

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



RoHS
COMPLIANT

ELECTRICAL SPECIFICATIONS

PARAMETER		
Resistance	Standard range, 1 kΩ to 50 kΩ	
Tolerance	STANDARD ± 20 %	SPECIAL TO ± 10 %
Linearity (Independent)	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	

Vishay Spectrol [3500K BO500P22E4" \(22.2 mm\) Conductive Plastic Potentiometer, Bushing Mount Type](#)



Technical drawing of the 32 UNEF - 2A connector showing three views: front, side, and rear.

Front View (Left): Shows the circular connector face with a 90.0° angle and a R 45 fillet. The central pin is labeled "Vishay". The pin is numbered 1, 2, and 3. The text "REAR LID MARKINGS ON THIS FACE" points to the rear lid.

Side View (Middle): Shows the connector profile with dimensions: 22.0 (FMF), 9.3, 8.8, 3.2, 1.5, 0.7, 0.4 x 45°, 0.8, Ø 9.5, 3/8 - 32 UNEF - 2A, Ø 8.2, Ø 6.35 (+0.0 / -0.05), 0.8, 1.6, and Ø 22.2. The text "MOUNTING SURFACE" points to the top of the housing, and "HOUSING MARKINGS ON THIS FACE" points to the side of the housing.

Rear View (Right): Shows the circular rear face with a Ø 1.56 dimension.

**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



Disclaimer

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

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.