



POWERFUL, CONFIGURABLE CONTROLLER FOR MECHANICAL AND ELECTRONIC ENGINES



- 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.

MURPHY®

by **ENOVATION** CONTROLS

POWERCORE®
MPC-10
CONTROLLER

ML1000-4X
PANEL



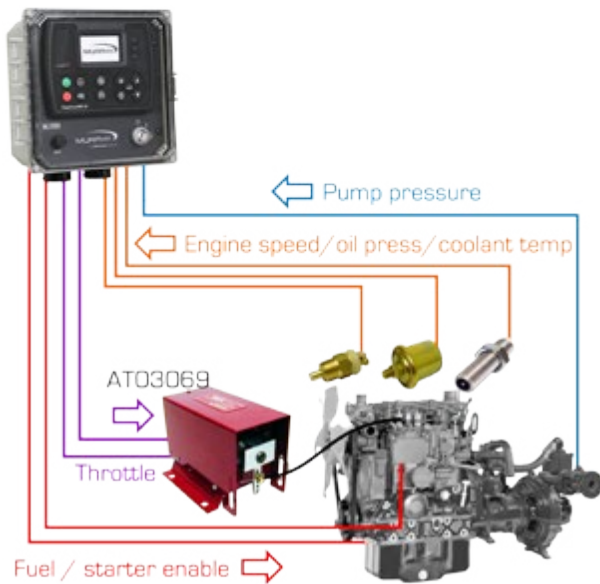
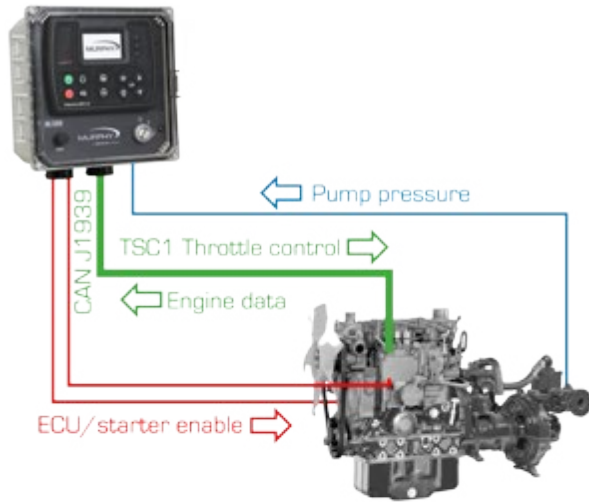
Available As A Panel Solution

ML1000-4X



POWERCORE®
ML1000-4X
PANELS

Configuration Examples



MPC-10 SPECIFICATIONS

- Power Input: 8-32 VDC, reverse polarity & load dump protection
- Display: 2.7" WQVGA Monochrome HR-TFT 400x240
- Keypad: 11 Tactile Feedback Buttons
- LEDs: (3) Red Shutdown, Amber Warning, Green Auto Mode or Running Loaded State
- Inputs:
 - (5) Digital, configurable (high/low)
 - (3) Analog, configurable (Resistive 4-20mA, 0-5V, or Digital Low)
 - (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.), 30A 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 [w,h,d]: approx: 6.57" x 5.25" x 2.55" / 167mm x 133mm x 64mm
- Weight: 1lb. 1oz. (481g)
- Operating / 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-P012 locking wedges
 - Gray DT06-12SA-P012
 - Black DT06-12SB-P012
 - Green DT06-12SC-PO12
 - USB 6 pin
- Languages: English, Spanish, German, French, Italian

ML1000-4X SPECIFICATIONS

- MPC-10 Control Module, specifications as above
- Connectors: 21-way & 31-way Deutsch HDP26-24 series
- Dimensions [w,h,d]: approx. 10.21" x 9.3" x 6.09" / 259mm x 236mm x 155mm

MPC-10 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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