# Micro CONTROL SYSTEMS

# MCS-CENTRIFUGAL-12

### **INDUSTRIAL CONTROL PANEL**



Part # MCS-CENTRIFUGAL-12

# **Description**

The MCS-CENTRIFUGAL-12 Industrial Control Panel is made of powder-coated aluminum for durability and longevity. A left hand swing door is mounted with three eight-inch hinges for strength. A key lock is provided for security on the door while still giving easy access of the Touch Screen.

The MCS-CENTRIFUGAL-12 comes standard equipped with a MCS-MAGNUM-N controller board, 15.4" Touch Screen, three 16 amp, one 20 amp and one 5 amp circuit breakers. There is also a 15A electrical outlet for laptop plug-in power at the panel and a Ground Bar for Sensor input shields.

The MCS-CENTRIFUGAL-12 has the following expansion boards installed: One(1) MCS-SI-Base, and One(1) MCS-SI-BASE with MCS-SI-EXT, ONE(1) MCS-RO-Base with MCS-RO-EXT.

Standard configuration includes: isolation relays, BMS Network connectivity, (Field selectable hardware or network BMS), and BMS Terminal block for chiller relay.

The following warning lights and switches are included in the standard panel; Alarm, Warning, Emergency Switch and Hand/Off/Auto Switch.

UL 508A certification provides the inspection authority and your customer evidence that the control panel complies with nationally recognized safety standards. These standards ensure public safety and provide assurances that the electrical control panel is compliant with national and local electrical codes.

## **Specifications**

Certification.....UL508A

#### **NEMA Rating - Type 1 Control Panel - IP20 Rating**

Control Panel is intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment and is not protected from liquids.

#### **Industrial Control Panel**

#### **Temp. Range for Control Panel & Touch Screen**

Operating Temperature4°F to 158°F (-20°C to 70°C)
Operating Humidity0-95% Non-Condensing
Storage Temperature4°F to 158°F (-20°C to 70°C)

#### **Controller Specification**

Microprocessor	. Zilog eZ80 Acclaim! @ 50mhz
Sensor Inputs (SI)	. 12 inputs 0-5vdc (10-bit A/D)
Digital Inputs	. 4 inputs 0 or 5vdc only
Relay Outputs (RO)	. 10 outputs 6.3amps @ 230vac
Analog Outputs (AO)	. 4 outputs 0-10vdc
Printed Circuit Board	. Six layer with separate power
	and ground planes
Input Power (Standard)	12 VDC - 90W
MCS-I/O Comm Port	. 1 @ 38,400 baud
RS-485 Comm Port	. 1 @ 19,200 baud
Ethernet	. 10/100 Mbps Ethernet
Real Time Clock	. Battery backup
Power Detection	. Automatic power fail reset

#### **Touch Screen 15.4 - Specification**

**Dimensions** 

DIITICI 1310113	17 L X 12.11 VV X 0.220 11
	Gasket Material HT-800
	Medium Cellular Silicone
	NEMA 4 rating
LCD Screen	15.4" (16:10 Diagonal)
	16.2 Million Colors
	1280x800 Resolution
	Power Input 12Vdc 2 amps
MotherboardRev 4.0	Freescale i.MX6 Dual Core 800mhz
	2Gb of 512mhz DDR3 RAM Mem.
	16Gb of eMMC Flash memory
	1Gb Ethernet (100Mb/10Mb comp.)
	1 Micro-SD Slots;
	1 USB On-The-Go (OTG)
	2 USB Host 2.0; Real Time Clock
	3 RS485 communication ports

17"L x 12 11"W x 3 228"H

(max. baud rate 115k)

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