MICRO CONTROL SYSTEMS

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The MAGNUM-DEMOCASE Specifications & Description

Physical Characteristics

Controller Specifications (Revision 4)

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 +176°F (-40°C to +80°C)
Storage Temperature	-40°F to +176°F (-40°C to +80°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
RS-232 Comm Port	1 @ 19,200 baud
Ethernet	10/100 Mbps Ethernet
Real Time Clock	Battery backup
Power Detection	Automatic power fail reset

Keypad/LCD Specifications

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	5.25"w x 6.50"h (6 mounting holes)
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)
Storage Temperature	-22°F to +176°F (-30°C to +80°C)

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.

Part # **MAGNUM-DEMOCASE**

The MAGNUM-DEMOCASE consists of a Magnum micro controller mounted inside an rugged aluminum briefcase (18"w x 6"h x 13"d) along with a keypad and display. It is designed primarily as a portable sales tool to demonstrate the various capabilities of the MCS-MAGNUM to prospective customers.

Incorporated in the design of the MAGNUM-DEMOCASE are indicator lights, switches and variable potentiometers that allow the user to easily simulate a wide variety of conditions and visually see what is happening as if it was controlling an actual unit.

Additionally, a built-in RS-485 to RS-232 converter allows communication to external serial devices such as a PC. This allows the user to demonstrate how the micro controller can interact with a local PC running MAG-CONNECT software.