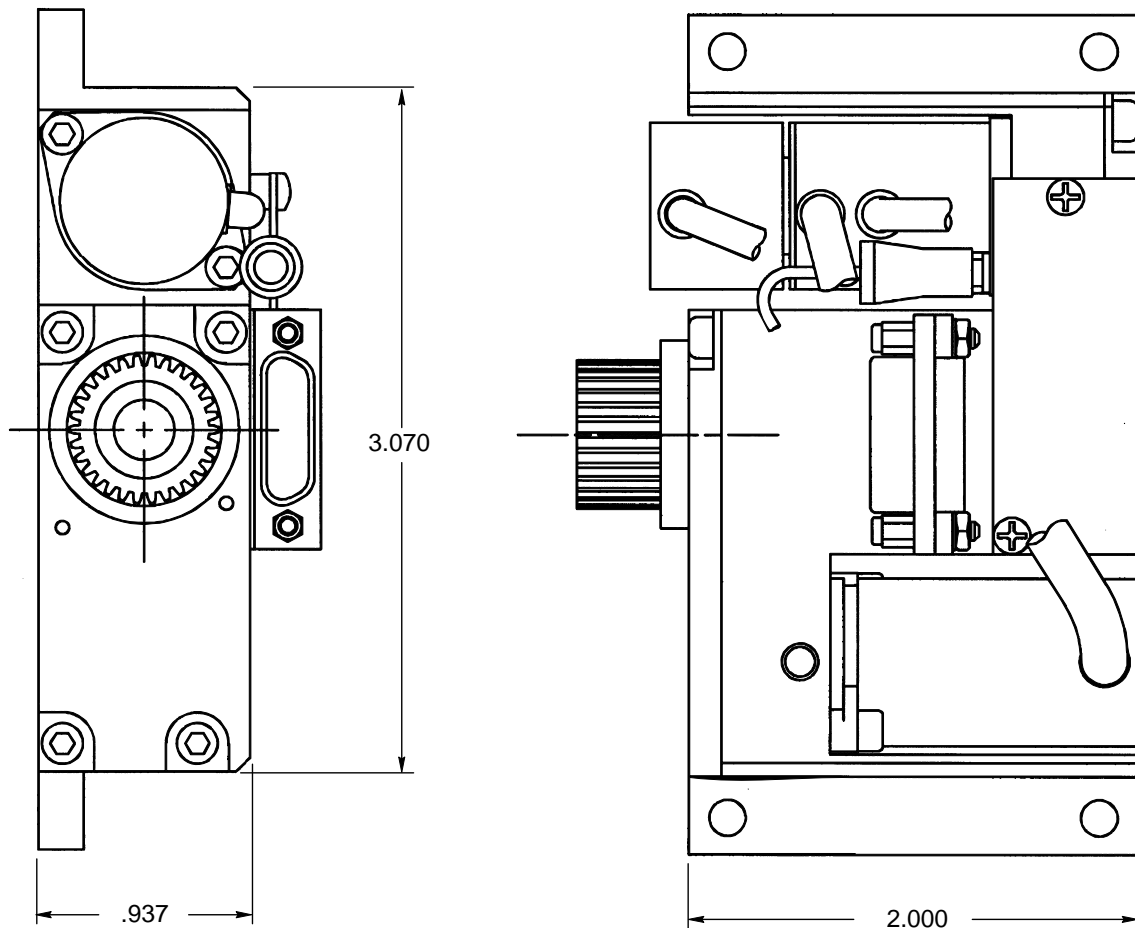




ROTARY ACTUATOR

	CHARACTERISTIC	UNIT	SYMBOL	VALUE	
ACTUATOR	WEIGHT (MAX)	POUNDS	W_t	0.70	
	RATED TORQUE (MIN)	IN-LBS	T_R	6.50	
	RATED SPEED (MIN)	RPM	ω_{NL}	58	
	STALL TORQUE (MIN)	IN-LBS	TS	9.40	
	GEAR RATIO, MOTOR TO OUTPUT PINION (APPROX)	-	Nm	172:1	
	DIRECTION OF ROTATION, MOTOR PINION TO OUTPUT PINION	-	N	DIRECT	
	GEAR RATIO, OUTPUT PINION TO RESOLVER INPUT (EXACT)	-	-	5.80:1	
	STATIC TORQUE CAPABILITY (MIN)	IN-LBS	TC	13.5	
	BACKLASH, OUTPUT PINION TO MOTOR PINION (MAX)	ARC MINUTES	B	20	
	POSITION ERROR AT RESOLVER FROM OUTPUT PINION (MAX)	ARC MINUTES	-	10	
RESOLVER	PRIMARY	-	-	ROTOR	
	RATED PRIMARY VOLTAGE	VOLTS RMS	E_{in}	6	
	TEST VOLTAGE APPLIED BETWEEN R1 AND R2, R3	VOLTS RMS	E_{in}	6	
	RATED FREQUENCY	HERTZ	f	4000	
	PRIMARY CURRENT (MAX)	MILLIAMPS	I	22	
	PRIMARY POWER (NOM)	MILLIWATTS	Pi	4.8	
	STATOR IMPEDANCE (ROTOR OPEN CIRCUIT)	OHMS	Z_{so}	145+J390	
	ROTOR IMPEDANCE (STATOR OPEN CIRCUIT)	OHMS	Z_{ro}	1150+J2700	
	OUTPUT VOLTAGE $\pm 10\%$	VOLTS	E_{out}	2.0	
	TRANSFORMATION RATIO	-	α	0.333 ± 0.033	
	SENSITIVITY	VOLTS/DEG	-	0.035	
	TOTAL NULL VOLTAGE (MAX)	MILLIVOLTS	E_{null}	30	
	ACCURACY - MAX ERROR FROM ELECTRICAL ZERO	MINUTES	-	± 5	
	OPERATING TEMPERATURE RANGE	DEG C	t	-54 to +125	
	INSULATION RESISTANCE	BETWEEN WINDINGS AND CASE	MEGOHMS	-	100
		BETWEEN ISOLATED WINDINGS			10
	HIGH POTENTIAL	BETWEEN WINDINGS AND CASE	VOLTS RMS	-	500
	BETWEEN ISOLATED WINGS			250	
MOTOR	VOLTAGE	VOLTS DC	E	28	
	BACK EMF	VOLTS/KRPM	K_e	0.9	
	TORQUE SENSITIVITY	OZ-IN/AMP	K_t	1.22	
	DC RESISTANCE	OHMS	Rm	13.0	
	AMPS AT PEAK TORQUE (MAX CURRENT LIMIT)	AMPS	I_p	2.15	
	POWER INPUT AT PEAK TORQUE	WATTS	P_p	60	
	PEAK TORQUE (REF)	OZ-IN	T_p	4.35	
	RATED TORQUE (REF)	OZ-IN	T_r	2.2	
	RATED SPEED (REF)	RPM	ω	12,500	
	POWER OUTPUT	WATTS	P_o	19.5	
	NO LOAD SPEED (MIN)	RPM	ω_{nl}	18,750	
	NO LOAD CURRENT (MAX)	AMPS	I_{nl}	0.19	
	MOTOR FRICTION TORQUE (REF)	OZ-IN	T_f	0.2	
	ELECTRICAL TIME CONSTANT (REF)	MILLISECONDS	T_e	0.14	
	MECHANICAL TIME CONSTANT (REF)	MILLISECONDS	T_m	4.4	
	MAX THEORETICAL ACCELERATION (REF)	RAD/SEC ²	α	435,000	
	ROTOR MOMENT OF INERTIA (REF)	OZ-IN-SEC ²	J	0.00001	
	ULTIMATE TEMP RISE PER WATT (REF)	DEG C/WATT	R_{th}	10.5	
	MAXIMUM PERMISSIBLE WINDING TEMPERATURE	DEG C	t_{max}	205	
	STARTING VOLTAGE (MAX)	VOLTS	E_s	1.0	
	MOTOR	INSULATION RESISTANCE AT 500 V dc	MEGOHMS (MIN)	-	100
		HIGH POTENTIAL AT 500 V ac (MAX)	MILLIAMPS	-	3.0
	AMBIENT OPERATING TEMPERATURE	DEG C	t	25	
SENSOR	INSULATION RESISTANCE AT 200 V dc (MIN)	MEGOHMS	-	100	
TACH	OUTPUT/1000 RPM ($\pm 10\%$)	VOLTS DC	E	0.323	
	SPEED (MAX)	RPM	ω_{max}	18,750	
	LINEARITY TO 20,000 RPM	PERCENT	-	2.0	
	RIPPLE PHASE TO PHASE	PERCENT	E_{RIPPLE}	6.0	
	VOLTAGE CONSTANT	V/irs^{-1}	K_e	0.003	
	WINDING RESISTANCE ($\pm 10\%$)	OHMS	R	3.93	
	WINDING INDUCTANCE ($\pm 20\%$)	MILLIHENRY	L	0.280	



ASHEVILLE PRODUCT LIST

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

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