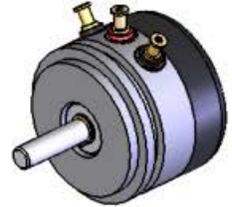


6009 SERIES

7/8 In. Dia. Servo Mount
PRECISION POSITION
SENSORS



STANDARD PRODUCT OFFERING

MS PART NUMBER

RESISTANCE

6009-1000-030

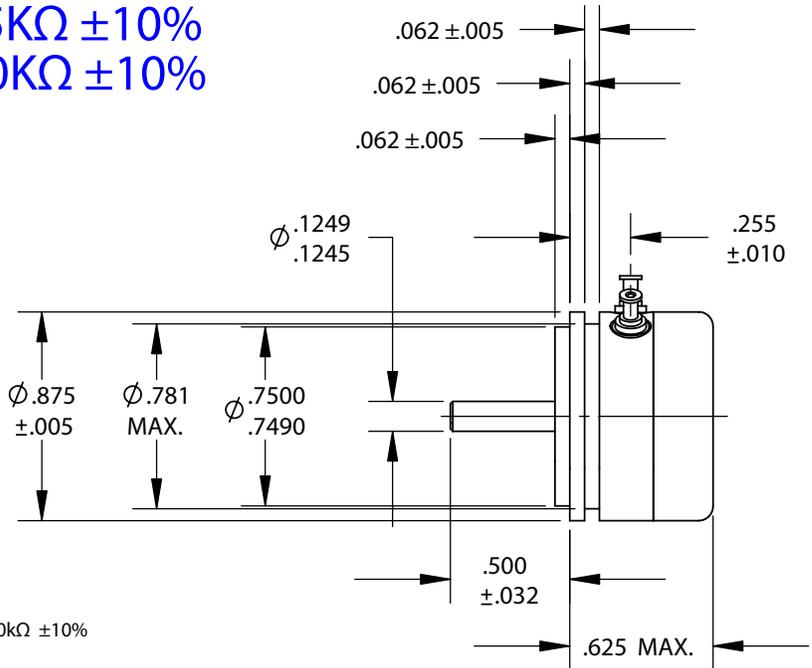
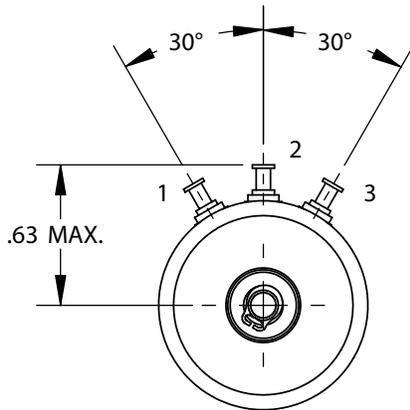
1KΩ ±10%

6009-1002-030

5KΩ ±10%

6009-1003-030

10KΩ ±10%



STANDARD MODEL ELECTRICAL CHARACTERISTICS

RESISTANCE:	1kΩ to 10kΩ ±10%
ACTIVE ELECTRICAL ANGLE:	340°
ELECTRICAL CONTINUITY ANGLE:	344° MIN.
INDEPENDENT LINEARITY:	±0.5%
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.
DIELECTRIC STRENGTH:	750 VRMS @ 60Hz
INSULATION RESISTANCE:	100 MegΩ MIN. @ 500VDC

STANDARD ENVIRONMENTAL CHARACTERISTICS

OPERATING TEMP. RANGE:	-65°C To +125°C
ROTATIONAL OPERATING LIFE:	100 x 10 ⁶ REVOLUTIONS MIN.

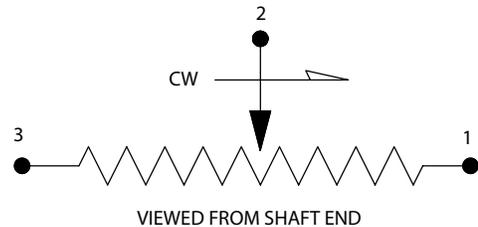
STANDARD MODEL MECHANICAL CHARACTERISTICS

MECHANICAL ROTATION:	CONTINUOUS
STARTING TORQUE:	0.25 Oz.-In. MAX.
RUNNING TORQUE:	0.20 Oz.-In. MAX.
TOTAL WEIGHT (1-GANG):	0.6 Oz. MAX.
PILOT RUNOUT:	0.001 In. TIR
SHAFT RUNOUT:	0.001 In. TIR
SHAFT END PLAY:	0.003 MAX.
SHAFT RADIAL PLAY:	0.001 In. TIR
LATERAL RUNOUT:	0.002 In. TIR

STANDARD MATERIALS OF CONSTRUCTION

HOUSING AND COVER:	ANODIZED ALUMINUM
SHAFT AND BALL BEARINGS:	STAINLESS STEEL
RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL
SOLDER TERMINALS:	GOLD PLATED BRASS

SCHEMATIC DIAGRAM

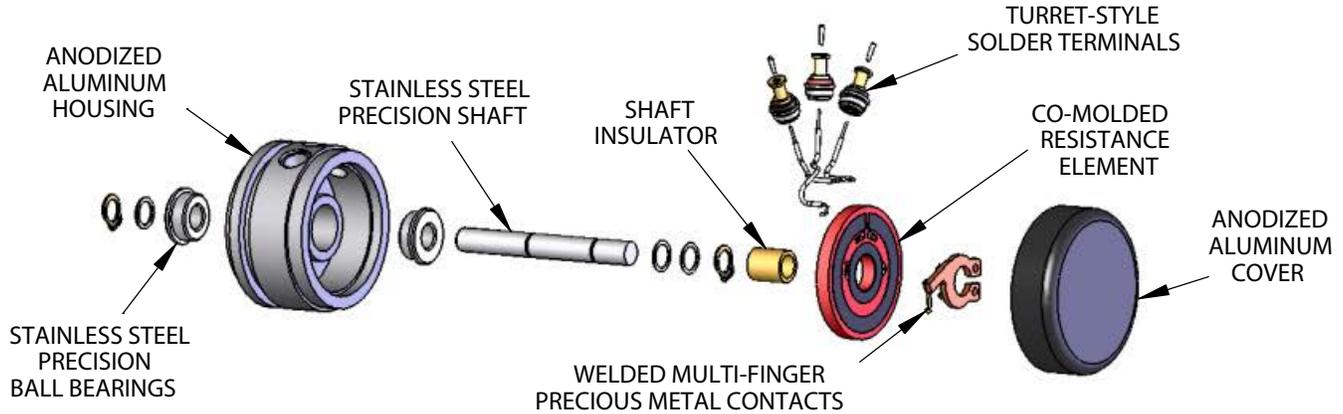


ALL OTHER GENERAL REQUIREMENTS IN
ACCORDANCE WITH MIL-PRF-39023



6009 SERIES

7/8 In. Dia. Servo Mount
PRECISION POSITION
SENSORS



STANDARD ELECTRICAL CHARACTERISTICS

RESISTANCES ($\pm 10\%$):	1K Ω , 5K Ω , and 10k Ω
ACTIVE ELECTRICAL ANGLE:	340°
ELECTRICAL CONTINUITY ANGLE:	344° MIN.
INDEPENDENT LINEARITY:	$\pm 0.5\%$
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.
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SOLDER TERMINALS:	GOLD PLATED BRASS

ALL OTHER GENERAL REQUIREMENTS
IN ACCORDANCE WITH MIL-PRF-39023

AVAILABLE OPTIONS

CUSTOM RESISTANCE VALUES (500 Ω TO 50k Ω)
AND TOLERANCES AS LOW AS $\pm 5\%$

SPECIAL LINEARITIES AS LOW AS 0.15%, ABSOLUTE
(INDEXED) OR INDEPENDENT OVER SPECIFIED
REGIONS.

ADDITIONAL TAPS, CURRENT OR VOLTAGE

CURRENT LIMIT RESISTORS AND OTHER INTERNAL
CIRCUIT COMPONENTS (CAPS, DIODES, ETC.)

SPECIAL ELECTRICAL ANGLES UP TO 355° MAX.

WIRE LEADS OR CABLE IN PLACE OF TERMINALS

SPECIAL TRANSFER FUNCTIONS:
NON-LINEAR OUTPUTS
LOAD COMPENSATION
TRIG, LOG, AND EXPONENTIAL OUTPUTS

MULTI-GANG CONSTRUCTION (UP TO 6) ON A
COMMON SHAFT OR CONCENTRIC SHAFTING
(ADD .320 LENGTH PER GANG).

SPECIAL SHAFT LENGTHS AND FEATURES SUCH AS
REAR EXTENSIONS, FLATS, SLOTS, AND STEPS.

SPECIAL TORQUE OR DETENT REQUIREMENTS AS
LOW AS .015 STARTING TORQUE.

SPECIAL MOUNTING DIMENSIONS OR FEATURES
INCLUDING ANTI-ROTATION PINS, BOLT FLANGES,
AND THREADED HOLES.

ROTATIONAL STOPS LIMITING SHAFT TRAVEL.

ANCILLIARY DEVICES SUCH AS SPRING RETURNS,
CLUTCHES, BRAKES, AND SWITCHES.

SPECIAL ENVIRONMENTAL CAPABILITIES SUCH AS
MOISTURE SEALS, HIGH SHOCK AND
VIBRATION.

Mouser Electronics

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