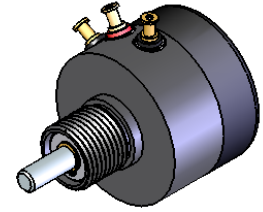




6209 SERIES

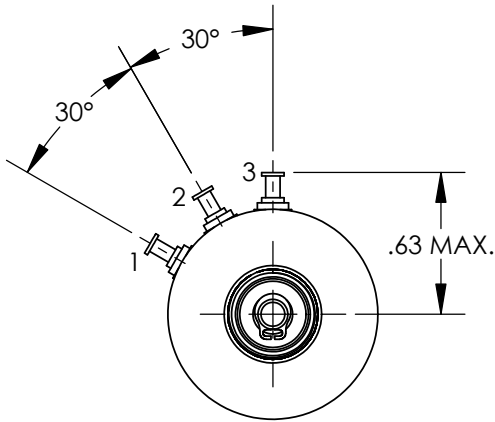
7/8 In. Dia. Bushing Mount
PRECISION POSITION
SENSORS



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

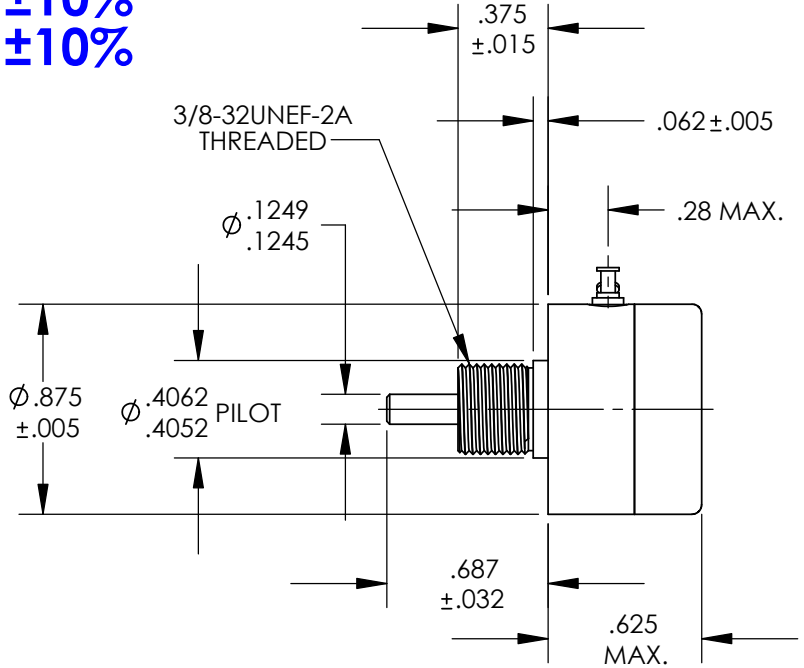
RESISTANCE:	1kΩ to 10kΩ ±10%
ACTIVE ELECTRICAL ANGLE:	340°
ELECTRICAL CONTINUITY ANGLE:	344° MIN.
INDEPENDENT LINEARITY:	±0.5%
END VOLTAGE:	0.5% MAX.
VOLTAGE RESOLUTION:	VIRTUALLY INFINITE
OUTPUT SMOOTHNESS:	0.1% MAX.
RESISTANCE TEMP. COEFFICIENT:	400PPM/°C MAX.
POWER RATING @ 70°C:	1.0 WATT MAX.
WIPER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

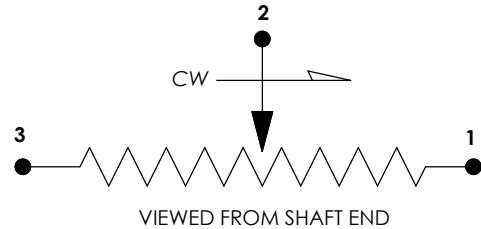
HOUSING AND COVER:	ANODIZED ALUMINUM
SHAFT AND BALL BEARINGS:	STAINLESS STEEL
RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL
SOLDER TERMINALS:	GOLD PLATED BRASS



STANDARD ENVIRONMENTAL CHARACTERISTICS

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

SCHEMATIC DIAGRAM



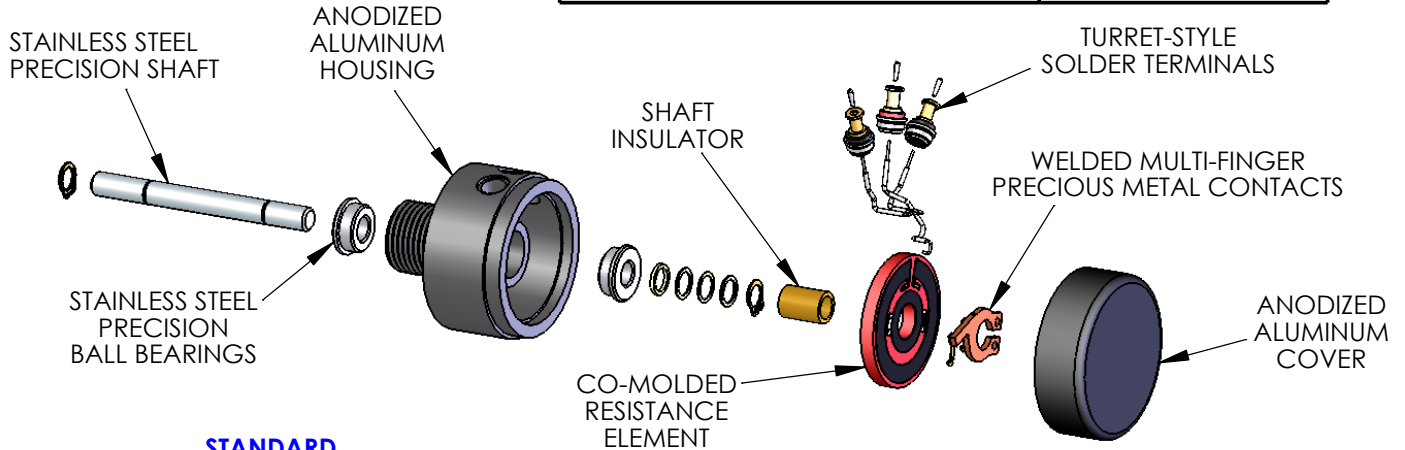
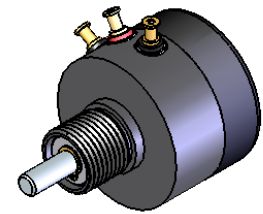
ALL OTHER GENERAL REQUIREMENTS IN ACCORDANCE WITH MIL-PRF-39023

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.