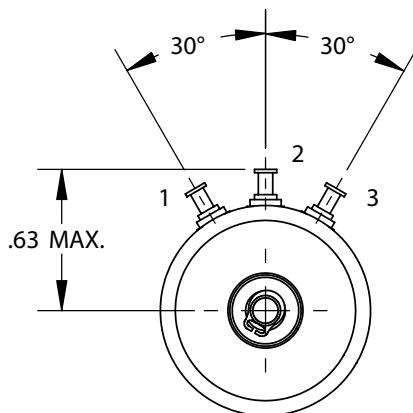


STANDARD PRODUCT OFFERING

MS PART NUMBER	RESISTANCE
6009-1000-030	1KΩ ±10%
6009-1002-030	5KΩ ±10%
6009-1003-030	10KΩ ±10%



STANDARD MODEL ELECTRICAL CHARACTERISTICS

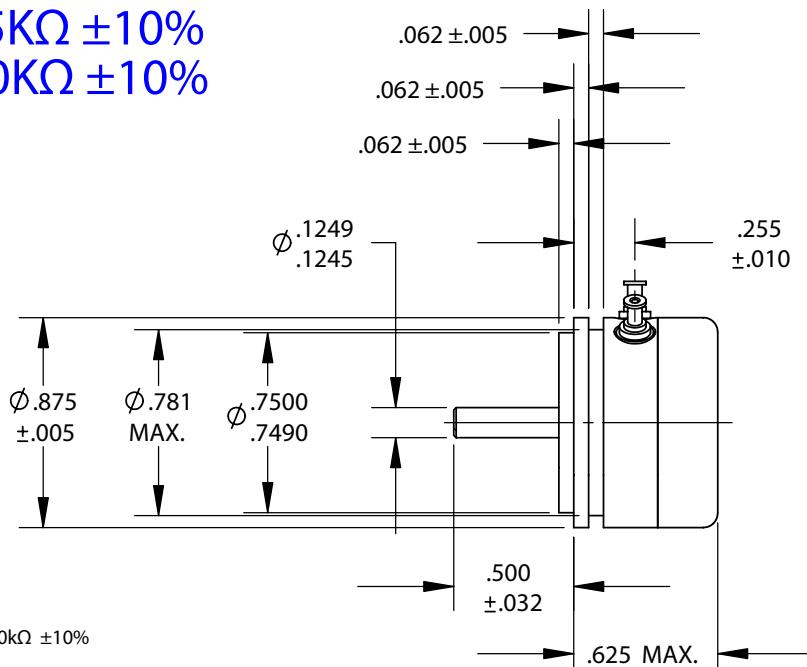
RESISTANCE:	1kΩ to 10kΩ ±10%
ACTIVE ELECTRICAL ANGLE:	340°
ELECTRICAL CONTINUITY ANGLE:	344° MIN.
INDEPENDENT LINEARITY:	±0.5%
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER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

STANDARD 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

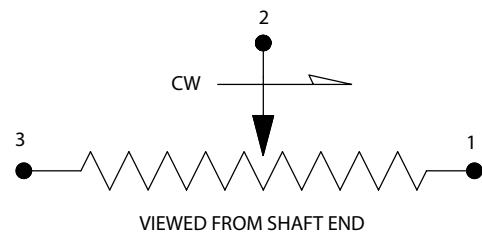
HOUSING AND COVER:	ANODIZED ALUMINUM
SHAFT AND BALL BEARINGS:	STAINLESS STEEL
RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL
SOLDER TERMINALS:	GOLD PLATED BRASS



STANDARD ENVIRONMENTAL CHARACTERISTICS

OPERATING TEMP. RANGE: -65°C To +125°C
ROTATIONAL OPERATING LIFE: 100 x 10⁶ REVOLUTIONS MIN.

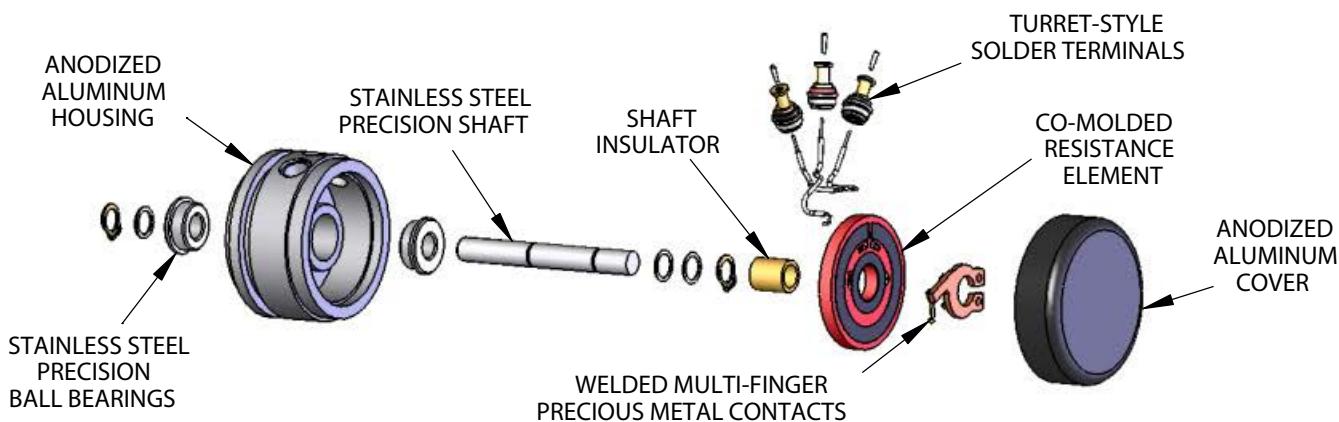
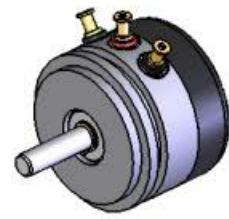
SCHEMATIC DIAGRAM



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/ $^{\circ}$ C MAX.
POWER RATING @ 70 $^{\circ}$ C:	1.0 WATT MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.
DIELECTRIC STRENGTH:	750 VRMS @ 60Hz
INSULATION RESISTANCE:	100 Meg Ω MIN. @ 500 VDC

STANDARD 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 ENVIRONMENTAL CHARACTERISTICS

OPERATING TEMP. RANGE:	-65 $^{\circ}$ C To +125 $^{\circ}$ C
ROTATIONAL OPERATING LIFE:	100 x 10 ⁶ REVOLUTIONS MIN.

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

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.
ANCIILLARY DEVICES SUCH AS SPRING RETURNS, CLUTCHES, BRAKES, AND SWITCHES.
SPECIAL ENVIRONMENTAL CAPABILITIES SUCH AS MOISTURE SEALS, HIGH SHOCK AND VIBRATION.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[6009-1003-030](#)