



# MCS-MAGNUM-SB-12 INDUSTRIAL CONTROL PANEL



Part # MCS-MAGNUM-SB-12

## Description

The **MCS-MAGNUM-SB-12 Industrial Control Panel\*** is made of powder coated aluminum for durability and longevity. A left hand swing door is mounted with three seven-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the display and keypad.

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-SB-12 comes standard equipped with a Magnum micro controller board, Keypad/LCD, and a 20 amp circuit breaker. There is also a electrical outlet for laptop plug-in power at the panel.

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

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

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

## Options

MCS-RS-485-EXTENDER  
Cable for extending RS-485 port to front of control panel.



-232 ..... This adds RS-232 port on Keypad  
MCS-RS-232-EXTENDER ..... Cable for extending RS-232 port to front of control panel (only available with -232 Keypad option)

## Specifications

Certification.....UL508A

**NEMA Rating – Type 1 Control Panel**

### Industrial Control Panel\*

Dimensions ..... 18.2" w x 24.75" h x 8" d  
Mounting Holes..... Mounts with four pre-drilled 9/32" 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

### TEMPERATURE RANGE Control Panel/Keypad/LCD

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

### 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 ..... 40 lbs(approx)  
Box ..... 24" X 30" x 10"

5580 Enterprise Pkwy., Fort Myers, FL 33905

Office: 239-694-0089 • Fax: 239-694-0031 [www.mcscontrols.com](http://www.mcscontrols.com)

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