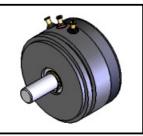


6015 SERIES

1-7/16 In. Dia. Servo Mount PRECISION POSITION **SENSORS**



STANDARD PRODUCT OFFERING

SS&C PART NUMBER

20°

RESISTANCE

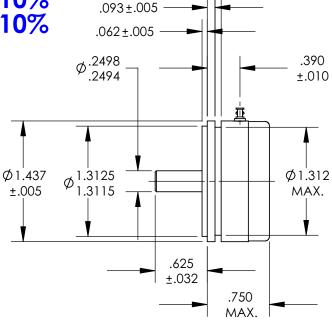
6015-1000-030 6015-1002-030 6015-1003-030

3

20°

 $1K\Omega \pm 10\%$ 5KΩ ±10% $10K\Omega \pm 10\%$

.915 MAX.



 $.072 \pm .005$

STANDARD MODEL **ELECTRICAL CHARACTERISTICS**

RESISTANCE: ACTIVE ELECTRICAL ANGLE: ELECTRICAL CONTINUITY ANGLE: 344° MIN. INDEPENDENT LINEARITY: **END VOLTAGE:**

VOLTAGE RESOLUTION: OUTPUT SMOOTHNESS: RESISTANCE TEMP. COEFFICIENT: 400PPM/°C MAX. POWER RATING @ 70°C: WIPER CONTACT CURRENT:

DIELECTRIC STRENGTH: INSULATION RESISTANCE: $1k\Omega$ to $10k\Omega$ $\pm10\%$

340° ±0.5% 0.5% MAX. VIRTUALLY INFINITE

0.1% MAX. 2 WATTS MAX. 10 MilliAmps MAX. 1000 VRMS @ 60Hz

 $100 \text{ Meg}\Omega \text{ MIN.} @ 500 \text{VDC}$

STANDARD **ENVIRONMENTAL CHARACTERISTICS**

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

MECHANICAL CHARACTERISTICS

MECHANICAL ROTATION: **CONTINUOUS** STARTING TORQUE: 0.30 Oz.-In. MAX. **RUNNING TORQUE:** 0.20 Oz.-In. MAX. TOTAL WEIGHT (1-GANG): 2.0 Oz. MAX. PILOT RUNOUT: 0.001 In. TIR SHAFT RUNOUT: 0.001 In. TIR 0.003 MAX. SHAFT END PLAY: SHAFT RADIAL PLAY: 0.001 In. TIR LATERAL RUNOUT: 0.002 In. TIR

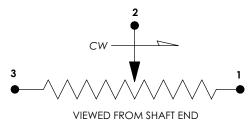
STANDARD MODEL

STANDARD MATERIALS OF CONSTRUCTION

HOUSING AND COVER: SHAFT AND BALL BEARINGS: **RESISTANCE ELEMENT:** FLECTRICAL CONTACTS: **SOLDER TERMINALS:**

ANODIZED ALUMINUM STAINLESS STEEL CO-MOLDED CONDUCTIVE PLASTIC MULTI-FINGER PRECIOUS METAL **GOLD PLATED BRASS**

SCHEMATIC DIAGRAM



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

CONTACT:

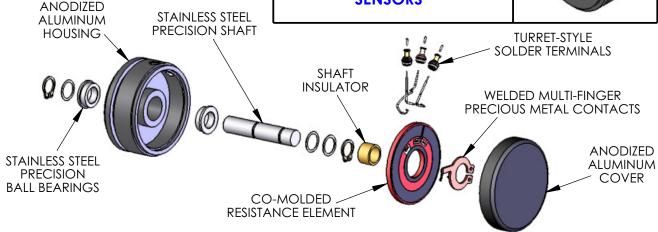
SPECTRUM SENSORS & CONTROLS, INC. 424 CROWN POINT CIRCLE, GRASS VALLEY, CA 95945 (800) 880-7730 (530) 273-4608 FAX: (530) 273-0769 E-MAIL: sales@specsensors.com



6015 SERIES

1-7/16 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: ±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: 2 WATTS MAX.

WIPER CONTACT CURRENT: 10 Milliamps MAX.

DIELECTRIC STRENGTH: 1000 VRMS @ 60Hz

INSULATION RESISTANCE: 100 Meg Ω MIN. @ 500VDC

STANDARD

MECHANICAL CHARACTERISTICS

CONTINUOUS MECHANICAL ROTATION: STARTING TORQUE: 0.30 Oz.-In. MAX. **RUNNING TORQUE:** 0.20 Oz.-In. MAX. TOTAL WEIGHT (1-GANG): 1.6 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° C To $+125^{\circ}$ C ROTATIONAL OPERATING LIFE: 100×10^{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 60k Ω) AND TOLERANCES AS LOW AS $\pm 5\%$

SPECIAL LINEARITIES AS LOW AS 0.075%, ABSOLUTE (INDEXED) OR INDEPENDENT OVER SPECIFIED REGION

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

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 CAPABILITES SUCH AS MOISTURE SEALS, HIGH SHOCK AND VIBRATION.

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