

# THB Series

## Miniature Thumbstick



### Description

The THB is a miniature thumbstick switch featuring a versatile, high-quality dual axis lever with integrated center select switch. It meets the reliability requirements demanded by premium controller products including high end drones, gaming peripherals, and industrial controllers. Featuring a high activation force and a small form factor, the new THB series combines a small package with improved ergonomics that provides premium performance to its users and accommodates a wide range of customers.

### Features & Benefits

- 2 axis, multi-direction operation
- 2,000,000 life cycle for toggle
- Center select momentary switch
- Small package size

### Applications

- Gaming peripherals
- Remote Control Vehicles
- Mini-joystick
- Thumb control
- Navigation control
- Industrial control
- Heavy equipment

### Mechanical Specifications

<b>Pattern of Actuator Movement</b>	Toggle cross-wide and in a circle
<b>Full Stroke Actuation Stop Strength</b>	> 3.1 kgf (3 seconds minimum)
<b>Pull Strength of the Actuator</b>	> 5 kgf (3 seconds minimum)
<b>Actuation Force</b>	120 +/- 50 gf (12 +/- 5mN*M of Torque)
<b>Accuracy of Return to Actuator Release Position</b>	±3°
<b>Toggle Angle of Operation</b>	26° max. angle from vertical through full circular range of motion
<b>Operating Life</b>	1,000,000 cycles minimum (center switch) 2,000,000 cycles minimum (thumbstick toggle)

### Environmental Characteristics

<b>Operating Temperature</b>	-10°C to 70°C
<b>Storage Temperature</b>	-30°C to 80°C

### Packaging

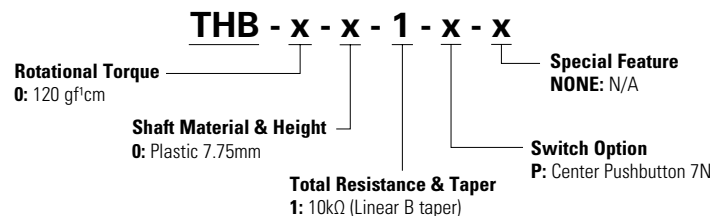
<b>Tray</b>	60 Units
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### Electrical Characteristics

<b>Total Resistance (Potentiometers)</b>	10kΩ ± 20% initial Within ± 20% of initial values for 10,000 cycles
<b>Resistance Potentiometers</b>	Percentage of the voltage of terminal 1-2 to the voltage of terminal 1-3
<b>Rated Voltage</b>	50 VAC or 5 VDC
<b>Rated Power</b>	0.05 A @ 12 VDC
<b>Contact Noise</b>	Noise < 10% of operating voltage
<b>Voltage Divider</b>	39.6 - 60.4%
<b>Insulation Resistance</b>	> 100 MΩ
<b>Withstanding Voltage</b>	No arcing or breakdown

### Ordering Number

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.



#### Notes:

1. Please note some option codes are mutually exclusive. Consult factory if you have any questions

