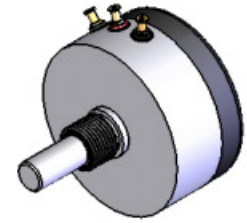




# 6215 SERIES

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



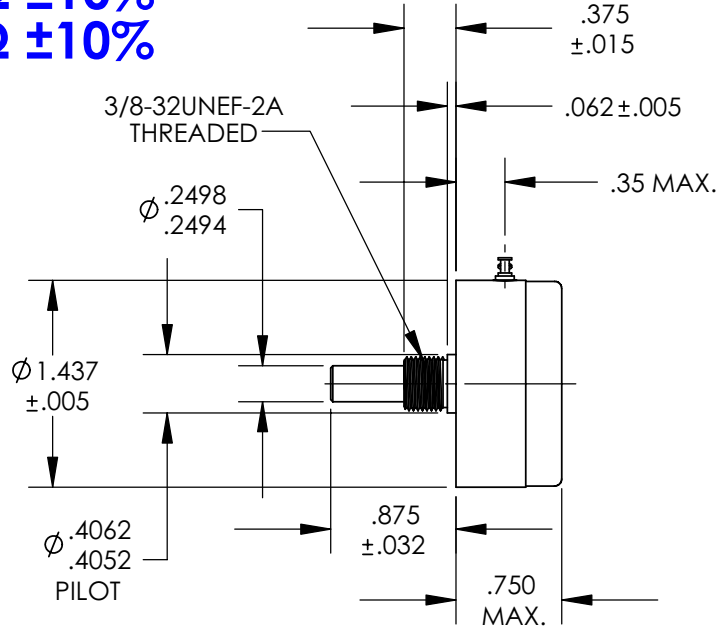
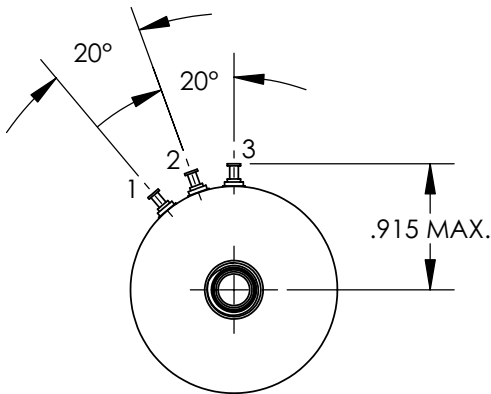
## STANDARD PRODUCT OFFERING

SS&C PART NUMBER

RESISTANCE

MOUNTING HARDWARE FURNISHED

**6215-1000-030**    **1KΩ ±10%**  
**6215-1002-030**    **5KΩ ±10%**  
**6215-1003-030**    **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:	2 WATTS MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.
DIELECTRIC STRENGTH:	1000 VRMS @ 60Hz
INSULATION RESISTANCE:	100 MegΩ MIN. @ 500VDC

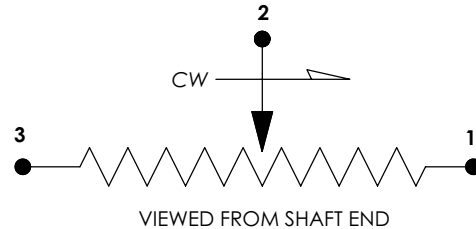
### STANDARD ENVIRONMENTAL CHARACTERISTICS

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

### STANDARD MODEL 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
SHAFT END PLAY:	0.003 MAX.
SHAFT RADIAL PLAY:	0.001 In. TIR
LATERAL RUNOUT:	0.002 In. TIR

### SCHEMATIC DIAGRAM



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

### STANDARD MATERIALS OF CONSTRUCTION

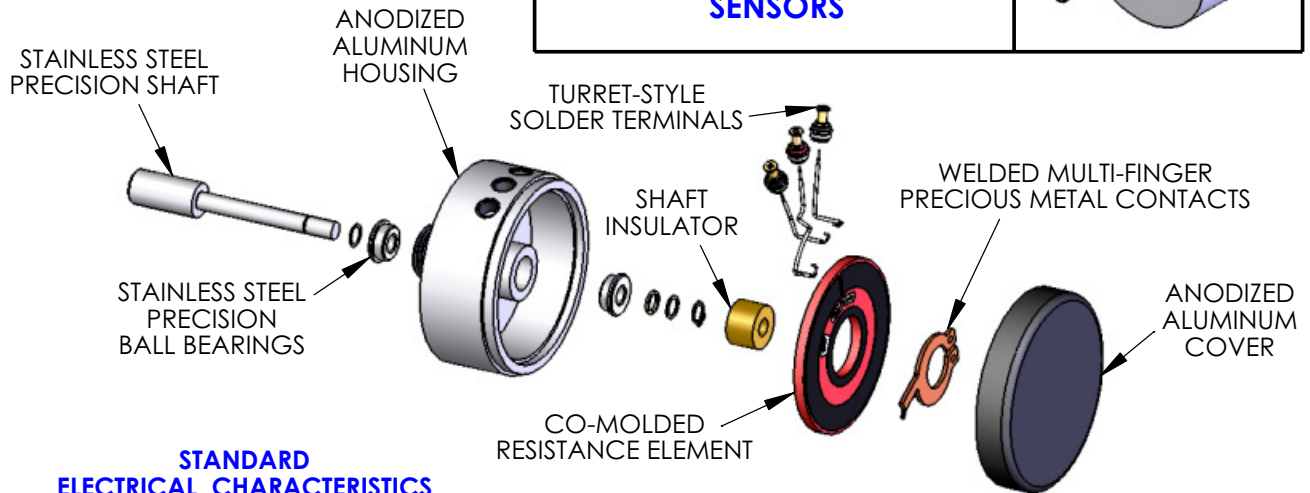
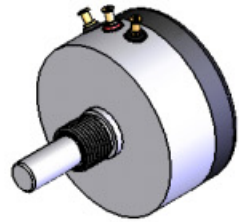
HOUSING AND COVER:	ANODIZED ALUMINUM
SHAFT AND BALL BEARINGS:	STAINLESS STEEL
RESISTANCE ELEMENT:	CO-MOLDED CONDUCTIVE PLASTIC
ELECTRICAL CONTACTS:	MULTI-FINGER PRECIOUS METAL
SOLDER TERMINALS:	GOLD PLATED BRASS

### 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

# 6215 SERIES

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



## STANDARD ELECTRICAL CHARACTERISTICS

RESISTANCES ( $\pm 10\%$ ):	1K $\Omega$ , 5K $\Omega$ , and 10k $\Omega$
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:	2 WATTS MAX.
WIPER CONTACT CURRENT:	10 MilliAmps MAX.
DIELECTRIC STRENGTH:	1000 VRMS @ 60Hz
INSULATION RESISTANCE:	100 Meg $\Omega$ MIN. @ 500VDC

## STANDARD MECHANICAL CHARACTERISTICS

MECHANICAL ROTATION:	CONTINUOUS
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

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## AVAILABLE OPTIONS

CUSTOM RESISTANCE VALUES (500 $\Omega$  TO 60k $\Omega$ )  
AND TOLERANCES AS LOW AS  $\pm 5\%$

SPECIAL LINEARITIES AS LOW AS 0.075%, 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

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.