



# MCS-NitroMag-PANEL

## Description & Specifications



Included:  
WiFi / Bluetooth Antenna  
& extended cable



File No: E169780



## Description

The **MCS-NitroMag-PANEL** is a system module containing a Keypad, a processor, memory, eMMC Flash, and supporting power circuitry. The Broadcom quad-core processor delivers a blazing speed of 1.5GB.

The MCS-NitroMag-PANEL features an easy-to-use keypad with three function keys, four directions keys and two selection keys (Menu & Enter).

The display LCD is 128 x 64 dot pixel graphics, 2.8" diagonal viewing area with White characters on a dark background (reversible). Includes a NEMA type 1 faceplate for easy installed on backplane inside an enclosure.

The MCS-NitroMag-N controller allows for 144 SI inputs, 90 RO outputs, and 36 AO outputs. (Expansion Boards required).

It comes with a built-in WiFi interface for internet and device connectivity, and an onboard WiFi antenna connection.

Includes a Modbus interface which enables it to act as a Modbus Master using the Modbus RTU protocol, which allows communication with Modbus slave devices for parameter access.

### It features various connection ports for:

- 2 HDMI ports (1 Standard & 1 Micro)
- WiFi antenna connection
- Bluetooth connection
- 12vdc power supply connection
- Ethernet port (10 Mbps/100 Mbps/1Gbps)
- Two RS-485 Ports up to 115200 baud rate
- MCS-IO port for communicating with expansion boards

## Specifications

### Keypad Panel

Panel overall Size.....5.5"W x 8.625"h x 2.0"d  
(140mm x 219mm x 50.8mm)  
Mounting..... Mounts on a backplane using  
four #6 (6-32) sheet metal screws  
Display..... 128 x 64 dot pixel STN  
monochrome graphics LCD  
with 2.8" diagonal viewing area  
Color..... White characters on a blue  
background (Reversible)  
Keypad Size .....5.26"w x 8.50"h (8 mounting studs)  
Keypad Layout..... 9 keys (3 function keys)  
Connection..... 6 conductor shielded cable  
(max length of cable is 10 feet)  
Operating Temperature.....-40°F to +185°F (-40°C to +85°C)  
Operating Humidity..... 0-95% Non-Condensing  
Input Power (Standard) ..... +12vdc at 0.6amps (fully loaded)  
Controller  
Microprocessor..... Broadcom BCM2711 Quad core  
Cortex (ARMv8) 64-bit SoC @ 1.5Ghz  
Flash Memory.....16 GB EMMC

| INPUT   | MINIMUM | NOMINAL | MAXIMUM |
|---------|---------|---------|---------|
| VOLTAGE | 10      | 12      | 12.5    |
| AMPS    |         |         | 0.5     |

RAM.....2 GB DDR3  
MCS-I/O Comm Port ..... 1 @ 38,400 baud  
RS-485 Ports ..... 2 @ go up to 115200 baud rate  
Ethernet ..... 10 Mbps/100Mbps/1Gbps  
HDMI. .... 2 HDMI 2.0 ports-Standard and Micro  
WiFi ..... 2.4 GHz, 5.0GHz 8.02 b/g/n/ac wireless  
Bluetooth ..... Bluetooth 5.0, 24GHz Bluetooth Low Energy (BLE)  
USB ..... 2 USB type B 2.0 ports  
480Mbps signalling  
Protocols..... BACnet IP, BACnet MSTP, Modbus IP,  
Modbus RTU Slave, Modbus RTU Master (BTL certification)  
Real Time Clock.....Battery backup(Type BR2032)  
Power Detection.....Automatic power fail reset

### POWER SUPPLY NOT INCLUDED

### Packaging

Keypad w/MCS-NitroMag controller installed, WiFi Antenna  
Ship Weight..... 2.00 lbs (approx)  
Box Dimensions..... 14" x 9.5" x 2.5" (approx)