CE

Conforms to EC Directive on Electromagnetic Compatibility

ISO 9001

QMI REGISTERED

AMBAC INTERNATIONAL

ADVANTAGE SERIES

Model AGK505
Rotary Actuator
0.5 Joule, 45° Rotation

Features

- **Rotary acting solenoid, position proportional to current**
- **Spring return**
- **12V and 24V versions**
- **Compatible with all AMBAC Speed Control Units**
- **Alternate spring selections available**

AMBAC's AGK505 and AGK525 provide a quick response time and wide applicability to most engines up to a 500 horsepower rating. The actuator requires no engine drive for hydraulic input. The fast-acting solenoid is completely self-contained requiring only a solid mounting surface, appropriate linkage to the fuel control and electrical connection to the Speed Control Unit. The actuator is compatible with all of AMBAC's Speed Control Units.

The Model AGK505 and AGK525 Actuators provide a rotational force on their output shafts which may be used to control engine fuel quantity in an electric engine governor system. They are proportional solenoid actuators and therefore convert an electric current flowing through them into a mechanical force which varies proportionally in strength with the current strength. An internal return spring is provided as a fail-safe feature to insure that when the system is turned off or when battery power is lost, the return spring forces the output shaft to its zero position which in turn can cut off fuel to the engine. Switching off power to the Actuator will shut down the engine. Furthermore, since they generally work against the force of their internal return spring, the output shaft position also varies in proportion to the current. The AGK505/525 Actuators move up to 45° from their rest position; the greater the current, the larger the angle the output shaft assumes.

While Speed Control Units can typically operate over a wide range of supply voltages, Actuators need to have their input current limited to some extent to prevent overheating. Therefore, the AGK505 is provided for 12Vdc battery systems and the AGK525 is provided for 24Vdc systems. These two actuators have different coil resistances and therefore require different input currents but are equivalent in terms of the force provided at their output shafts.

The actuator housing is sealed against the engine environment so fuel, oil, and steam or other water based cleaning fluids will not affect the system's operation. No maintenance is necessary.

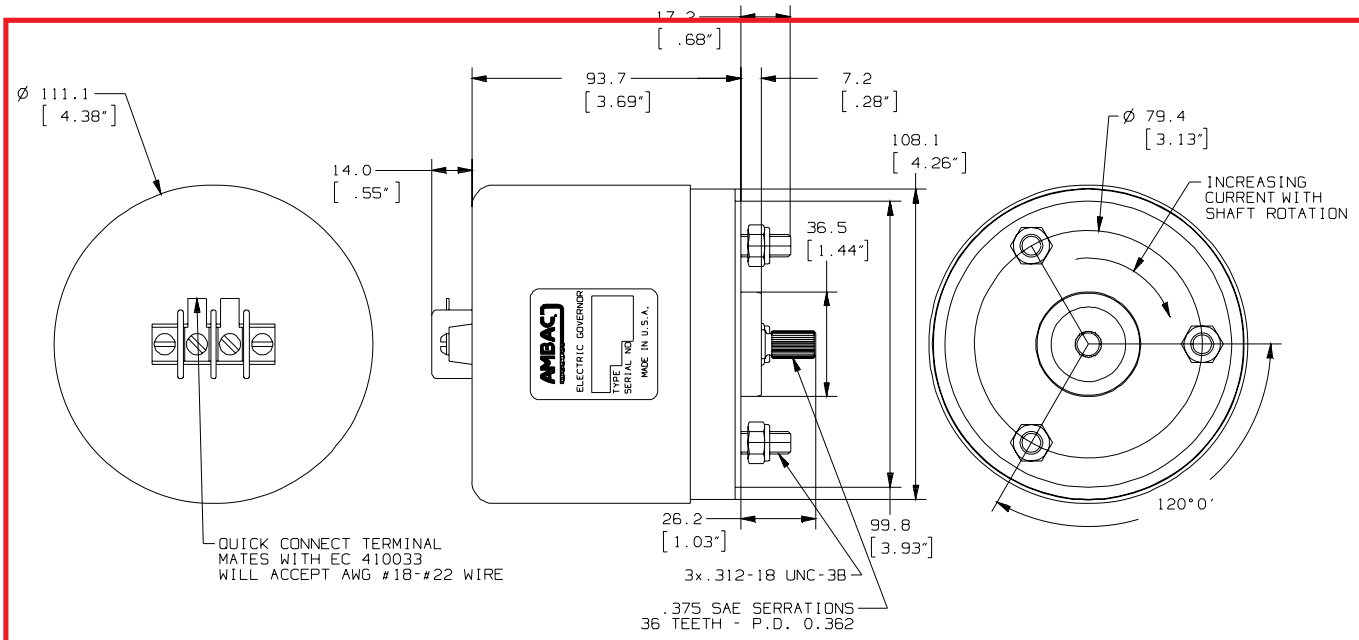

Figure 1. Outline Dimensions

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Performance Specifications

Performance		**AGK 505**	**AGK 525**
Work Output	----	0.5 Joule	
Continuous Net Torque	avg	0.7 N-m	
Operating shaft travel	min	45° rotation, CW viewing shaft end	
Inputs			
Operating voltage	nom	12 VDC	24 VDC
Continuous operating current	max	4 Amps	2 Amps
Maximum current (instantaneous)	max	8 Amps	4 Amps
Mating connector	----	Crimp lugs supplied with actuator	
Environmental			
Temperature range	----	-40°C<T<+93°C (-40°F<T<+200°F)	
Humidity	----	Up to 100%	
Vibration	----	15g, 10-2000Hz, Test Method 204	
Sealing	----	Fungus and corrosion resistant, waterproof	

Ordering Information

AGK 505 **A1**

Model Number
AGK 505 - 12Vdc
AGK 525 - 24Vdc

Return Spring
A1 - standard
A2, A3 - optional

Accessories:
(Not supplied with Actuator, Order separately)
Mounting Bracket, P/N BK410043
Actuator Lever, P/N LE673-1A .187 [4.75] Dia. Holes
or P/N LE673-2A .250 [6.35] Dia. Holes

Consult Factory for Other Options