



# <sup>1</sup>/<sub>2</sub>" (12.7 mm) Single - Turn Wirewound Bushing Mount Type Precision Potentiometer



### **DESIGN SUPPORT TOOLS**

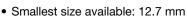
click logo to get started



QUICK REFERENCE DATA				
Sensor type	ROTATIONAL, single turn wirewound			
Output type	Output by turrets			
Market appliance	Professional			
Dimensions	<sup>1</sup> / <sub>o</sub> " (12.7 mm)			

### **FEATURES**

• Ohmic value range: 50  $\Omega$  up to 20 k $\Omega$ 



RoHS

- Mechanical stops on request
- High torque and sealed versions available
- Material categorization: for definitions of compliance please see <a href="https://www.vishav.com/doc?99912">www.vishav.com/doc?99912</a>

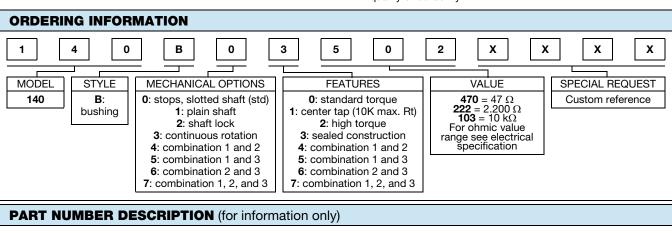
ELECTRICAL SPECIFICATIONS				
PARAMETER				
Total Resistance	50 $\Omega$ to 20 k $\Omega$			
Tolerance	± 5 %			
Absolute Minimum Resistance	Linearity x total resistance or $0.5 \Omega$ , whichever is greater			
Linearity (Independent)	± 1.0 %			
Noise	100 Ω ENR			
Power Rating	2 W at 40 °C ambient derating linearly to zero at 125 °C			
Insulation Resistance	1000 M $\Omega$ min. 500 $V_{DC}$			
Dielectric Strength	1000 V <sub>RMS</sub> , 60 Hz			
Electrical Angle	320° ± 5°			
End Voltage	Linearity x total applied voltage for total resistance above 20 $\Omega$ ; 2.0 % of total applied voltage for 20 $\Omega$ and below			

MATERIAL SPECIFICATIONS				
Shaft Stainless steel, non magnetic non-passivated				
Housing Aluminum, anodized				
Rear Lid	Molded glass filled thermoset plastic			
Terminals	Brass, gold plated			
Mounting Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated			

ENVIRONMENTAL SPECIFICATIONS				
Vibration	20 g thru 2000 Hz			
Shock	50 <i>g</i>			
Salt Spray	96 h			
Rotational Life	500 000 shaft revolutions			
Load Life	900 h			
Temperature Range	-55 °C to +125 °C (operating)			

#### Note

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



MODEL

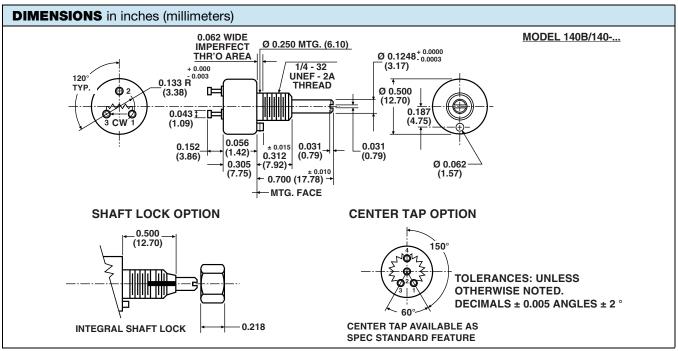
O
MECHANICAL
OPTIONS

FEATURES

OHMIC VALUE

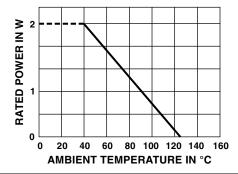
SPECIAL





MECHANICAL SPECIFICATIONS				
PARAMETER				
Rotation	330° ± 5°			
Bearing Type Torque (maximums)	SLEEVE BEARING			
Starting	0.2 oz in (14.40 g - cm)			
Running	0.2 oz in (14.40 g - cm)			
Dead Zone	Not applicable			
Weight	0.1 oz. maximum (2.84 g)			
Stop Strength	5 in - lbs (5.76 kg - cm) static			
Runouts (maximum) Shaft (TIR) Pilot Dia. (TIR) Lateral (TIR) Shaft End Play Shaft Radial Play	0.002" (0.05 cm) 0.002" (0.05 cm) 0.003" (0.08 cm) 0.006" (0.15 cm) 0.003" (0.08 cm)			

## **POWER RATING CHART**



MARKING	
Unit Identification	Units shall be marked with manufacturer's name, model number, resistance value and tolerance, circuit diagram, terminal identification, linearity and data code.  Example of a marking for a standard part: 140-1-2-103

RESISTANCE ELEMENT DATA					
STD RESISTANCE VALUES (\Omega)	RESO- LUTION (%)	OHMS PER TURN	MAXIMUM CURRENT AT 40 °C AMBIENT (mA)	MAXIMUM VOLTAGE ACROSS COIL (V)	WIRE TEMP. COEF. (ppm/°C)
50	0.542	0.271	200.0	10.0	20
100	0.431	0.431	141.0	14.1	20
200	0.361	0.722	100.0	20.0	20
500	0.312	1.56	63.2	31.6	20
1K	0.255	2.55	44.7	44.7	20
2K	0.197	3.94	31.6	63.2	20
5K	0.170	8.50	20.0	100.0	20
10K	0.147	14.7	14.1	141.0	20
20K	0.105	21.0	10.0	200.0	20



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