

Speed Control Unit

ESD5500-II *FUSION SERIES*

NEW! - The next generation of GAC's Speed Controllers, the ESD5500-II Fusion Series combines all of the most popular functions of the various ESD5500 Series (5500, 5520, 5526 & 5528) into a single, high-performance unit.

The ESD5500-II speed control unit is designed to precisely control engine speed with rapid responses to transient load changes. The ESD5500-II speed control is compatible with all GAC proportional actuators except the ACB2001 electric actuator since this high torque actuator also requires current limiting available in the ESD5300 Series. Ruggedly built to withstand all engine environments, the ESD5500-II has all the same well known features of the ESD5500 and also incorporates selectable light-force for low current actuators, dither for difficult engines with respect to stability and integrated anti-windup for both diesel and gaseous application.

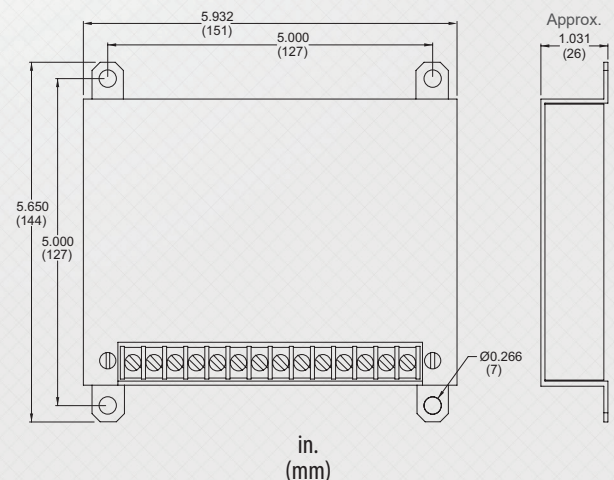


FEATURES

- Simple Installation and Adjustability
- Environmentally Protected
- Adjustable Droop and Idle Circuits
- Selectable Light-Force and Dither
- Built-In Anti-Windup (Gaseous/Diesel)
- Accessory Inputs for Load Sharing
- Variable Speed Operation
- Reverse Battery Voltage Protected
- Soft Coupling & Lead Circuit Options

SELECTION CHART / DIMENSIONS

	Standard Features	Light Force	ATB Applications	Anti-Windup Circuit	25-45mm Small Bore ATB	55-120mm Large Bore ATB
ESD5500-II	•	•	•	•	•	•
ESD5500-II REPLACES ALL MODELS BELOW INTO ONE UNIT						
ESD5500E	•					
ESD5520E		•				
ESD5526E			•	•	•	
ESD5528E			•	•		•



ACCESSORIES

Magnetic Speed Pickups



The Magnetic Speed Sensor detects when ring gear teeth, or other ferrous projections, pass the tip of the sensor. Electrical impulses are produced by the sensor's internal coil and sent to the speed control unit. The signal from the magnetic speed sensor, teeth per second (Hz.), is directly proportional to engine speed. Speed sensors are available in various lengths in both U.S. and metric threads. Wire leads, military connectors, automotive connectors or stud terminals are also available. Over 30 styles currently available.

SPECIFICATIONS

Performance

Isochronous Operation	±0.25%
Speed Range	1 - 7.5 KHz Continuous
Speed Drift with Temperature	±1%
Idle Speed Adjust CW	60% of Set Speed
Idle Speed Adjust CCW	Less than 1200 Hz
Droop Range	1 - 5% Regulation
Droop Adj. Max. (K-L Jumpered)	400 Hz., ±75 Hz per 1.0 A change
Droop Adj. Min. (K-L Jumpered)	15 Hz., ±75 Hz per 1.0 A change
Speed Trim Range	±200 Hz
Remote Variable Speed Range	500 - 7.5 KHz
Terminal Sensitivity	
J	100 Hz., ±15 Hz/Volt @ 5 KΩ Impedance
L	735 Hz., ±60 Hz/Volt @ 65 KΩ Impedance
N	148 Hz., ±10 Hz/Volt @ 1 MΩ Impedance
P	10 VDC Supply @ 20 mA Max

Environmental

Operating Temperature Range	-40 °F to +180 °F (-40 °C to +85 °C)
Relative Humidity	up to 95%
Vibration	1 G @ 20 - 100Hz
All Surface Finishes	Fungus-Proof and Corrosion-Resistant

Electrical

Power Supply	12 or 24 VDC Battery Systems (Transient and Reverse Voltage Protected)
Polarity	Negative Ground (Case Isolated)
Power Consumption	50 mA plus Actuator Current
Actuator Current Range @ 77°F (25°C)	2.5 - 10 Amps Continuous
Speed Sensor Signal Range	0.5 - 50 VAC
Speed Sensor Signal	1.0 - 120 VRMS

Physical

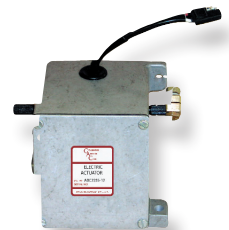
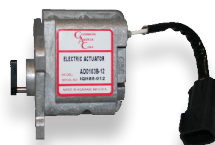
Dimensions	5.9 in x 5.6 in x 0.8 in (151 mm x 144 mm x 20 mm)
Weight	1.8 lb (820 grams)
Mounting	Any Position, Vertically Preferred

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



Governors America Corp.
720 Silver Street Agawam, MA 01001
Phone: 413.233.1888 Fax: 413.789.7736
www.governors-america.com
info@governors-america.com



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