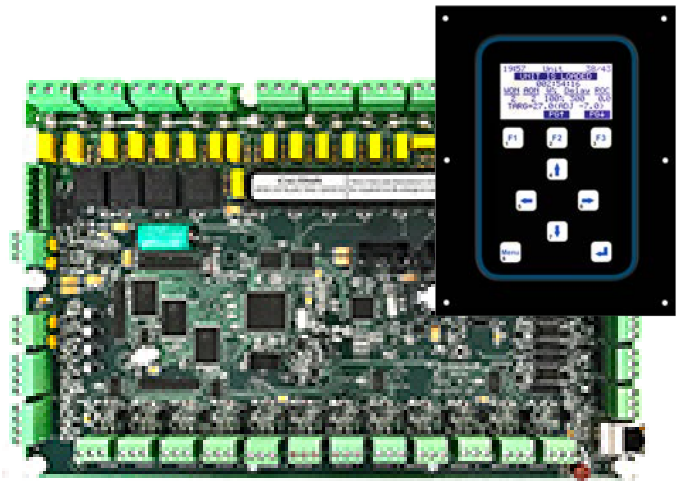
MCS-MAGNUM-OEM
Description & Specifications



Part # **MCS-MAGNUM-OEM**

RoHS Compliant

c UL us
File No: E169780

Description

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.

The **MCS-MAGNUM-OEM** consists of a master control board along with a keypad and display. Complementing the Magnum micro controller are the **MCS-RO10** and **MCS-SI16-AO4** expansion boards. This allows for system expansion to a maximum of 112 inputs and 108 outputs. Communication with these units occurs at 38,400 baud over the MCS-I/O port, which is dedicated to this purpose.

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.

MCS-MAGNUM-OEM ships with MCS-MOUNT KIT which includes 8 #6 sheet metal screws, 5 Standoffs and 1 Lexan Cover.

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

Specifications

Controller

Dimensions	12.0”w, 8.0”h, 2.0”d
Mounting Holes	Mounts on a backplane using six #6 (6-32) sheet metal screws
Operating Temperature	-40°F to +158°F (-40°C to +70°C)
Operating Humidity	0-95% Non-Condensing
Storage Temperature	-40°F to +158°F (-40°C to +70°C)
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

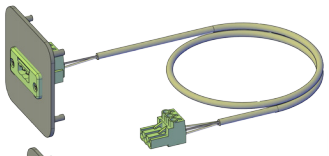
Display	128 x 64 dot pixel STN monochrome graphics LCD with 2.8” diagonal viewing area
Color	White characters on a blue background (Reversible)
Keypad Size	7.25”w x 8.50”h (4 mounting studs)
Keypad Layout	9 keys (3 function keys)
Connection	6 conductor shielded cable (max length of cable is 10 feet)
RS-485 Comm Port	1 @ 19,200 baud
Operating Temperature	-4°F to +158°F (-20°C to +70°C)
Operating Humidity	0-95% Non-Condensing
Storage Temperature	-22°F to +158°F (-30°C to +80°C)

Options

-24 ..... 24vac input power ±10% 50/60Hz @ 77°F (25°C) ambient

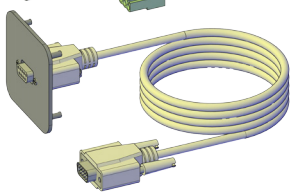
-MCS-RS-485-EXTENDER

Cable for extending RS-485 port to front of control cabinet



-MCS-RS-232-EXTENDER

Cable for extending RS-232 port to front of control cabinet



5580 Enterprise Pkwy., Fort Myers, FL 33905
Office: 239-694-0089 • Fax: 239-694-0031 www.mcscontrols.com

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