

Vishay Spectrol

1 ⁵/₁₆" (33.3 mm) Industrial Single Turn, Bushing Mount, Conductive Plastic Potentiometer



QUICK REFERENCE DATA		
Sensor type	ROTATIONAL, conductive plastic	
Output type	Output by turrets	
Market appliance	Industrial	
Dimensions	nensions 1 ⁵ / ₁₆ " (33.3 mm)	

FEATURES





- Continuous rotation and mechanical stops both standard
- RoHS COMPLIANT
- Suitable model for all types of industrial applications
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

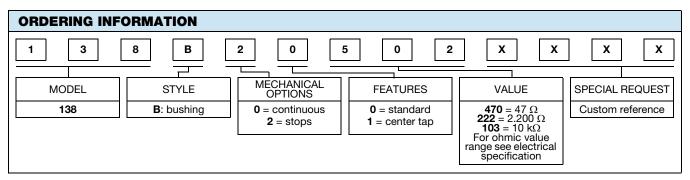
ELECTRICAL SPECIFICATIONS		
PARAMETER	MIL-PRF-39023 TEST PROCEDURES APPLY	
	STANDARD	SPECIAL
Ohmic Value Range	1 k Ω to 50 k Ω	1 k Ω to 50 k Ω
Tolerance	± 10 %	± 5 %
Linearity (independent)	STANDARD	BEST PRACTICAL
	± 0.5 %	± 0.25 %
Output Smoothness	0.1 % maximum	
Power Rating	40 °C ambient	
		2 W
	derated to zero at 125 °C	
Electrical Angle		
Continuous	345° ± 4°	
Stops	340° ± 5°	
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	
Minimum Voltage	0.5 % maximum	
Temperature Coefficient of Resistance	± 600 ppm/°C maximum	

MATERIAL SPECIFICATIONS		
Housing	Molded glass filled thermoplastic	
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	Q million	
Shaft Revolutions	2 million	
Operating Temperature Range	-55 °C to +125 °C	

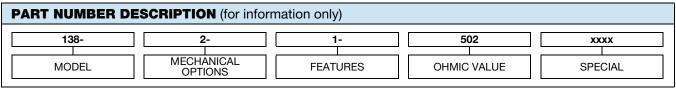
Note

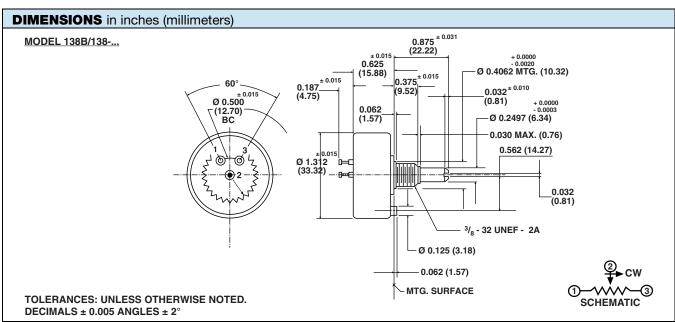
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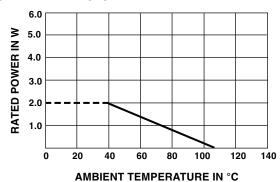
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MECHANICAL SPECIFICATIONS			
PARAMETER			
Rotation	360° (continuous) 340° ± 5° stops		
Bearing Type	Sle	Sleeve	
Torque (maximums)	STARTING 1.0 oz in (72 g - cm)	RUNNING 0.7 oz in (50.40 g - cm)	
Runouts (maximums)			
Shaft Runout (TIR)	0.002" (0	0.002" (0.05 mm)	
Pilot Dia. Runout (TIR)	0.003" (0	0.003" (0.08 mm)	
Lateral Runout (TIR)	0.005" (0	0.005" (0.13 mm)	
Shaft End Play	0.008" (0	0.008" (0.20 mm)	
Shaft Radial Play	0.003" (0	0.003" (0.08 mm)	
Weight	1.0 oz. maxin	1.0 oz. maximum (28.35 g)	
Stop Strength	8.0 in - lbs (9.21 kg - 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-39023 Example of a marking for a standard part: 138-2-0-502



Legal Disclaimer Notice

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