Vishay Spectrol

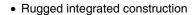


7 / $_{8}$ " (22.2 mm) Ten Turn Wirewound Precision Potentiometer with a Plastic Shaft



FEATURES

- 10 standard resistance values
- Plastic shaft







| ELECTRICAL SPECIFICATIONS | |
|-----------------------------|---|
| PARAMETER | |
| Total Resistance | Range 100 Ω to 100 k Ω , tolerance ± 5 % |
| Linearity (Independent) | ± 0.20 % |
| 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 M Ω 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 INF | ORMATION/DESCRI | PTION | | |
|--------------|--------------------|-------------|------------------|-------------|
| 536 | В | 10K | BO10 | e4 |
| MODEL | MOUNTING | OHMIC VALUE | PACKAGING | LEAD FINISH |
| | B : Bushing | | Box of 10 pieces | |

| SAP PART NUMBERING GUIDELINES | | | | |
|-------------------------------|-------|-------------|-----------|--|
| 536 | В | 103 | B10 | |
| MODEL | STYLE | OHMIC VALUE | PACKAGING | |

Document Number: 57066 Revision: 12-Jul-07

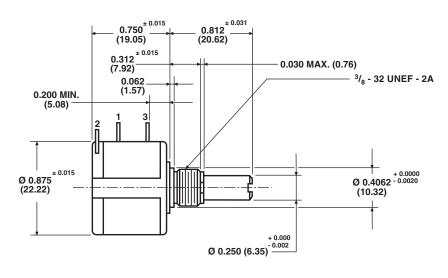


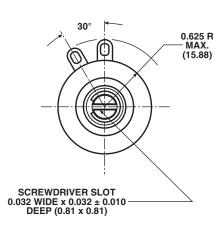
$^{7}/_{8}$ " (22.2 mm) Ten Turn Wirewound Precision Potentiometer with a Plastic Shaft

Vishay Spectrol

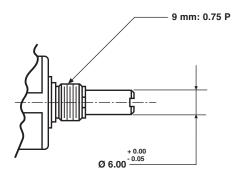
DIMENSIONS in inches (millimeters)

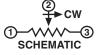
BUSHING MOUNT





METRIC SHAFT/BUSHING THREAD





TOLERANCES: UNLESS OTHERWISE NOTED. DECIMALS \pm 0.005 ANGLES \pm 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. (2 | 21.26 g) |
| Stop Strength | 75 oz in (statio | e) (5.4 kg - cm) |

Vishay Spectrol

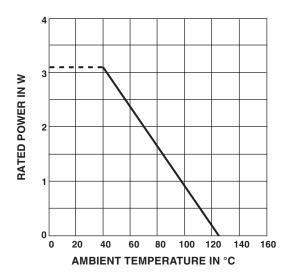
7 / $_{8}$ " (22.2 mm) Ten Turn Wirewound Precision Potentiometer with a Plastic Shaft



| 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 |

POWER RATING CHART



| RESISTAL | RESISTANCE ELEMENT DATA | | | |
|-----------------------------|-------------------------|---------------------|---|---|
| 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 | |

For technical questions, contact: $\underline{\mathsf{sfer} @ \mathsf{vishay.com}}$



Vishay

Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Revision: 18-Jul-08

Document Number: 91000