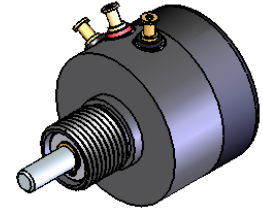


6209 SERIES

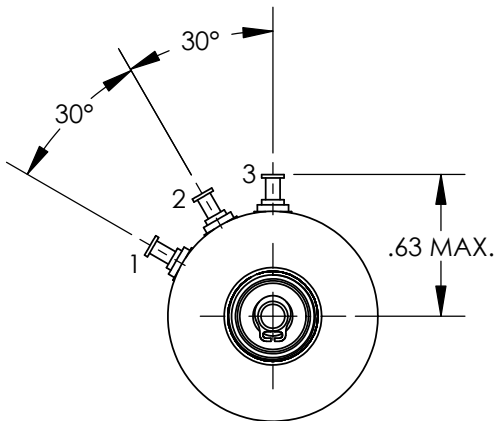
7/8 In. Dia. Bushing Mount
PRECISION POSITION
SENSORS



STANDARD PRODUCT OFFERING

SS&C PART NUMBER	RESISTANCE
6209-1000-030	1KΩ ±10%
6209-1002-030	5KΩ ±10%
6209-1003-030	10KΩ ±10%

MOUNTING HARDWARE FURNISHED



STANDARD MODEL ELECTRICAL CHARACTERISTICS

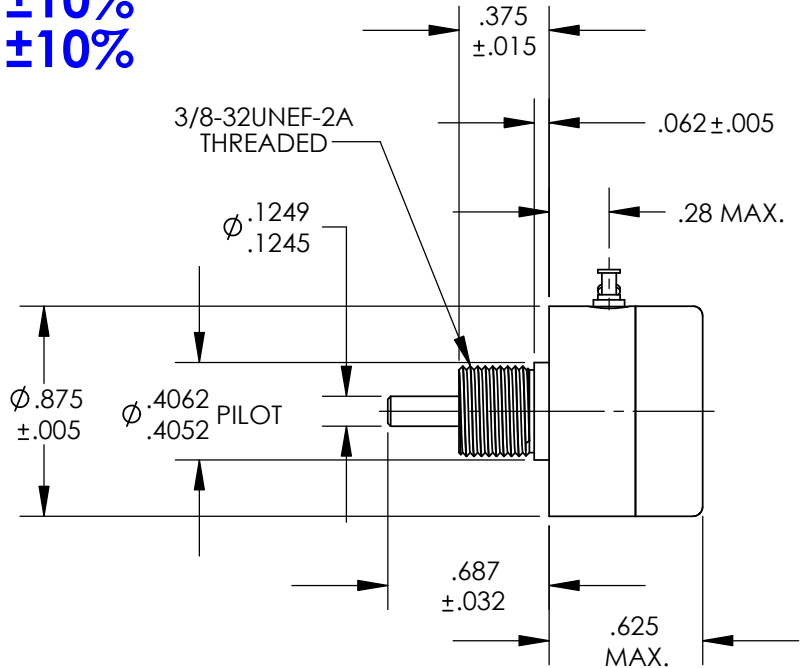
RESISTANCE:	1kΩ to 10kΩ ±10%
ACTIVE ELECTRICAL ANGLE:	340°
ELECTRICAL CONTINUITY ANGLE:	344° MIN.
INDEPENDENT LINEARITY:	±0.5%
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER 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

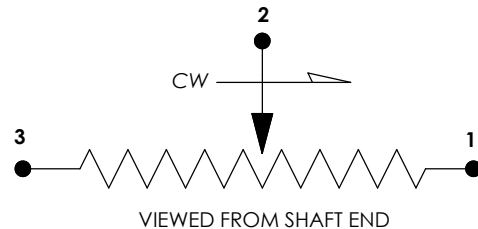
HOUSING AND COVER:	ANODIZED ALUMINUM
SHAFT AND BALL BEARINGS:	STAINLESS STEEL
RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL
SOLDER TERMINALS:	GOLD PLATED BRASS



STANDARD ENVIRONMENTAL CHARACTERISTICS

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

SCHEMATIC DIAGRAM

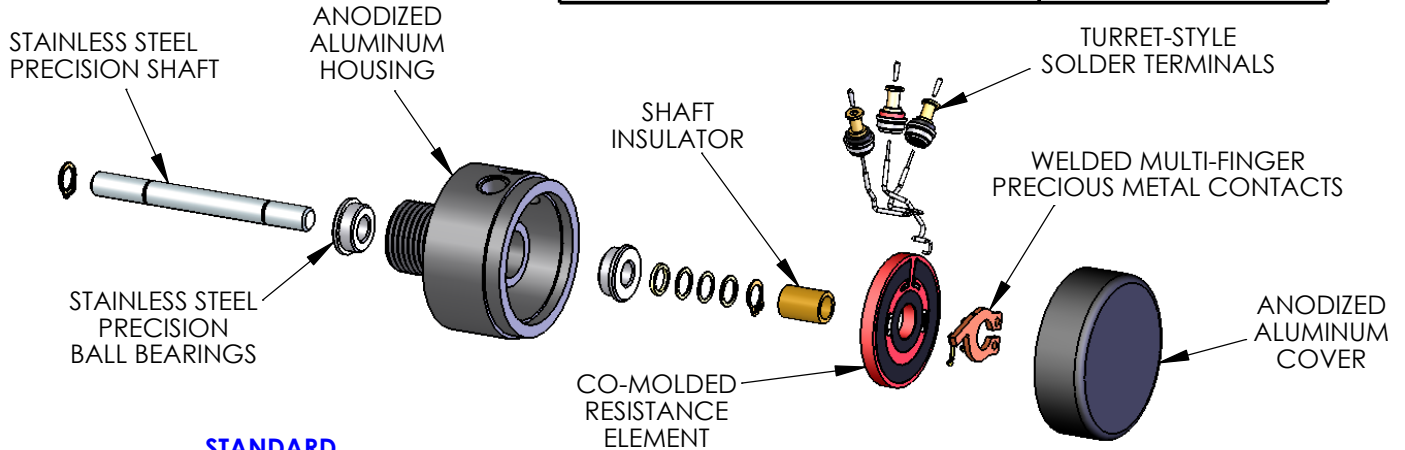
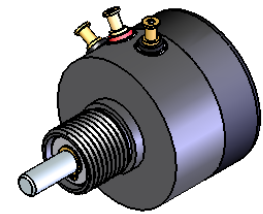


ALL OTHER GENERAL REQUIREMENTS IN ACCORDANCE WITH MIL-PRF-39023

CONTACT:

SPECTRUM SENSORS & CONTROLS, INC.
424 CROWN POINT CIRCLE, GRASS VALLEY, CA 95945
(800) 880-7730 (530) 273-4608 FAX: (530) 273-0769
E-MAIL: sales@specsensors.com

6209 SERIES
7/8 In. Dia. Bushing 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.
DIELECTRIC STRENGTH:	750 VRMS @ 60Hz
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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 Oz.-In. STARTING TORQUE.
- SPECIAL MOUNTING DIMENSIONS OR FEATURES SUCH AS ANTI-ROTATION LOCATING PINS AND BUSHING FLATS OR SLOTS.
- 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.