

Centurion PLUS™ Control Panel

The Centurion PLUS Configurable Control Panel (C4) is the latest evolution in Murphy's controller technology. This full-featured controller provides the stability of proven technology combined with the latest HMI touch screen for greater expandability and user interface.

The Centurion Plus panel features custom application programming as well as full-time data logging and expandable communication capabilities.

Specifications

Power Input: 10 -32 VDC

Operating Temp: -40° to 185° F (-40° to 85° C)

Operating Temp (touch screen): 32° to 122° F (0° to 50° C)

Display Module (Head): Choose from standard MV-3-C LCD with graphic display, standard full-color VGA 6 in. or 10 in. Touchscreen

Main I/O Module:

CPC4-1-A: 32 DI, 10 DO, 12 AI, 8 TC, 2 AO, 1 MPU

Expansion Module:

MX4: 18 TC (Type J or K), MX5: 24 DI, 8 DO, 10 AI, 1 MPU.

MX5-A: 8 DO, 8 AI, 4 AO, 1 MPU. MX5-D: Same I/O as MX5, additional 8 digital outputs.

DI=Digital Input; DO=Digital Output; AI=Analog Input; AO=Analog Output; TC=Thermocouple Input; MPU=Magnetic Pick Up Input; RTD=Resistive Temperature Device

Application Firmware: Programming Proprietary C language - PC-based upload/download set point editor

CPC4-1-A Main I/O Module

- All I/O options individually software selectable. No jumpers required
- 32 optically isolated DC digital inputs: NO or NC, (active high/active low), non-incendive
 - LED indicators
 - Approved for use with general purpose switches in hazardous areas
- 12 analog inputs: 0-24mA or 0-5VDC , 10 bit hardware
- Eight thermocouples
 - Open thermocouple
 - Cold junction compensation
- One magnetic pickup input/AC run signal: 30 to 10kHz, 4.5VAC rms min, 120VAC rms max.
- 10 digital outputs:
 - LED indicators
 - 4 relay outputs, form C, dry contacts
 - 4 FET outputs (source)
 - 2 FET outputs (sink)
- Two analog outputs
 - 4-20mA, 16 bit hardware
- 3 Communication Ports:



Port 1 (SERIAL):

- Interface: RS232 or RS485
- Protocol: MODBUS RTU (slave)

Port 2 (SERIAL):

- Interface: RS232 or RS485
- Protocol: MODBUS RTU (slave), proprietary (configuration transfer)

Port 2 (USB): Interface: USB 1.1 compliant port

- emulating RS232 communications via PC driver
- Protocol/Services: MODBUS RTU (slave), proprietary (configuration transfer)

- Connection: USB Type B connector
- Automatic selection of USB when a signal is detected on the USB Type B connector

Port 3: Interface: CAN bus

- Protocol/Services: Proprietary communications for expansion I/O module support

Warranty — A limited warranty on materials and workmanship is given with this Murphy product. A copy of the warranty may be viewed or printed by going to www.fwmurphy.com/support/warranty.htm

MV-3-C Display Module with Graphical LCD

- Operating temperature: -40° to 185° F (-40° to 85° C)
- 320x240 pixels, LCD display with backlight
- 12-key keypad for user interface for set point entry, alarm acknowledgment, start, stop, reset, etc.
- Communications
 - RS232/RS485-1 (MODBUS master)
 - RS485-2 (reserved)
 - USB 1.1 compliant ports
 - Type A (reserved)
 - Type B (firmware updates)
 - CAN 1/2 (reserved)
- Customizable process screens (up to nine)
 - Line by line
 - Gage
 - Control loop
 - Generic register



Full-Color VGA Touch Screen

- Operating temperature: 32 to 122° F (0 to 50° C)
- Full-color VGA touch screen (resistive analog)
- 6" standard offering, 10" upgrade
- Data logging - 1 GB memory card
- Data log transfer on the fly
- Communications
 - Serial RS232 - 2
 - Serial RS485 - 1
 - USB 1.1 - 1
 - Ethernet (several protocols supported including, but not limited to MODBUS TCP, TCP/IP Internet Web server)
- Five-button keypad for on screen menus (6")
- Eight-button keypad for on-screen menus (10")
- Standard screen offerings
- Front panel power LED
- 24 VDC powered



Expansion I/O Modules

MX4 Expansion I/O Module

- All I/O options individually software selectable. No jumpers required.
- 18 thermocouple inputs: Type J or K, 12 bit hardware
 - Open thermocouple detection: Drives channel reading high (max of scale)
 - Cold junction compensation
- One magnetic pickup input: 4.5VAC – 120 VAC, 30 – 10kHz

MX5 Expansion I/O Module

- 24 Digital Inputs: Optically-isolated DC digital inputs, (active high/active low), non-incendive
- 10 analog inputs: 4–20mA or 0–5VDC, 10 bit hardware
- Eight digital outputs: open collector transistor. 150mA (sink)
- One magnetic pickup input: 4.5VAC–120VAC, 30–10kHz

MX5-A Expansion I/O Module

- Eight analog inputs: 0-24mA or 0-5VDC, 10 bit hardware
- Eight digital outputs: open collector transistor, 150mA (sink)
- Four analog outputs: 4-20mA, 16 bit hardware
- One magnetic pickup input: 4.5VAC – 120 VAC, 30 – 10kHz

MX5-D Expansion I/O Module – Analog Output Option

- 24 digital inputs: optically isolated DC digital inputs, (active high/active low) non-incendive
- 10 analog inputs: 4–20mA or 0–5VDC, 10 bit hardware
- 16 digital outputs: open collector transistor. 150mA (sink)
- One magnetic pickup input: 4.5VAC–120VAC, 30–10kHz

How to Order

Select a Centurion Configurable Controller
CPC4-1-A

Specify any combination up to three Expansion I/O
Modules

MX4 MX5 MX5-A and/or MX5-D

Specify One Display
MV-3-C LCD

6-inch VGA Touch Screen

10-inch VGA Touch Screen

The minimum system requirements:
CPC4-1-A Main I/O Module
Display capable of MODBUS communications

The Murphy MV-3-C Display Module is a highly integrated HMI for use with the Centurion system and is recommended for most customers.

Some systems may require additional I/O which is available on the MX4 or MX5-A expansion I/O modules.

Part Number	Model and Description	Notes
Specify Model	CPC4-1-A, Centurion Controller	
	MV-3-C, Monochrome display	
	6-inch VGA touch screen	
	10-inch VGA touch screen	
	MX4 expansion I/O module	
	MX5-A expansion I/O module	
50000774	Ignition noise (choke) filter	
00030866	CPC4-1-A Plug kit	Printed replacement terminal plugs for main I/O module
00030867	MX4 Plug kit	Printed replacement terminal plugs for MX4 expansion I/O module
00030868	MX5 Plug kit	Printed replacement terminal plugs for MX5 expansion I/O module