

## 7/8" (22.2 mm) Conductive Plastic Potentiometer, Bushing Mount Type



### FEATURES

- 7/8" diameter single turn
- Compact size, advanced design technology
- Offer a cost effective solution to your potentiometer requirements
- Suitable model for all industrial applications
- 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, conductive plastic
Output type	Output by turrets
Market appliance	Industrial
Dimensions	7/8" (22.2 mm)

### ELECTRICAL SPECIFICATIONS

PARAMETER		
Resistance	Standard range, 1 k $\Omega$ to 50 k $\Omega$	
Tolerance	<b>STANDARD</b> $\pm 20\%$	<b>SPECIAL TO</b> $\pm 10\%$
Linearity (independent)	<b>STANDARD</b> $\pm 2.0\%$	<b>SPECIAL</b> $\pm 1.0\%$
Output smoothness	0.1 % maximum	
TCR	$\pm 600$ ppm/ $^{\circ}$ C maximum	
Power rating	1.0 W at 70 $^{\circ}$ C derated to 0 W at 125 $^{\circ}$ C	
Electrical travel	340 $^{\circ}$ $\pm$ 3 $^{\circ}$	
End voltage	0.5 % maximum	
Dielectric withstanding voltage	1000 V <sub>RMS</sub> , 60 Hz	
Insulation resistance	1000 M $\Omega$ , 500 V <sub>DC</sub>	

### MECHANICAL SPECIFICATIONS

PARAMETER	
Rotation	360 $^{\circ}$ continuous (optional mechanical stops 340 $^{\circ}$ $\pm$ 3 $^{\circ}$ )
Mounting	3/8 - 32 UNEF - 2A
Operating torque maximum	Starting and running 3.68 mNm (0.5 oz. - in)
Shaft tolerance maximum	
Runout	0.13 mm (0.005")
End play	0.25 mm (0.010")
Radial play	0.13 mm (0.005")
Weight	17.5 g (0.62 oz.)

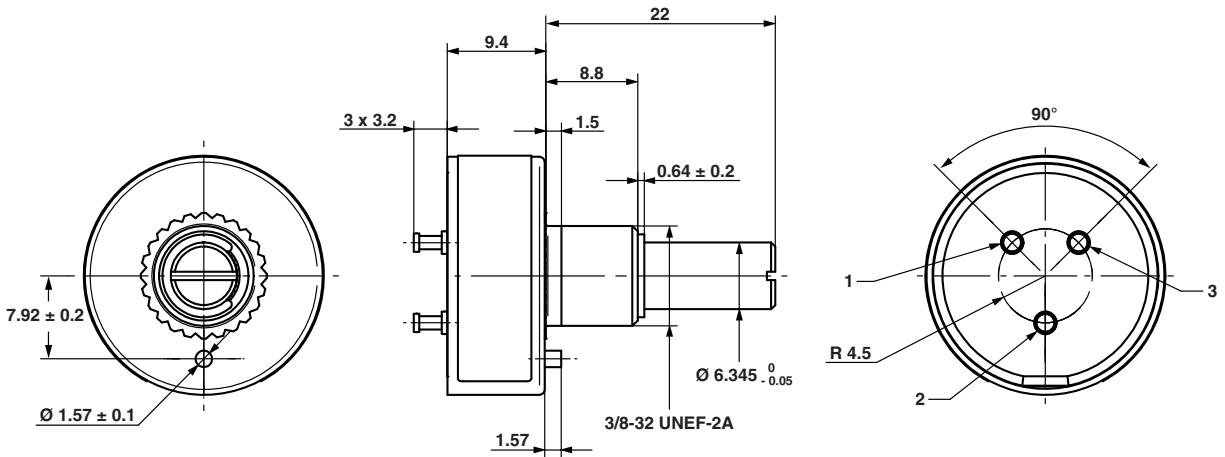
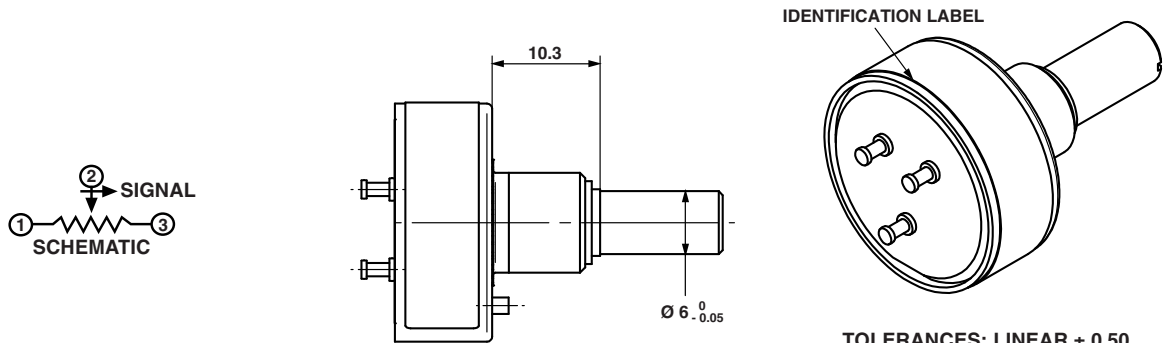
### ORDERING INFORMATION

3	5	7	B	1	2	0	3	K	X	B	O	5	0	1	P	2	2
<b>MODEL</b> 357	<b>STYLE</b> B = bushing		<b>MECHANICAL FEATURES</b> 0 = no turn pin and continuous rotation 1 = turn pin and continuous rotation 2 = no turn pin with stops on rotation 3 = turn pin with stops on rotation			<b>OHMIC VALUE</b> 470 = 47 $\Omega$ 222 = 2.200 $\Omega$ 103 = 10 k $\Omega$ For ohmic value range see electrical specification			<b>TOLERANCE</b> M = $\pm 20\%$ K = $\pm 10\%$		<b>LINEARITY</b> X = 2 % A = 1 %		<b>PACKAGING</b> BO50 = Box 50 pcs. Special BO10 = Box 10 pcs.		<b>SPECIAL REQUEST</b> Custom reference or <u>shaft diameter</u> 0 = 6.0 mm 1 = 6.35 mm 9 = special <u>shaft type</u> P = plain S = slotted FMF (from mounting face) range from 12 mm to 75 mm in 1 mm increments		

**PART NUMBER DESCRIPTION** (for information only)

<b>357</b>	<b>B</b>	<b>1</b>	<b>203</b>	<b>K</b>	<b>X</b>	<b>BO50</b>	<b>1P22</b>
MODEL	STYLE	MECHANICAL FEATURES	OHMIC VALUE	TOLERANCE	LINEARITY	PACKAGING	SPECIAL REQUEST

**DIMENSIONS** in inches (millimeters)

**Ø 6.35 mm SHAFT VERSION**

**Ø 6.0 mm SHAFT VARIATION: METRIC**

**ENVIRONMENTAL SPECIFICATIONS**

Vibration	15 g, 10 Hz to 2000 Hz
Shock	50 g
Load Life	1000 h
Storage temperature range	-55 °C to +125 °C
Life	5 000 000 shaft revolutions
Materials	
Housing	Thermoplastic housing
Bushing	Brass, nickel plated
Rear lid	Alumina
Shaft	Stainless steel
Terminals	Turret type, solder plated
Bushing mount hardware	
Lockwasher internal tooth	Steel, nickel plated
Panel nut	Brass nickel plated

**MARKING**

<b>Unit Identification</b>	Manufacturer's name and model number, resistance value and tolerance, linearity specification date code and terminal identification. Example of a marking for a standard part: 357-0-0-1S22-103
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**RESISTANCE VALUE**

Ohms	1K, 2K, 5K, 10K, 20K, 50K
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**Note**

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



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