

EMS PRO LITE Engine Monitoring System Controller



Features

- Supports Mechanical and J1939 Electronic Engines
- Automatic Start/Stop
- Backlit Graphical Display
- Shutdown History File
- First-out Shutdown and/or Alarm Indicating LEDs
- Field Adjustable Parameters
- Supports TSC1 Throttle Messaging
- Wide Operating Temperature Range
- IP65 Rated
- Internet-ready utilizing MODBUS®* RTU with Auxiliary Equipment

* MODBUS is a registered trademark of its respective owner and not affiliated with FW Murphy.

The EMS PRO LITE is a customizable pump-controller designed specifically with dewatering and irrigation applications in mind. This versatile unit supports both Mechanical and J1939 Electronic engines, thus eliminating the need to stock multiple controllers. A step ahead, the EMS PRO LITE is Tier 4 & Stage IIIB/IV ready. This includes displaying the current Urea level % on the LCD.

The operator interface is a responsive 8-button membrane keypad and backlit graphical display mounted directly to the front of a rugged NEMA 4 enclosure.

A microprocessor-based controller, the EMS PRO LITE operating parameters are field-adjustable without the need for a computer. However, the EMS PRO LITE can be modified for use with a remote modem or in a SCADA system with MODBUS® RTU protocols on either an RS232 or RS485 port.

EMS PRO LITE offers Auto Start/Stop with 2-Float, Transducer settings (pressure and level), or Clock start/stop using the internal real time clock. Throttle to Level, Pressure, or maximum RPM (desired RPM) is offered. The robust EMS PRO LITE is engineered for 12 VDC systems (8 VDC minimum to 14.4 VDC maximum) and a wide operating temperature.

Communications

The EMS PRO LITE has RS485, RS232 and J1939 CAN communication ports. The standard unit uses RS485 or RS232 for Modbus RTU. At the same time, the CAN port allows J1939 communication with the engine ECU to display engine parameters and control the throttle via TSC1, if supported by the engine.

How to Order

| Part # | Description |
|--------------------|--|
| 40700305 | EMS PRO LITE |
| Accessories | |
| 40000521 | 21-pin and 9-pin, 10 ft (3.048m) Whip Harness Kit for Mechanical Engines |
| 40000522 | 9-pin, 10 ft (3.048m) Whip Harness for I/O |
| 40000523 | 9-pin Connector Kit for I/O with terminals |
| 40000524 | 21-pin and 9-pin Connector Kit with terminals |
| 40000526 | 21-pin, 10' (3.048m) Whip Harness for Mechanical Engines |
| 40000531 | 21-pin Connector Kit with terminals for engine connector |

Murphy Industrial Harness: Please contact *Industrial Panel Sales* for application-specific MIH harnesses for electronic engines

Specifications

Operating Voltage: 8 VDC Minimum to 14.4 VDC Maximum **Operating Temperature:** -40° to 80°C (-40° to 176°F)
Relative Humidity: 95%RH @ 60°F (140°C) **Storage Temperature:** -40° to 80°C (-40° to 176°F)
Enclosure: Polycarbonate NEMA 4 (UL/cUL listed) **Environmental Sealing:** IP65
Shipping Weight: 7 lb. (3.2 hg)
Shipping Dimensions: 12" x 12" x 10" (304.8 x 304.8 x 254 mm)

Analog Inputs: 6 Analog Inputs designed via program; sender/ground digital 4-20mA, 0-5 VDC
Digital Inputs: 4 Digital Inputs High/Low (2 inputs dedicated for auto and manual states of key switch)
Frequency: 1 optically isolated input for speed reference, magnetic pick-up, (2VAC-50VAC RMS, 30-10kHz)
Fuel Sender Input: 33 Ohm full, 240 Ohm empty. This input can also be configured for an external auxiliary shutdown
Analog Output: 4-20mA or 0.4 to 4.2VDC (used for 0.4 – 4.2V throttling)
Digital Outputs: 6 Digital Outputs; 3 FET B+ (rated at 1A), 3 Open Collector sink-to-ground 100 mA (one of these is used to pilot a relay)
Communications: RS485, RS232, CAN J1939, CAN 2.0B ports

Product Dimensions

