

EMS467 Monitoring System



Features

- Internet Ready
- Field Adjustable Parameters
- First-Out Shutdowns and/or Alarms
- Shutdown History File
- Service Reminders
- Four Communications Ports
- Back Lit Alphanumeric Display
- Flash Programmable
- Approved for Class I, Division 2 Groups A, B, C, D Hazardous locations.

The EMS467 Electronic Monitoring System/Controller is micro-processor based for monitoring and control of equipment functions. It is especially suited to tasks requiring remote modem or SCADA communications. The four built-in communication ports provide a variety of communications capabilities.

Basic programs provide selectable auto or manual start/stop and first-out shutdown for engine functions such as a pressure, temperature, level and overspeed. Time delays for lock out during start up are included. The EMS467 can be applied as an RTU to interface between SCADA applications and other control platforms.

With an inexpensive wireless data modem attached, the EMS467 can be used for remote monitoring and control through the internet. The unit can send emails, serve web pages, and transmit data to remote servers.

An external PC card reader can be used with the EMS467 to log data from flow meters, pressure transmitters, electric gauge senders, and other sensing devices. This is a popular application in the flood control market.

Operating data is displayed on a 32 character back-lit alpha-numeric liquid crystal display. An on-board real-time clock keeps a log of equipment running hours and alerts you when to change oil, filters and perform other routine service.

The EMS467 operating parameters are configured through a simple three-button interface. Access to the system memory is controlled by entry codes.

A password-protected program uses a built-in memory to display the alarm/shutdown history, including a display of the last ten shutdowns, when and why they occurred, and displays all of the engine operating conditions at the time of the last shutdown.

Communications

The EMS467 has one RS485, one RS232, and two J1939 CAN communication ports. By using these ports and the necessary software, you can monitor and control your equipment from a remote location.

With the CAN ports, you can communicate to an electronic engine and display engine operation information on the display.

Sensor Inputs

Digital Inputs (DI) - Number of devices: 8

Device types: discrete input, optically isolated, normally open (N/O) or normally closed (N/C), bi-polar (active high positive voltage/active low negative voltage), non-incendive.

Analog Inputs (AI) - Number of devices: 8

Device types: analog input (7-field selectable, 1-dedicated for battery voltage), accepts 4/20mA, 0-5 VDC, or Murphy (or equivalent) resistance type senders (two-wire type senders is recommended). 10 bit hardware.

Frequency Pickup - Number of devices: 1

Device types: magnetic pickup (MPU), 5 to 120 Vrms, 30 to 10k Hz. - Optically Isolated

Digital Outputs (DO) - Number of devices: 7

Device types: discrete output, normally open (N/O) or normally closed (N/C) 200mA sinking (DC-). Outputs 4 and 5 have flashback diodes and include software interrupts for high speed throttling. (i.e. Murphy AT03069)

Analog Outputs (AO) - Number of devices: 1

Device types: analog output, 0.5-4.2 VDC, 8 bit hardware

Specifications

Environmental

Operating Temperature: -4 to 149°F (-20 to 65°C).

Storage Temperature: -4 to 149°F (-20 to 65°C).

Relative Humidity: 95%RH @ 140°F (60°C).

Weight: 2-1/4 lb (1 kg).

Dimensions: 9-1/4 x 8-1/4 x 5-1/4 in. (235 x 210 x 133 mm).

Enclosure: Aluminum case 1/4 DIN type.

Installation: The EMS467 should be mounted in a location that is accessible to the operator. The controller requires a rectangular mounting hole and sufficient rear clearance for wiring connections.

Device

Input Voltage: 10 to 28 VDC.

Digital Inputs: 8* optically-isolated inputs.

Analog inputs: Up to 8 inputs (7-field selectable, 1-dedicated battery voltage)

Frequency: 1 optically-isolated input for speed reference.

Digital Outputs: 7† Transistor digital: 200 mA sinking.

Analog Output: 1 optically-isolated 0.5-4.2 VDC into a 500 Ohm load

Communications: RS485 port, RS232 port, two CAN 2.0B ports, standard.

User Interface: 3-button keypad, alphanumeric display, back lit; consists of 2 lines each with 16 characters (32 character total).

Realtime Clock

S449 Output boards: (optional)

S449-1: (EMS447/467)

7 Dry Relays: 5 SPDT, 5A @ 30 VDC, 250 VAC, 1/10 hp @ 120 VAC;

2 DPDT, 2A @ 220 VDC, 250 VAC.

S449-3: (EMS447/467)

2 Transistor digital: 125 mA sinking.

5 Dry Relays: 3 SPDT, 5A @ 30 VDC, 250 VAC, 1/10 hp @ 120 VAC;

2 DPDT, 2A @ 220 VDC, 250 VAC.

Accessories

The EMS467 comes in an extruded aluminum enclosure suitable for panel mounting. Wiring is via optional wiring harness.

Relay boards are available for additional relay contact capability, see listings below:

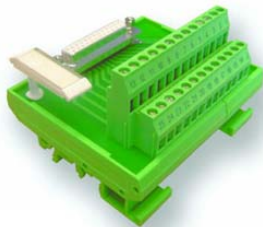
EMS25RM: Rail mount DIN type terminal block.

EMS25CAR2: Ribbon cable with 2 male D-sub connectors.

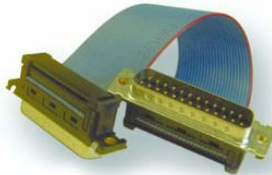
EMS25TBCAR2: Ribbon cable with 1 male and 1 female D-sub connector.

S449-1: Seven (7) Dry Relay Outputs board for EMS467 models.

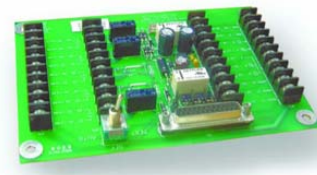
S449-3: Five (5) Dry Relay Outputs and two (2) Transistor Outputs board for EMS467 models



EMS25RM



EMS25CAR2



S449-3

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Warranty - A limited warranty on materials and workmanship is given with this FW Murphy product.
A copy of the warranty may be viewed or printed by going to <http://www.fwmurphy.com/warranty>