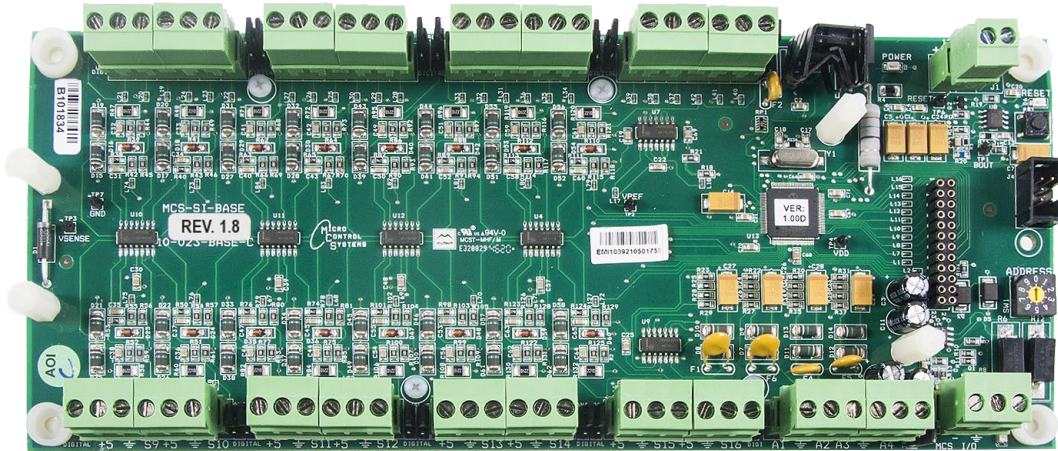




MCS-SI-BASE

Description & Specifications



Part # **MCS-SI-BASE**



File No: E169780

Description

The **MCS-SI-BASE** provides a flexible and cost effective way to allow sensor input and analog output expansion for **MCS MAGNUM** and **Micromag**.

Each MCS-SI-BASE has a stand-alone microprocessor which communicates with a MAGNUM/Micromag 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-SI-BASE may be located up to 5,000 feet away. Each MCS-SI-BASE board can be powered by a 12VDC regulated power supply and has a 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 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. These analog outputs are controlled by the MAGNUM/Micromag micro controllers.

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. The MCS-SI-BASE allows one

optional MCS-SI-EXT board to be stacked on top by using a board stacker header. Doing so will expand the number of sensors from 16 to 32 and the number of analog outputs from 4 to 8, allowing twice the number of sensors and analog outputs in the same footprint of one MCS-SI-BASE.

Specifications

Controller

- Dimensions..... 9.5"l, x 4.0"w, 2.50"h
- Mounting.....Mounts on a backplane using four #6 sheet metal screws
- 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)
- Sensor Inputs 16 0-5vdc
- Analog Outputs 4 outputs 0-10vdc
- Printed Circuit Board Four layer with separate power and ground planes
- Input Power (Standard) 12 vdc Regulated Power Supply
- Minimum (Brown in) 9.28 vdc
- Amp Draw (Loaded) 264.0 mA
- MCS-I/O Comm Port 1 @ 38,400 Baud
- Power Detection Automatic Power Fail Reset

Packaging

- Kit of (4) #6 x 1" Phillips Panhead Zinc Plated Steel Screws
- Ship Weight 0.94 lb (approx)
- Box Dimensions..... 12" x 5" x 3" (approx)

Revision - 2021-11-15