



# MicroMag-XXX-NEMA4 Description & Specifications



MicroMag-XXX-NEMA4

XX = 24VAC  
XXX = 120VAC  
XXX = 230VAC



## 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 its 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 NEMA4 enclosure.

## Specifications - Rev. 1

### Controller

Dimensions.....	10.842"l, 7.867"w, 3.141"h
Mounting Holes.....	Mounts on a door using Eight #6 metal studs and nuts HT800 Cellular Silicone Gasket NEMA 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
Power Detection.....	Automatic power fail reset

### Keypad/LCD

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

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