



# MCS-MAGNUM-MLB-10.1-12 INDUSTRIAL CONTROL PANEL



Part #  
**MCS-MAGNUM-MLB-10.1-12\***

## Description

The **MCS-MAGNUM-MLB-10.1-12 Industrial Control Panel** is constructed with powder coated aluminum for durability and longevity. A left hand swing door is mounted with three eight-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the display. This panel is intended for use in an environment protected from the weather.

The panel consists of a **MCS-MAGNUM-N-12**, **MCS-TOUCH 10.1** touchscreen and **MCS-SI-BASE** expansion board.

Power is supplied using a **MCS-12V** power supply.

The **MCS-TOUCH-10.1** is a touchscreen interface designed to simplify user access with the MCS-MAGNUM utilizing **MCS-CONNECT** to provide both graphics and service mode access to technicians. Information and graphics on the MCS- TOUCH-10.1 are shown on a 10.1" high resolution (1280x800) LCD display with LED backlighting, which will guarantee long-life operation.

Panel includes the following; 20A, and a 5A Single-Pole Circuit Breaker, a 5 port 10/100/1000 Ethernet Workgroup Switch Industrial rated, 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.

**SHIELDWIRE-GROUNDING multi-terminal connectors** are included to eliminate stray electrical current, thereby helping to reduce line noise form the sensors to the controller.

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

## Packaging

Weight .....60 lbs(approx)  
Box .....24" x 10" x 30"

## Specifications

**Certification.....UL508A - E511647**

### **NEMA Rating – Type 1 Control Panel - IP20 Rating**

Enclosures constructed for indoor use to provide a degree of protection to personnel against access to hazardous parts and to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects.

### **Industrial Control Panel**

Dimensions .....23.5" w x 31.15" h x 8" d

Mounting Holes.....Mounts with four pre drilled  
15/32" holes

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

### **Temp. Range for Control Panel & Touch Screen**

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)

### **MCS-MAGNUM Controller**

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

Input Power (Standard)..... 12 vdc Regulated Power Supply

Minimum (Brown in) ..... 9.44 vdc

Amp Draw (Loaded) ..... 857.0 mA

and ground planes

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

### **MCS-Touch 10.1 Touchscreen**

LCD Screen ..... 10.1" Diagonal (Aspect Ratio 16:10)

1280 x 800 Resolution

NEMA 4 IP66 rated

Surface Treatment..... Glare/Anti-Reflection ≤1.5%

Operating Temperature..... -4°F to 149°F (-20°C to +65°C)

Operating Humidity..... 0-95% Non-Condensing

Storage Temperature..... -13°F to 158°F(-25°C to +70°C)

Motherboard-Rev 4.0 ..... Freescale i.MX6 Dual Core 800mhz

2Gb of 512mhz DDR3 RAM memory

16Gb of eMMC Flash memory

10m/100m/1G Ethernet

1 Micro-SD Slots

2 USB Host 2.0

Real Time Clock (RTC) w/ Battery

3 RS485 communication ports

Crossover Cable (orange) .. can be used for connecting  
MCS Touchscreen direct to MCS-MAGNUM or to a Laptop

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