



MCS-MAGNUM-DEMO

Description & Specifications



Part # **MAGNUM-DEMO**



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** 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-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 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 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)..... 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 (max length of cable is 50 feet)
- 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)

Revision 2017-11-28