



1/2" (12.7 mm) Conductive Plastic & Cermet Potentiometers



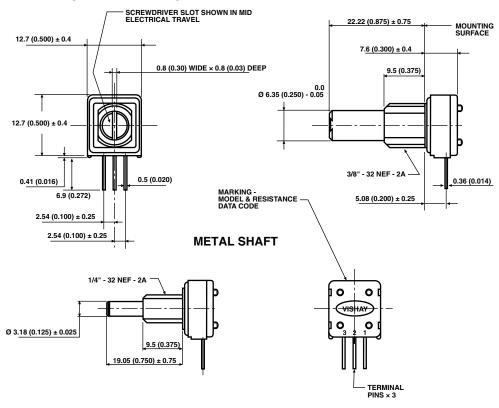
FEATURES

- Model 248/249 retains the proven high performance characteristics in a more cost effective package
- RoHS COMPLIANT
- · Cost effective panel potentiometers
- P.C.B. mounting potentiometers

DIMENSIONS in millimeters (inches)

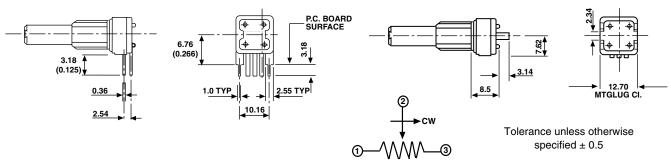
METAL OR PLASTIC SHAFTS

X = STANDARD LEADS



E = REAR STAND OFF

D = REAR LOCATING LUGS



Vishay Spectrol

1/2" (12.7 mm) Conductive Plastic & Cermet Potentiometers



| ELECTRICAL SPECIFICATIONS | | | | |
|---------------------------------------|---------------------------------------|----------------------------|--|--|
| PARAMETER | MODEL 248 | MODEL 248 MODEL 249 | | |
| Element Type | conductive plastic | cermet | | |
| Total Resistance Range | 500 Ω to 1 M Ω | | | |
| Resistance Tolerance | ± 20 % | ± 20 % (on request ± 10 %) | | |
| Power rating | 0.5 W at 70 °C | 1.0 W at 70 °C | | |
| | Both derated to zero at 125 °C | | | |
| Temperature Coefficient of Resistance | ± 1000 ppm/°C | ± 100 ppm/°C | | |
| Linearity Tolerance | ± 5 % Independent | | | |
| Contact Resistance Variation | 5 % of the Total Resistance | | | |
| Insulation Resistance | 1000 MΩ minimum, 500 VDC | | | |
| Dielectric Strength | 750 V _{RMS} minimum 50/60 Hz | | | |
| End Resistance | 2Ω maximum each end | | | |
| Effective Electrical Angle | 265° ± 5° | | | |

MECHANICAL SPECIFICATIONS

Rotation $295^{\circ} \pm 5^{\circ}$

Torque Starting and Running

1.5 to 18.75 mNm

End Stop Torque 0.35 Nm (50 oz-in) **Weight** 8.3 g's (0.29 oz)

 $(1/4" \times 7/8" \text{ FMF metal shaft})$

Max Tightening Torque 0.50 Nm (1/4" Bush)

0.70 Nm (3/8" Bush)

Sealing IP50

ENVIRONMENTAL SPECIFICATIONS

Temperature Range - 55 °C to + 125 °C **Shock** 390 meters/sec/sec.

1000 bumps

Vibrations 98 meters/sec/sec.

0.75 mm, 10 to 500 Hz

Rotational Life (Electrical) 25 000 cycles Load Life at 70 °C 1000 hours

STANDARD RESISTANCE ELEMENT DATA

Ω 500R, 1K, 2K, 5K, 10K, 25K, 50K, 100K, 250K,

248/249: 500K, 1M

PACKAGING

Carton box of 50, code: BO50

MARKING

Unit identification: Manufacturer's name and model number, EIA resistance value coding, tolerance, data code and terminal Identification.

| ORDERING INFORMATION | | | | | | | |
|----------------------|---|--|---|----------------------------|-------------------|--|--|
| 248 MODEL | JE SPECIAL FEATURES | 8 SHAFT OPTIONS | 08 FMF SHAFT OPTIONS | 103 EIA RESISTANCE CODE | e3 LEAD FINISH | | |
| 248/249 | D: Rear locating lugs E: Rear stand off J: CW audio taper | 7: 6.35 (1/4") plastic 8: 3.18 (1/8") plated brass 9: 6.35 (1/4") plated brass | 08: 19.05 (3/4") for 3.18 (1/8") plated brass 10: 22.22 (7/8") for 6.35 (1/4") plated brass or plastic versions | | e3: pure Sn | | |
| Example: 2 | 48 - JE - 8 - 08 - 103 | | | | | | |

| SAP PART NUMBERING GUIDELINES | | | | | | |
|--|--|--|--|--|--|--|
| 2 4 8 B B H S 0 E B 2 5 1 0 3 M L MODEL BUSHING SHAFT SHAFT LEADS PACKAGING OHMIC VALUE/TOL/LAW OR SPECIAL See the end of this data book for conversion tables | | | | | | |

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