

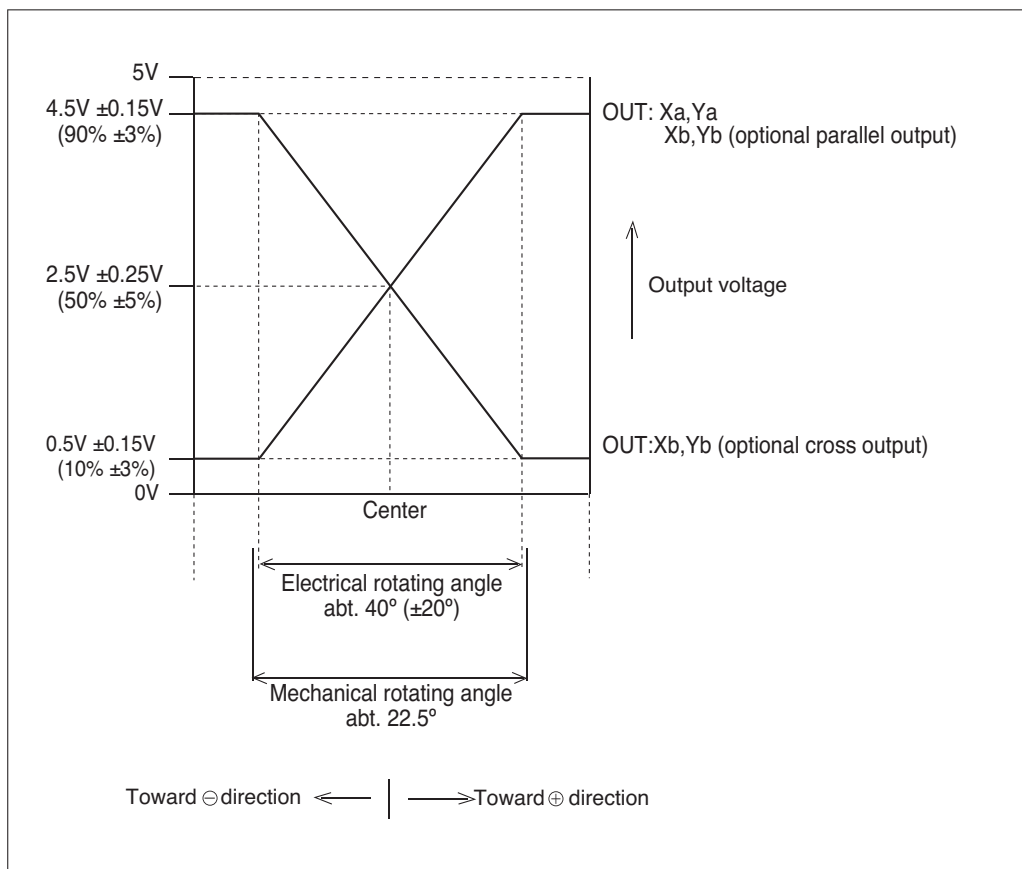
Multi-Axis Joystick Controller

Series JH60C

Specifications of X and Y Axis Hall Effect Potentiometer (Note 1)

Electrical Travel	40° ($\pm 20^\circ$ from center)
Load Resistance	over 10k Ω
Independent Linearity Tolerance	$\pm 3\%$
Resolution	Infinite
Applied Voltage	5VDC $\pm 10\%$
Effective Output	0.5V ~ 4.5V (redundant option)
EMS Durability	100V/m (80MHz~1GHz sine-wave 80% AM modulation)
ESD Durability	± 8 KV contact ± 15 KV aerial discharge (IEC61000-4-2)
Dielectric Strength	1 minute at 500VAC
Insulation Resistance	Over 1000M ohms at 500VDC

Output Characteristics



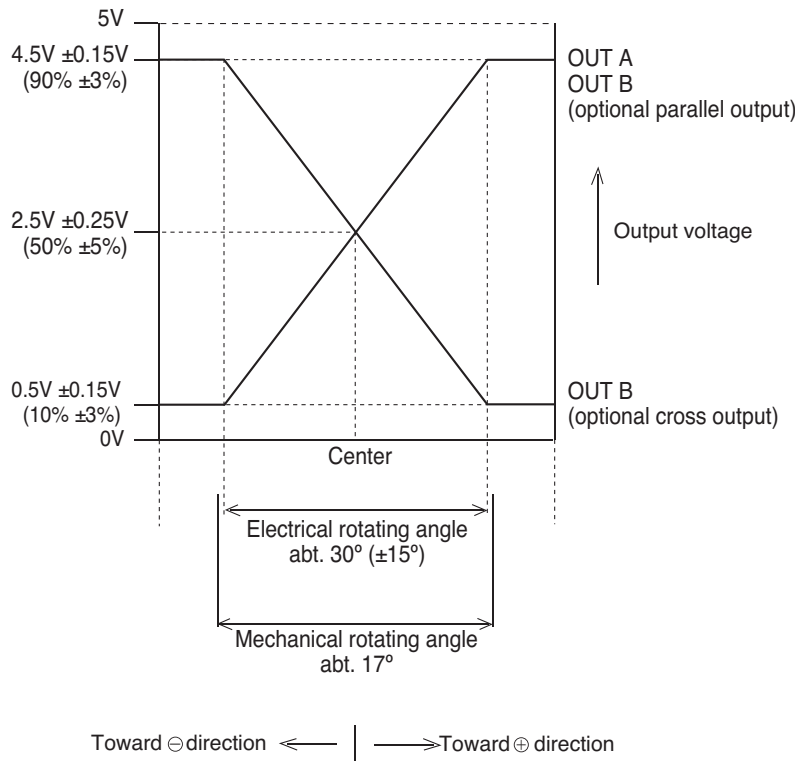
Multi-Axis Joystick Controller

Series JH60C

Specifications of Z Axis (see-saw type) Hall Effect Potentiometer (Note 1)

Electrical Travel	30° (±15° from center)
Operating Force	Spring return; 24mN · m ~ 30mN · m
Return to Center Accuracy	50% ±3%
Load Resistance	over 10kΩ
Independent Linearity Tolerance	±3%
Resolution	Infinite
Applied Voltage	5VDC ±10%
Effective Output	0.5V ~ 4.5V (redundant option)
EMS Durability	100V/m (80MHz~1GHz sine-wave 80% AM modulation)
ESD Durability	±8KV contact ±15KV aerial discharge (IEC61000-4-2)
Dielectric Strength	1 minute at 500VAC
Insulation Resistance	Over 1000M ohms at 500VDC

Output Characteristics






Multi-Axis Joystick Controller

Series JH60C

Specifications of Pushbutton Switches (Note 1)

Model Number	59-111 (black) Manufactured by ITW Switches
Operating Characteristics	Momentary type (SW-ON when pushed)
Rating	100mA, 50VDC
Dielectric Strength	1000VAC, 1 minute
Insulation Resistance	> 1000MΩ at 500VDC
Mechanical Life Expectancy	500,000 operations max.

Circuit diagram and wiring connection diagram for push button switch


SW1 (Yellow)  (Yellow)
 SW2 (Gray)  (Gray)
 SW3 (White)  (White)



Specifications of Trigger (Dead Man) Switch (Note 1)

Model Number	SPVQ810100 Manufactured by ALPS
Operating Characteristics	Momentary type (SW-ON when pushed)
Rating	100mA, 12VDC
Dielectric Strength	500VAC, 1 minute
Insulation Resistance	> 100MΩ at 500VDC
Mechanical Life Expectancy	300,000 operations max.

Circuit diagram and wiring connection diagram for dead man switch

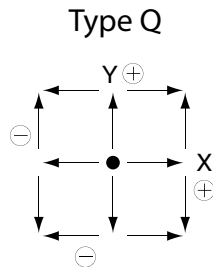
SW7 (Red)  (Red)



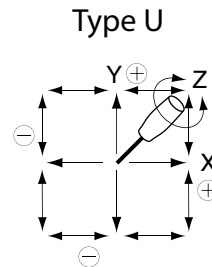
Multi-Axis Joystick Controller

Series JH60C

X and Y Axis Lever Operating Pattern



Dual axis
Omni directional (360°)



Triple axis
X and Y axis, Omni directional (360°)
Z axis, rocker potentiometer

Handle Variations



w/dual axis
thumb control
hall effect
controller

w/three see-saw
potentiometer
single axis
controls

w/two see-saw
potentiometer
single axis
controls, three
pushbutton switches
and trigger switch

w/two see-saw
potentiometer
single axis
controls, two
colored switches.

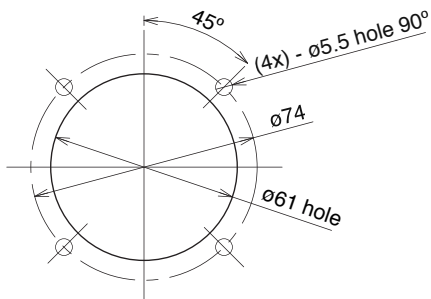
w/five colored
pushbutton switches
and trigger switch

Multi-Function Joystick Controller - Hall Effect Potentiometer

Series JH60C

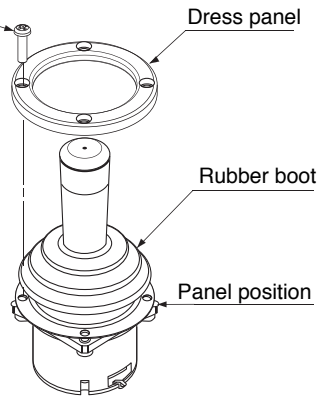
Mounting Details

Panel arrangements

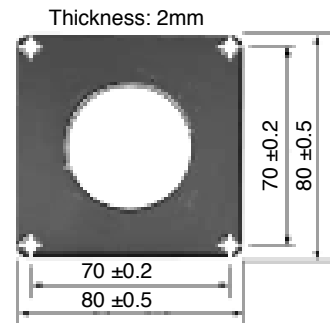


Dimensions (mm)

(4x) - M5 x 20 screws
(Included)



Mounting Plate (optional)



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.