

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

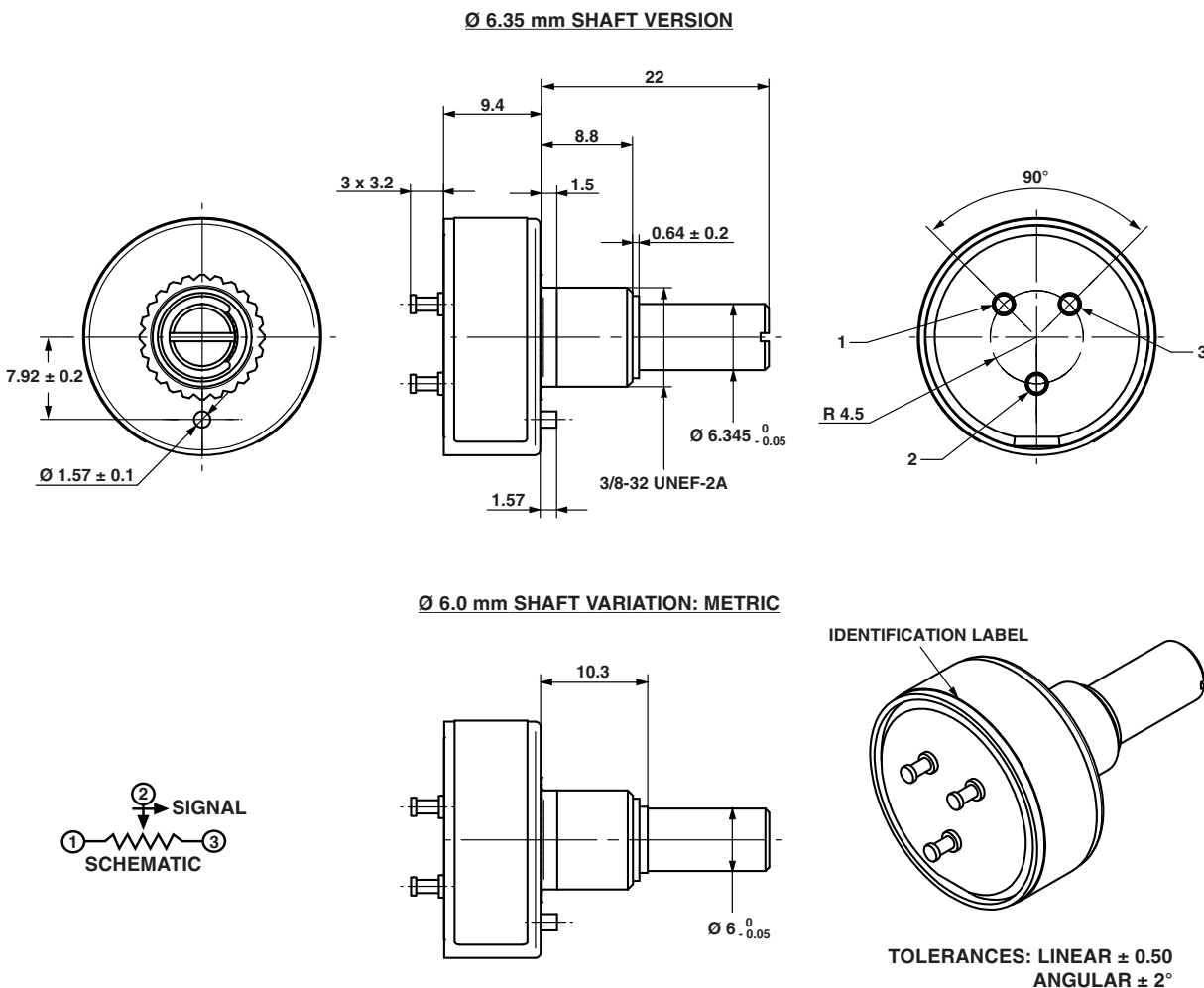
| PARAMETER | |
|--------------------------|---|
| Rotation | 360° continuous (optional mechanical stops 340° ± 3°) |
| Mounting | 3/8 - 32 UNEF - 2A |
| Operating torque maximum | Starting and running 3.68 mNm (0.5 oz. - in) |
| Shaft tolerance maximum | |
| Runout | 0.13 mm (0.005") |
| End play |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

ORDERING INFORMATION

| | | | | | | | | | | | | | | | | | |
|-------|-------------|--|---|--|---|--------------------------|---|--------------------|---|---|---|---|---|---|---|---|---|
| 3 | 5 | 7 | B | 1 | 2 | 0 | 3 | K | X | B | O | 5 | 0 | 1 | P | 2 | 2 |
| MODEL | STYLE | MECHANICAL FEATURES | | OHMIC VALUE | | TOLERANCE | | LINEARITY | | PACKAGING | | SPECIAL REQUEST | | | | | |
| 357 | B = bushing | 0 = no turn pin and continuous rotation 1 = turn pin and continuous rotation 2 = no turn pin with stops on rotation 3 = turn pin with stops on rotation | | 470 = 47 Ω 222 = 2.200 Ω 103 = 10 kΩ For ohmic value range see electrical specification | | M = ± 20 % K = ± 10 % | | X = 2 % A = 1 % | | BO50 = Box 50 pcs. Special BO10 = Box 10 pcs. | | Custom reference or shaft diameter 0 = 6.0 mm 1 = 6.35 mm 9 = special shaft type P = plain S = slotted FMF (from mounting face) range from 12 mm to 75 mm in 1 mm increments | | | | | |

PART NUMBER DESCRIPTION (for information only)

| | | | | | | | |
|------------|----------|---------------------|-------------|-----------|-----------|-------------|-----------------|
| 357 | B | 1 | 203 | K | X | BO50 | 1P22 |
| MODEL | STYLE | MECHANICAL FEATURES | OHMIC VALUE | TOLERANCE | LINEARITY | PACKAGING | SPECIAL REQUEST |

DIMENSIONS in inches (millimeters)

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 |

Note

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

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 |
|------|---------------------------|



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