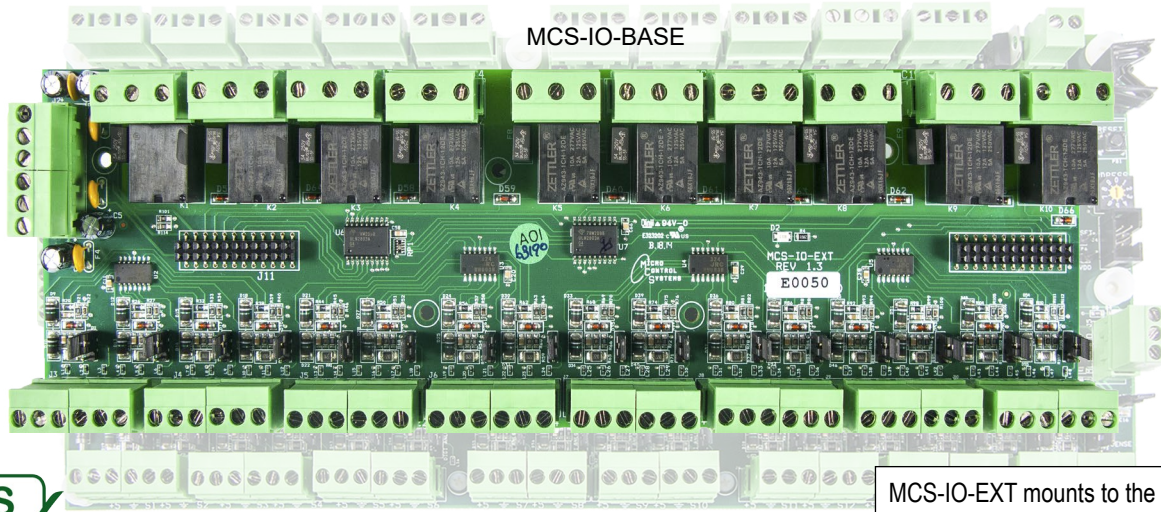




# MCS-IO-EXT

## Description & Specifications



**UL**<sup>®</sup>  
File No: E169780



Part # **MCS-IO-EXT**

MCS-IO-EXT mounts to the MCS-IO-BASE with 5 nylon standoffs and two stackers

### Description

The **MCS-IO-EXT** provides a flexible and cost effective way to allow relay output, sensor input and analog output expansion for **MCS MAGNUM** and **Micromag**. Each MCS-IO-EXT can be paired with a MCS-IO-BASE to double the number of inputs and outputs. Each MCS-IO-EXT board is powered by the MCS-IO-BASE board once it is stacked on top. 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-IO-EXT virtually impervious to electrical noise. The MCS-IO-EXT provides sixteen sensor inputs. The inputs are universal and support either a digital or analog input signal.

The MCS-IO-EXT 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 MCS-IO-base also provides ten relay outputs fused at 5.0 amps. Each relay output provides common, normally open and normally closed contacts on a removable terminal block. 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. Once the MCS-IO-EXT is paired with the MCS-IO-BASE the number of sensors are expanded from 16 to 32, the number of analog outputs from 4 to 8, and the number of relays from 10 to 20 allowing twice the number of sensors, analog outputs, and relay outputs in the same footprint of one MCS-IO-BASE.

### Specifications

#### Controller

Dimensions.....	10.7"l, x 3.5"w, 2.50"h
Mounting.....	Mounts on top of the MCS-IO-BASE on top of the MCS-IO-BASE by 5 nylon standoffs and 2 stackers headers (included on MCS-IO-BASE)
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 inputs on base 0-5vdc with MCS-IO-EXT - 32 inputs total
Analog Outputs.....	4 outputs on base 0-10vdc with MCS-IO-EXT - 8 AO outputs
Relay Outputs .....	10 outputs on base 5amps @ 230VAC
Printed Circuit Board .....	Four layer with separate power and ground planes
Input Power .....	Powered by MCS-IO-BASE Power 12 vdc Regulated Power Supply
Minimum (Brown in) .....	9.29 vdc
Amp Draw (Loaded) .....	1.02 Amps
Power Detection .....	Automatic Power Fail Reset on MCS-IO-BASE

#### Packaging

Ship Weight .....	1.21 lb (approx)
Box Dimensions.....	12" x 5" x 3" (approx)

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