


# JH30H Series

## Triple Axis Joystick Controller (Hall Effect, Thumb Controller)



- Triple Axis
- Low Profile
- Spring Return to Center
- Hall Effect - Contactless
- Dual Outputs (Optional)
- >1 mio. Operations Life
-  RoHS

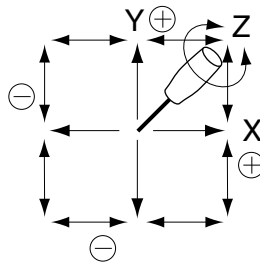
### Electrical Data (Note 1)

Electrical Travel	X & Y Axis: $\pm 15^\circ$ from center (30° overall) Z Axis: $\pm 30^\circ$ from center (60° overall)
Supply Voltage	5VDC $\pm 10\%$
Output Voltage	0.5V ~ 4.5V (2.5V center) / (0~5V, 0.25~4.75V optional)
Independent Linearity Tolerance	$\pm 3\%$
Center Return Accuracy	50% $\pm 5\%$
Load Resistance	>10k $\Omega$ (> 100k $\Omega$ recommended)
Current Consumption	abt. 18mA
Dielectric Strength	250VAC, 1 minute
Insulation Resistance	>100M $\Omega$ at 250VDC
EMC Durability	50 V/m (80 MHz..1 GHz 1 kHz 80% AM, IEC/EN61000-4-3)
ESD	IEC/EN61000-4-2, 5 kV

### Hard Cover Version



### Operating Pattern



### Rubber Boot Version



### • Special Specifications Available

Dual axis version, special outputs, special cabling, special knob shapes, to your specifications (please consult us).

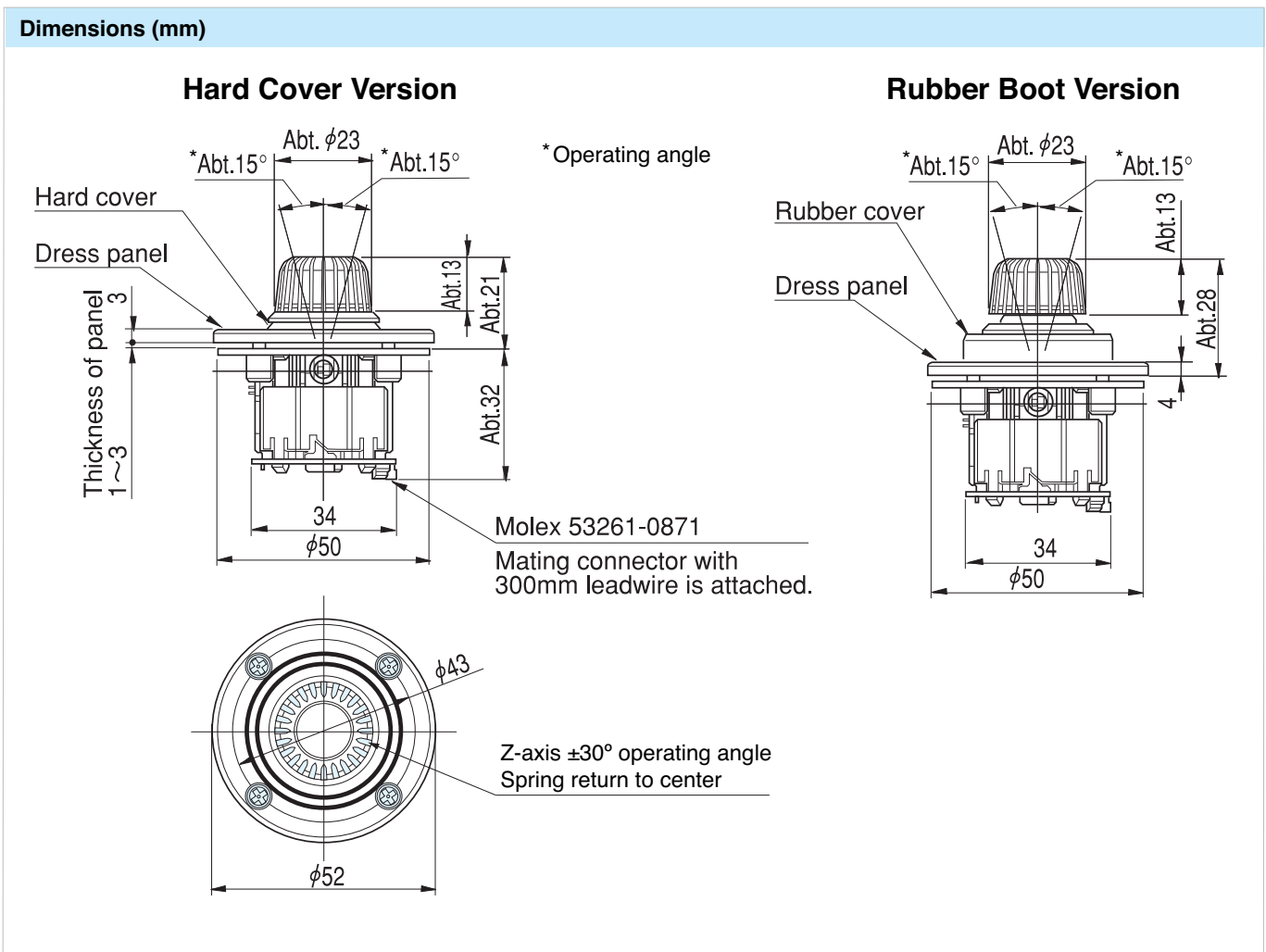
Note 1: Customers should test and verify device performance in any given application. General specifications values are measured at temperatures of  $+15^\circ\text{C} \sim +35^\circ\text{C}$ . Specifications are subject to change without notice.

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Mechanical / Environmental Data (Note 1)	
Mechanical Travel	X & Y Axis: $\pm 12.5^\circ \sim \pm 17.5^\circ$ from center Z Axis: $\pm 27.5^\circ \sim \pm 32.5^\circ$ from center
Expected Life	> 1 million operations
Operating Force	X and Y Axis; 1.5 ~ 3N (150 ~ 300gf) Z Axis; 10 ~ 30N · m (100 ~ 300gf · cm)
Maximum Vertical Load	200N (45lbf) force applied to top of castle cap
Operating Temperature	-20°C to +60°C
Storage Temperature	-40°C to +65°C
Protection Grade	IP40 (IP54 with rubber boot [above panel])
Vibration	10 ~ 55Hz 98m/s <sup>2</sup> (10G)
Shock	294m/s <sup>2</sup> (30G)
Weight	approx. 50g

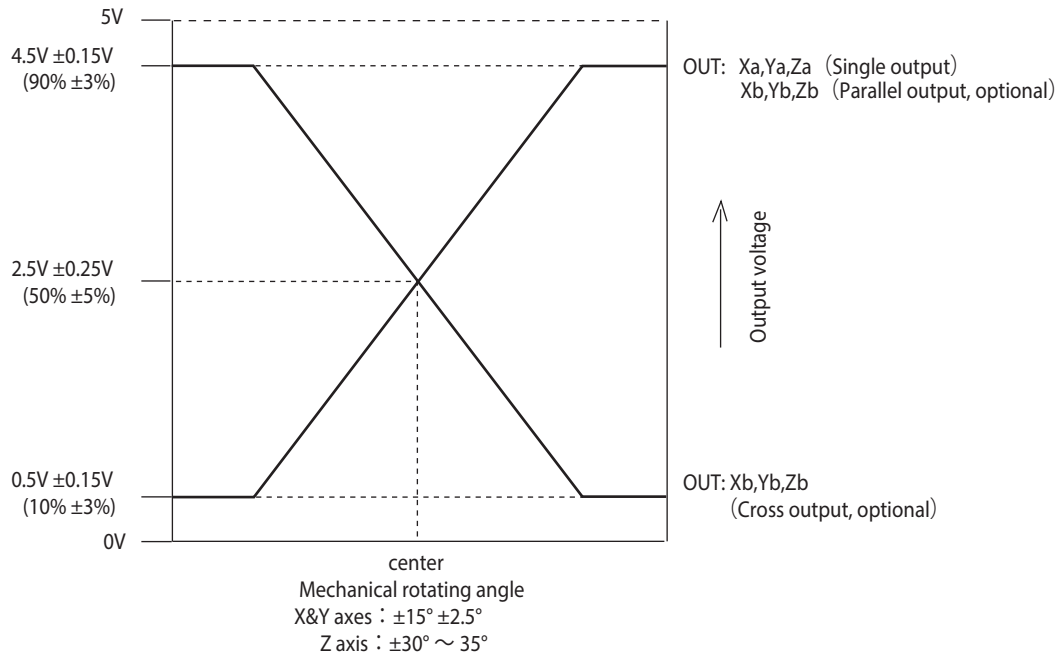


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### Output Voltage Characteristics



### Wiring Details

1	Supply +5 VDC	brown
2	X-Axis	red
3	X-Axis Dual Output (opt)	orange
4	Y-Axis	yellow
5	Y-Axis Dual Output (opt)	green
6	Z-Axis	blue
7	Z-Axis Dual Output (opt)	purple
8	Ground	grey



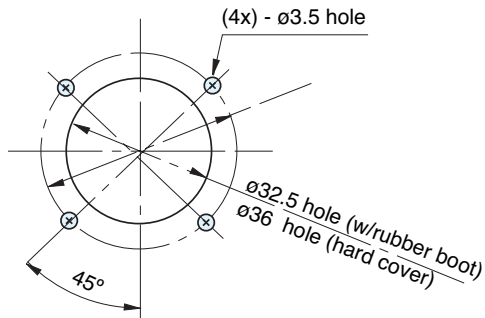
Wires AWG28, length ca. 300 mm, with connector MOLEX 51021-0800 included

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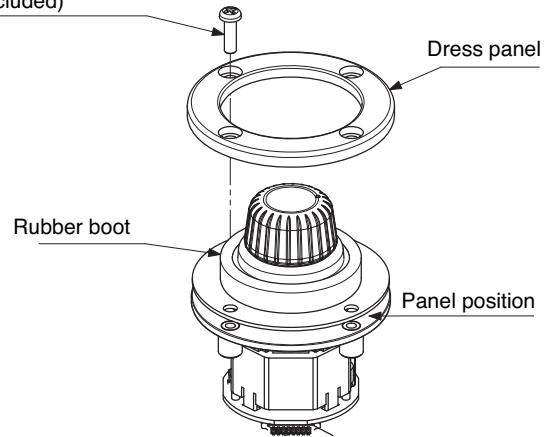
### Mounting Details

#### Panel Arrangements



Dimensions: mm

(4x) - M3 x 8 screws  
(Included)



1. Remove 4 screws from dress panel.
2. Put joystick from below panel as shown
3. Assemble the dust proof rubber boot and dress panel as shown with 4 supplied screws.