MICRO CONTROL SYSTEMS

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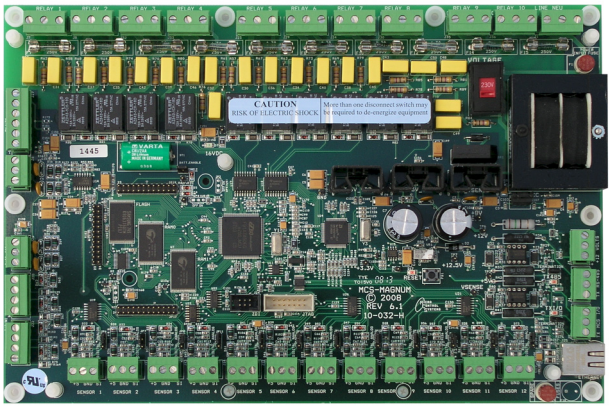
The MCS-MAGNUM-N Specifications & Description

Physical Characteristics

Controller Specifications

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)
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 to 115,200 baud, select from MCS Protocol, Modbus RTU or Johnson N2. Built-in RS-485 to RS-232 converter
Ethernet	10 Mbps Ethernet supporting MCS IP, BACnet IP and Modbus IP at the same time
Real Time Clock	Battery backup
Power Detection	Automatic power fail reset



Part # **MCS-MAGNUM-N**

Options

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

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Product Description

The Magnum is a rugged 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 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 micro controller along with a keypad and display. Complementing the Magnum micro controller are a variety of MCS expansion boards that allow for system expansion to a maximum of 48 inputs and 48 outputs. With version 8 software this expands to 80 inputs and 80 outputs. Communication to these boards occur at 38,400 baud over the MCS-I/O port which is dedicated for this purpose.

Two other communication ports (RS-485 and Ethernet) are available on the Magnum. The RS-485 port allows the user to interactively communicate with the Magnum via MCS-Connect or, for monitoring purposes only, to a BMS (Building Management System) running Modbus RTU or Johnson N2. The Ethernet port allows the user to interactively communicate with the Magnum via MCS-Connect or, for monitoring purposes only, to a BMS running BACnet IP or Modbus IP. For LonTalk or BACnet MSTP communication, an external adapter is required.

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