



Industrial Rotary Position Sensor Bushing Mount Type, Conductive Plastic



FEATURES

- Fully sealed for high immunity to environmental damage
- Excellent temperature stability
- Rotational life exceeds 2 million revolutions
- Low cost and wide range of options
- Stainless steel shaft
- Shock to 30 G's vibration to 15 G's at 10 to 2000 Hz

ELECTRICAL SPECIFICATIONS		
PARAMETER		
Standard Resistance	1 kΩ to 100 kΩ	
Capability Range	200 kΩ	
Resistance Tolerance	± 20 %	
Linearity	± 2 %	
Power Rating	1.0 W at 85 °C	
Electrical Travel	240° ± 4°	
Dielectric Withstanding	500 V _{RMS} at 60 Hz minimum	
Output Smoothness	0.2 % maximum	

MECHANICAL SPECIFICATIONS		
PARAMETER		
Bearing Type	Sleeve	
Mechanical Rotation	250° ± 2°	
Stop Strength	10 in - lb minimum 11.5 kg/cm	
Starting Torque	3.0 o.z - in maximum 216 g/cm	
Running Torque	3.0 oz in maximum 216 g/cm	

ORDERING INFORMATION/DESCRIPTION							
657	В	F	0		50 k Ω	BO10	
MODEL	STYLE	SHAFT OPTIONS	SHAFT BUSHING OPTIONS		TOTAL RESISTANCE	PACKAGING	
			A	B	\triangleright		
	B: Bushing	R - Round	Shaft Length	Bushing Length	Flat		Box of 10
	-	F - Flatted	0 - 0.875" FMS	0.375" FMS	0.440"		pieces
			1 - 0.625" FMS	0.250" FMS	0.315"		
			2 - 1.000" FMS	0.500" FMS	0.440"		
			3 - 1.250" FMS	0.750" FMS	0.440"		

SAP PART NUME	BERING GUIDELIN	ES		
657B	R	1	103	BO10
MODEL	END SHAFT	SHAFT AND BUSHING OPTIONS	OHMIC VALUE	PACKAGING
	R: Round	(see above)		

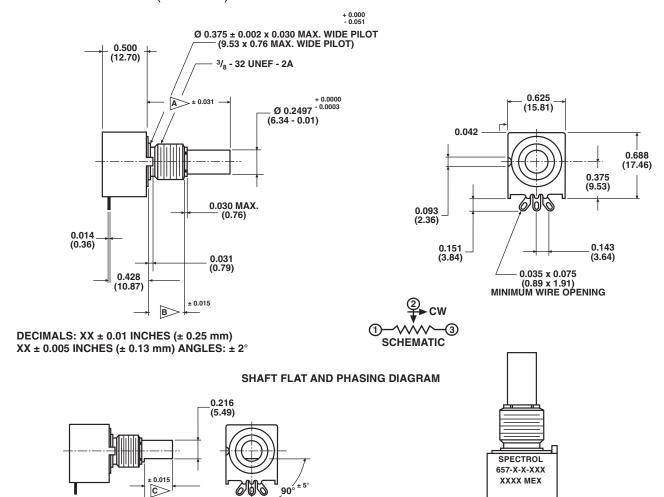
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Vishay Spectrol

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DIMENSIONS in inches (millimeters)



WITH SHAFT FLAT POSITIONED AS SHOWN, OUTPUT RATIO TO BE $e/E = 0.50 \pm 0.02$

STANDARD RESISTANCE VALUES		
CODE	RESISTANCE (Ω)	
102	1K	
202	2K	
502	5K	
103	10K	
203	20K	
503	50K	
104	100K	

MATERIAL SPECIFICATIONS		
Shaft	Stainless steel	
Bushing	Nickel plated brass	
Housing	Thermoplastic	
Element	Conductive plastic on alumina substrate	

ENVIRONMENTAL SPECIFICATIONS		
Rotational Life	2 million revolutions	
Vibration	15 G's at 10 to 2000 Hz	
Operating Temperature	- 40 °C to + 125 °C	
Storage Temperature	- 55 °C to + 150 °C	
Temperature Coefficient	± 600 ppm/°C	
Shock	30 G's	
Resistant to Solder Heat	350 °C for 5 s	
Moisture Resistance IP Rating	Sealed construction IP67* application to provide protection for wiring terminals	

321

MARKING		
Unit Identification	Vishay Spectrol, part number, data code, country of origin and terminal designation	

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