THB Series
Miniature Thumbstick

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

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

Electrical
TOTAL RESISTANCE (POTENTIOMETERS): 10kΩ ± 20% initial
Within ± 20% of initial values for 10,000 cycles
RESISTANCE POTENTIOMETERS: Percentage of the voltage of terminal 1-2 to the voltage of terminal 1-3
RATED VOLTAGE: 50 VAC or 5 VDC
RATED POWER: 0.05 A @ 12 VDC
CONTACT NOISE: Noise < 10% of operating voltage
VOLTAGE DIVIDER: 39.6 ~ 60.4%
INSULATION RESISTANCE: > 100 MΩ
WITHSTANDING VOLTAGE: No arcing or breakdown

Mechanical
PATTERN OF ACTUATOR MOVEMENT: Toggle cross-wide and in a circle
FULL STROKE ACTUATION STOP STRENGTH: > 3.1 kgf (3 seconds minimum)
PULL STRENGTH OF THE ACTUATOR: > 5.0 kgf (3 seconds minimum)
ACTUATION FORCE: 160 +/-40 gf (12 +/- 5mN*M of Torque)
ACCURACY OF RETURN TO ACTUATOR RELEASE POSITION: ±3°
TOGGLE ANGLE OF OPERATION: 30° to 36°C Max angle from vertical through full circular range of rotation
OPERATING LIFE: 1,000,000 cycles minimum (center switch)
2,000,000 cycles minimum (thumbstick toggle)

Environment
OPERATING TEMPERATURE: -10°C to +70°C
STORAGE TEMPERATURE: -30°C to +80°C

Packaging
Tray (60 units)

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.

Rotational Torque
0 120 gf·cm
1 110 gf·cm
2 140 gf·cm

Shaft Material & Height
0 Plastic 7.75mm
1 Metal 7.2mm

Total Resistance & Taper
1 10kΩ (Linear B taper)

Switch Option
P Center Pushbutton 7N
Q Center Pushbutton 7.4N
R Center Pushbutton 8N

Special Feature
NONE N/A
X No Return to Center X-X Direction

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

Dimensions are shown: mm
Specifications and dimensions subject to change
www.ckswitches.com
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THB001P

Note:
X-X direction does not return (applies to THB211QX only)

THB111R & THB211QX

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X-X direction does not return (applies to THB211QX only)