



### Features

- Compact design
- High reliability
- Mounting hole pin
- RoHS compliant\*

### Applications

- Industrial controls
- Robotics
- Factory automation equipment
- Motion control systems
- Human-machine interfaces (HMI)
- Commercial equipment
- Position feedback applications

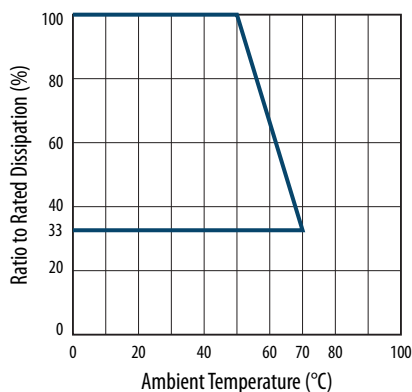
### Sustainability

- Small size reduces material use
- High pallet density for lower CO<sub>2</sub>
- Eco-logistics-friendly packing
- Recyclable ESD-safe packaging
- High efficiency, low power loss

### Product Overview

Bourns® PST10 Series combines a compact hollow-shaft design with non-contact sensing technology to deliver accurate position feedback and long-term reliability. By eliminating mechanical wear associated with conventional potentiometers, this series provides stable analog output and maintenance-free operation throughout its service life. The hollow-shaft configuration simplifies mechanical integration, while the compact package supports space-constrained designs without compromising performance. Designed to help improve system durability and reduce maintenance requirements, the PST10 Series offers consistent electrical performance and dependable operation over an extended operating life.

### Derating Curve of Rated Dissipation



### Electrical Characteristics

|                                      |                       |
|--------------------------------------|-----------------------|
| Contact Rating.....                  | 10 mA @ 5 VDC         |
| Insulation Resistance .....          | 100 MΩ min. @ 200 VDC |
| Dielectric Strength - Sea Level..... | 50 VAC 1 min.         |
| Linear Taper B .....                 | Linear                |
| Rated Power .....                    | 0.15 W                |
| Rated Voltage.....                   | 150 VAC – 100 VDC     |
| Standard Resistance Range .....      | 1 KΩ to 5 MΩ          |
| Total Resistance Tolerance           |                       |
| 1 KΩ to 1 MΩ.....                    | ±20 %                 |
| ≥1 MΩ to 5 MΩ.....                   | ±30 %                 |
| Electrical Travel.....               | 200° ±20°             |

### Environmental Characteristics

|                             |                      |
|-----------------------------|----------------------|
| Operating Temperature ..... | -10 °C to +70 °C     |
| Storage Temperature .....   | -25 °C to +80 °C     |
| Soldering Condition         |                      |
| Dip Soldering.....          | 260 °C ±5 °C for 3 s |
| Manual Soldering.....       | 350 °C ±5 °C for 3 s |
| IP Rating.....              | IP 40                |

### Mechanical Characteristics

|                                    |                 |
|------------------------------------|-----------------|
| Mechanical Angle.....              | 235° ±10°       |
| Rotational Torque .....            | 10 to 100 gf/cm |
| Rotational Speed .....             | 60° / sec.      |
| Rotation Stopper Strength.....     | 0.5 Kg/cm       |
| Push – Pull Strength of Shaft..... | 1.0 Kg/cm       |
| Shaft Play in Axial Direction..... | 0.5 K gf max.   |
| Rotational Life.....               | 10,000 cycles   |

### Product Characteristics

|             |           |
|-------------|-----------|
| Weight..... | 0.6 grams |
|-------------|-----------|

### Contact Information

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\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

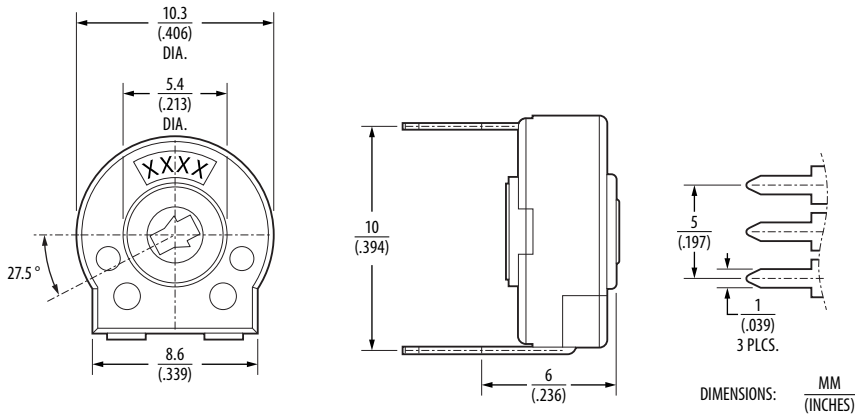
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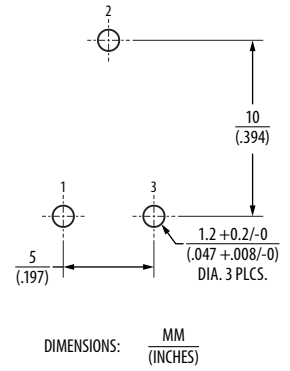
#### Product Dimensions

PST10H Horizontal PC Board Mounting Hole Pin



#### Mounting Hole Details

PST10H



#### Hole Style

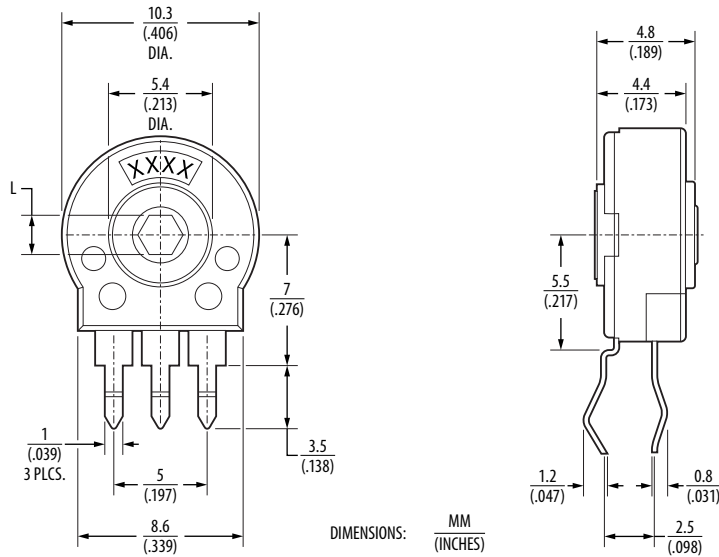
PST10H

| Style K1 | Style J | Style S |
|----------|---------|---------|
|          |         |         |



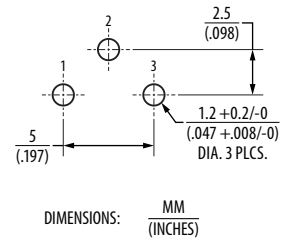
#### Product Dimensions

PST10V Vertical PC Board Mounting Hole Pin



#### Mounting Hole Details

PST10V



#### Hole Style

PST10V

| Style H |                                           |                                            |                                            | Style J |  | Style S |  |
|---------|-------------------------------------------|--------------------------------------------|--------------------------------------------|---------|--|---------|--|
|         |                                           |                                            |                                            |         |  |         |  |
| Code    | L0                                        | L2                                         | L5                                         |         |  |         |  |
| H       | 2.0 + 0.02 / - 0<br>(0.079 + 0.001 / - 0) | 2.02 + 0.02 / - 0<br>(0.080 + 0.001 / - 0) | 2.05 + 0.02 / - 0<br>(0.081 + 0.001 / - 0) |         |  |         |  |



#### How to Order

**PST10 2 - 1 01 HL0 - N 503**

Model Series \_\_\_\_\_

10 mm Incremental Potentiometer \_\_\_\_\_  
 1 = Horizontal  
 2 = Vertical

Detent Option \_\_\_\_\_  
 1 = No Detents

Key Shaft \_\_\_\_\_  
 01 = Hole

Shaft Style \_\_\_\_\_  
 HL0 = 2.00 Hexagon Key Shaft (vertical model only)  
 HL2 = 2.02 Hexagon Key Shaft (vertical model only)  
 HL5 = 2.05 Hexagon Key Shaft (vertical model only)  
 J = 2.0 Arrow Key Shaft  
 K1 = 2.4 Arrow Key Shaft (horizontal model only)  
 S = 2.0 Cross Key Shaft

Switch Configuration \_\_\_\_\_  
 N = No Switch

Resistance \_\_\_\_\_  
 Resistance Code

| Resistance (Ohms) | Resistance Code |
|-------------------|-----------------|
| 1,000             | 102             |
| 2,000             | 202             |
| 5,000             | 502             |
| 10,000            | 103             |
| 20,000            | 203             |
| 50,000            | 503             |
| 100,000           | 104             |
| 200,000           | 204             |
| 500,000           | 504             |
| 1,000,000         | 105             |

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