



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



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

## Description

The **MCS-MAGNUM-LB-10.1-12 Industrial Control Panel** is made of 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.

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

The MCS-MAGNUM-LB-10.1 consists of a **MCS-MAGNUM**, **MCS-S1-Base** expansion board, and a Touchscreen 15.4" display. The **MCS-TOUCH-10.1** is a new 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 with guard 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.

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

## Specifications

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

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

Enclosure is intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment and is not protected from liquids.

### **Industrial Control Panel**

Dimensions of control panel ... 27" w x 39.75" h x 8.0" d  
Mounting Holes..... 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! @ 50 mhz  
Sensor Inputs (SI)..... 12 inputs 0-5VDC (10-bit A/D)  
Digital Inputs..... 4 inputs 0 or 5VDC only  
Relay Outputs (RO)..... 10 outputs 6.3 amps @ 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) ..... 9.44VDC  
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

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

LCD Screen..... 10.1" Diagonal (Aspect Ratio 16:10)  
1280 x 800 Resolution  
5-Wire resistive touch w/Stylus pen  
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

### **Packaging**

Weight ..... 88 lbs(approx.)  
Box ..... 29 x 10.5 x 42 (approx.)

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\* Photo shown is an example of an Industrial Control Panel; some optional equipment may be shown.