

Integral Throttle Body Actuator

ATB SERIES

The ATB Series integral throttle body electric actuator is designed to control the air or air/fuel mixture to a gaseous-fueled engine. They are typically used to control an engine by working in tandem with a conventional fuel mixer. The design baseline for the ATB Series incorporates fast response and proven reliability to allow for efficient and more precise control. ATB Series actuators are also designed to accept system battery voltages of either 12 or 24 VDC and are available with a multitude of options like a throttle position feedback sensor.



FEATURES

- Cost Effective, Maintenance Free, Compact Design
- Various Bore Sizes Available (25 95mm*)
- Precise, Real-Time Engine Speed Control
- Flexible Design for Engine, Manifold & Fuel Mixer Considerations
- Options for Corrosive Environmental Conditions

- Rapid Response to Transient Load Condition
- Optional Throttle Position Feedback Sensor
- Mounts in Any Position, No Mechanical Linkage, No Mounting Brackets
- Idle Adjustment Screw
- Optional High Temp & Sealed Versions for Turbo-charged Engines



ACCESSORIES

To figure out the approximate size throttle body your engine requires, draw a horizontal line at the speed of your engine and a vertical line at the amount of air your engine displaces (naturally aspirated or turbo charged). The area in which the two lines intersect will indicate the size throttle body required. For instance, a 6.5 liter engine running at 1600 RPM will require a 45mm bore throttle body.

NOTE: This is an approximation; contact GAC for application clarification.

Performance



SPECIFICATIONS

Environmental

Maximum Throttle Plate Rotation 65 °		Ambient Operating Temperature Range		-40 °C to +150 °C	
Beliability		Relative Humidity		up to 100%	
Vibration	± 4 G, 25 to 100 Hz	Vibration Shock		10.0Gs @ 200 - 2000Hz 20G Peak Scaled for Duct & Temperary Electing	
Shock	20 G, 11 msec				
Testing Rated Life	100% Functionality Tested > 40 million cycles	IP66 Whole Unit		Sealed for Du	st & temporary riooding
XXXXX	Power Input For:	T1	T2	T3	
	Operating Voltage	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC	
	Normal Operating Current	3 Amps @ 12 VDC	2 Amps @ 12 VDC	3 Amps @ 12 VDC	
		1.5 Amps @ 24 VDC	1 Amps @ 24 VDC	1.5 Amps @ 24 VDC	
	Maximum Current-Continuously Rated	6 Amps @ 12 VDC	6 Amps @ 12 VDC	12 Amps @ 12 VDC	
		3 Amps @ 24 VDC	3 Amps @ 24 VDC	6 Amps @ 24 VDC	
	Coil Resistance (Red to White - 12VDC)	2.2 ohms	1.4 ohms	0.9 ohms	
	(Red to White - 24VDC)	8.6 ohms	5.3 ohms	3.3 ohms	

OPTIONS

Wiring to Ground

ESD Series Analog Speed Controls



Ν

- Basic Variable Speed • Fuel Control
- Speed Ramping
- Anti-Windup Circuit

The ESD55XX 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 built ruggedly to withstand the industrial engine environment.

5 ohms

5 ohms

5 ohms

Gaseous fuel versions listed below:

- ESD5526E Small Bore (T1, T2)
- ESD5528E Large Bore (T3)

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