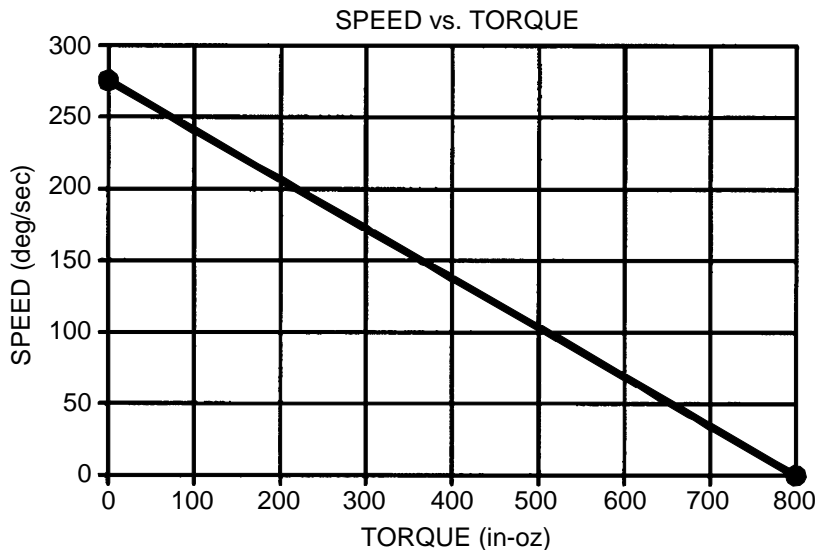


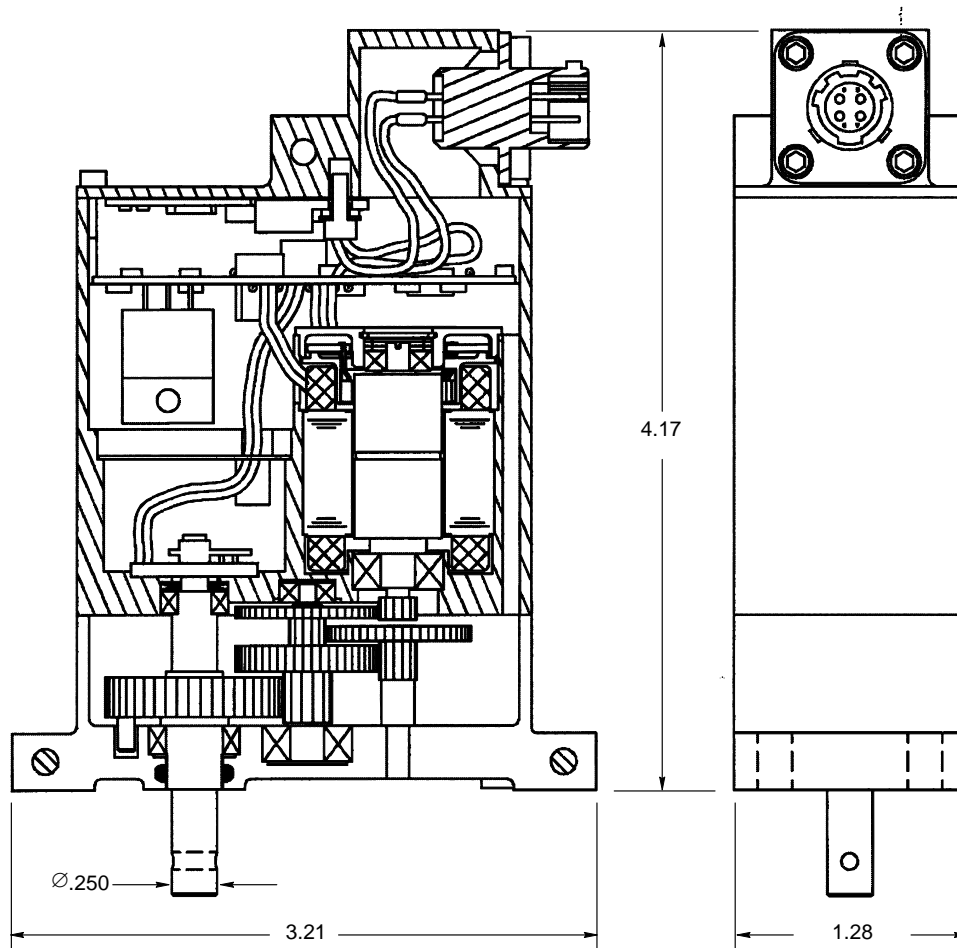


ACTUATOR ASSEMBLY, ROTARY POSITION

This rotary servo actuator is used in the Outrider Tactical Unmanned Air Vehicle, a unique reconnaissance aircraft featuring visible and infrared cameras, 7 hour loitering capability, quick set up and take-off, and autonomous autopilot control. Ten of these servo actuators control the throttle and all flight-control surfaces (ailerons, stabilator, rudder, and flaps). Major sub-systems include a programmed electronic controller, integrated brushless DC motor, case-hardened stainless steel spur gear train, precision position-feedback potentiometer, and sealed aluminum housings. The actuator continually receives position commands from the autopilot, and drives the output shaft to the commanded position. Dynamic response is -3dB at 7 Hz. Available modifications include: clevis arm output for direct connection to a rod end; external gear reduction for higher torque; vertical connector orientation.

TYPICAL ACTUATOR CHARACTERISTICS AT 25±5°C		
CHARACTERISTIC	UNITS	VALUE
WEIGHT (MAX)	OZ	14
MECHANICAL STROKE (MIN), CW AND CCW	DEGREES	95
ELECTRICAL STROKE, CCW AND CW	DEGREES	90.0±3.5
BACKLASH AT OUTPUT (MAX)	DEGREES	0.6
OUTPUT LINEARITY (MAX) VERSUS COMMAND	PERCENT	±0.5
POSITION ACCURACY AT 0 DEG	DEGREES	±1.5
PW COMMAND INPUT CURRENT (MAX) @ 4V	mA	17
MAX VOLTAGE, OPERATING	VOLTS DC	32
MIN VOLTAGE TO MEET SPEED/TORQUE	VOLTS DC	28
MIN VOLTAGE TO OPERATE	VOLTS DC	18
NO LOAD SPEED (MIN)	DEG/SEC	275
SPEED (MIN) AT 200 IN-OZ	DEG/SEC	150
PEAK TORQUE (MIN)	IN-OZ	800





ASHEVILLE PRODUCT LIST

SENSORS

LVDT
RVDT
Synchros
Resolvers

ELECTRONICS

PWM Amps
Servo Amps
Converters
Power Supplies

MOTORS

AC
DC
Brush/Brushless
Induction/Synchronous

ACTUATORS

Linear
Rotary

OTHER

Motor Gearheads
Servo Systems
Dampers
Angle Sensors
Torquers
Tachometers
Generators
Alternators
PC Boards
Harnesses

For additional information on this product or any other product listed above please contact Kearfott's Marketing Department at:

Kearfott Corporation • Motion Systems Division

2858 Route 70 W, Black Mountain, North Carolina 28711-9111 USA • Telephone (828) 350-5300 • Fax (828) 686-5764

Website: www.kearfott.com