

## 6015 ROTARY SERIES

1K $\Omega$ , 2K $\Omega$ , 5K $\Omega$ , 10K $\Omega$ , 20K $\Omega$  • Precision Position Potentiometer 1-7/16" Dia. Servo Mount

### SPECIFICATIONS

**Industrial / Military Grade Rotary Position Sensor**

**Rotational Operating Life 100 x 10<sup>6</sup> Revolutions Min.**

**Anodized Aluminum Housing**

**Stainless Steel Shaft & Ball Bearings**

**General Requirements IAW MIL-PRF-39023**

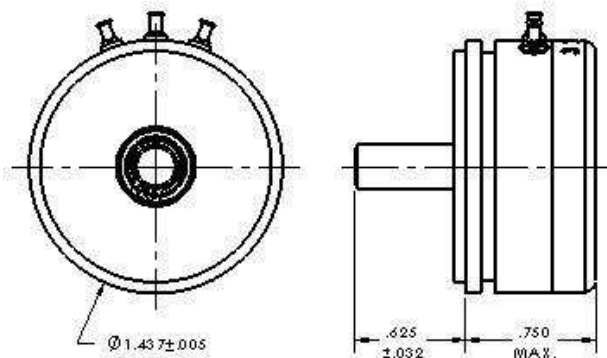
MEAS rotary potentiometer designs provide various non-linear tapers, taps, multi-sections, and electrical angles while maintaining great reliability.

### FEATURES

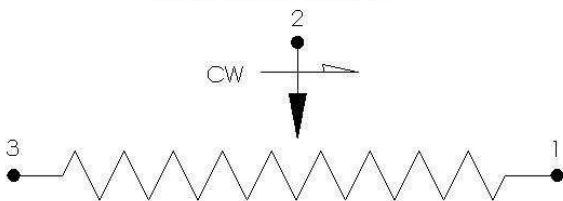
- Less Space (1-7/16" Dia. Sizes)
- Greater Reliability
- Resolution
- Output Smoothness
- Special Linearity Options
- Mechanical Stops Option
- Long Life
- Various Non-Linear Tapers, Taps, Multi-sections, Electrical Angles, Special Total Resistance

### ELECTRICAL CHARACTERISTICS

<b>RESISTANCE</b>	1K $\Omega$ to 20K $\Omega$ $\pm$ 10%
<b>ACTIVE ELECTRICAL ANGLE</b>	340°
<b>ELECTRICAL CONTINUITY ANGLE</b>	344° MIN
<b>INDEPENDENT LINEARITY</b>	$\pm$ 0.1%
<b>END VOLTAGE</b>	0.5% MAX
<b>VOLTAGE RESOLUTION</b>	VIRTUALLY INFINITE
<b>OUTPUT SMOOTHNESS</b>	0.1% MAX
<b>RESISTANCE TEMP. COEFFICIENT</b>	400 PPM/ $^{\circ}$ C MAX
<b>POWER RATING @ 70<math>^{\circ}</math>C</b>	1.5 WATT MAX
<b>WIPER CONTACT CURRENT</b>	10mA MAX
<b>DIELECTRIC STRENGTH</b>	1000 VRMS @ 60Hz
<b>INSULATION RESISTANCE</b>	100m $\Omega$ MIN @ 500VDC



SCHEMATIC DIAGRAM



VIEWED FROM SHAFT END

## 6015 ROTARY SERIES

1K $\Omega$ , 2K $\Omega$ , 5K $\Omega$ , 10K $\Omega$ , 20K $\Omega$  • Precision Position Potentiometer 1-7/16" Dia. Servo Mount

### MECHANICAL CHARACTERISTICS

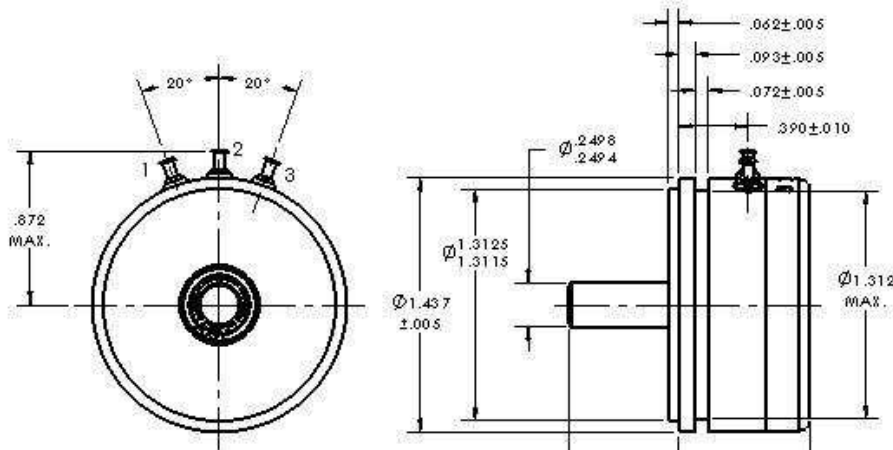
MECHANICAL ROTATION	CONTINUOUS
STARTING TORQUE	0.30 Oz.-In. MAX
RUNNING TORQUE	0.20 Oz.-In. MAX
TOTAL WEIGHT (1-GANG)	2.0 Oz. MAX
PILOT RUNOUT	0.001 In. TIR
SHAFT RUNOUT	0.001 In. TIR
SHAFT ENDPLAY	0.003 MAX
SHAFT RADIAL PLAY	0.001 In. TIR
LATERAL RUNOUT	0.002 In. TIR

### STANDARD MATERIALS

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

### ENVIRONMENTAL CHARACTERISTICS

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



Dimensions are in inches,  
tolerances are:  
Angular =  $\pm 2^\circ$   
.XX =  $\pm 0.01$   
.XXX =  $\pm 0.005$   
.XXXX =  $\pm 0.0005$

## 6015 ROTARY SERIES

1K $\Omega$ , 2K $\Omega$ , 5K $\Omega$ , 10K $\Omega$ , 20K $\Omega$  • Precision Position Potentiometer 1-7/16" Dia. Servo Mount

### AVAILABLE OPTIONS / CUSTOMIZATION

- ◆ Resistance Values
  - 500 $\Omega$  to 60K $\Omega$
- ◆ Tolerances
  - As low as  $\pm 5\%$
- ◆ Special Linearity
  - As low as 0.075%
  - Absolute (Indexed)
  - Or Independent over specified regions
- ◆ Additional Taps, Current or Voltage
- ◆ Current Limit Resistors
- ◆ 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, & Exponential Outputs
- ◆ Multi-gang Construction
  - Up to 6 on a common shaft (+.320 Length per gang) or concentric shafting
- ◆ Shaft Modifications
  - Rear Extensions
  - Flats
  - Slots
  - Steps
- ◆ Special Torque or Detent Requirements
- ◆ Mounting Features
  - Anti-rotation Pins
  - Bolt Flanges
  - Threaded Holes
- ◆ Rotational Stops Limiting Shaft Travel
- ◆ Ancillary Devices
  - Clutches
  - Spring Returns
  - Brakes
  - Switches
- ◆ Environmental Capabilities
  - Moisture Seals
  - High Shock & Vibe

### ORDERING INFORMATION

Model Number:	Resistance:
6015-1000-030	1K $\Omega$ $\pm 10\%$
6015-1001-030	2K $\Omega$ $\pm 10\%$
6015-1002-030	5K $\Omega$ $\pm 10\%$
6015-1003-030	10K $\Omega$ $\pm 10\%$
6015-1004-030	20K $\Omega$ $\pm 10\%$

#### NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Phone +1-800-522-6752  
Email: [customercare.grsv@te.com](mailto:customercare.grsv@te.com)

#### TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Accustar, American Sensor Technologies, AST, ATEXIS, DEUTSCH, IdentiCal, TruBlue, KPSI, Krystal Bond, Microfused, UltraStable, Measurement Specialties, MEAS, Schaevitz, TE Connectivity, TE, and the TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies. Other logos, product and company names mentioned herein may be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.