



| | |
|-------------------------|--------------------|
| 45 PSI OIL PRES | 196 °F ENG TEMP |
| 11.1 VDC SYS BAT | 1650 RPM ENGINE |
| ST: AT LOAD NO ALARM | |

COMPACT
FLEXIBLE
ALL-IN-ONE
INDUSTRIAL
PUMP CONTROL



MURPHY

ELECTRONIC MONITORING SYSTEM
CONTROLLER

**EMS
PRO**

ONE EASY-TO-USE CONTROL.

MANY APPLICATIONS.



The EMS PRO is a rugged, all-in-one industrial controller designed for use across multiple engine lines. Driven by customer demand, the EMS PRO is flexible enough to meet the needs of engine-driven pumping equipment applications.

A dedicated, micro-processor-based single-engine controller, the EMS PRO offers field-adjustable operating parameters that can be changed without the need for a laptop computer. Able to support both mechanical and J1939 electronic engines, the EMS PRO is ideal for use with a remote modem or in a SCADA system offering Modbus RTU protocol on either the RS232 or RS485 port.

Selectable auto start/stop, many auto throttling options and manual operation – all at the touch of a button – are among the many performance-enhancing features of the EMS PRO via a back-lit operator interface, readable day or night.

EASY TO INSTALL. EASY TO LEARN. EASY TO USE.



FEATURES

- Designed for Interim Tier 4 Engines
- NEMA 4 Enclosure
- Backlit Graphical Display
- Alarm & Shutdown LEDs (Amber/Red)
- IP66 Rated Sealing
- Language Choice (English/Spanish)
- Easy-set, Real-time Clock in 24-hour Format
- Eight Touch Buttons, Key Selector Switch
- Compact Size
- Battery-Saving "Sleep-Mode" Timer



HARDENED FOR USE IN THE REAL WORLD.

Able to withstand a wide ambient temperature range, the EMS PRO comes standard in a NEMA 4 rated enclosure secured by four rubber shock mounts. Inside is a backlit graphical display visible in all types of conditions. Easily accessible touch buttons and a large, clear cover round out the compact, fully functional control unit.

Operators can choose from many start/stop and throttling options, as well as manual starts and throttling with very basic training on both mechanical- and electronic-control engines. Auto-start and time-stamping are quickly accomplished through the easy clock set-up. Other built-in functions include auto-start, engine running with no operator present, engine throttling to demand (pressure or level), service reminders and TSC1 speed control messages.

For quick and accurate troubleshooting, the EMS PRO can display vital engine and equipment information including diagnostic codes, first-out shutdowns and/or alarms. The unit stores the last 10 engine shutdowns with a date-and-time stamp, and records engine and system information at the time of shutdown.





150 HP
1000 RPM
1000 RPM
1000 RPM
1000 RPM
1000 RPM
1000 RPM
1000 RPM

OFF MAN 10A
EMS PRO
MURPHY

JOHN DEERE

JOHN DEERE
1000 RPM
1000 RPM
1000 RPM



TECHNICAL SPECS

Operating Voltage: Engineered for 12 and 24 VDC systems (8 VDC Minimum, 32 VDC Maximum)

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

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

Environmental Sealing: IP66

Sweep Sine Vibration Test: X, Y, Z axis, frequency sweep from 10 to 2000Hz, 10G peak

Random Vibration Test: X, Y, Z axis, frequency range 5 to 2000Hz, 7.68Grms

Operating Shock Test: X, Y, Z axis, 50G shock, 11ms pulse

Relative Humidity: 95% RH @ 60° C

Standby Current: @ 12 VDC, 220 mA; @ 24 VDC, 244 mA

LEDs: Alarm (Amber); Shutdown (Red)

CAN Bus: SAE J1939 Compliant

Enclosure: Polycarbonate NEMA 4X (UL Certified)

Analog Inputs: 12 designated via program; sender/ground digital, 4 -20 mA, 0-5 VDC

Digital Inputs: 8 high/low

Frequency: 1 optically isolated input for speed reference, magnetic pick-up

Fuel Sender Input: 33 Ohm full, 240 Ohm empty

Analog Output: 1 optional; 4-20mA or .4 to 4.6 VDC. Output pin assignment changes between two selections.

Digital Outputs: 3 FET B+ (rated at 1A) tied to relay outputs.)

Relays: 1 SPDT and 8 SPST 5 Amp pilot relays

User Interface: 8 button membrane switch

Connectors: 21 pin and 31 pin Deutsch HDP20 Series

Mounting: 4 isolated .75 inch rubber shock mounts

Shipping Weight: 11 Lb. (5 kg.)

Shipping Dimensions: All Models 15 x 15 x 11 in. (381 x 381 x 279.4 mm)

D I M E N S I O N S



EMS PRO

ELECTRONIC MONITORING SYSTEM
CONTROLLER

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