

RESOLVER, BRUSHLESS

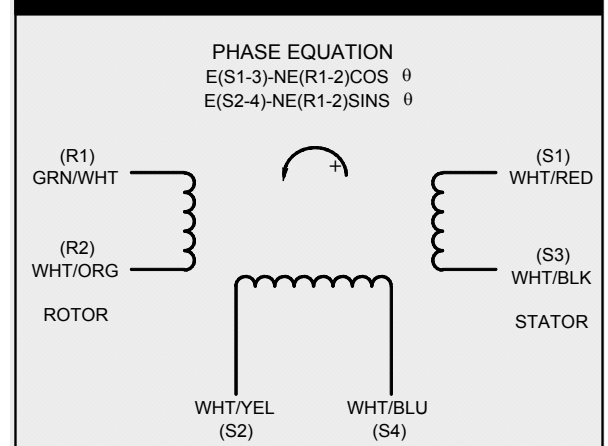
The Kearfott size 11 brushless frameless resolver is designed to provide high accuracy analog position feedback signals over a wide temperature range. The frameless design allows the sensor to be mounted directly to a motor shaft without additional bearings or couplings for use in commutating brushless motors. These sensors provide increased reliability, accuracy, temperature range and environmental stability when compared to typical commutation devices.

ELECTRICAL DATA

CHARACTERISTICS	UNIT	SYMBOL	VALUE
PRIMARY	–	–	ROTOR
RATED VOLTAGE	VOLTS rms	E_{IN}	4.0
RATE FREQUENCY	HERTZ	f	4740
PRIMARY CURRENT (MAX)	MILLIAMPS	I	17.5
PRIMARY POWER (NOM)	MILLIWATTS	P_i	21
ROTOR IMPEDANCE (STATOR OPEN CIRCUIT) (REF)	OHMS	Z_{RO}	$90 + j249$
ROTOR IMPEDANCE (STATOR SHORT CIRCUIT) (REF)	OHMS	Z_{RS}	N/A
STATOR IMPEDANCE (ROTOR OPEN CIRCUIT) (REF)	OHMS	Z_{SO}	$169 + j244$
STATOR IMPEDANCE (ROTOR SHORT CIRCUIT) (REF)	OHMS	Z_{SS}	TBD
OUTPUT VOLTAGE ($\pm 5\%$)	VOLTS rms	E_{OUT}	2.0
TRANSFORMATION RATIO	–	α	0.5
PHASE SHIFT INPUT TO INPUT	DEGREES	ϕ	$9.5^\circ \pm 3^\circ$
TOTAL NULL VOLTAGE (MAX)	MILLIVOLTS	E_{NULL}	15
ERROR AT 15° INTERVALS (MAX)	MINUTES	–	± 10
STATOR DC RESISTANCE ($\pm 10\%$)	OHMS	S_{DC}	91
ROTOR DC RESISTANCE ($\pm 10\%$)	OHMS	R_{DC}	15.8
HIGH POTENTIAL TO CASE	VOLTS	–	500
HIGH POTENTIAL INTERPHASE	VOLTS	–	250



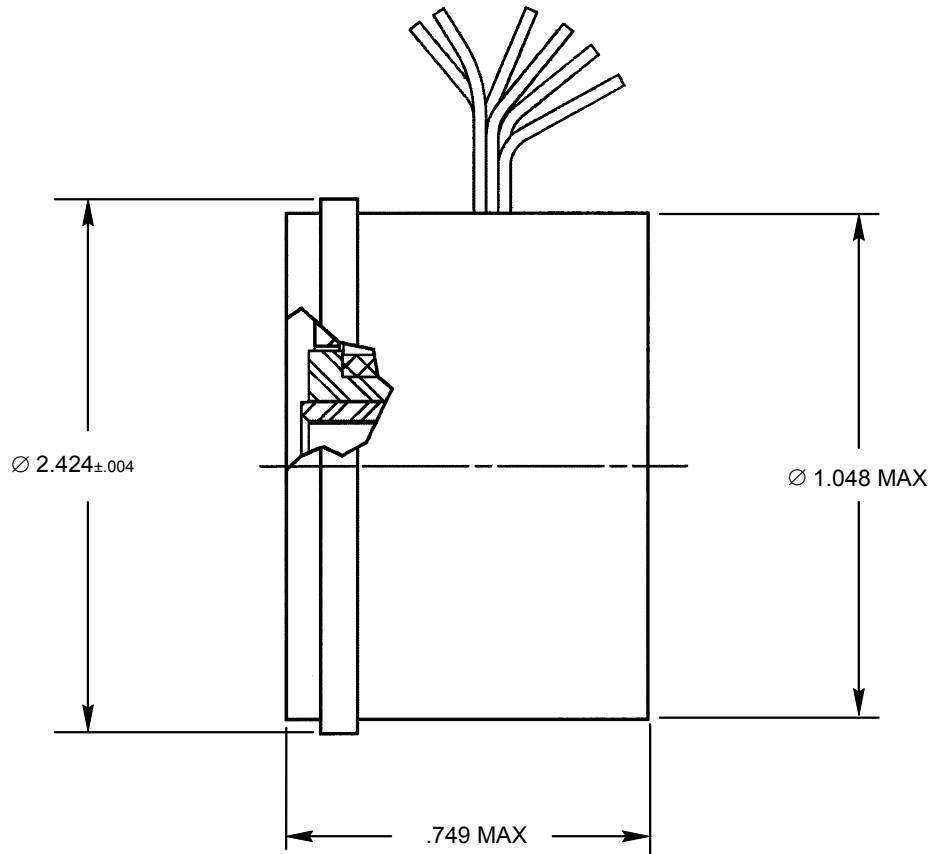
WIRING DIAGRAM



OPERATING TEMPERATURE RANGE	DEGREES F	°F	-65 TO 300
-----------------------------	-----------	----	------------

MECHANICAL DATA

CHARACTERISTICS	UNITS	SYMBOL	VALUE
WEIGHT (MAX)	GRAM	W	65
ROTOR MOMENT OF INERTIA (MAX)	GRAM-CENTIMETER	J	TBD
FRICTION (MAX)	GRAM-CENTIMETER	T_f	N/A



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