



MCS-MAGNUM-DEMO-12

Description & Specifications



Part # **MAGNUM-DEMO-12**

Description



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

The MCS-MAGNUM provides flexibility with setpoints and control options that are selectable prior to commissioning a system or when the unit is live. 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 **MAGNUM-DEMO-12** consists of a Magnum micro-controller mounted to a backplane and attached to a stand-alone with a keypad and display. This setup allows the user to test various software configurations in-house. Complementing the Magnum micro controller are the MCS-RO-BASE, MCS-RO-EXT, MCS-SI-BASE and MCS-SI-EXT 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 other manufacturers systems.

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 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 eight #6 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).....	+12vdc at 0.7amps (fully loaded)
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

Power Supply

90W 12VDC Power Supply

Input Voltage:	88 VAC to 264 VAC
Output Voltage:	12VDC @ 7.5Amps
Input Current:	3A / 115 AC - 1.6A / 230AC
Output Rated Current:	7.5A

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
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)

Parts Included

- MCS-USB-485 Cable
- 10K potentiometer, Power Supply, Pelican Case



Packaging

Ship Weight.....	20 lbs. lb (approx)
Pelican Dimensions.....	22.00" x 13.81" x 9.00" (55.9 x 35.1 x 22.9 cm)