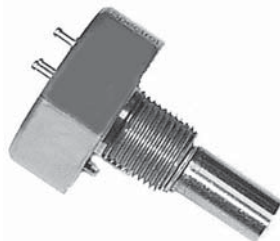


## 7/8" (22.2 mm) Single Turn Wirewound, Precision Potentiometer



### FEATURES

- Rugged, high-quality, all metal housing
- Short length behind panel 11/32" (8.76 mm)
- Ohmic value range: 5  $\Omega$  to 40 k $\Omega$
- Extra taps available
- Bushing and servo mount types
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### QUICK REFERENCE DATA

Sensor type	ROTATIONAL, single turn wirewound
Output type	Output by turrets
Market appliance	Industrial
Dimensions	7/8" (22.2 mm)

### ELECTRICAL SPECIFICATIONS

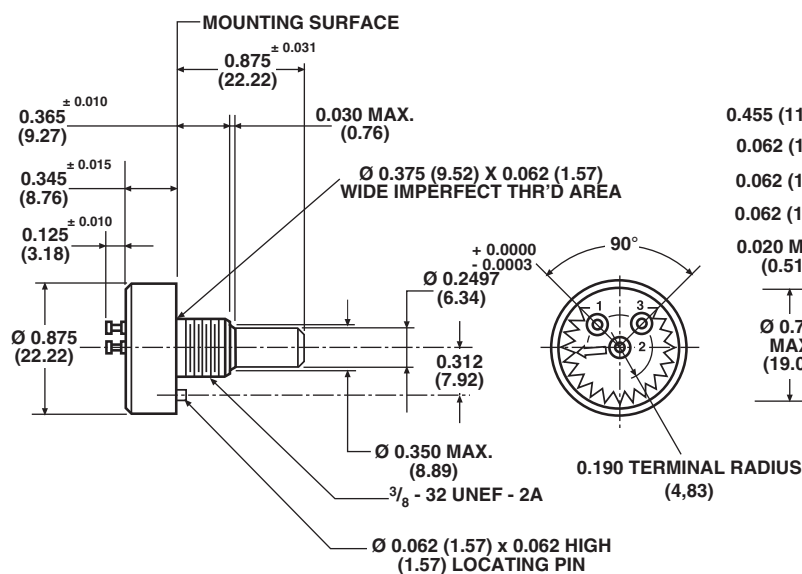
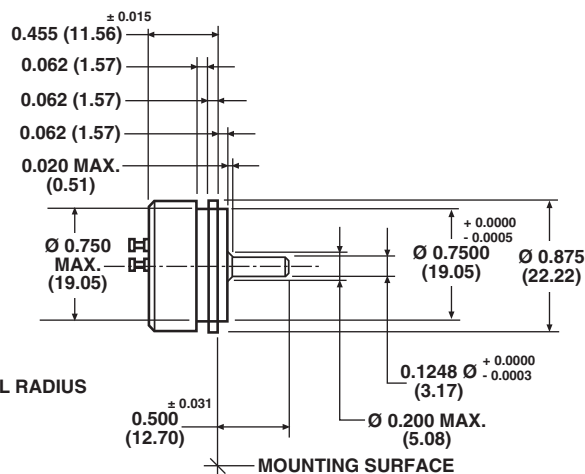
PARAMETER		
Total Resistance Standard Range	5 $\Omega$ to 20 k $\Omega$ - special to 40 k $\Omega$	
Tolerance 50 $\Omega$ and Above: Below 50 $\Omega$	<b>STANDARD</b> $\pm 3\%$ $\pm 5\%$	<b>SPECIAL</b> $\pm 1\%$ $\pm 3\%$
Linearity (independent) Total Resistance 5 $\Omega$ to 100 $\Omega$ 100 $\Omega$ to 500 $\Omega$ 500 $\Omega$ and Above	<b>STANDARD</b> $\pm 1.0\%$ $\pm 1.0\%$ $\pm 0.5\%$	<b>BEST PRACTICAL</b> $\pm 0.75\%$ $\pm 0.50\%$ $\pm 0.35\%$
Noise	100 $\Omega$ ENR	
Power Rating (at 40 °C ambient)	2 W derated to zero at 125 °C	
Electrical Angle	340° $\pm$ 2°	
Insulation Resistance	1000 M $\Omega$ minimum 500 V <sub>DC</sub>	
Dielectric Strength	1000 V <sub>RMS</sub> , 60 Hz	
Absolute Minimum Resistance	Not to exceed linearity times total resistance or 0.5 W whichever is greater	
Minimum Voltage	0.5 % max.	
Temperature Coefficient of Resistance	Refer to standard resistance element data	

### ORDERING INFORMATION

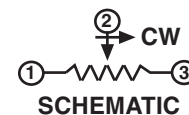
1	5	2	B	1	0	3				
MODEL			STYLE		OHMIC VALUE			SPECIAL REQUEST		
152			B: bushing S: servo		470 = 47 $\Omega$ 222 = 2.200 $\Omega$ 103 = 10 k $\Omega$ For ohmic value range see electrical specification			xxxx		

### PART NUMBER DESCRIPTION (for information only)

152-	1	1	103	xxxx
MODEL	STYLE	GANGS	OHMIC VALUE	SPECIAL
	B: 1 S: 2			

**DIMENSIONS** in inches (millimeters)**BUSHING MOUNT TYPE: 152B/152-1...****SERVO MOUNT TYPE: 152S/152-2...**

TOLERANCES: UNLESS OTHERWISE NOTED.  
DECIMALS  $\pm 0.005$  ANGLES  $\pm 2^\circ$



MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	360° continuous	
Bearing Type	Servo mount: Ball bearing Bushing mount: Sleeve bearing	
Torque (maximums)	<b>STARTING</b>	<b>RUNNING</b>
Servo	0.25 oz. - in (18.00 g - cm)	0.15 oz. - in (10.80 g - cm)
Bushing	0.30 oz. - in (21.60 g - cm)	0.25 oz. - in (18.00 g - cm)
Mechanical Runouts (maximums)	<b>BUSHING</b>	<b>SERVO</b>
Shaft Runout	0.002" (0.05 cm)	0.002" (0.05 cm)
Pilot Dia. Runout	-	0.002" (0.05 cm)
Lateral Runout	0.005" (0.13 cm)	0.002" (0.05 cm)
Shaft End Play	0.006" (0.15 cm)	0.005" (0.13 cm)
Shaft Radial Play	0.003" (0.08 cm)	0.002" (0.05 cm)
Weight	0.5 oz. maximum (14.18 g)	



### MATERIAL SPECIFICATIONS

Housing	Aluminum, anodized
Shaft	Stainless steel, non-magnetic non-passivated
Rear Lid	Molded glass filled phenolic
Terminals	Brass, plated for solderability
Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated

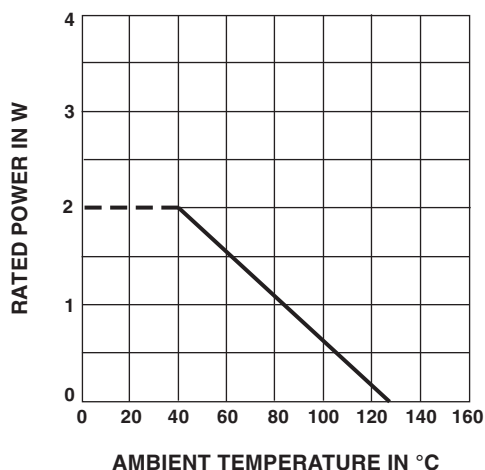
### ENVIRONMENTAL SPECIFICATIONS

Vibration	15 g thru 2000 Hz	
Shock	50 g	
Salt Spray	96 h	
Rotational Life Shaft Revolution:	<b>Bushing</b> 1 million	<b>Servo</b> 2 million
Load Life	900 h	
Operating Temperature Range	-55 °C to +125 °C	

#### Note

- Nothing stated herein shall be construed as a guarantee of quality or durability.

### POWER RATING CHART



### MARKING

<b>Unit Identification</b>	Units shall be marked with Vishay Spectrol name, model number, resistance and tolerance, linearity terminal identification and data code. Applicable test procedures: MIL-R-12934 Example of a marking for a standard part: 152-11202
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