



Industrial Rotary Position Sensor Bushing Mount Type, Conductive Plastic



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

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

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	

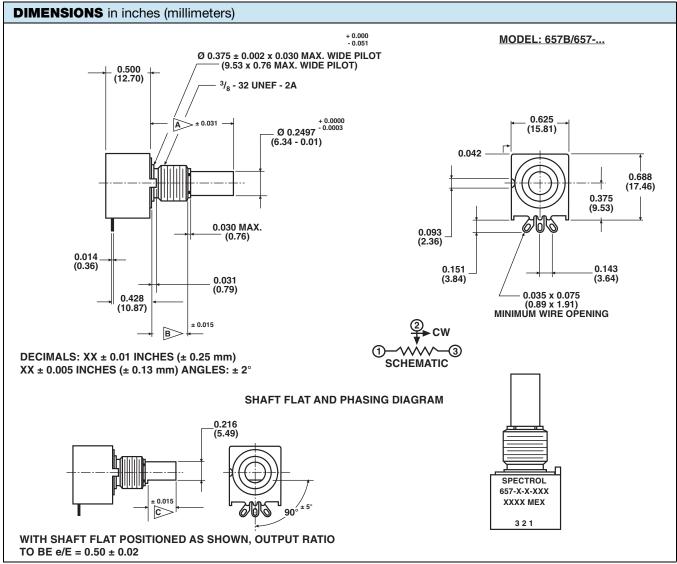
MECHANICAL SPECIFICATIONS		
PARAMETER		
Bearing type	Sleeve	
Mechanical rotation	250° ± 2°	
Stop strength	10 in - Ib minimum, 11.5 kg/cm	
Starting torque	3.0 o.z - in maximum, 216 g/cm	
Running torque	3.0 oz in maximum, 216 g/cm	

ORDERING INFORMATION/DESCRIPTION							
657	В	F		0		50 kΩ	B10
MODEL	STYLE	SHAFT OPTIONS	SHAFT	SHAFT BUSHING OPTIONS		TOTAL RESISTANCE	PACKAGING
			$\overline{\mathbb{A}}$	\mathbb{B}			
	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 NUMBI	ERING GUIDELINES			
657B	R	1	103	BO10
MODEL	END SHAFT	SHAFT AND BUSHING OPTIONS	OHMIC VALUE	PACKAGING
	R: Round	(see above)		

Revision: 27-Mar-15 1 Document Number: 57077





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 <i>g</i>	
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



Legal Disclaimer Notice

Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

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 in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

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