$^{7}/_{8}$" (22.2 mm) Ten Turn Wirewound Precision Potentiometer with a Plastic Shaft

FEATURES

- 10 standard resistance values
- Plastic shaft
- Rugged integrated construction
- 0.25 % linearity
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, multi turn wirewound
Output type	Output by turrets
Market appliance	Industrial
Dimensions	$^{7}/_{8}$" (22.2 mm)

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Total resistance	Range 100 Ω to 100 kΩ, tolerance ± 5 %
Linearity (independent)	± 0.25 %
Noise	100 Ω ENR maximum
Electrical angle	3600° $^{+10°}_{-0°}$
Power rating	2.0 W at 70 °C derated to zero at 125 °C
Insulation resistance	1000 MΩ minimum, 500 V_{DC}
Dielectric strength	1000 V_{RMS}, 60 Hz
Absolute minimum resistance	Not to exceed 0.10 % of total resistance or 1 Ω, whichever is greater
Temperature coefficient	20 ppm/°C (wire only)
End voltage	0.25 % of total applied voltage maximum

ORDERING INFORMATION

5	3	6	B	1	0	3				

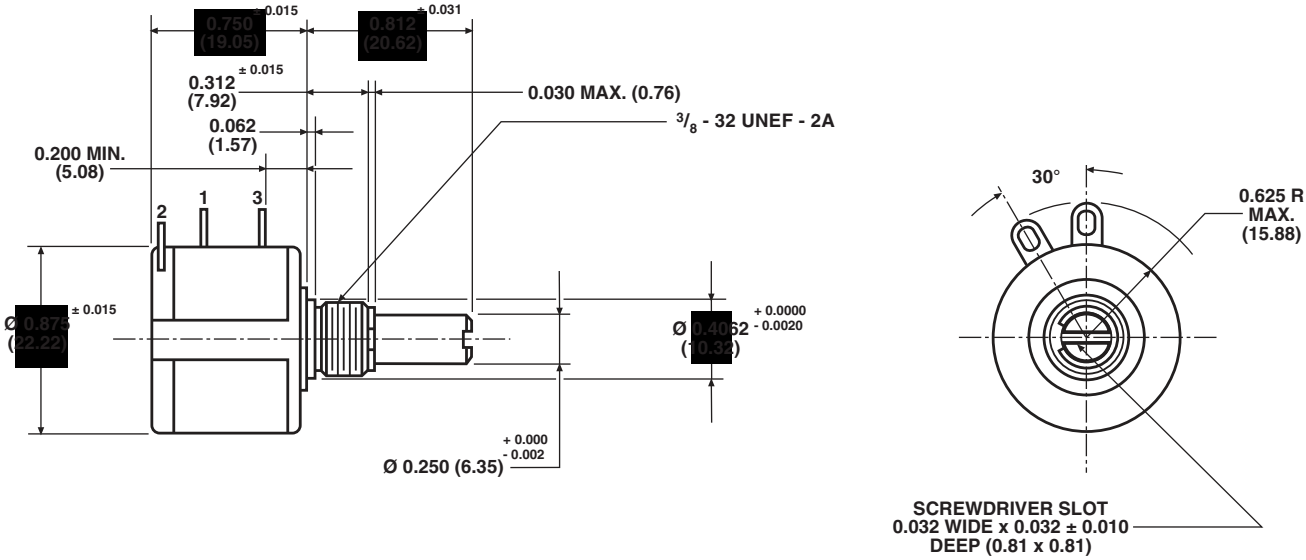
MODEL	STYLE	OHMIC VALUE	SPECIAL REQUEST
536	**B**: bushing	**470** = 47 Ω **222** = 2.200 Ω **103** = 10 kΩ For ohmic value range see electrical specification	**xxxx**

PART NUMBER DESCRIPTION (for information only)

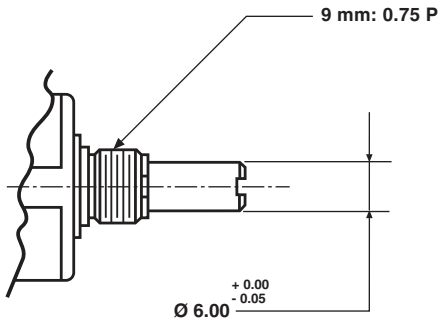
536-	1-	103	xxxx
MODEL	STYLE	OHMIC VALUE	SPECIAL
	B: 1		

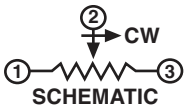
DIMENSIONS in inches (millimeters)

BUSHING MOUNT: 536B/536-1



METRIC SHAFT/BUSHING THREAD





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

MECHANICAL SPECIFICATIONS

PARAMETER		
Rotation	3600° +10° - 0°	
Torque (maximums)	**STARTING** 0.5 oz. - in (36.00 g - cm)	**RUNNING** 0.4 oz. - in (28.80 g - cm)
Mechanical runouts Shaft (TIR) Pilot dia. (TIR) Lateral runout (TIR) Shaft end play Shaft radial play	0.005" (0.13 cm) 0.003" (0.08 cm) 0.005" (0.13 cm) 0.010" (0.25 cm) 0.005" (0.13 cm)	
Weight (maximum)	0.75 oz. (21.26 g)	
Stop strength	75 oz. - in (static) (5.4 kg - cm)	

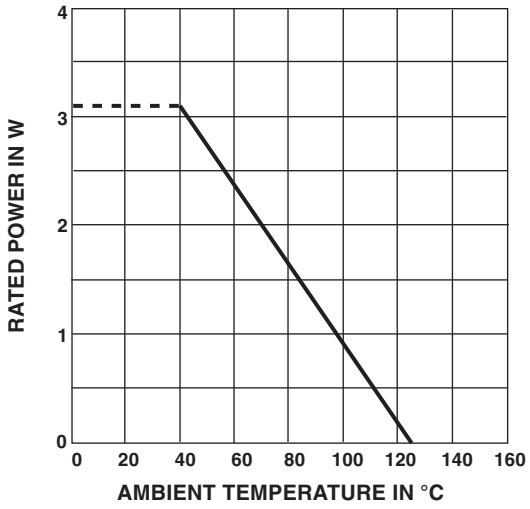
MATERIAL SPECIFICATIONS	
Front lid	Stainless steel and nickel plated brass bushing
Housing	Thermoplastic nylon glass filled
Rear lid	Thermo-glass filled
Shaft	Thermo-glass filled
Terminals	Brass plated for solderability
Mounting hardware Lockwasher internal tooth: Panel nut:	 Steel nickel plated Brass, nickel plated

ENVIRONMENTAL SPECIFICATIONS	
Vibration	15 *g* thru 2000 Hz
Shock	50 *g*
Rotational life	1 million shaft revolutions
Load life	900 h
Operating temperature range	-55 °C to +125 °C

Note

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

POWER RATING CHART



RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES (Ω)	RESOLUTION (%)	OHMS PER TURN	MAXIMUM CURRENT AT 70 °C AMBIENT (mA)	MAXIMUM VOLTAGE ACROSS COIL (V)
100	0.060	0.0603	141.0	14.1
200	0.037	0.0746	100.0	20.0
500	0.031	0.1520	63.2	31.6
1K	0.025	0.2459	44.7	44.7
2K	0.021	0.4113	31.6	63.2
5K	0.016	0.8206	20.0	100.0
10K	0.017	1.7230	14.1	141.0
20K	0.015	3.0160	10.0	200.0
50K	0.009	4.6690	6.32	316.0
100K	0.007	7.4560	4.47	447.0

MARKING	
Unit identification	Units shall be marked with Vishay Spectrol name and model no, resistance, resistance tolerance, linearity, terminal identification and date code. Example of a marking for a standard part: 536-1-1-502

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