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 ± 1 %
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	

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

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.

MARKING

Unit Identification	Units shall be marked with Vishay Spectrol name and model no, resistance and resistance tolerance, linearity, terminal identification and date code

ORDERING INFORMATION/DESCRIPTION

The Model 162 can be ordered from this datasheet with a variety of alternate characteristics, as shown. For most rapid service on your order, please state:

162	**B**	**10K**	**BO5**
MODEL	STYLE (BUSHING)	TOTAL RESISTANCE	PACKAGING

Other characteristics will be standard as described on this datasheet. If special characteristics are required, such as: special linearity tolerance, special resistance tolerance, extra taps, non-linear functions, etc., please state these on your order and allow additional lead time for delivery.

SAP PART NUMBERING GUIDELINES

162	**B**	**103**	**B05**
MODEL	STYLE	OHMIC VALUE	PACKAGING

For technical questions, contact: sferprecisionpot@vishay.com

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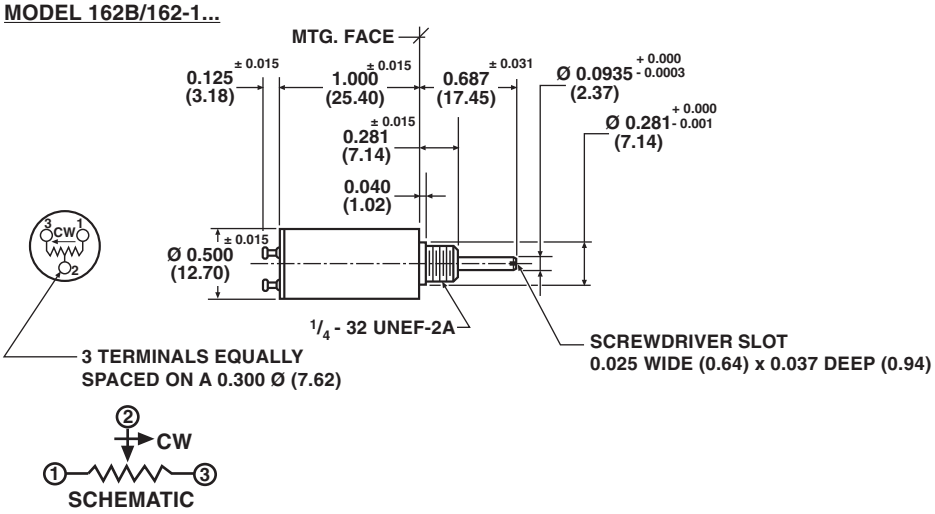
DIMENSIONS in inches (millimeters)

MODEL 162B/162-1...

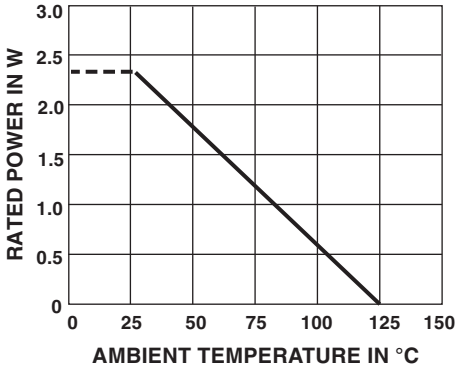


TOLERANCES: UNLESS OTHERWISE NOTED.
DECIMALS ± 0.005 ANGLES ± 2°

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)

POWER RATING CHART



MARKING

Example of a marking for a standard part: 162-11103

RESISTANCE ELEMENT DATA

STANDARD RESISTANCE VALUES (Ω)	RESOLUTION (%)	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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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

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- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

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FORSTAR®

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