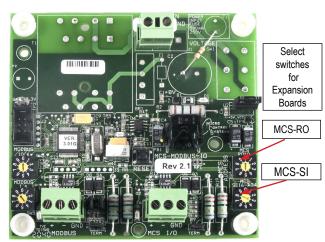


# MCS-MODBUS-I/O-12 Description & Specifications





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**

	Firmware Ver. 3.01L	
	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
t	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 ME300
	20-99	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