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



FEATURES

- Large range of ohmic values: 100 Ω to 100 kΩ
- Smallest size available on the market
- Very easy and accurate adjustment
- 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	Professional
Dimensions	1/2" (12.7 mm)

ELECTRICAL SPECIFICATIONS

PARAMETER		
Total Resistance Standard Range Tolerance	**STANDARD** 100 Ω to 100 kΩ ± 5 %	**SPECIAL** 115 kΩ max. ± 2 %
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	

ORDERING INFORMATION

1	6	2	B	1	2	0	3	2	0	3	X	X	X	X

MODEL	STYLE	GANGS	OHMIC VALUE GANGS Nº 1	OHMIC VALUE GANGS Nº 2	SPECIAL REQUEST
162	**B**: bushing **S**: servo	**1**	**470** = 47 Ω **222** = 2.200 Ω **103** = 10 kΩ For ohmic value range see electrical specification	**470** = 47 Ω **222** = 2.200 Ω **103** = 10 kΩ For ohmic value range see electrical specification	**xxxx**

PART NUMBER DESCRIPTION (for information only)

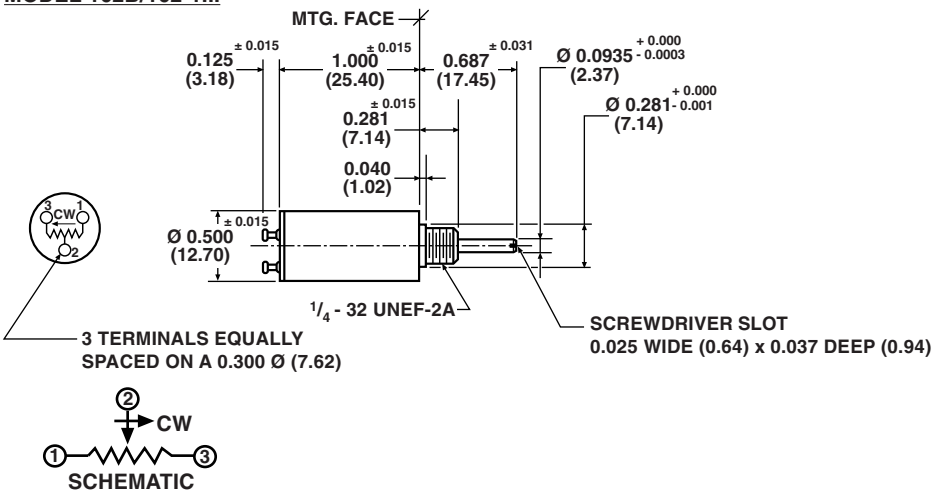
162-	1	1	103	203	xxxx
MODEL	STYLE	GANGS	OHMIC VALUE GANGS Nº 1	OHMIC VALUE GANGS Nº 2	SPECIAL
	B: 1 **S**: 2				

For technical questions, contact: sferprecisionpot@vishay.com

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DIMENSIONS in inches (millimeters)

MODEL 162B/162-1...



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

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

MATERIAL SPECIFICATIONS	
Housing and Lids	Molded, glass filled, thermoset 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 *g*
Salt Spray	48 h
Rotational Life	500 000 shaft revolutions
Temperature Range	-55 °C to +125 °C

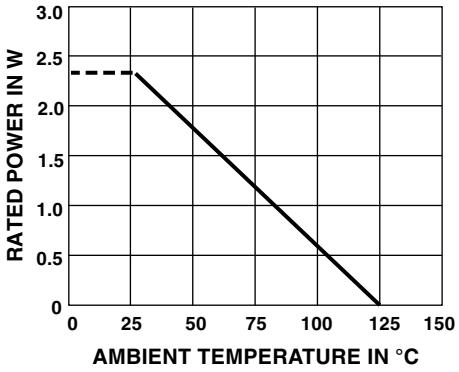
Note

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

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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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