



# MCS-MAGNUM-NEMA-12-8 INDUSTRIAL CONTROL PANEL



Part # **MCS-MAGNUM-NEMA-12-8**

## Description

The **MCS-MAGNUM-NEMA-12-8** is a custom built panel made of powder coated aluminum for durability and longevity. It is a NEMA TYPE 4 - IP66 rating. The interior left hand swing door is mounted with three four-inch hinges for strength. The panel is designed for areas which may be regularly hosed down or are in very wet or oily conditions. The panel provides protection from dust, dirt, oil and water.

Critical safety components manufactured by MCS and installed in this panel are UL Recognized Components under UL File # 169780 and are also ROHS compliant.

Communication to these units occur at 38,400 baud over the MCS-I/O port which is dedicated for this purpose.

**MCS-MAGNUM-NEMA-12-8** standard panel includes a MCS-MAGNUM-N, MCS-SI-BASE along with 9 Button 2.8" Monochrome LCD Display, 20 amp circuit breaker.

Panel includes the following; Red Alarm Indicator, Yellow Warning Indicator, Emergency Stop Switch and 3 Position Run/Stop Selector Switch. There is also an electrical outlet for laptop plug-in power at the panel, and a Ground Bar for Sensor input shields.

Options are available for all MCS-MAGNUM Industrial Control Panels with Keypads or Touch Screens. These options are factory installed by MCS at time of purchase.

Visit our website for options available.

## Specifications

### **NEMA Rating – Type 4 Panel - IP66 Rating\*\*\***

Indoor or Outdoor, provides a degree of protection against falling rain, splashing water and hose directed water, undamaged by formation of ice on the panel.

### **Panel**

Rated Voltage (Standard) ..... 120VAC or 230VAC  
'Phase / Frequency..... 1 Phase / 60Hz  
Full Load Current(approx) ..... 40A at 120VAC or 20A at 240VAC  
Short Circuit Current Rating ... 10kA  
Dimensions..... 24" w x 30" h x 8" d  
Mounting Holes..... 4 external wall-mount brackets

### **Temp. Range for Panel**

Operating Temperature..... -4°F to 158°F (-20°C to 70°C)  
Operating Humidity..... 0-95% Non-Condensing  
Storage Temperature..... -22°F to 185°F (-30°C to 85°C)

### **Controller Specification**

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) ..... 12 vdc Regulated Power Supply  
Minimum (Brown in) ..... 9.44 vdc  
Amp Draw (Loaded) ..... 857.0 mA  
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

### **MCS-SI-BASE Expansion Board**

Sensor Inputs (SI)..... 16 inputs 0-5VDC (10-bit A/D)  
Analog Outputs (AO) ..... 4 outputs 0-10VDC  
MCS-I/O Comm Port ..... 1 @ 38,400 baud

### **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  
RS-485 Comm Port ..... 1 @ 19,200 baud

### **Packaging**

Weight ..... 60 lbs (approx)  
Box ..... 29" x 37" x 10"

### **\*\*\*IP66 Rating**

An IP66 rated fixture is protected against multi-directional, high-pressure water jets. To pass IP66 testing, the fixture must be able to withstand water projected from 0.50-inch nozzle, multi-directional, high-pressure jets. This test must be run for a minimum of three minutes, at a distance of three yards, with a water volume of 26.4 gallons per minute and a pressure of 100 kPa.