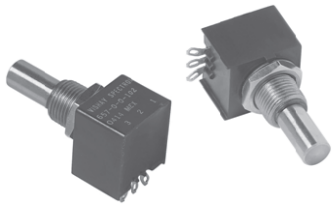
Industrial Rotary Position Sensor
Bushing Mount Type, Conductive Plastic



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* vibration to 15 *g* at 10 Hz to 2000 Hz
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, conductive plastic
Output type	Output by turrets
Market appliance	Industrial
Dimensions	15.81 mm x 17.46 mm

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

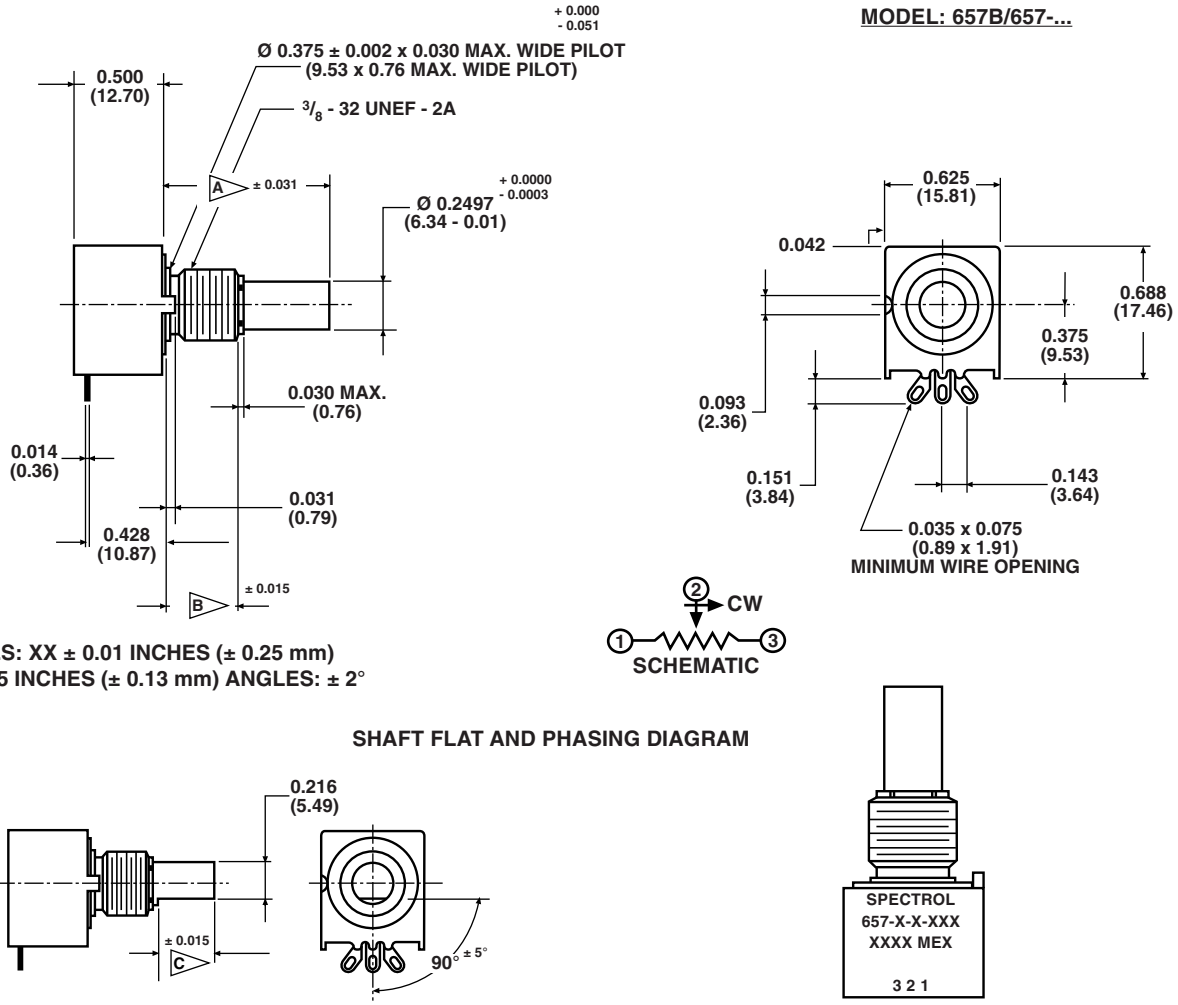
ORDERING INFORMATION/DESCRIPTION

657	B	F	0			50 kΩ	B10
MODEL	STYLE	SHAFT OPTIONS	SHAFT BUSHING OPTIONS			TOTAL RESISTANCE	PACKAGING
			A	B	C		
	B: Bushing	**R** - Round **F** - Flatted	Shaft length **0** - 0.875" FMS **1** - 0.625" FMS **2** - 1.000" FMS **3** - 1.250" FMS	Bushing length 0.375" FMS 0.250" FMS 0.500" FMS 0.750" FMS	Flat 0.440" 0.315" 0.440" 0.440"		Box of 10 pieces

SAP PART NUMBERING GUIDELINES

657B	R	1	103	BO10
MODEL	END SHAFT	SHAFT AND BUSHING OPTIONS	OHMIC VALUE	PACKAGING
	R: Round	(see above)		

DIMENSIONS in inches (millimeters)



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* at 10 Hz 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*
Resistant to solder heat	350 °C for 5 s
Moisture resistance IP rating	Sealed construction IP67* application to provide protection for wiring terminals

Note

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

MARKING

Unit identification	Vishay Spectrol, part number, data code, country of origin and terminal designation. Example of a marking for a standard part: 657-2-0-102

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