

7/8" (22.2 mm) Conductive Plastic Potentiometer, Bushing Mount Type



FEATURES

- 7/8" diameter single turn
- Compact size, advanced design technology
- Offer a cost effective solution to your potentiometer requirements
- Suitable model for all industrial applications
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

QUICK REFERENCE DATA

| | |
|------------------|--------------------------------|
| Sensor type | ROTATIONAL, conductive plastic |
| Output type | Output by turrets |
| Market appliance | Industrial |
| Dimensions | 7/8" (22.2 mm) |

ELECTRICAL SPECIFICATIONS

| PARAMETER | | |
|---------------------------------|---|-----------------------------|
| Resistance | Standard range, 1 kΩ to 50 kΩ | |
| Tolerance | STANDARD ± 20 % | SPECIAL TO ± 10 % |
| Linearity (independent) | STANDARD ± 2.0 % | SPECIAL ± 1.0 % |
| Output smoothness | 0.1 % maximum | |
| TCR | ± 600 ppm/°C maximum | |
| Power rating | 1.0 W at 70 °C derated to 0 W at 125 °C | |
| Electrical travel | 340° ± 3° | |
| End voltage | 0.5 % maximum | |
| Dielectric withstanding voltage | 1000 V _{RMS} , 60 Hz | |
| Insulation resistance | 1000 MΩ, 500 V _{DC} | |

MECHANICAL SPECIFICATIONS

| PARAMETER | | |
|--------------------------|---|--|
| Rotation | 360° continuous (optional mechanical stops 340° ± 3°) | |
| Mounting | 3/8 - 32 UNEF - 2A | |
| Operating torque maximum | Starting and running 3.68 mNm (0.5 oz. - in) | |
| Shaft tolerance maximum | | |
| Runout | 0.13 mm (0.005") | |
| End play | 0.25 mm (0.010") | |
| Radial play | 0.13 mm (0.005") | |
| Weight | 17.5 g (0.62 oz.) | |

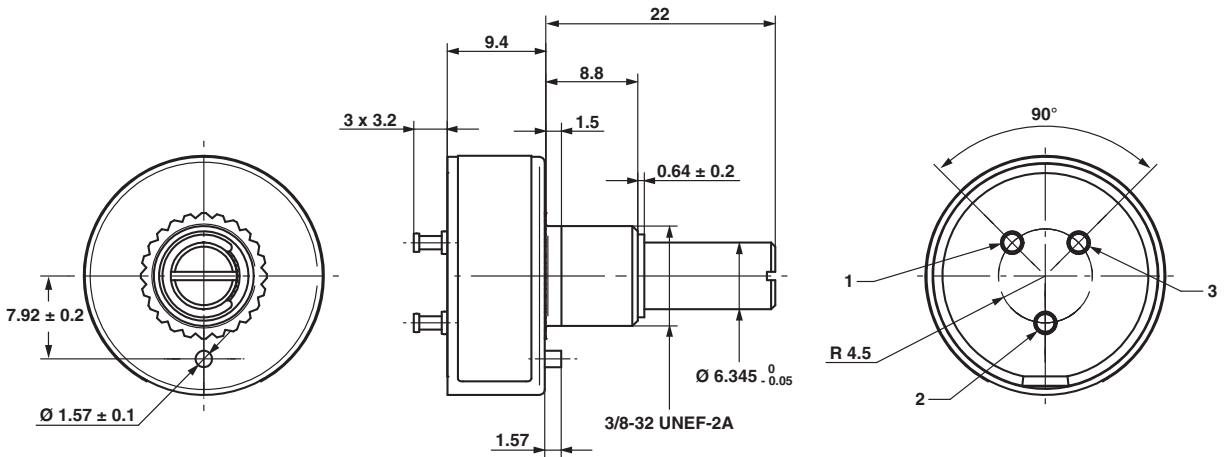
ORDERING INFORMATION/DESCRIPTION

| 357 | B | 0 | 10K | 20 % | A | BO50 | 0 P 22 | e4 |
|-------|---------|---|-----------------|--------------------------|----------------------|------------------|---|-------------|
| MODEL | STYLE | FEATURES | OHMIC VALUE | TOLERANCE ON OHMIC VALUE | LINEARITY | PACKAGING | SHAFT TYPE | LEAD FINISH |
| | Bushing | 0 Non turn pin and continuous rotation | | | | Box of 50 pieces | Shaft diameter 0 = 6.0 mm or 1 = 6.35 mm (1/4") | |
| | | 1 No non turn pin and continuous rotation | From 1K to 50 K | ± 10 % or ± 20 % | X: ± 2 % A: ± 1 % | | Shaft type P = Plain S = Slotted FMF (from mounting face) | |
| | | 2 Non turn pin, with stops on rotation | | | | | Range from 12 mm to 75 mm in 1 mm increments | |
| | | 3 No non turn pin with stops on rotation | | | | | | |

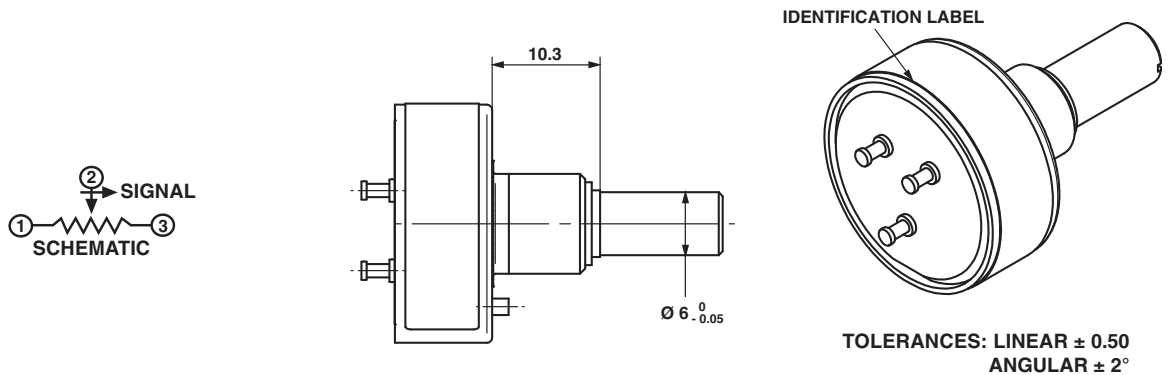
| SAP PART NUMBERING GUIDELINES | | | | | | |
|-------------------------------|----------|-------------|-------------------------------|--------------|------------------|------------|
| 357B | 2 | 203 | M | X | B25 | 1S22 |
| MODEL | FEATURES | OHMIC VALUE | TOLERANCE ON OHMIC VALUE | LINEARITY | PACKAGING | SHAFT TYPE |
| | | 203 = 20K | M: $\pm 20\%$ / K: $\pm 10\%$ | X: $\pm 2\%$ | Box of 50 pieces | |

DIMENSIONS in millimeters

Ø 6.35 mm SHAFT VERSION



Ø 6.0 mm SHAFT VARIATION: METRIC



| ENVIRONMENTAL SPECIFICATIONS | |
|------------------------------|-----------------------------|
| Vibration | 15 g, 10 Hz to 2000 Hz |
| Shock | 50 g |
| Load Life | 1000 h |
| Storage temperature range | -55 °C to +125 °C |
| Life | 5 000 000 shaft revolutions |
| Materials | |
| Housing | Thermoplastic housing |
| Bushing | Brass, nickel plated |
| Rear lid | Alumina |
| Shaft | Stainless steel |
| Terminals | Turret type, solder plated |
| Bushing mount hardware | |
| Lockwasher internal tooth | Steel, nickel plated |
| Panel nut | Brass nickel plated |

| MARKING | |
|---------------------|--|
| Unit Identification | Manufacturer's name and model number, resistance value and tolerance, linearity specification date code and terminal identification. Example of a marking for a standard part: 357-0-0-1S22-103 |

| RESISTANCE VALUE | |
|------------------|---------------------------|
| Ohms | 1K, 2K, 5K, 10K, 20K, 50K |

Note

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



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Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.