

MicroMag-XXX-NEMA4 Description & Specifications







Description

The MicroMag-XXX-NEMA4 is a rugged controller designed for the hostile environment of the HVAC/R industry. It is designed to be the primary manager of the unit it is controlling. The MicroMag provides flexibility with set points 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 MicroMag is designed to control up to 6 circuits with up to 1 compressor each. Complementing the MicroMag controller are 2 expansion boards that allow 26 Relay Outputs, 1 Triac Output, 42 Sensor Inputs and 12 Analog Outputs (using 2 RO and 2 SI expansion boards). The MicroMag connects to the expansion boards using it's MCS-I/O port. The MCS-I/O uses a RS485 network cable supporting a maximum length of 5000 ft.

The MicroMag has two additional RS-485 ports. Both ports allow the user to interactively communicate with the MicroMag via MCS-Connect. A BMS (Building Management System) running Modbus RTU or BACnet MSTP can also communicate with the MicroMag via either RS-485 port for monitoring and control purposes.

Because the terminal blocks are removable, board replacement requires no wires to be removed.

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

The MicroMag-XXX-NEMA4 is suitable for installation, both indoor and outdoor. Utilizing a gasket for an environment seal provides the unit with a NEMA 4 rating if installed in a <u>NEMA4</u> enclosure.

Specifications - Rev. 1

Controller

Mounting Holes..... Mounts on a door using Eight #6 metal studs and nuts HT800 Cellular Silicone Gasket NFMA 4 IP66 rated Operating Temperature..... -4°F to +158°F (-20°C to +70°C) Operating Humidity......0-95% Non-Condensing Storage Temperature...... -4°F to +158°F (-20°C to +70°C) Sensor Inputs (SI)............... 10 inputs 0-5vdc (10-bit A/D) Relay Outputs (RO)......6 outputs 5.0 amps @ 24V/120V/230V Analog Outputs (AO) 4 outputs 0-10vdc Printed Circuit Board Four layer with separate power and ground planes Input Power (Standard) 24VAC ±10% 50/60Hz 120VAC ±10% 50/60Hz 230VAC ±10% 50/60Hz 77°F (25°C) ambient, 25VA min Current Draw 850mA @ 24VAC MCS-I/O Comm Port 1 @ 38,400 baud RS-485 Comm Port 2 @ 19,200 to 115,200 baud, select from MCS Protocol, Bacnet MSTP, Modbus RTU Real Time Clock Battery backup Power Detection Automatic power fail reset Real Time Clock Battery backed

Keypad/LCD

| Display | . 2 x 16 Backlit |
|---------------|-------------------------------------|
| Keypad Layout | . 6 keys (Menu, Enter, 4 direction) |
| Connection | . 12 pin header plus 4 nylon bolts |

Power Detection Automatic power fail reset

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