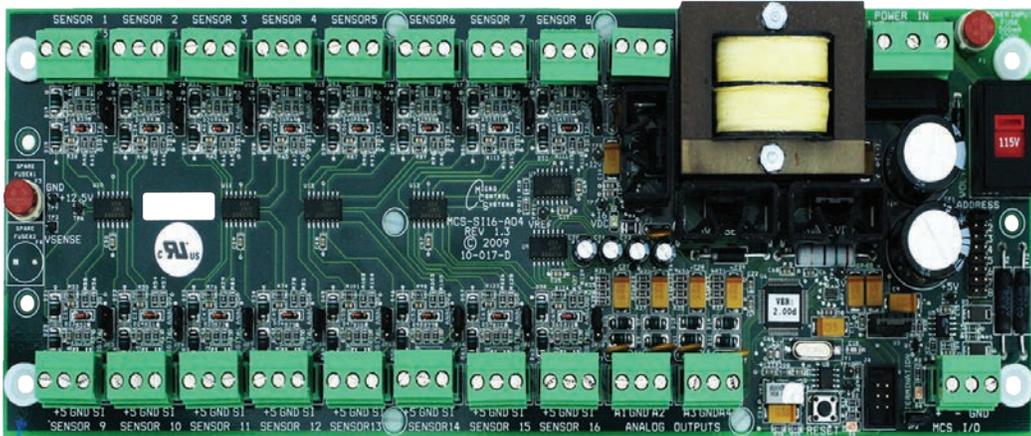




# MCS-SI16-AO4

## Description & Specifications



Part # MCS-SI16-AO4



### Description

The **MCS-SI16-AO4** provides a flexible and cost effective way to allow sensor input and analog output expansion for **MCS MAGNUM** and <sup>1</sup>**MicroMag** controllers. Each MCS-SI16-AO4 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. Because communication is over a RS-485 long distance two-wire differential network transmission system, the MCS-SI16-AO4 may be located up to 5,000 feet away. Each MCS-SI16-AO4 board is equipped with a dual voltage 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 efficient electrical noise suppression. This coupled with noise suppression circuitry makes the MCS-SI16-AO4 virtually impervious to electrical noise.

The MCS-SI16-AO4 provides sixteen sensor inputs. The inputs are universal and support either a digital or analog input signal. The MCS-SI16-AO4 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.

<sup>1</sup>MicroMag firmware and configuration software must be upgraded to Version 18.

### Specifications

#### 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
Input Power (Standard) .....	115 or 230vac ±10% 50/60Hz @ 77°F (25°C) ambient, 20VA max (Voltage is field selectable)
MCS-I/O Comm Port .....	1 @ 38,400 baud
Power Detection .....	Automatic power fail reset

#### Options

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