

## The MCS-SI8 Specifications & Description

### Physical Characteristics

#### Standard Mounting

Dimensions ..... 10.87"l, 4.00"w, 2.50"h  
Mounting Holes ..... 4 holes using #6 screws through nylon collars at corners of board  
Cover ..... Lexan with standoffs (only on standard mounting)

#### Box Mount

Dimensions ..... 13.87"w, 12.75"h, 2.31"d  
Mounting Holes ..... 4 holes 0.31" diameter  
Wire Duct ..... 1.75"w x 1.62"h top & bottom

Operating Temperature..... -40°F to +175°F (-40°C to +80°C)  
Storage Temperature..... -40°F to +175°F (-40°C to +80°C)

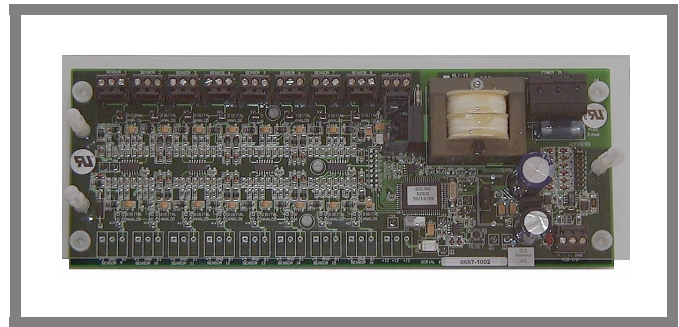
#### Control Specifications

Microprocessor ..... Toshiba TMP88PS49F @ 16mhz  
Sensor Inputs (SI) ..... 8 inputs 0-5vdc (10-bit A/D)  
Printed Circuit Board ..... Four layer with separate power and ground planes  
Input Power (Standard) ..... 115vac ±10% 50/60Hz @ 77°F (25°C) ambient, 12VA max  
MCS-I/O Comm Port ..... 1 @ 38,400 baud  
Power Detection ..... Automatic power fail reset

### Product Description

The MCS-SI8 provides a flexible and cost effective way to allow sensor input expansion for the MCS-8 system. Each MCS-SI8 has a stand alone microprocessor which communicates with the MCS-8 micro controller over the MCS-I/O port at 38,400 baud. All data is check summed with auto error correction. Because communication is over a RS-485 long distance two-wire differential network transmission system, the MCS-SI8 may be located up to 5,000 feet away. Each MCS-SI8 board is equipped with a power transformer and an automatic power fail reset system.

The printed circuit board is a four layer board with a separate power and ground plane to provide the ultimate in electrical noise suppression. This coupled with noise suppression circuitry makes the MCS-SI8 virtually impervious to electrical noise.



Part # **MCS-SI8**

#### Options

**-24** ..... 24vac input power ±10%  
50/60Hz @ 77°F (25°C) ambient  
**-230** ..... 230vac input power ±10%  
50/60Hz @ 77°F (25°C) ambient  
**-B** ..... Box mount



File No: E169780 (115vac & 24vac)

The MCS-SI8 provides eight sensor inputs. The inputs are universal and support either a digital or analog input signal.

Each input consists of a three position removable terminal block, providing +5vdc, ground and signal in. A polyfuse protects the +5vdc line from shorted sensors. The terminal blocks provide screw connections which eliminate the need for staycons. Because the terminal blocks are removable, board replacement requires no wires to be removed.

The MCS-8 currently supports up to five MCS-SI8's, depending on the software, for a total system expansion of 48 sensor inputs.