

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



ELECTRICAL SPECIFICATIONS			
PARAMETER			
Resistance	Standard range, 1 kΩ to 50 kΩ		
Tolerance	<table border="1"> <tr> <td>STANDARD ± 20 %</td> <td>SPECIAL TO ± 10 %</td> </tr> </table>	STANDARD ± 20 %	SPECIAL TO ± 10 %
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Linearity (Independent)	<table border="1"> <tr> <td>STANDARD ± 2.0 %</td> <td>SPECIAL ± 1.0 %</td> </tr> </table>	STANDARD ± 2.0 %	SPECIAL ± 1.0 %
STANDARD ± 2.0 %	SPECIAL ± 1.0 %		
Output Smoothness	0.1 % maximum		
TCR	± 600 ppm/°C maximum		
Power Rating	1.0 W at 70 °C derated to 0 W at 125 °C		
Electrical Travel	340° ± 3°		
End Voltage	0.5 % maximum		
Dielectric Withstanding Voltage	1000 V _{RMS} , 60 Hz		
Insulation Resistance	1000 MΩ, 500 V _{DC}		

MECHANICAL SPECIFICATIONS	
PARAMETER	
Rotation	360° continuous (optional mechanical stops 340° ± 3°)
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/DESCRIPTION								
357	B	0	10K	20 %	A	BO50	0 P 22	e4
MODEL	STYLE	FEATURES	OHMIC VALUE	TOLERANCE ON OHMIC VALUE	LINEARITY	PACKAGING	SHAFT TYPE	LEAD
	Bushing	0 Non turn pin and continuous rotation				Box of 50 pieces	Shaft diameter 0 = 6.0 mm or 1 = 6.35 (1/4")	Finish
		1 No non turn pin and continuous rotation	From 1K to 50 K	± 10 % or ± 20 %	X: ± 2 % A: ± 1 %		Shaft type P = plain S = slotted FMF (from Mounting face)	
		2 Non turn pin, with stops on rotation					Range from 12 mm to 75 mm in 1 mm increments	
		3 No non turn pin with stops on rotation						

SAP PART NUMBERING GUIDELINES						
357B	2	203	M	X	B25	1S22
MODEL	FEATURES	OHMIC VALUE	TOLERANCE ON OHMIC VALUE	LINEARITY	PACKAGING	SHAFT TYPE
		203 = 20K	M: ± 20 %/K: ± 10 %	X: ± 2 %	Box of 50 Pieces	

Model 357

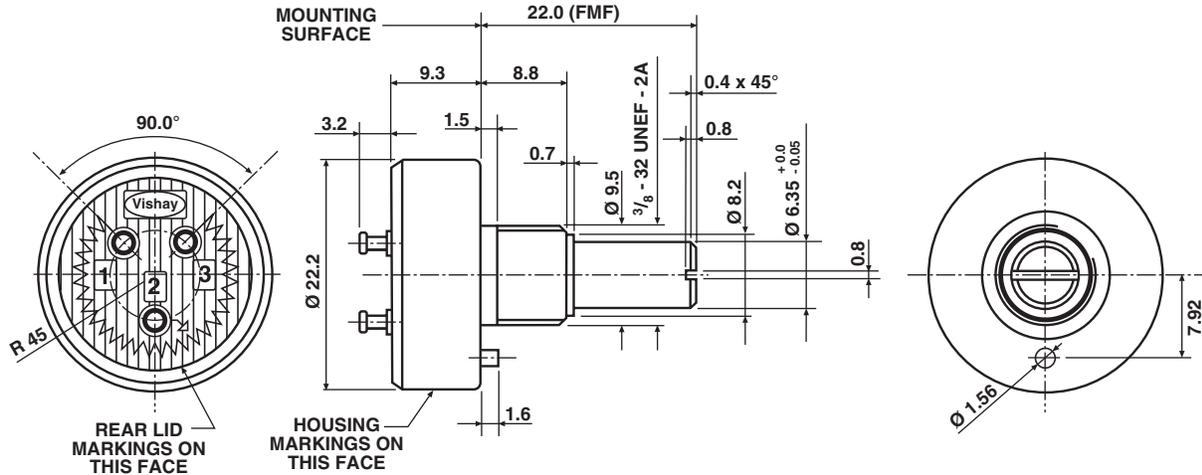
Vishay Spectrol

$\frac{7}{8}$ " (22.2 mm) Conductive Plastic Potentiometer, Bushing Mount Type

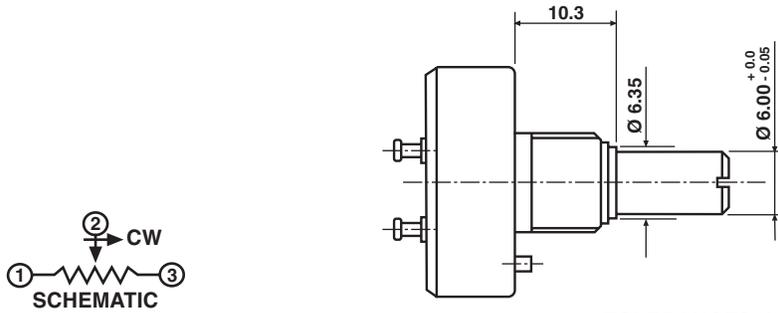


DIMENSIONS in millimeters

Ø 6.35 mm SHAFT VERSION



Ø 6.0 mm SHAFT VARIATION: METRIC



TOLERANCES: LINEAR ± 0.50
ANGULAR $\pm 2^\circ$

ENVIRONMENTAL SPECIFICATIONS	
Vibration	15 g, 10 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	
Unit Identification	Manufacturer's name and model number, resistance value and tolerance, linearity specification date code and terminal identification

RESISTANCE VALUE	
Ohms	1K, 2K, 5K, 10K, 20K, 50K



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All product specifications and data are subject to change without notice.

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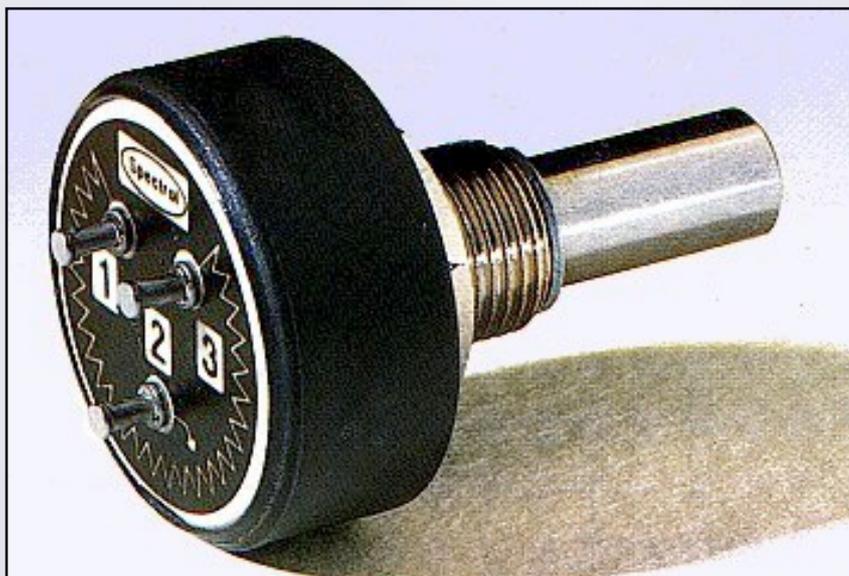
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357

Conductive Plastic
Potentiometer

The Model 357 is a 7/8" diameter single turn conductive plastic potentiometer. With its compact size; advanced design technology; and versatility in a variety of applications the 357 offers a cost effective solution to your potentiometer requirements.

ELECTRICAL**Resistance:**Standard range, 1K Ω to 50K Ω Ohms**Tolerance:**Standard, $\pm 20\%$
Special to, $\pm 10\%$ **Linearity (independent):**Standard, $\pm 2.0\%$
Special to, $\pm 0.25\%$ **Output Smoothness:**

0.1% max

TCR: ± 600 PPM/ $^{\circ}$ C max**Power Rating:**1.0W at 70 $^{\circ}$ C
Derate to 0 W at 125 $^{\circ}$ C**Electrical Travel:**340 $^{\circ}$ $\pm 3^{\circ}$ **End Voltage:**

0.5% max

Dielectric Withstanding Voltage:

1,000V RMS, 50Hz

Insulation Resistance:1000M Ω , 500VDC**MECHANICAL****Rotation:**360 $^{\circ}$ continuous
(optional mechanical stops 340 $^{\circ}$ $\pm 3^{\circ}$)**Bearing Type Bushing:**

Sleeve Bearing

Operating Torque Max:Starting and running 3.68mNm
(0.5oz in)**Shaft Tolerance mm max:**Runout 0.13
End Play 0.25
Radial Play 0.13**Weight:**

17.5gms (0.62oz)

RESISTANCE VALUESOhms- 1K, 2K, 5K, 10K,
20K, 50K**MARKING****Unit Identification:**

Manufacturer's name and model number, resistance value and tolerance, linearity specification date code and terminal identification.

ENVIRONMENTAL

Moisture Resistant:	Yes
Vibration:	15g, 10 to to 2,000Hz
Shock:	50g
Load Life:	1000 hours
Temperature Range:	-55 $^{\circ}$ C to +125 $^{\circ}$ C
Rotational Life (Mechanical):	10,000,000 shaft revolutions
Rotational Life (Electrical):	5,000,000 shaft revolutions

Materials	
Housing:	Plastic, glass filled (black)
Bushing:	Brass, nickel plated
Rear Lid:	Alumina
Shaft:	Stainless steel
Terminals:	Turret type, solder plated

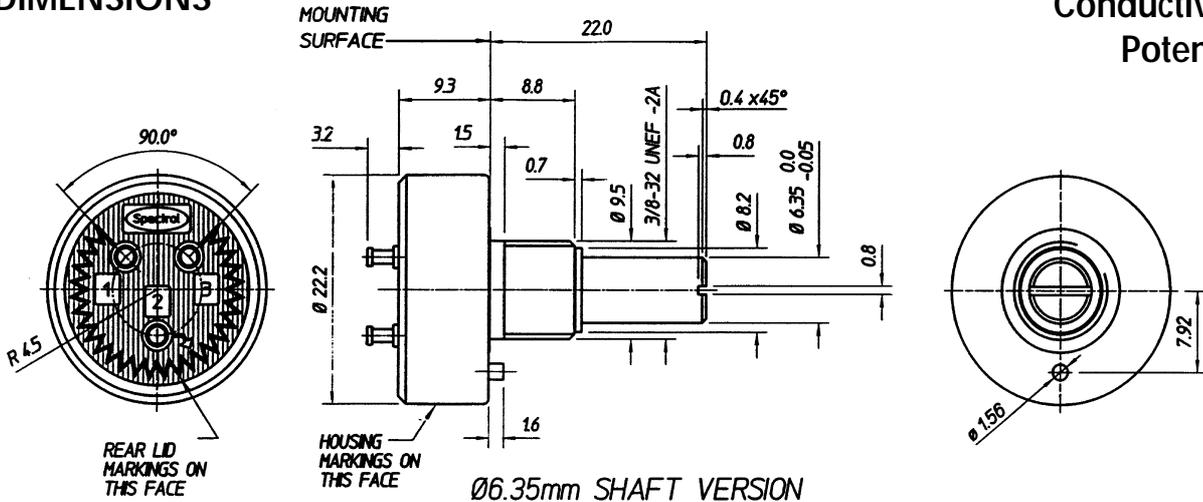
Bushing Mount Hardware	
Lockwasher, Internal Tooth:	Steel, nickel plated
Panel Nut:	Brass, nickel plated

Model 357

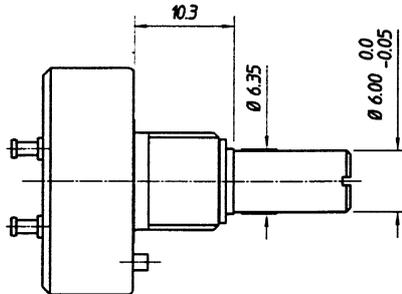
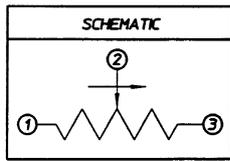
357

Conductive Plastic Potentiometer

DIMENSIONS



Ø6.35mm SHAFT VERSION



Ø6.0mm SHAFT VARIATION

Tolerances; Linear ± 0.50
Angular $\pm 2^\circ$

Dimensions; mm/(in)

ORDERING INFORMATION

357 - 0 - 0 - 0 P 22 - XXX

Model Number

Features

- 0 Non turn pin & continuous rotation
- 1 No non turn pin & continuous rotation
- 2 Non turn pin, with stops on rotation
- 3 No non turn pin with stops on rotation

- 0 = 20% Rt Tol., 2% Independent Linearity.
- 1 = 20% Rt Tol., 1% Independent Linearity.
- 2 = 10% Rt Tol., 2% Independent Linearity.
- 3 = 10% Rt Tol., 1% Independent Linearity.

- 0 P 22 - FMF (from mounting face) Range from 12mm to 75mm in 1mm increments
- Shaft type - P=plain S=slotted
- Shaft diameter - 0=6.0mm or 1=6.35 (1/4")

Standard values (Ohms)	
Res. code	Value
102	1k
202	2k
502	5k
103	10k
203	20k
503	50k



7/8" (22mm) Conductive Plastic Potentiometer



FEATURES

- 7/8" Diameter Single Turn
- Compact Size, Advanced Design Technology
- Offers a Cost Effective Solution to your Potentiometer Requirements

ELECTRICAL SPECIFICATIONS		
PARAMETER		
Resistance	Standard range, 1K Ω to 50K Ω	
Tolerance	STANDARD $\pm 20\%$	SPECIAL TO $\pm 10\%$
Linearity (Independent)	STANDARD $\pm 2.0\%$	SPECIAL TO $\pm 0.25\%$
Output Smoothness	0.1% maximum	
TCR	$\pm 600\text{ppm}/^\circ\text{C}$ maximum	
Power Rating	1.0 watt at 70 $^\circ\text{C}$ Derate to 0 watt at 125 $^\circ\text{C}$	
Electrical Travel	$340^\circ \pm 3^\circ$	
End Voltage	0.5% maximum	
Dielectric Withstanding Voltage	1,000V _{RMS} , 50Hz	
Insulation Resistance	1000M Ω , 500VDC	

MECHANICAL SPECIFICATIONS	
PARAMETER	
Rotation	360 $^\circ$ continuous (optional mechanical stops $340^\circ \pm 3^\circ$)
Bearing Type Bushing	Sleeve Bearing
Operating Torque Maximum	Starting and running 3.68mNm (0.5 oz - in)
Shaft Tolerance Maximum	
Runout	0.13mm
End Play	0.25mm
Radial Play	0.13mm
Weight	17.5gms (0.62 oz)

ORDERING INFORMATION					
357	0	0	0 P 22	XXX	
MODEL	FEATURES	RT & INDEPENDENT LINEARITY	SHAFT TYPE	STANDARD VALUES Ω	
	0 Non turn pin & continuous rotation	0 = 20% Rt Tol., 2% 1 = 20% Rt Tol., 1%	Shaft diameter - 0 = 6.0 mm or 1 = 6.35 (1/4")	RES CODE	VALUE
	1 No non turn pin & continuous rotation	2 = 10% Rt Tol., 2% 3 = 10% Rt Tol., 1%	Shaft type - P = plain S = slotted FMF (from Mounting face)	102	1K
	2 Non turn pin, with stops on rotation		Range from 12mm to 75mm in 1mm increments	202	2K
	3 No non turn pin with stops on rotation			502	5K
				103	10K
				203	20K
				503	50K

Example: **357 - 0 - 0 - 0P22 - XXX**

