

Governors

GAC's Speed Control Units are precise speed controls designed and manufactured in various configurations to meet application requirements using the latest analog and digital control technologies. Reverse battery polarity and fail-safe protection in the event of loss of speed sensor signal or battery voltage is incorporated in every GAC Speed Control Unit. A wide variety of application needs can be satisfied with GAC's constant or variable speed governing, in isochronous or droop operation. All circuit boards are hard potted or conformally coated to be vibration and moisture resistant.

Digital

GAC digital governors are solid state microprocessor based speed control unit that offer precise ($\pm 0.25\%$) speed control with fast response to transient load changes in isochronous and droop modes. GAC digital governors are highly reliable and not subject to drift. This suitable replacement for any mechanical governor is well built to withstand the harshest of engine environments. Its designed to regulate the engine speed on diesel and gas reciprocating engines for generator sets, mechanical drives, pumps, and compressors.

EDG Series

These governors are based on GAC's revolutionary EDGe™ algorithm, incorporating all of the features and performance of GAC analog governors along with the stability, accuracy, flexibility and communication capabilities digital controls are known for.

- ▶ No Analog Drift
- ▶ Variable Speed Governing
- ▶ GAC AUX/Load Sharing
- ▶ Overspeed Sensing
- ▶ Adjustable Starting Fuel Strategy (Black Smoke Reduction)



EDG5500

- ▶ Simple LCD User Interface
- ▶ Fast Set-up with 5 Push Buttons, No Potentiometers
- ▶ A Near Drop in Replacement for ESD5500E



EDG6000

- ▶ Multiple PID Control for Full Tuning of Operating Range
- ▶ IP67 Sealed Case and Connector
- ▶ RS232 and CAN J1939 Communications
- ▶ SmartVU PC Software

NEW!



EDG6010-DM

- ▶ Directly Mounts to 175/176 Actuators
- ▶ Multiple PID Control for Full Tuning of Operating Range
- ▶ Sealed Electronics & Flying Leads
- ▶ RS232 and CAN J1939 Communications

IGC



- ▶ Integrated Governor & Engine Control
- ▶ Fixed Speeds plus Variable Speed Range
- ▶ LED Bar Graph for Set-Up & Troubleshooting
- ▶ Non Volatile EEPROM Memory

IGC745-02-04

Integrated Governor Engine Control

SDG Series



- ▶ Smart Digital Governor
- ▶ Three Fixed and 1 Variable Speed
- ▶ Overspeed Shutdown Protection
- ▶ SmartVU PC Software

SDG514-01-01

(CE) Deutsch Connector / Resistive (10K Potentiometer) Variable Speed Input

SDG524-01-01

(CE) Deutsch Connector / 0-5 VDC Variable Speed Input

ACCESSORIES - GOVERNORS - DIGITAL

Cable Harnesses



- CH1330 Cable Harness for the SDG514 / SDG524
- CH1520 Cable Harness for the EDG6000

Mating Connectors



- EC1330 Deutsch 12 pos. Mating Connector for SDG514 / SDG524
- EC1502 14-Pin Mating Connector for EDG6000
- EC1528 Connector Kit for EDG6010-DM

Test Equipment



- TSE050 Magnetic Speed Pickup Simulator
- TSE307 EDG6000 Programming Interface

Analog

SSW Series



- ▶ 12 or 24 VDC Operation
- ▶ Reverse Voltage Protection
- ▶ Overspeed Test Function

SSW674 One Element / Speed Switch / Tachometer Output / Factory Adjusted For Most Applications

SSW675 Two Element / Speed Switch / Tachometer Output / Overspeed to 10000Hz

SSW676 Three Element / Speed Switch / Tachometer Output

ESC Series



- ▶ Electronic Speed Control
- ▶ Wide Speed Control Units
- ▶ 12 - 32 VDC

ESC61C-7 Standard Unit / MIL Connector

ESC61C-17 Variable Speed / MIL Connector / 12-32 VDC

ESC63C-7 Standard Unit

ESC63C-17 Variable Speed / 12-32 VDC

ESC63C-23 Idle-Run Feature / 12-32 VDC

ESD2200 Series



- ▶ Transient Voltage Protection
- ▶ Expanded Speed Range to 9400Hz
- ▶ 8:1 Speed Range Control
- ▶ Removal Jumpers for Expanded Range

ESD2210-12 or -24 (CE) Hard Potted

ESD2241-24 24 VDC Standard Unit with Idle Circuit

ESD2244-12 or -24 (CE) Hard Potted / Light Force

ESD2400 Series



- ▶ Dynamic Control Circuit
- ▶ Idle Function
- ▶ Lower Gain Adjustable
- ▶ Anti Wind-Up Circuit

ESD2401-12 or -24 (CE) Standard Unit / Idle Speed Adjustment / Designed for Non-Feedback GAC Actuators

ESD2402-12 or -24 (CE) Light Force / Idle Speed Adjustment / Designed for Non-Feedback GAC Actuators

ECC Series



- ▶ Isochronous Speed Control
- ▶ Full PID Setting
- ▶ Designed to Govern from Frequency Signal of an AC Generator
- ▶ No Magnetic Speed Pickup Needed

ECC328-12 (CE) 12 VDC / Light Force

ESD1000 Series

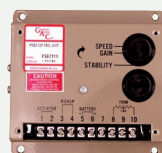


- ▶ 12 or 24 VDC
- ▶ Isochronous Operation
- ▶ Steady State Stability
- ▶ Reverse Voltage Protected
- ▶ Gain Adjustment

ESD1000-12 or -24 (CE) Standard Unit

ESD1100-12 or -24 (CE) Terminal Strip

ESD2100



- ▶ 12 or 24 VDC
- ▶ Isochronous Operation
- ▶ Adjustable PID Functions

ESD2110 Multi VDC Standard Unit

ESD2300 Series



- ▶ 12 VDC
- ▶ Adjustable PID Functions
- ▶ Foot Pedal

ESD2349-12 (CE) 12 VDC / Off Road / Variable Speed / Foot Pedal

ESD2351-12 12 VDC / Operates with Williams Foot Pedal

ESD2352-12 12 VDC / Operates with Morse Foot Pedal

ESD5100 Series



- ▶ 10 VDC Supply for Accessories
- ▶ Adjustable PID Functions
- ▶ Switchable Droop and Idle Control
- ▶ Auxiliary Power Supply

- ESD5111 (CE) Standard Unit / Isochronous, Variable & Droop Operation / Variable Speed Trim Range
- ESD5111T (CE) Temperature Compensated / Isochronous, Variable & Droop Operation / Dead Time Compensation
- ESD5119 (CE) EFC Reverse Acting / Isochronous, Variable & Droop Operation / Adjustable Droop Range / Light Force
- ESD5120 (CE) Light Force / Isochronous, Variable & Droop Operation
- ESD5131 (CE) Soft Coupling Option / Isochronous, Variable & Droop Operation
- ESD5143 Enhanced Speed Detector Circuit / Speed Range to 10.5 KHz
- ESD5150 Same As ESD5111 / 4-20 mA Output
- ESD5159 Same As ESD5111 / Extended Frequency Range 14 KHz
- ESD5160 Same as ESD5119 / Extended Speed Range
- ESD5161 (CE) Expanded Auxiliary Input Range

ESD5400 Series



- ▶ Adjustable PID Functions
- ▶ Actuator Loop Control
- ▶ Two Speed or Variable Speed
- ▶ Overspeed Control

- ESD5402 24 VDC / Isochronous, Variable & Droop Operation / Designed for Feedback Actuator Operation
- ESD5403 Use with AB Sensor Feedback Actuators / Isochronous, Variable & Droop Operation / Designed for Feedback Actuator Operation

ESD5500E Series



- ▶ Switchable Droop Control
- ▶ Soft Coupling
- ▶ Overspeed Control Switch
- ▶ Auxiliary Output

- ESD5500E (CE) Standard Unit / Isochronous, Variable & Droop Operation / Speed Ramping / Starting Fuel Control / Enhanced Droop Control
- ESD5520E (CE) Light Force / Isochronous, Variable & Droop Operation / Speed Ramping / Starting Fuel Control / Adjustable Speed Ramping Control
- ESD5522E (CE) Light Force / EFC Forward Acting / Enhanced Droop / Isochronous, Variable & Droop Operation / Speed Ramping / Starting Fuel Control / Dead Time Compensation

ESD5221



- ▶ Speed Anticipation Circuit
- ▶ Adjustable PID Functions
- ▶ Reverse Voltage Protection
- ▶ Overspeed Contact

- ESD5221 10 Amp Relay Output / Isochronous, Variable & Droop Operation / Single Element Speed Switch

ESD5300 Series



- ▶ Power Driver Circuit
- ▶ Adjustable PID Functions
- ▶ Idle Speed Adjustment
- ▶ Auxiliary Accessory Outputs

- ESD5330 Isochronous, Variable & Droop Operation / 2 Element Speed Switch / Speed Ramping / Starting Fuel Control / Dual Gain / Unique Actuator Power Drive Circuit / Soft Coupling
- ESD5340 Dynamic Starting Aid Equipped / Isochronous, Variable & Droop Operation / 2 Element Speed Switch / Speed Ramping / Starting Fuel Control / Dual Gain / Unique Actuator Power Drive Circuit / Soft Coupling

ESD5550/5570 Series



- ▶ Crank Termination Circuit
- ▶ Overspeed with LED
- ▶ Fuel Ramping Control
- ▶ Auxiliary Output

- ESD5550 (CE) Single Element Speed Switch / Isochronous, Variable & Droop Operation / Speed Ramping / Starting Fuel Control / Soft Coupling / Gain Adjustment 33:1 / Transient Voltage Protection
- ESD5570 (CE) Single Element Speed Switch / Light Force / Isochronous, Variable & Droop Operation / Speed Ramping / Starting Fuel Control / Soft Coupling / Integrated Wind-Up Protection

ACCESSORIES - GOVERNORS - ANALOG

Modules



- RSC671 Ramp Generator - Ramp Up / Down - Programmable
- RSC672 Ramp Generator - Ramp Up / Down Generator Set Applications
- SLM100 Smoke Limiting Module
- DDM101 Dual Driver Module
- DFM100 Dual Fuel Module

Foot Pedals



- FP201 Foot Pedal / Vertical Mount
- FP202 Foot Pedal / Horizontal Mount

Mating Connector



- EC1200 ESC61C - Straight

Potentiometers



- TP501 1 Turn - 5K with Knob
- TP502 10 Turn - 5K with Knob
- TP503 10 Turn - 5K with Locking Shaft
- TP504 1Turn - 20K with Knob / Droop Control
- TP508 10 Turn - 20K with Locking Shaft
- TP509 10 Turn - 20K with Knob
- TP510 10 Turn - 1K
- TP511 10 Turn - 10K
- TP521 Multiple Variable Speed Control / Vernier Dial

Test Equipment



- TSE050 Magnetic Speed Pickup Simulator
- TSE307 EDG6000 Programming Interface