

## Thumb Joystick Controller - Potentiometer Type

Series 802



- Dual Axis
- Pushbutton Version
- Spring Return to Center
- 50° ( $\pm 25^\circ$ ) Electrical Angle
- PCB Mount
- 100,000 Operations Life
- ✓ RoHS

### Electrical Data (Note 1)

Electrical Travel	50° ( $\pm 25^\circ$ fro center)
Resistance Value	10k $\Omega \pm 20\%$
Maximum Applied Voltage	30VDC
Power Rating	0.1W @ 70°C
Contact Noise (CRV)	< 10% total resistance
Contact Resistance (ENR)	< 15% C.R.V.
Resolution	Essentially Infinite
Center Return Accuracy	50% $\pm 3\%$
Insulation Resistance	> 100M $\Omega$ @ 250VDC
Withstand Voltage	250VAC 1 minute
Pushbutton Type	SPST (momentary)
Pushbutton Rating	12V, 50mA

### Mechanical Data (Note 1)

Mechanical Travel	$\pm 30^\circ$ (60° overall) Circular pattern
Operating Force	220 $\pm 40$ gf
Stopper Strength	> 3.1 Kgf (3 seconds min.)
Operating Temperature	-50°C ~ +125°C
Life Expectancy	> 100,000 random operations
Weight	Approx. 6g

### • Special Specifications Available

Custom electrical angles, shaft modifications, hall effect type

Note 1: Customers should test and verify device performance in any given application. General specifications values are measured at temperatures of +15°C ~ +35°C. Specifications are subject to change without notice.

## Product Versions

Series 802

Model: **802-20110-A**

Without Pushbutton



Knob  
(included with delivery,  
not attached)

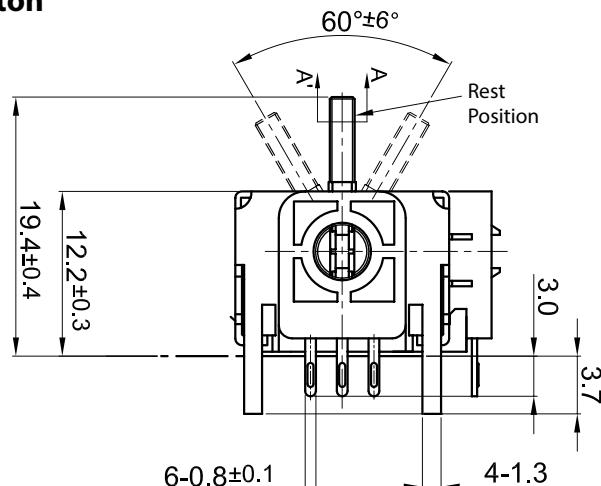
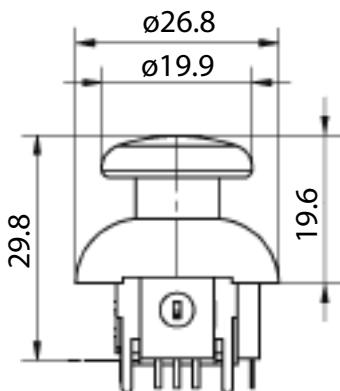
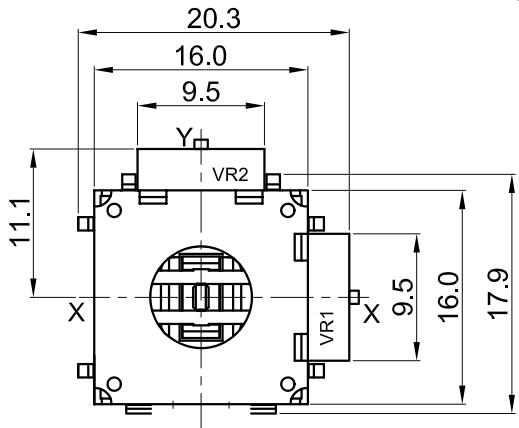
Model: **802-30110-A**

With Pushbutton



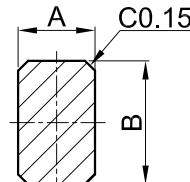
## Dimensions (mm)

**Model: 802-20110-A**  
Without Pushbutton



DETAIL A-A'(5/1)

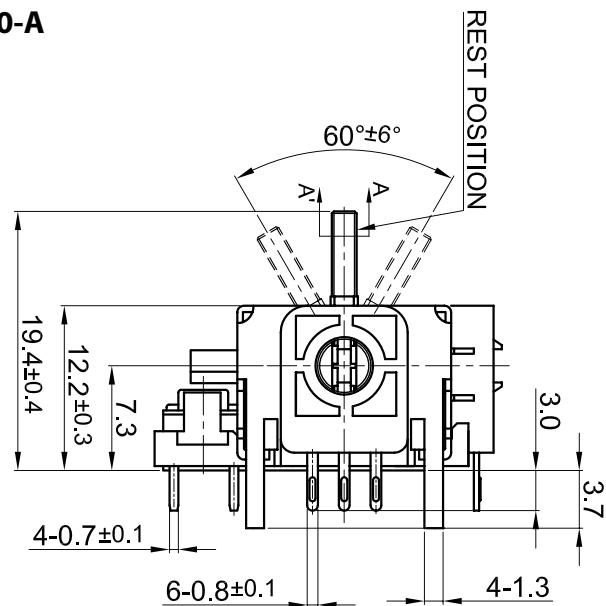
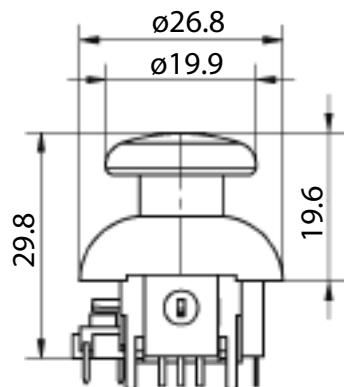
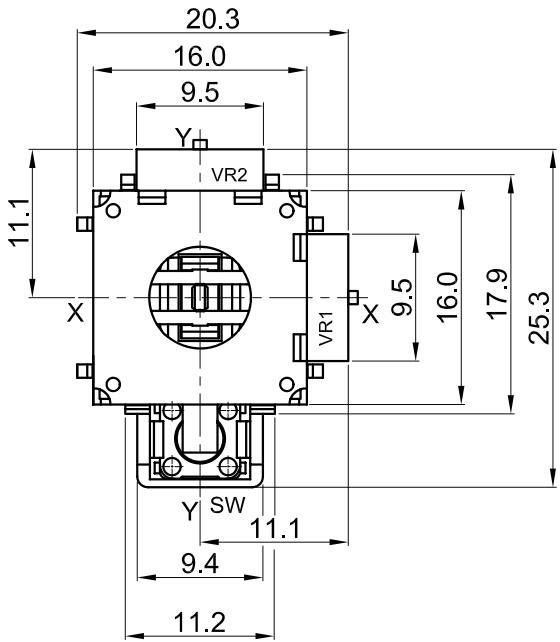
Code	P
A	1.15 <sup>+0</sup> <sub>-0.05</sub>
B	1.85 <sup>+0</sup> <sub>-0.07</sub>



## Dimensions (mm)

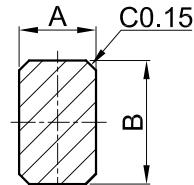
Series 802

**Model: 802-30110-A  
With Pushbutton**



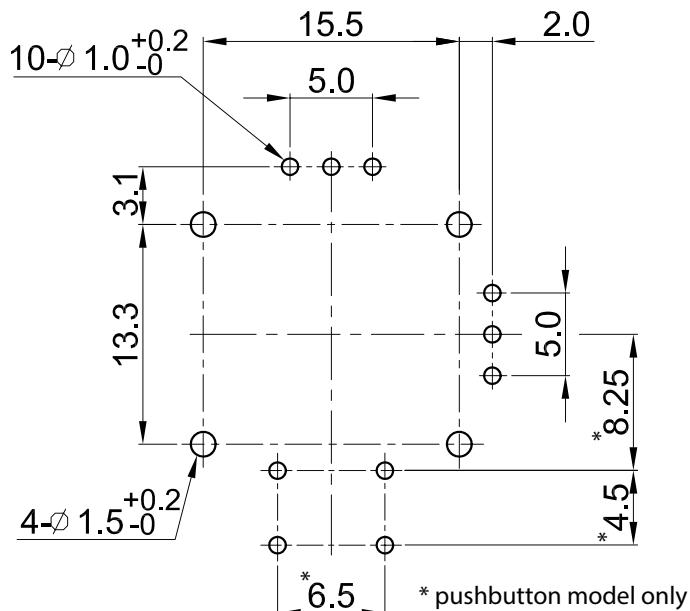
**DETAIL A-A'(5/1)**

Code	P
A	1.15 <sup>+0</sup> <sub>-0.05</sub>
B	1.85 <sup>+0</sup> <sub>-0.07</sub>



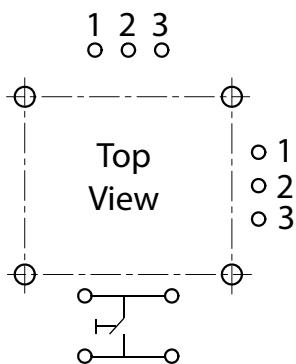
## PCB Mounting Details

Series 802

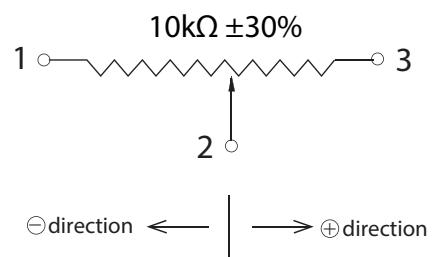


## Electrical Characteristics / Terminations

### Y Potentiometer



### X Potentiometer



Switch (12V, 50mA, spst, momentary)