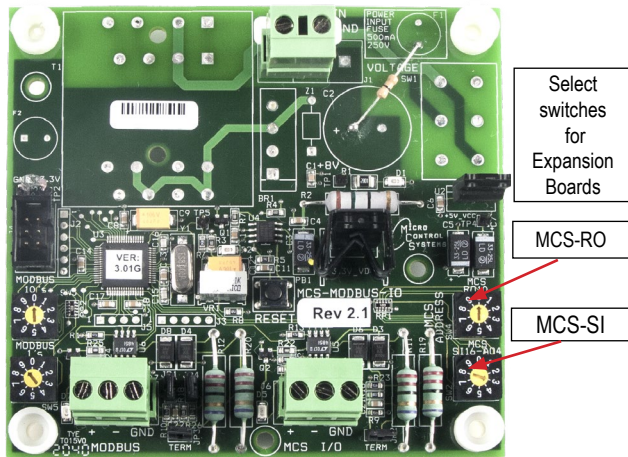# MCS-MODBUS-I/O-12
Description & Specifications

RoHS Compliant ✓

Part # **MCS-MODBUS-I/O-12**

Description

The **MCS-MODBUS-I/O-12** gives the MCS-MAGNUM the ability to act as a Modbus Master using the Modbus RTU Protocol. This allows the **MCS-MAGNUM** to communicate to Modbus slave devices (such as Variable Frequency Drives, Compressors, etc.) to send and access parameters.

The MCS-MODBUS-I/O-12 performs like a **MCS-RO-BASE** and **MCS-SI-BASE** expansion boards to the MCS-MAGNUM. This allows the MCS-MAGNUM to control 10 relays, 4 analog outputs and read 16 sensors.

Specifications

Dimensions............................4.25"w, 4.00"h, 2.50"d
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)
Printed Circuit Board ....Four layer with separate power and ground planes
Input Power (Standard)...........12 vdc Regulated Power Supply
Minimum (Brown in) ....8.94 vdc
Amp Draw (Loaded) ....87.0 mA
Power Detection ....Automatic power fail reset
MCS-I/O Comm Port ....1 at 38,400 baud
Modbus Comm Port..............RS485 with optional baud rates of 9600, 19200, and 38400
Other Settings.......................1 stop bit, 8 data bits, No Parity

Packaging

Kit of (4) #6 x 1" phillips panhead zinc plated steel screws

Ship Weight .... 0.87 lb (approx)
Box Dimensions................ 5.75" x 5.25" x 3.25" (approx)

Multiple MCS-MODBUS-I/O-12 boards may be connected to the MCS-MAGNUM following MCS-I/O standards.
The MCS-MODBUS-I/O-12 has pre-defined configurations that are field selectable via the PROGRAM TYPE dials, up to 99 different slave devices, *one Modbus per slave.*
Please see the MCS-MODBUS manual for a current list of inputs and outputs for the pre-defined configurations.
The MCS-MODBUS can be shipped from the factory with the switches set for your configuration.
By setting the program select to '9', the MCS-MODBUS-IO board can also be configured by the user with free configuration software, MCS-CONNECT.

PROGRAM SELECT CHART	
PROGRAM SELECT	**CONFIGURATION NAME**
0	YASKAWA VFD A1000-HARDWIRED / MODBUS
1	TURBOCOR CMP
2	Reserved for future
3	DANFOSS VLT DRIVE
4	BITZER Compressor
5	DANFOSS CDS 303 DRIVE
6	EMERSON_CSD-100
7	MCS-POWERMETER 3037
8	RUKING_VFD
9	USER
10	ABB AC880
11	EMERSON EVC-1150B
12	SKF/MBC
13	KEB VFD
14	SKF/MBC - TANDEM
15	KEB VFD - TANDEM
16	ABB-ACH580
17	RHYMEBUS RM6F5
18	RHYMEBUS RM6G1
19	**DELTA VFD** (non Hanbell RTM compressors)
20	ONICON D100
21	**DELTA VFD** (only for Hanbell RTM compressors)
22	DELTA MBC
23	**DELTA MBC & VFD** (only for Hanbell RTM compressors)
24-99	Reserved for Future Development

10's switch each number moves 10

1's switch each number moves 1

Program Type Switch 9 is reserved for 'USER' setup