



**ENOVATION**  
CONTROLS™

**MURPHY**

# POWERFUL, CONFIGURABLE CONTROLLER FOR MECHANICAL AND ELECTRONIC ENGINES

POWERCORE™  
**MPC-10**  
CONTROLLER

**ML1000**  
PANEL



- Operates with 12VDC or 24VDC systems
- Three Configurable Levels of Passcode Protection
- Flexible Input Sensor Types For the Analog Inputs
- Analog Inputs Can Be Used as Digital Ground Inputs
- Designed For All Weather Environments



The Murphy PowerCore MPC-10 Controller is a general, all-purpose manual/auto start and manual/auto throttling engine controller designed with rental applications in mind. This is a powerful controller that supports J1939 CAN protocols for electronically governed engines as well as I/O for mechanical engines for fault and safety shutdowns.

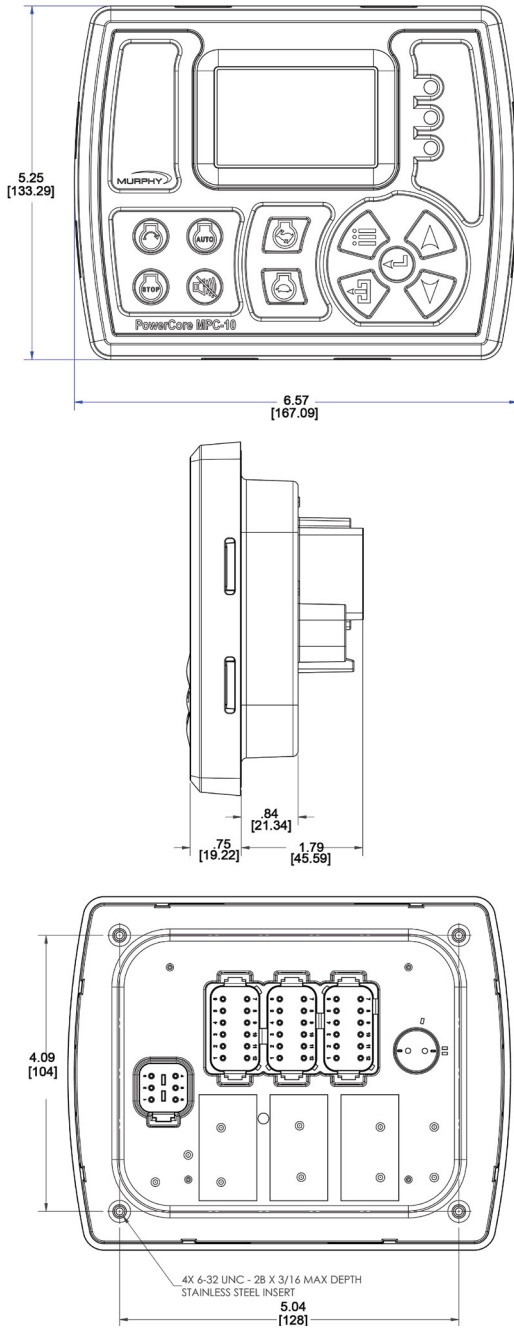
The MPC-10 boasts three levels of menu security which can easily be set with the configuration tool.

The MPC-10 follows a standard operating sequence of 22 machine states that happen in a predetermined order. Machine states can be set to zero if not needed or adjusted to fit the application. The menu structure is incredibly user friendly, with the ability to change many parameters and settings from the face without the need of a PC tool, if desired.

Available In A Panel As  
**ML1000-4X**



## MPC-10 SPECIFICATIONS



- Display: 2.7" WQVGA Monochrome HR-TFT 400x240
- Keypad: 11 Tactile Feedback Buttons
- LED:
  - (1) Red, Shutdown
  - (1) Amber, Warning
  - (1) Green, Auto Mode or Running Loaded State
- Inputs:
  - (5) Digital, configurable (high/low)
  - (3) Analog, configurable (4-20mA, 0-5V, resistive)
  - (1) Frequency, supporting Magnetic pickup (30Hz - 10kHz, 2.0VAC-120VAC) and Engine Alternator (30Hz - 10kHz, 4.5 VRMS - 90 VRMS)
- Outputs:
  - (3) Relays: 10A, SPDT, Form C (30 VDC @ 10A max.), 40A max aggregate @ 85C
  - (2) Low-side (1A)
  - (2) High-side (1A)
  - (1) Dedicated Alternator Excite (provides Charge Fail Fault if unable to excite alternator)
- Communications:
  - (1) CAN J1939
  - (1) RS485, MODBUS RTU
  - (1) USB 2.0B for Programming
- Total Current Consumption: Power on in stopped state: 117 mA at 12 VDC. Power on in standby mode: 52 mA at 12 VDC.
- Cranking Power Holdup: 0 VDC up to 50ms (also good for brownout/blackout instances)
- Dimensions: 167.09mm (L) x 133.29mm (H) x 64.81mm (W)
- Weight: 1lb. 1oz.
- Operating Temperature: -40°C to +85°C (-40°F to 185°F)
- Storage Temperature: -40°C to +85°C (-40°F to 185°F)
- EMI/EMC: SAE J1113
- Shock: 50G in 3 axes (X,Y,Z)
- Vibration: Random, 7.86 Grms (5-2000Hz), 3 axes (X,Y,Z)
- Sealing: IP67 front and back, IP66 panel seal with accessory gasket
- Case: Polycarbonate/ABS
- Mating Connectors:
  - Deutsch W12S-PO12 locking wedges
  - Gray DTO6-12SA-PO12
  - Black DTO6-12SB-PO12
  - Green DTO6-12SC-PO12
  - USB 6 pin
- Languages: English, Spanish, German, French, Italian
- Shipping Weight: 2lbs. 7.1 oz. (1.11 kg)
- Shipping Dimensions: 8 x 8 x 5-11/16 in. (204 x 204 x 127 mm)

## Approvals



\* Approved by CSA for non-hazardous locations in North America (Group Safety Publication CSA/UL 61010-1 3rd Edition)

Products covered in this document comply with European Council electromagnetic compatibility directive 2004/108/EC and electrical safety directive 2006/95/EC.

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