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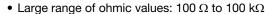
Vishay Spectrol

¹/₂" (12.7 mm) Ten Turn Wirewound Bushing Mount Precision Potentiometer



QUICK REFERENCE DATA		
Sensor type	ROTATIONAL, multi turn wirewound	
Output type	Output by turrets	
Market appliance	Professional	
Dimensions	¹ / ₂ " (12.7 mm)	

FEATURES





- · Smallest size available on the market
- Very easy and accurate adjustment

RoHS COMPLIANT

 Material categorization: for definitions of compliance please see www.vishav.com/doc?99912

ELECTRICAL SPECIFICATIONS				
PARAMETER				
Total Resistance Standard Range Tolerance	$\begin{array}{c} \textbf{STANDARD} \\ \textbf{100} \ \Omega \ \textbf{to} \ \textbf{100} \ \textbf{k}\Omega \\ \textbf{\pm} \ \textbf{5} \ \% \end{array}$	SPECIAL 115 kΩ ± 1 %		
Linearity (independent)	STANDARD ± 0.30 %	BEST PRACTICAL ± 0.15 %		
Noise	100 Ω ENR			
Electrical Angle	3600° +15° -0°			
Power Rating	2.0 W at 40 °C ambient, derated to zero at 125 °C			
Insulation Resistance	100 MΩ minimum, 500 V _{DC}			
Dielectric Strength	500 V _{RMS} , 60 Hz			
Absolute Minimum Resistance	Linearity x total resistance or 0.5 Ω , whichever is greater			
End Voltage	Linearity x total applied voltage for total resistance above 20 Ω , 2.0 % of total applied voltage for 20 Ω and below			

	MATERIAL SPECIFICATIONS		
	Housing and Lids	Molded, glass filled, thermose plastic	
	Bushing	Brass, nickel plated	
	Shaft	Stainless steel, non-passivated	
Terminals		Brass, plated for solderability	
	Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated	

MARKING	
Unit Identification	Units shall be marked with Vishay Spectrol name and model no, resistance and resistance tolerance, linearity, terminal identification and date code

ENVIRONMENTAL SPECIFICATIONS			
Vibration	15 g thru 2000 Hz		
Shock	50 <i>g</i>		
Salt Spray	48 h		
Rotational Life	500 000 shaft revolutions		
Temperature Range	-55 °C to +125 °C		

Note

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

ORDERING INFORMATION/DESCRIPTION

The Model 162 can be ordered from this datasheet with a variety of alternate characteristics, as shown. For most rapid service on your order, please state:

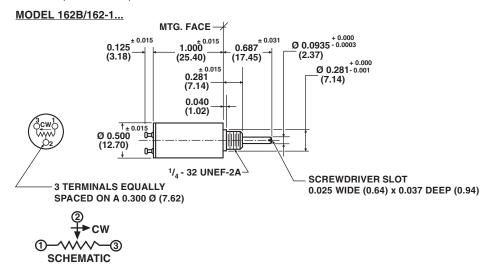
162B10KBO5MODELSTYLETOTAL RESISTANCEPACKAGING
(BUSHING)

Other characteristics will be standard as described on this datasheet. If special characteristics are required, such as: special linearity tolerance, special resistance tolerance, extra taps, non-linear functions, etc., please state these on your order and allow additional lead time for delivery.

SAP PART NUMBERING GUIDELINES				
162	В	103	B05	
MODEL	STYLE	OHMIC VALUE	PACKAGING	



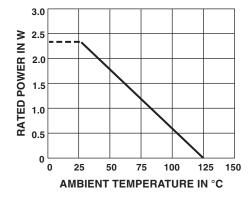
DIMENSIONS in inches (millimeters)



TOLERANCES: UNLESS OTHERWISE NOTED. DECIMALS \pm 0.005 ANGLES \pm 2°

MECHANICAL SPECIFICATIONS		
PARAMETER		
Mechanical Rotation		3600°, +15° -0°
Bearing Type:		Sleeve
Torque (Maximum)	STARTING RUNNING	0.8 oz in (57.60 g - cm) 0.6 oz in (43.20 g - cm)
Mechanical Runouts (maximums): Shaft (TIR) Pilot Dia. (TIR) Lateral (TIR) Shaft End Play Shaft Radial Play		0.003" (0.08 cm) 0.003" (0.08 cm) 0.005" (0.13 cm) 0.010" (0.25 cm) 0.003" (0.08 cm)
Weight		0.3 oz. (8.50 g) maximum
Stop Strength		20 oz in (static) (1.44 kg - cm)

POWER RATING CHART



MARKING
Example of a marking for a standard part: 162-11103

RESISTANCE ELEMENT DATA						
STANDARD RESISTANCE VALUES (Ω)	RESO- LUTION (%)	OHMS PER TURN	MAXIMUM CURRENT AT 40 °C AMBIENT (mA)	MAXIMUM VOLTAGE ACROSS COIL (V)	WIRE TEMP. COEF. (ppm/°C)	
100	0.092	0.092	141	14	20	
200	0.069	0.138	100	20	20	
500	0.049	0.245	63	32	20	
1K	0.047	0.470	45	45	20	
2K	0.038	0.763	32	64	20	
5K	0.031	1.56	20	100	20	
10K	0.025	2.55	14	140	20	
20K	0.020	3.94	10	200	20	
30K	0.018	5.34	8.2	246	20	
50K	0.015	7.64	6.3	315	20	
100K	0.013	13.2	4.5	450	20	



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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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