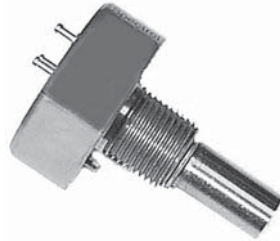


7/8" (22.2 mm) Single Turn Wirewound, Precision Potentiometer



FEATURES

- Rugged, high-quality, all metal housing
- Short length behind panel $1\frac{1}{32}$ " (8.76 mm)
- Ohmic value range: 5 Ω to 40 k Ω
- Extra taps available
- Bushing and servo mount types
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT

| QUICK REFERENCE DATA | |
|----------------------|-----------------------------------|
| Sensor type | ROTATIONAL, single turn wirewound |
| Output type | Output by turrets |
| Market appliance | Industrial |
| Dimensions | 7/8" (22.2 mm) |

| ELECTRICAL SPECIFICATIONS | | |
|---|---|---|
| PARAMETER | | |
| Total Resistance Standard Range | 5 Ω to 20 k Ω - special to 40 k Ω | |
| Tolerance 50 Ω and Above: Below 50 Ω | STANDARD $\pm 3\%$ $\pm 5\%$ | SPECIAL $\pm 1\%$ $\pm 3\%$ |
| Linearity (independent) Total Resistance 5 Ω to 100 Ω 100 Ω to 500 Ω 500 Ω and Above | STANDARD $\pm 1.0\%$ $\pm 1.0\%$ $\pm 0.5\%$ | BEST PRACTICAL $\pm 0.75\%$ $\pm 0.50\%$ $\pm 0.35\%$ |
| Noise | 100 Ω ENR | |
| Power Rating (at 40 $^{\circ}\text{C}$ ambient) | 2 W derated to zero at 125 $^{\circ}\text{C}$ | |
| Electrical Angle | 340 $\pm 2^{\circ}$ | |
| Insulation Resistance | 1000 M Ω minimum 500 V _{DC} | |
| Dielectric Strength | 1000 V _{RMS} , 60 Hz | |
| Absolute Minimum Resistance | Not to exceed linearity times total resistance or 0.5 W whichever is greater | |
| Minimum Voltage | 0.5 % max. | |
| Temperature Coefficient of Resistance | Refer to standard resistance element data | |

| ORDERING INFORMATION | | | |
|----------------------|-----|--|-----|
| 1 | 5 | 2 | B |
| 1 | | 0 | 3 |
| [] | [] | [] | [] |
| MODEL | | STYLE | |
| 152 | | B: bushing S: servo | |
| | | OHMIC VALUE | |
| | | 470 = 47 Ω 222 = 2.200 Ω 103 = 10 k Ω For ohmic value range see electrical specification | |
| | | SPECIAL REQUEST | |
| | | xxxx | |

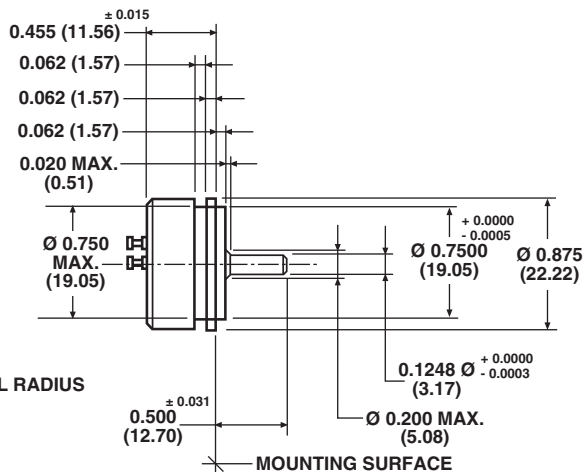
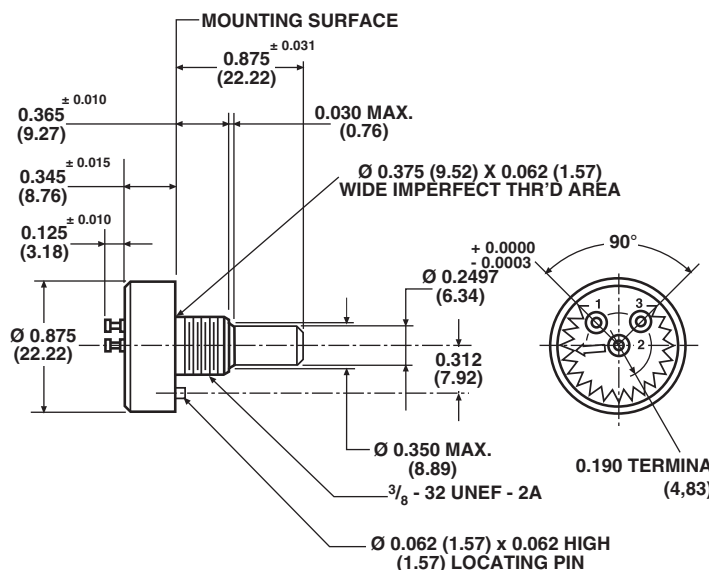
| PART NUMBER DESCRIPTION (for information only) | | | | |
|--|--------------|-------|-------------|---------|
| 152- | 1 | 1 | 103 | xxxx |
| MODEL | STYLE | GANGS | OHMIC VALUE | SPECIAL |
| | B: 1 S: 2 | | | |



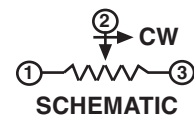
DIMENSIONS in inches (millimeters)

BUSHING MOUNT TYPE: 152B/152-1...

SERVO MOUNT TYPE: 152S/152-2...



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



| MECHANICAL SPECIFICATIONS | | |
|----------------------------------|--|------------------------------|
| PARAMETER | | |
| Rotation | 360° continuous | |
| Bearing Type | Servo mount: Ball bearing Bushing mount: Sleeve bearing | |
| Torque (maximums) | STARTING | RUNNING |
| Servo | 0.25 oz. - in (18.00 g - cm) | 0.15 oz. - in (10.80 g - cm) |
| Bushing | 0.30 oz. - in (21.60 g - cm) | 0.25 oz. - in (18.00 g - cm) |
| Mechanical Runouts (maximums) | BUSHING | SERVO |
| Shaft Runout | 0.002" (0.05 cm) | 0.002" (0.05 cm) |
| Pilot Dia. Runout | - | 0.002" (0.05 cm) |
| Lateral Runout | 0.005" (0.13 cm) | 0.002" (0.05 cm) |
| Shaft End Play | 0.006" (0.15 cm) | 0.005" (0.13 cm) |
| Shaft Radial Play | 0.003" (0.08 cm) | 0.002" (0.05 cm) |
| Weight | 0.5 oz. maximum (14.18 g) | |



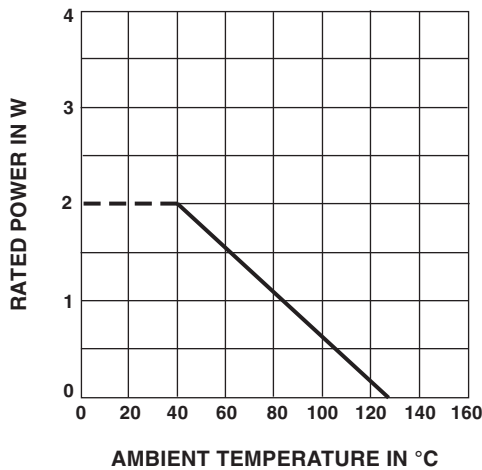
| MATERIAL SPECIFICATIONS | |
|--|--|
| Housing | Aluminum, anodized |
| Shaft | Stainless steel, non-magnetic non-passivated |
| Rear Lid | Molded glass filled phenolic |
| Terminals | Brass, plated for solderability |
| Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut: | Steel, nickel plated Brass, nickel plated |

| ENVIRONMENTAL SPECIFICATIONS | |
|-----------------------------------|---|
| Vibration | 15 g thru 2000 Hz |
| Shock | 50 g |
| Salt Spray | 96 h |
| Rotational Life Shaft Revolution: | Bushing 1 million Servo 2 million |
| 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



| 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-12934 Example of a marking for a standard part: 152-11202 |



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