

# Electric Actuator

## ACB-2001 Series

### Features and Benefits

- Easy Installation
- Universal Design
- Multiple Voltage Selection
- Internal Return Spring
- Rapid Response to Transient Conditions
- Multiple Mounting Positions
- Uni-directional cw/ccw
- Maintenance Free



Manufactured by:



Governors America Corp.

## The Integral Electric Actuator for Diesel Pumps

The **ACB-2001** actuator is a rotary output, 24V, linear torque proportional electric servo designed for mechanical actuation of fuel system control levers requiring torques in the 5 lb ft range. The actuator is energized by appropriate speed control unit signals, and is capable of 35 degrees of rotation with torques as high as 12 Lb-Ft.

Internal springs provide fail safe operation by forcing the actuator to the fuel shut off position when the actuator is deenergized. Both CW and CCW shafts are available. Engine applications include large block pumps, and dual medium and some large size carburetors.

Its matching speed control, the ESD-5330, offers a versatile range of features such as cranking termination, overspeed sensing, fuel limiting during start up, and speed ramping to minimize exhaust emissions during the starting cycle.

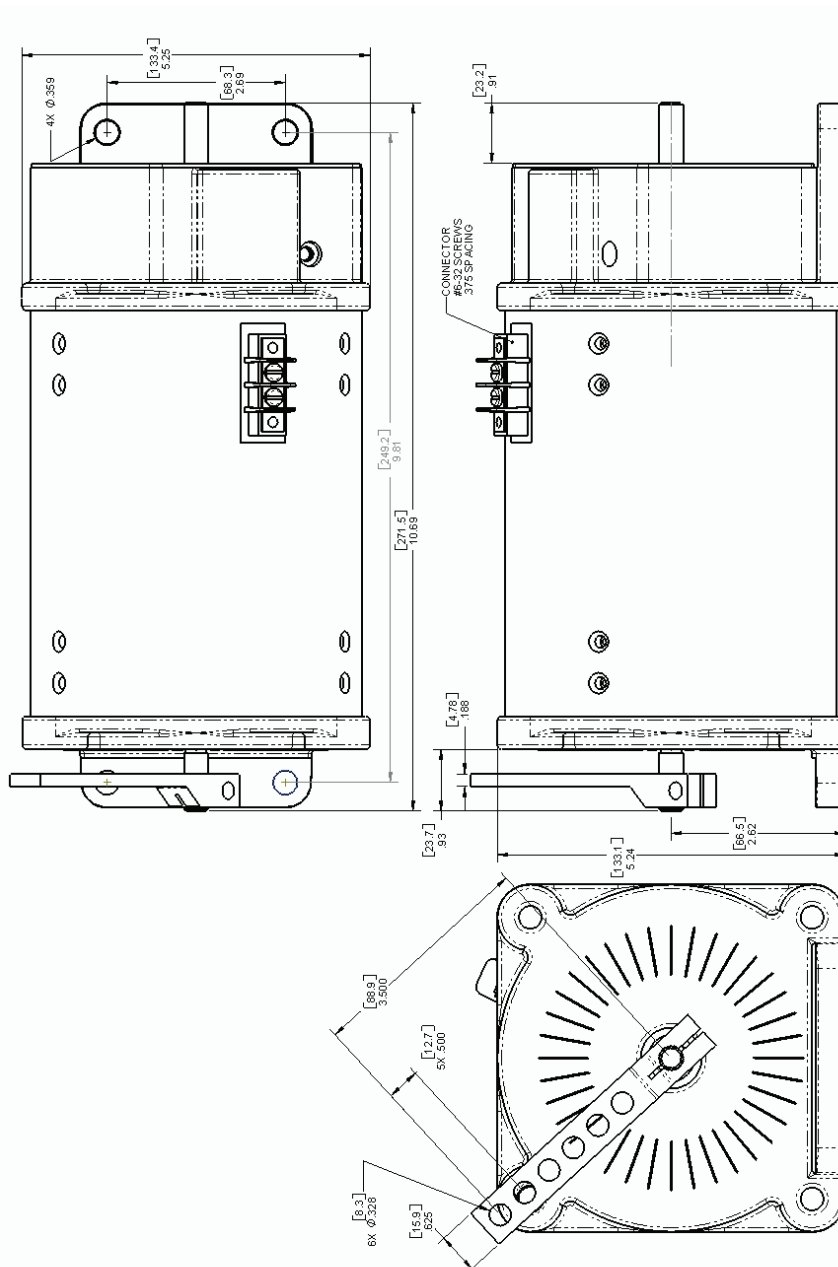
## Description

The **ACB-2001** actuator is an electromagnetic servo device which can be integrated into a closed loop control system. A typical engine control system can be described as follows. An electrical signal, proportional to engine speed, is generated by a magnetic speed sensor. This signal is sent into the electronic speed control unit which compares it to the preset engine speed setting. If the magnetic speed sensor signal and the engine speed setting are not equal, a change in current from the speed control unit to the actuator will alter the magnetic force in the actuator.

The change in magnetic force causes the actuator shaft to rotate. The rotation of the actuator shaft will then adjust the fuel to the engine and cause the engine speed to be equal to the desired speed setting. Shaft rotation is proportional to the amount of current and counter-balanced by the internal springs.

Since the design has no sliding parts, and is totally sealed, its reliability is outstanding. No maintenance is necessary.

## Diagram 1: Outline and Dimensions



## Specification

### Performance

Available Torque.....Max. 12 Lb-Ft (16.3 Nm)  
Maximum Angular Travel of Shaft..... $35^{\circ} \pm 1^{\circ}$  CW/CCW

### Reliability

Vibration.....up to 20G, 50-500 Hz  
Testing.....100% Tested

### Physical

Dimensions.....See Diagram 1  
Weight.....30 lb. (13.6 kg.)

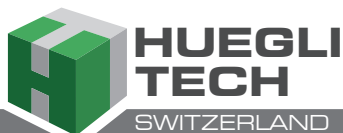
### Environmental

Temperature Range.....- 65°F to 200°F (- 55°C to + 95°C)  
Relative Humidity.....up to 100%  
All Surfaces Finished....Fungus proof and corrosion resistant

### Power Input

Operating Voltage.....Nominal 24 Volts  
Normal Operating Current.....Up to 5 Amps  
Maximum Stall Current (Short Duration).....Up to 12 Amps

**Local Distributor / Partner:**



HUEGLI TECH AG (LTD)  
Murgenthalstrasse 30  
4900 Langenthal Switzerland  
Phone: +41 62 916 50 30  
Fax: +41 62 916 50 35

e-mail: [sales@huegli-tech.com](mailto:sales@huegli-tech.com)  
[www.huegli-tech.com](http://www.huegli-tech.com)