Vishay Spectrol



⁷/₈" (22.2 mm) Single Turn Wirewound, Precision Potentiometer



FEATURES

- Rugged, high-quality, all metal housing
- Short length behind panel ¹¹/₃₂" (8.76 mm)
- Ohmic value range: 5 Ω to 40 $k\Omega$
- Extra taps available
- · Bushing and servo mount types



ELECTRICAL SPECIFICATIONS		
PARAMETER		
Total Resistance Standard Range	5Ω to 20 k Ω - special to 40 k Ω	
Tolerance 50 Ω and Above: Below 50 Ω	STANDARD ± 3 % ± 5 %	\$PECIAL ± 1 % ± 3 %
Linearity (Independent) Total Resistance $5~\Omega$ to $100~\Omega$ $100~\Omega$ to $500~\Omega$ and Above	STANDARD ± 1.0 % ± 1.0 % ± 0.5 %	BEST PRACTICAL ± 0.75 % ± 0.50 % ± 0.35 %
Noise	100 Ω ENR	
Power Rating (at 40 °C Ambient)	2 W derated to zero at 125 °C	
Electrical Angle	340° ± 2°	
Insulation Resistance	1000 M Ω minimum 500 V $_{DC}$	
Dielectric Strength	1000 V _{RMS} , 60 Hz	
Absolute Minimum Resistance	Not to exceed linearity times total resistance or 0.5 Ω whichever is greater	
Minimum Voltage	0.5 % max.	
Temperature Coefficient of Resistance	Refer to standard resistance element data	

ORDERING INFORM	ATION/DESCRIPTION		
152	S	10K	BO10
MODEL	MOUNTING	OHMIC VALUE	PACKAGING
	B : Bushing S : Servo		Box of 10 pieces
Other characteristics will be special resistance tolerance, h	standard as described on this data iigh torque, 1/8 shaft - 1/4 - 32 bush	sheet. If special characteristics are ing, stops, non - linear functions, etc.	required, such as: special linearity, , state these on your order.

SAP PART NUMB	ERING GUIDELINES		
152	В	502	B10
MODEL	MOUNTING TYPE	OHMIC VALUE	PACKAGING
	B: Bushina	502 = 5K	Box of 10 pieces

For technical questions, contact: <u>sfer@vishay.com</u>

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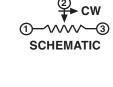
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DIMENSIONS in inches (millimeters)

BUSHING MOUNT TYPE: 152B SERVO MOUNT TYPE: 152S MOUNTING SURFACE 0.875 ± 0.031 0.365 (9.27) ± 0.015 0.455 (11.56) 0.030 MAX. (0.76)0.062 (1.57) 0.345 (8.75 Ø 0.375 (9.52) X 0.062 (1.57) WIDE IMPERFECT THR'D AREA 0.062 (1.57) (8.76)0.125 ± 0.010 0.062 (1.57) 0.020 MAX.-(0.51) + 0.0000 - 0.0003 Ø 0.2497 (3.18)(6.34)+ 0.0000 - 0.0005 Ø 0.7500 Ø 0.750 🖽 Ø 0.875 (22.22) Ø 0.875 MAX.— (19.05) (22.22) (19.05)0.312 (7.92)0.1248 Ø + 0.0000 - 0.0003 Ø 0.350 MAX. 0.190 TERMINAL RADIUS 0.500 12 (3.17) (8.89)(4,83)Ø 0.200 MAX. (5.08) 3/8 - 32 UNEF - 2A (12.70) Ø 0.062 (1.57) x 0.062 HIGH (1.57) LOCATING PIN MOUNTING SURFACE

TOLERANCES: UNLESS OTHERWISE NOTED. DECIMALS ± 0.005 ANGLES ± 2°



MECHANICAL SPECIFICATIONS			
PARAMETER			
Rotation	360° continuous		
Decring Time	Servo mount: Ball bearing		
Bearing Type	Bushing mount: Sleeve bearing		
Torque (Maximums)	STARTING	RUNNING	
Servo	0.25 oz in (18.00 g - cm)	0.15 oz in (10.80 g - cm)	
Bushing	0.30 oz in (21.60 g - cm)	0.25 oz in (18.00 g - cm)	
Mechanical Runouts (Maximums)	BUSHING	SERVO	
Shaft Runout	0.002" (0.05 cm)	0.002" (0.05 cm)	
Pilot Dia. Runout	-	0.002" (0.05 cm)	
Lateral Runout	0.005" (0.13 cm)	0.002" (0.05 cm)	
Shaft End Play	0.006" (0.15 cm)	0.005" (0.13 cm)	
Shaft Radial Play	0.003" (0.08 cm)	0.002" (0.05 cm)	
Weight	0.5 oz. maximum (14.18 g)		

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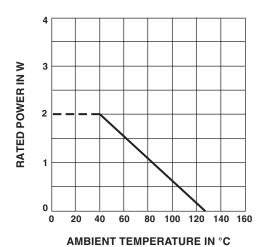
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MATERIAL SPECIFICATIONS	
Housing	Aluminum, anodized
Shaft	Stainless steel, non-magnetic non-passivated
Rear Lid	Molded glass filled phenolic
Terminals	Brass, plated for solderability
Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated

ENVIRONMENTAL SPECIFICATIONS		
Vibration	15 g thru 2000 Hz	
Shock	50) g
Salt Spray	96	i h
Rotational Life Shaft Revolution:	Bushing 1 million	Servo 2 million
Load Life	900 h	
Operating Temperature Range	- 55 °C to	- + 125 °C

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

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