

# Speed Control Unit

## ESD2200 SERIES

The ESD2200 Series speed control unit is an all- electronic device designed to control engine speed with fast and precise response to transient load changes. This closed loop control, when connected to a proportional electric actuator and supplied with a magnetic speed sensor signal, will control a wide variety of engines in an isochronous or droop mode. It is designed for high reliability and it's hard potted to withstand the engine environment.



## FEATURES

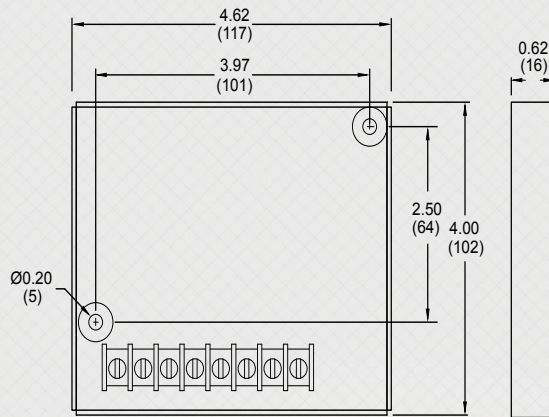
- Light Force Option Available
- Adjustable PID Functions
- Isochronous Operation
- Transient Voltage Protection
- 8:1 Speed Range Control
- 12 or 24 VDC

## SELECTION CHART

	12 Volt	24 Volt	Idle Circuit	Light Force
ESD2210-12	•			
ESD2210-24		•		
ESD2241-24		•	•	
ESD2244-12	•			•
ESD2244-24		•		•



# DIMENSIONS



UNITS  
in  
mm

# SPECIFICATIONS

## Performance

Isochronous Operation	±0.25%
Speed Range	1 - 7.5 KHz Continuous
Speed Drift with Temperature	±1.0%
Speed Trim Range	±250 Hz
Terminal Sensitivity	130 Hz, ±15 Hz/Volt @ 5.1 KΩ Impedance

## Electrical

Power Supply	12 VDC or 24 VDC Battery Systems (Transient and Reverse Voltage Protected)
Polarity	Negative Ground (Case Isolated)
Power Consumption	60 mA (Continuous Plus Actuator Current)
Actuator Current Range @ 77°F (25°C)	10 Amps Continuous
Speed Sensor Signal	1.0 - 50 VRMS

## Environmental

Operating Temperature Range	-40 °F to +185 °F (-40 °C to +85 °C)
Relative Humidity	up to 100%
Vibration	5 G @ 20 - 500Hz
All Surface Finishes	Fungus Proof and Corrosion Resistant

## Reliability

Vibration	5 G @ 20 - 500Hz
Testing	100% Functionally Tested

## Physical

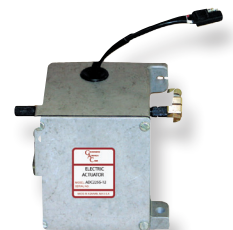
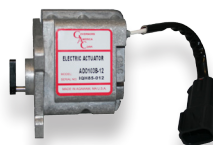
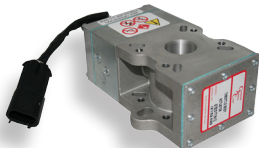
Dimensions	5.00 in x 5.00 in (127 mm x 127 mm)
Weight	See Outline Front Page
Mounting	Any Position, Vertically Preferred

# OPTIONS

## GAC ACTUATORS

GAC actuators incorporate fast response, multi voltage usage, and a field proven electromechanical design that allows for precise control when coupled with GAC's speed control devices. All of GAC actuators are easy to install with no maintenance required.

- Throttle Body
- Engine Mounted
- Pump Mounted
- Universal



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