

Rotary Servo Actuators

- Weight: 3 lbs
- Peak torque: 300 in-lb
- SmCo permanent magnet DC motor
- Electronic position and torque limiting
- Film position transducer
- Position output signal
- ±10 VDC input command signal
- Current output signal
- Low backlash
- Robust structural design
- Mechanical stops
- High efficiency steel gearing
- No load speed: 160-220 deg/sec
- Stroke: ±46°

Model 905-01/-04

The Model 905 Rotary Servo Actuator is used to position the control surfaces of the AQM-37D target drone and is designed to operate under extreme environmental conditions.



- Size: 2.3 x 4.9 x 5.4 inches
- Power: 28 VDC and ±15 VDC
- Power point: 150 in-lbs @ 175 deg/sec
- Weight: 3 lbs
- Peak torque: 300 in-lbs
- Analog command input
- SmCo permanent magnet DC motor
- Electronic position and torque limiting
- Film position transducer
- Fail-safe brake (-01 only)
- ±10 VDC input command signal
- Low backlash
- Robust structural design
- High efficiency steel gearing
- Mechanical stops
- Position output signal
- No load speed: 250 deg/sec
- Stroke: ±33°

Model 915

The Model 915 Rotary Servo Actuator is used to position the control surfaces of the QF-4 unmanned air vehicle and is designed to operate under extreme environmental conditions.



- Size: 4.95 x 4.5 x 6.2 inches
- Power: 28 VDC
- Weight: 7 lbs
- Peak torque: 300 in-lbs
- Analog command input
- Electronic position and torque limiting
- Film position transducer
- Output shaft disconnect clutch
- Low backlash
- ±10 VDC input command signal
- Robust structural design
- High efficiency steel gearing
- Position output signal
- No load speed: 250 deg/sec
- Stroke: ±46°

Model 935

The Model 935 Rotary Servo Actuator is used to position the control surfaces plus utility applications unmanned air vehicles. This unit is design to operate under demanding environmental requirements seen worldwide.



- Size: 2.33 x 4.80 x 5.60 inches
- Power: 28 VDC
- Rated Power Point: 350 in lbs @ 120 deg/sec
- Weight: 3.2 lbs
- Stall torque: 600 in lbs
- SMCO permanent magnet DC brush motor or rare earth brushless DC motor
- ±10 VDC analog input command
- R/C command option
- RS-422/RS-485 command options
- Robust structural design
- Low endplay
- High efficiency steel gearing
- Position and current output signal
- Electronic position and torque limiting
- Non-jamming mechanical stops
- Film position transducer

- Front flange mount
- Stroke: ±46° electrical stroke
- No-load speed: 180 deg/sec
- Bandwidth to 8 Hz
- MTBF: 5000 hr

Model 940

The Model 940 Rotary Brushless Actuator is qualified for airborne applications to control the rotational function of the aircraft's targeting system. The actuator operates as a position servo with an external controller.



- Size: 3.188 x 3.15 x 4.69 inches long from back of brake to rear of mounting flange
- Power: 270 VDC
- Rated Power Point: 165 in lb @ 231 rpm
- Weight: 2.8 lbs
- Rare earth brushless DC resolver commutated motor with thermister
- Fail-safe electromagnetic brake
- Robust structural design
- Low endplay
- High efficiency planetary steel gearing
- Front flange mount (rear surface)
- Stroke: continuous rotation
- Stall torque: 190 in lbs minimum
- No-load speed 312 rpm
- 1 & 5 speed position resolvers

Model 946-01

(not for new designs)
The Model 946 Servo System which is qualified for use on the AQM-37C target is configured with three components: a servo amplifier Model 94610000, a Rotary Aileron Actuator Model 94620000 and a Rotary Canard Actuator Model 94630000. The servo accepts an analog command signal to control the actuators output position.



- Size: 2.33 x 4.8 x 4.54 inches
- Voltage: 28 VDC and 28 VDC regulated
- Weight: 4 lbs
- Analog command input
- SmCo permanent magnet DC motor
- Electronic position and torque limiting

Rotary Servo Actuators

- Film position transducer
- Canard E.M. brake
- Low backlash
- Robust structural design
- High efficiency steel gearing
- Position output signal
- Stroke: $\pm 36.5^\circ$ Aileron
43.8° CW Canard / 29.2° CCW Canard



Model 980-10 and 980-20

The Model 980 Rotary Brushless Actuator System is an antenna azimuth drive servo actuator system consisting of the actuator motor/gearhead, separate controller and interconnecting cables. The system is used for ground vehicle radar applications in full and sector scan modes.

- Size: 4.06 x 4.06 (over mounting flange) x 14.00 inches from rear of motor assembly to front of mounting flange (Model 98000000-10 Actuator)
- Size: 11.0 x 11.0 mounting base x 7.00 inches high (Model 98000000-20 Drive Controller)
- Rated Power Point: 168 in lb @ 183 rpm
- Weight: 17.3 lbs actuator only
- Input Power: 3 Phase 120/208 400 Hz
- Rare earth brushless DC Hall sensor commutated motor with thermistors
- Encoder rate feedback
- Robust structural design
- Low endplay
- High efficiency planetary steel gearing
- Front flange mount
- Stroke: continuous rotation
- Stall point: 1,650 in lbs
- No-load speed: 230 rpm (limited by controller)
- Scan, sector and stare modes
- Bit test outputs
- Separately package drive controller that accepts RS-232 commands

Model 873

The Model 873 Rotary Brushless Actuator is used to control the rotational function of the aircraft's night vision targeting system.



- Size: 1.6 x 3.5 x 5.8 inches
- Power: 150 VDC and ± 15 VDC
- Power point: 40 in-lb @ 621 rpm
- Weight: 3.9 lbs
- Peak torque: 135 in-lbs
- ± 10 VDC analog command input
- SmCo permanent magnet DC brushless motor
- 1 & 16 speed resolver
- Fail safe brake
- Very low backlash
- Robust structural design
- High efficiency steel gearing
- No load speed: 660 rpm

Model 874

The Model 874 Rotary Brushless Actuator is used to control the derotational function of the aircraft's night vision targeting system.



- Size: 1.25 x 2.35 x 4.0 inches
- Power: 150 VDC and ± 15 VDC
- Power point: 12 in-lb @ 660 rpm
- Weight: 1.4 lbs
- Peak torque: 30 in-lbs
- ± 10 VDC analog command input
- SmCo permanent magnet DC brushless motor
- 1 speed resolver
- Tachometer
- Very low backlash
- Robust structural design
- High efficiency steel gearing
- No load speed: 790 rpm

Model 875

The Model 875 Rotary Brushless Actuator is used to control the shroud function of the aircraft's night vision targeting system.



- Size: 2.2 x 2.6 x 6.8 inches
- Power: 150 VDC and ± 15 VDC
- Power point: 21 in-lb @ 230 rpm
- Weight: 3.0 lbs
- Peak torque: 46 in-lbs
- ± 10 VDC analog command input
- SmCo permanent magnet DC brushless motor
- 1 speed resolver
- Tachometer
- Fail-safe brake
- Very low backlash
- Robust structural design
- High efficiency steel gearing
- No load speed: 320 rpm

Model 905-30

The Model 905-30 Rotary Servo Actuator is used to position the control surfaces of a reconnaissance unmanned air vehicle and is designed to operate under extreme environmental conditions.



- Size: 2.3 x 4.9 inch foot print and 5.4 inches long
- Power: 28 VDC
- Power point: 150 in-lb @ 25 rpm
- Weight: 3.0 lbs
- Peak torque: 300 in-lbs
- ± 10 VDC analog command input
- Brushless permanent magnet DC motor
- Electronic position and torque limiting
- Film position transducer
- Position output signal
- Current output signal
- Low backlash
- Robust structural design
- High efficiency steel gearing
- Mechanical stops
- Bandwidth to 10 Hz
- No load speed: 35 rpm
- Stroke: $\pm 46^\circ$

Model 917

Our military qualified Model 917 Rotary Brushless Actuator is an azimuth drive servo for an airborne rate and position antenna

