

# TP4 Series Microminiature SMT Side Actuated

## Features/Benefits

- Compact size
- Excellent tactile feel
- ESD protection
- Positioning pegs for stability
- RoHS compliant and compatible

## Typical Applications

- Mobile phones
- Medical handheld monitors
- Consumer electronics
- Telecommunication networks



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Tactile Switches

## Specification

FUNCTION: Momentary  
CONTACT ARRANGEMENT: SPST, N.O.  
TERMINALS: Gullwing type for SMT  
IP40 Sealed

## Mechanical

OVERLOAD: 20N  
TACTILE FEELING: 15% min. for the 2N version  
25% min for the 2.5N version

| Type       | Operating force<br>Newtons (grams) | Operating life<br>(operations) | Travel      |
|------------|------------------------------------|--------------------------------|-------------|
| TP4221G/GP | 2N (200) ± 0.5                     | 100 K cycles                   | 0,25 ± 0,15 |
| TP4223G/GP | 2N (200) ± 0.5                     | 100 K cycles                   | 0,25 ± 0,15 |
| TP4231G/GP | 3N (300) ± 0.6                     | 100 K cycles                   | 0,3 ± 0,15  |
| TP4233G/GP | 3N (300) ± 0.6                     | 100 K cycles                   | 0,3 ± 0,15  |

**Note:** Specifications listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

## Packaging

Tape and reels in reels of 3,000 pieces.  
External diameter 330mm ± 2mm.

## Electrical

|                        | Silver            | Gold   |
|------------------------|-------------------|--------|
| MAXIMUM POWER:         | 1 VA              | 0.2 VA |
| MAXIMUM VOLTAGE:       | 32 VDC            | 32 VDC |
| MAXIMUM CURRENT DC:    | 50 mA             | 10 mA  |
| MINIMUM CURRENT DC:    | 1 mA              | 1 mA   |
| DIELECTRIC STRENGTH:   | 250 VDC           |        |
| CONTACT RESISTANCE:    | ≤100 mΩ           |        |
| INSULATION RESISTANCE: | 10 <sup>9</sup> Ω |        |
| BOUNCE TIME:           | ≤ 3 ms            |        |

## Environmental

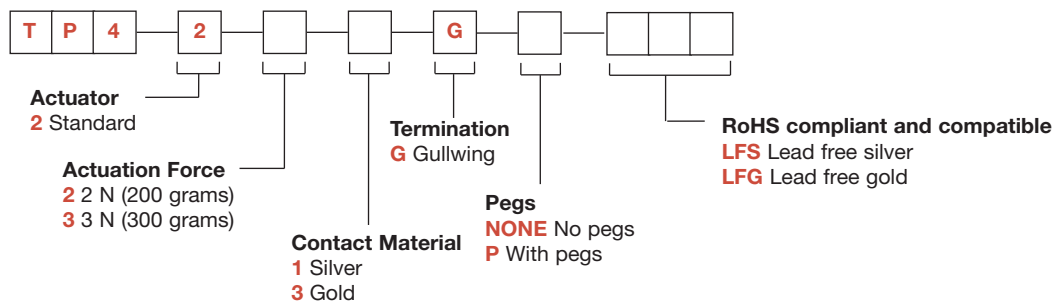
|                        | Silver        | Gold           |
|------------------------|---------------|----------------|
| OPERATING TEMPERATURE: | -40°C to 85°C | -40°C to 125°C |
| STORAGE TEMPERATURE:   | -55°C to 85°C | -55°C to 125°C |

## Process

Infrared reflow soldering in accordance with IEC 61760-1

## How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



Dimensions are shown: mm  
Specifications and dimensions subject to change

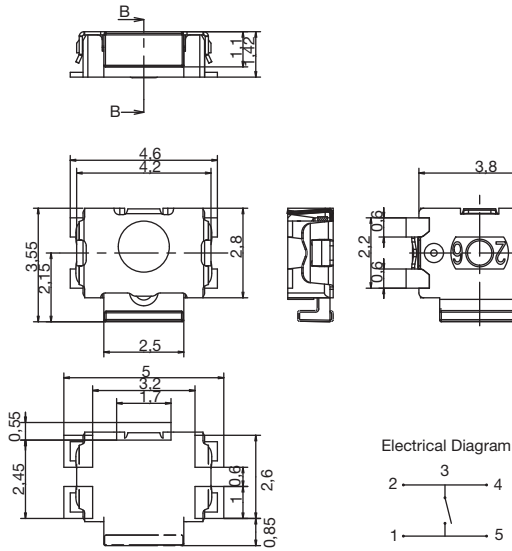
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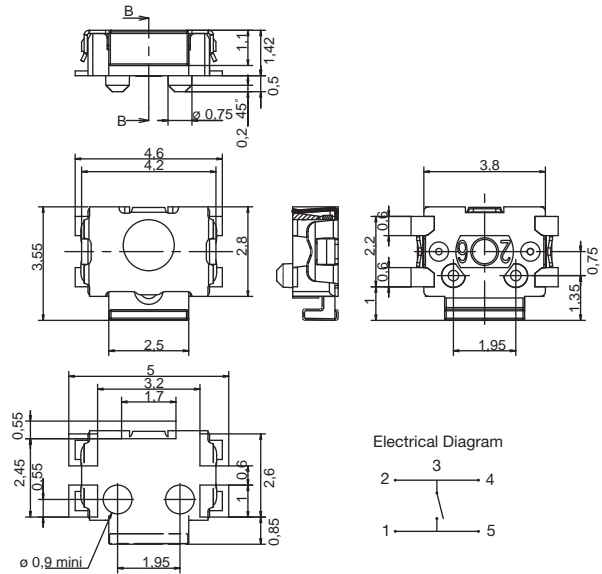
Tactile Switches

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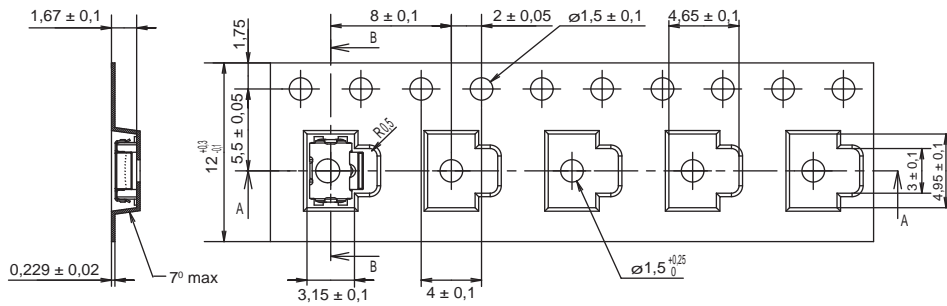
## TP4



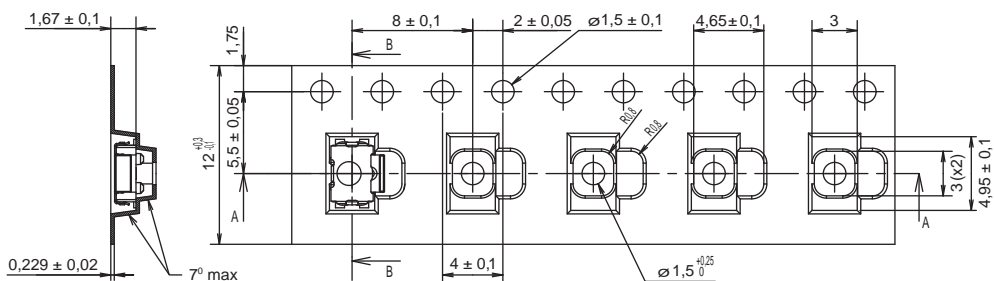
## TP4 WITH PEGS



## TAPE & REEL



## WITH PEGS



→  
DIRECTION OF FEED



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