

EMS Pro Lite

Engine Monitoring System Controller

The EMS Pro Lite is a customizable pump controller designed specifically for dewatering and irrigation applications. 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 and Stage IIIB/IV ready. This includes displaying the current urea level % on the LCD.

The operator interface is a responsive eight-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's 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.

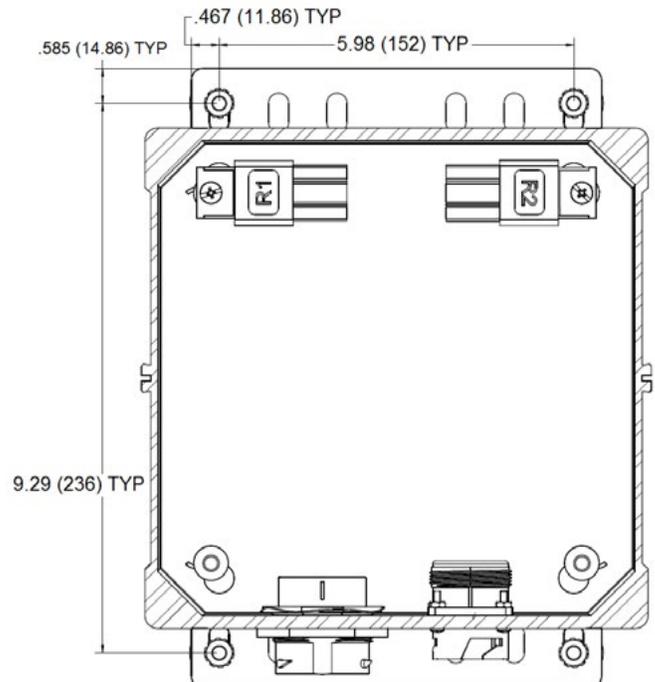
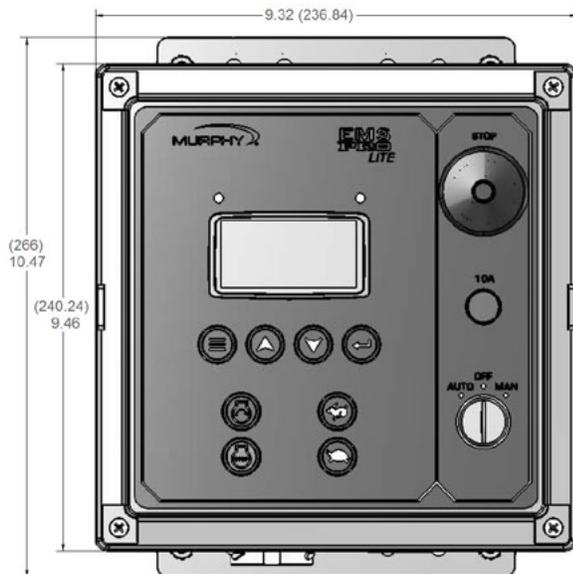
EMS Pro Lite offers Auto Start/Stop with 2-Float, Transducer settings (pressure and level) or Clock start/stop using the internal real-time clock. Throttle to Level, Pressure or Maximum RPM (desired RPM) is offered.

The robust EMS Pro Lite is engineered for 12 VDC systems (8 VDC minimum to 14.4 VDC maximum) and a wide operating temperature.



*MODBUS is a registered trademark of its respective owner and is not affiliated with Enovation Controls.

Dimensions



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.

Specifications

Operating Voltage: 8 VDC minimum to 14.4 VDC maximum

Relative Humidity: 95% RH @ 60°F (15.5°C)

Enclosure: Polycarbonate NEMA 4 (UL/cUL listed)

Shipping Weight: 7 lb. (3.2 hg)

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, (2 VAC - 50 VAC 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 4.2 VDC (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

Shipping Dimensions: 12 x 12 x 10 in. (304.8 x 304.8 x 254 mm)

Operating Temperature: -40 to 176° F (-40 to 80° C)

Storage Temperature: -40 to 176° F (-40 to 80° C)

Environmental Sealing: IP65

How to Order

Part Number	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 ft (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 harnesses for electronic engines.	