Digital Auto-Start/Stop/Throttling Engine Controller

eGUARD Controller

- **Compatible with Electronic (ECU) and Standard (MPU) engines**
- **J1939 Ready** – works directly with our MurphyLink J1939 PowerView gages
- **Automatic Speed Control** - throttles engine speed based on analog inputs
- **Engine Diagnostics** – provides most common descriptive faults when connected to electronic engines

Description

The eGUARD is a state-of-the-art controller. It will meet virtually all of your engine-driven equipment application requirements. The eGUARD has been designed from the ground up to control today's electronic engines using J1939 and can easily control the traditional non-electronic engines.

The eGUARD can be configured to automatically or manually operate most types of applications, from a simple start/stop sequence to complex automatic throttling. Pumps, Compressors, Chippers, Grinders and Power Units are just a few of the ideal industrial applications for the eGUARD. The eGUARD controller can maintain constant pressure, flow or level by automatically increasing or decreasing engine speed.

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 www.fwmurphy.com/support/warranty.htm

Features

Here are some of the unique features only Murphy's eGUARD can offer you at our competitive price.

- **Throttling Input:** The eGUARD can be configured to control engine speed using most types of analog input devices (0-5v, 1-5v or 4-20 mA).

- **Throttling Output:** CANbus J1939* or increment/decrement relay pulse.

(when supported by the ECU manufacturer)

- **Compatibility:** Accepts Magnetic Pick-up (MPU) or ECU J1939 speed signals.

- **Field Configurable:** Allows password protected configuration changes through the keypad.

- **Field Programmable:** Flash-based microprocessor allows for easy upgrades or reconfigurations using a PC or laptop.

- **Sealing:** Maintains NEMA4 and IP65 rating when properly mounted in a rated enclosure.

- **J1939 Ready;** Works directly with Murphy's J1939-ready PowerView gages, just plug and go, no sender required.

Standard Components

- 24 - Digital inputs
- 8 - Analog inputs (one battery dedicated)
- 1 - Magnetic pickup input
- 8 - 20A Form "C" relays
- 1 - RS232 port
- 1 - RS485 port
- 1 - RS232/RS485 port
- 1 - J1939 port
- 1 - 64 x 128 pixels full graphic LCD display with backlight
- 1 - 12-position keypad

Optional Accessories

- PVA Series Gages (Bulletin: PV-02125B)
- Remote Relay Board
- Mimic Annunciator allows for wired remote operation and monitoring (Call Murphy IPD for more information)

Specifications

Mounting (Cut-out) Dimensions:
7.05 x 5.25 x 2.76 in. (179 x 133 x 70 mm)

Mounting Screws: 4, #6-32 screws and Nitrile rubber O-ring supplied to meet NEMA4 specs.

Case Material:
Black Polycarbonate, textured finish, UV stabilized.

Connection:
600V rated multi-wire quick connect for DC connections, suitable for wire harnessing.

Power supply:
Operates from any 8-35VDC supply, continuous. Brownout (5V) ridethrough is 5 seconds and a total blackout (0V) ridethrough of 100 milliseconds.

Communications:
- – 1 - RS232 port
- – 1 - RS485 port
- – 1 - RS232/RS485 port
- – 1 - J1939 port

Display: 64 x 128 pixel full graphic LCD display with backlight.

Faceplate Keypad: 12-position keypad.

Vibration/Survivability:

3g, 3 axis, frequency swept 10-1000 Hz.

Operating/Storage Temperature Range:
–40/+185°F (–40/+85°C).

LCD Operating Range:
–4/+176°F (–20/+80°C).

I/O's:
- – 24 - Digital inputs
- – 8 - Analog inputs (one dedicated for battery)
- – 1 - Magnetic pickup input
- – 8 - 20A Form "C" relays.

Shipping Dimensions:
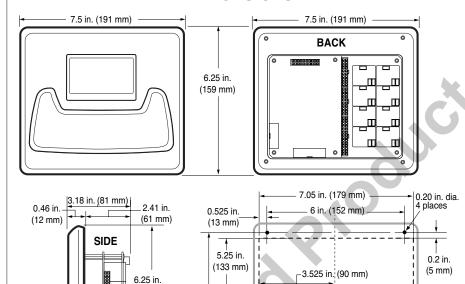10 x 9 x 6 in. (254 x 229 x 152 mm)

Shipping Weights:
2 lb. (910 g.).

Performance Specs

SAE Load Dump Test

How to Order

Call Murphy's I.P.D. (Industrial Panel Division) for Ordering, Application and Configuration Assistance.

Dimensions

Accessories

Wire Harnessing

Part Number	Description
75-00-0074	4-position power connector; 12 ft (3.65 m) wire leads.
75-00-0075	10-position comm. connector—J1939, RS232, RS485; 12 ft. (3.65 m) wire lead
75-00-0076	10-position communications connector - RS232, RS485
75-00-0077	Digital Inputs 1-8; 12 ft. (3.65 m) wire leads 12 ft. (3.65 m) wire leads
75-00-0078	Digital Inputs 9-24; 12 ft. (3.65 m) wire leads
75-00-0079	Analog Inputs, Magnetic Pickup; 12 ft. (3.65 m) wire leads
75-00-0080	ESD Jumper; 0.2 feet (61 mm) wire leads
75-00-0089	Serial Port PC Programming Cable Assembly; 6 ft. (1.8 m) wire leads

Senders and End Devices

Part Number	Description
05-70-1858	0-100 psi Oil pressure sender
10-70-2013	300 °F (150°C) Coolant temperature sender
15-70-0116	EL150K1 Oil level indicator and low oil level shutdown
15-70-0104	L129 high/low Oil level indicator and shutdown
15-70-0660	LM2000 Engine oil replenisher and low oil level shutdown
05-70-6345	PXMS-100 4-20mA Pressure sender 100 psi

In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.