MURPHY®
by ENOVATION CONTROLS

ML2000 Panel
MurphyLink® Series

The MurphyLink Series ML2000 Panel, engineered and built by Enovation Controls' Industrial Panel Division, is a superior panel offering which includes the powerful, yet simple-to-configure MPC-20 Controller. This controller is part of the Murphy PowerCore® family and was developed to meet the need of manual or automatic control whether it's starting/stopping, throttling or both. This controller also has the flexibility to be used on either mechanically or electronically governed engines supporting SAE J1939 CAN communications.

The ML2000 panel has the ability for the software to be fully configured from the front user interface or PC configuration tool. If the default parameters set by Enovation Controls are not the desired set points for a factory default reset, the packager or operator has the ability to change these settings with the PC configuration tool then load with a USB thumb drive[1] and USB programming harness[1]. The configuration tool also allows for the splash screen to incorporate a company logo when powered on.

The flexibility of the MPC-20 controller allows for the same control panel to be used across many applications. This provides the operator familiarity with the controller and control panel in any application. The Control Panel utilizes industry standard Deutsch connectors and is compatible for use on the simplest mechanical engine to the most advanced, fully electronic Tier 4 engines, when used with the correct Murphy Industrial Harness[2] (MIH) or John Deere OEM engine harnessing.

The ML2000 Series panels are available in two rugged enclosures or a stand-alone flat panel option that can be dropped into an existing panel or engine surround/dog house. The enclosure types to choose from are powder-coated cold rolled steel or polycarbonate NEMA 4X. Optional mounting kits are offered for the sheet-metal enclosure, which provide packagers and operators numerous mounting solutions to meet multiple applications.

[1]USB thumb drive and programming harness sold separately from the control panel.

[2]Please contact Industrial Panel Sales for application specifics and MIH harnessing.

Specifications

MPC-20 Controller
Operating Voltage: 8-32 VD
Operating Temperature: -40° to +85° C (-40° to 185° F)
Storage Temperature: -40° to +85° C (-40° to 185° F)

Total Current Consumption:
18 W Max without 2 2 A High-sides active
146 W Max with 2 2 A High-sides active

Enclosure: Powder-coated cold rolled steel or polycarbonate

Mating Connectors:
21 Position, Deutsch HDP26-24-21SE
31 Position, Deutsch HDP26-24-31SE

Shipping Weights:
ML2000: 13 lbs (5.9 kg)
ML2000-FP: 7 lbs (3.17 kg)
ML2000-4X: 11 lbs (4.99 kg)

Communications: CAN (SAE J1939) and RS-485 Modbus

Outputs (13):
(2) 1 A Max Low-side
(2) 2 A Max High-side
(2) 200 mA Max 5 VDC
(1) 0-5 VDC Analog
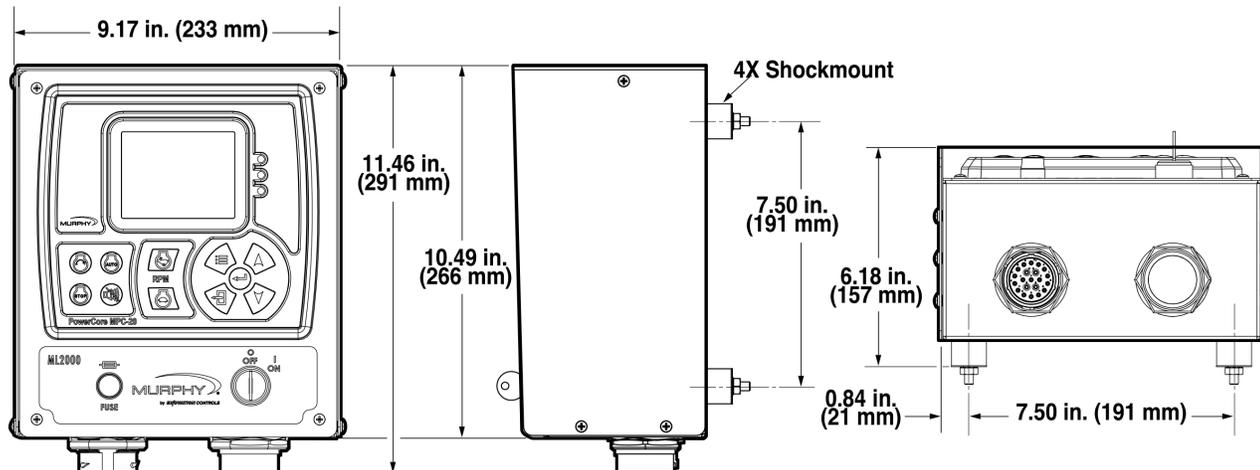(6) 10 A Max Form C Relays

Inputs (15):
(8) Analog, configurable as Resistive, 0-5 VDC or 4-20 mA
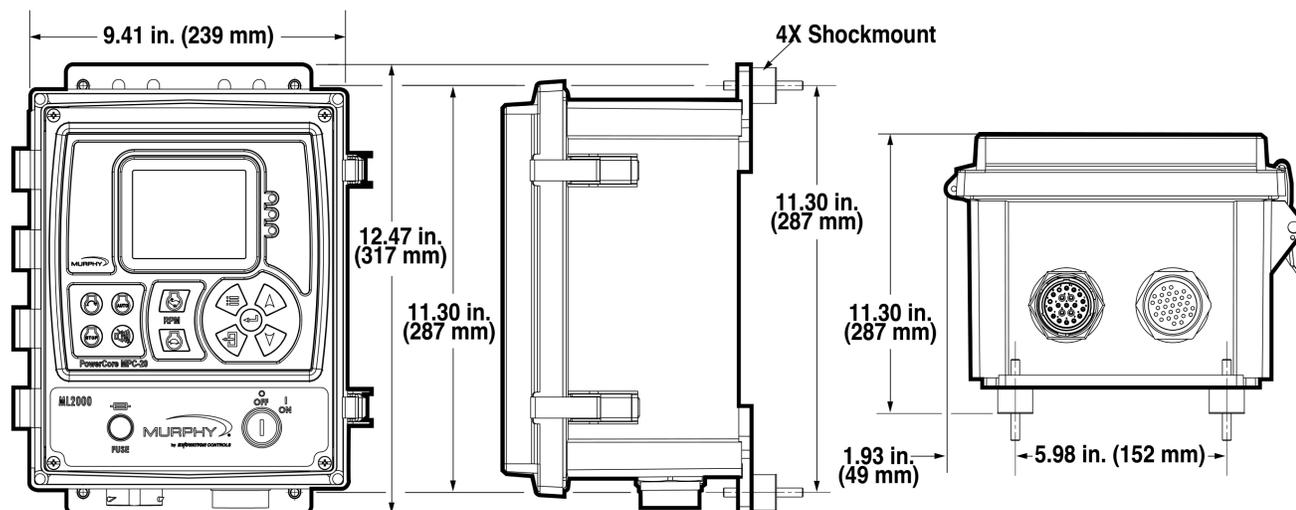(6) Digital, Configurable as Battery or Ground
(1) Frequency, (2 Hz - 10 KHz, 3.6 VAC-120 VAC)

Product and Mounting Dimensions

ML2000

9.17 in. (233 mm)

11.46 in. (291 mm)

10.49 in. (266 mm)

4X Shockmount

7.50 in. (191 mm)

6.18 in. (157 mm)

0.84 in. (21 mm)

7.50 in. (191 mm)

ML2000-4X

9.41 in. (239 mm)

4X Shockmount

12.47 in. (317 mm)

11.30 in. (287 mm)

11.30 in. (287 mm)

11.30 in. (287 mm)

11.30 in. (287 mm)

1.93 in. (49 mm)

5.98 in. (152 mm)

How to Order

Part Number	Model and Description	Notes
40700499	ML2000, Metal Control Panel	
40700500	ML2000-4X, Polycarbonate, NEMA 4X Control Panel	
40700501	ML2000-FP, Flat Control Panel	
40000479	Deutsch Connector Kit, 21-pin & 31-pin, Panel Connector Kit	
40000531	Deutsch Connector Kit, 21-pin, Panel Connector Kit, Engine Only	
78700046	Deutsch Connector Kit, 31-pin, Panel Connector Kit, I/O Only	
40000553	Harness, ML2000, Mechanical, 10' Blunt, 21 Pos, 10' Mechanical Engine Whip Harness	
40000565	Harness, ML2000, I/O, 10' Blunt, 31 Pos, 10' I/O Whip Harness	
40000566	ML2000 USB Programming Harness, 6-pin to USB Programming Harness	