

# Digital Auto-Start/Stop/Throttling Engine Controller

eG-05012B  
Effective 03-05  
Catalog Section 40  
(00-02-0593)



## 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](http://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) ride-through is 5 seconds and a total blackout (0V) ride-through 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.).

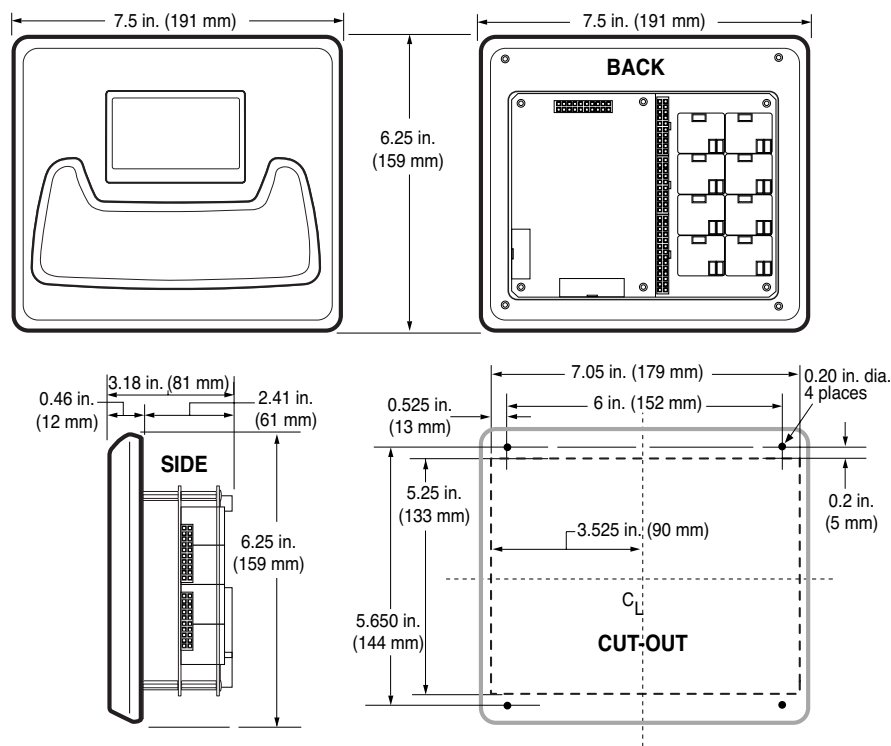
## Performance Specs

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



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