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Vishay Spectrol

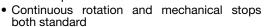
1 ⁵/₁₆" (33.3 mm) Low Cost Industrial Single Turn Wirewound, Bushing Mount Type Potentiometer



QUICK REFERENCE DATA				
Sensor type ROTATIONAL, single turn wirewou				
Output type	Output by turrets			
Market appliance	Industrial			
Dimensions 1 ⁵ / ₁₆ " (33.3 mm)				

FEATURES

- Suitable model for all industrial applications
- Center tap available





- Large electrical angle: 352° ± 2°
- Material categorization: For definitions of compliance please see www.vishav.com/doc?99912

ELECTRICAL SPECIFICATIONS				
PARAMETER	MIL-PRF-12934 TEST PROCEDURES APPLY			
	STANDARD	SPECIAL		
Total Resistance	5 Ω to 20 k Ω	to 35 kΩ		
Tolerance: 50 Ω and Above	± 3 %	± 1 %		
Below 50 Ω	± 5 %	± 3 %		
Linearity (independent)	STANDARD	BEST PRACTICAL		
Total Resistance				
5 Ω to 20 Ω	± 1.0 %	± 0.75 %		
20 Ω to 200 Ω	± 1.0 %	± 0.50 %		
200 Ω and above	± 0.5 %	± 0.25 %		
Noise	100 Ω ENR			
Power Rating	40 °C ambient			
	2.75 W			
	derated to zero at 125 °C			
Electrical Angle				
Continuous Rotation	352° ± 2°			
Stops	$340^{\circ} \pm 5^{\circ}$			
Insulation Resistance	1000 M Ω minimum at 500 V $_{DC}$			
Dielectric Strength	1000 V _{RMS} , 60 Hz			
Absolute Minimum Resistance	1.0 % of total resistance	or 0.5 W whichever is greater		
Minimum Voltage	0.5 %	ś maximum		
Temperature Coefficient of Resistance	Refer to standard	resistance element data		

MATERIAL SPECIFICATIONS				
Housing Molded glass filled thermoplas				
Rear Lid Glass filled thermoset plastic				
Shaft	Stainless steel, non-magnetic			
Terminals	Brass, plated for solderability, Non-passivated			
Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated			

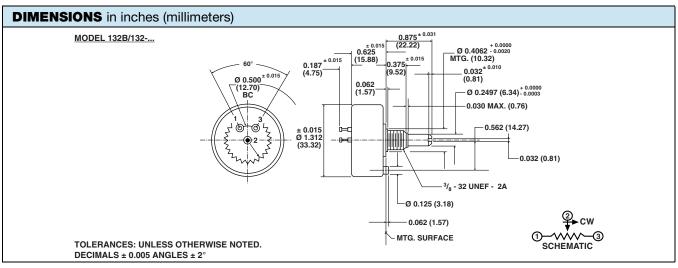
ENVIRONMENTAL SPECIFICATIONS				
Vibration	15 g thru 2000 Hz			
Shock	50 <i>g</i>			
Salt Spray	48 h			
Rotational Life				
Shaft Revolutions	500 000			
Operating Temperature Range	- 55 °C to + 125 °C			

132	В	0	0	20K	BO10
MODEL	BUSHING MOUNT	MECHANICAL OPTIONS	OTHER OPTIONAL FEATURES	OHMIC VALUE	PACKAGING
		0. Continuous 2. Stops	0. Standard (end taps)1. Center tap (within5° of electrical center)		Box of 10 piece



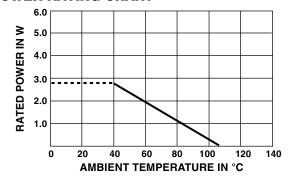
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SAP PART NUMBERING GUIDELINES						
132	В	2	1	103	B10	
MODEL	STYLE	MECHANICAL OPTIONS	ELECTRICAL OPTIONS	OHMIC VALUE	PACKAGING	
		2: With stops	1: With center tap	103: 10K	Box of 10 pieces	



MECHANICAL SPECIFICATIONS					
PARAMETER					
Rotation	360° (continuous)	or 340° ± 5° (stops)			
Bearing Type	Sle	Sleeve			
Torque (maximums)	STARTING 1.0 oz in (72 g - cm)	RUNNING 0.7 oz in (50.40 g - cm)			
Runouts (maximums)		<u> </u>			
Shaft Runout (TIR)	0.002" ((0.05 mm)			
Pilot Dia. Runout (TIR)	0.003" (0.003" (0.08 mm)			
Lateral Runout (TIR)	0.005" (0.005" (0.13 mm)			
Shaft End Play	0.008" (0.008" (0.20 mm)			
Shaft Radial Play	0.003" (0.003" (0.08 mm)			
Weight	1.0 oz. maxiı	1.0 oz. maximum (28.35 g)			
Stop Strength	8.0 in - lbs (9.21 kg - c	cm) (stops version only)			

POWER RATING CHART



MARKING	
Unit Identification	Units shall be marked with Vishay Spectrol name, model number, resistance and tolerance, linearity, terminal identification, and data code Applicable test procedures: MIL-R-12934. Example of a marking for a standard part: 132-0-0-103

RESISTANCE ELEMENT DATA						
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)	
5	0.419	0.021	742	3.71	800	
10	0.327	0.032	524	5.24	800	
20	0.280	0.056	371	7.42	800	
50	0.290	0.145	234	11.7	20	
100	0.251	0.251	166	16.6	20	
200	0.212	0.424	122	24.4	20	
500	0.161	0.806	74.2	37.1	20	
1K	0.150	1.50	52.4	52.4	20	
2K	0.132	2.64	37.1	74.2	20	
5K	0.107	5.34	23.4	117	20	
10K	0.080	7.98	16.6	166	20	
20K	0.067	13.4	12.2	244	20	
35K	0.057	20.0	8.88	311	20	



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