



# MCS-REMOTE-SI-BASE

## Description & Specifications



Part # MCS-REMOTE-SI-BASE

### Description

The **MCS-REMOTE-SI-BASE** provides a flexible and cost effective way to allow remote expansion for the **MCS-MAGNUM**. Because communication is over a RS-485 long distance two-wire differential network transmission system, the enclosure can be located up to 5,000 feet away. Each MCS-SI-BASE has a stand-alone microprocessor which communicates with a MCS-MAGNUM over the MCS-I/O port at 38,400 baud. All data is check summed with auto error correction.

A 90W 12VDC switching power supply is included, along with MCS-SHIELDWIRE-GROUNDING multi-terminal splicing connectors to safety ground the sensor drain shield wires.

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

The MCS-SI-BASE provides sixteen sensor inputs. The inputs are universal and support either a digital or analog input signal.

The MCS-SI-BASE also provides four analog outputs that provide independent dc voltage outputs from 0 to 10vdc. However, these analog outputs can only be controlled by the MCS-MAGNUM micro controllers running version 8 or higher software.

Each input and output 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 sta-cons. Because the terminal blocks are removable, board replacement requires no wires to be removed.

### Specifications

#### Small Enclosure-NEMA rating - Type 1

- Flush slotted latch operated with a screwdriver
- Butt hinges
- Mounting holes on back of enclosure
- 16 gauge steel
- FINISH - steel gray polyester powder paint finish inside and out over pretreated surfaces

Dimensions..... 14"L, 12"W, 4"D

Mounting Holes..... Mounts with four pre-drilled holes

#### Controller

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

Operating Temperature..... -40°F to +158°F (-40°C to +70°C)

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

Storage Temperature..... -40°F to +158°F (-40°C to +70°C)

Microprocessor..... Microchip 16-bit PIC processor

Sensor Inputs (SI)..... 16 inputs 0-5vdc (10-bit A/D)

Analog Outputs (AO) ..... 4 outputs 0-10vdc

Printed Circuit Board ..... Four layer with separate power and ground planes

MCS-I/O Comm Port ..... 1 @ 38,400 baud

Power Detection ..... Automatic power fail reset

Input Power (Standard) ..... 90W 12VDC Enclosed Switching Power Supply

MCS-SHIELDWIRE-GROUNDING-KIT  
Package of 2

