

JST-JC-2009

# JC series

Finger operated compact controllers •  
non-contacting Hall effect technology



## DISTINCTIVE FEATURES

- Compact: ideal for keyboard integration
- Shallow mounting
- Low profile handle
- One, two or three axis
- Pushbutton handle option



## ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -25 °C to +70 °C (-13 °F to +158 °F)
- Storage Temperature: -40 °C to +70 °C (-40 °F to +158 °F)



## SENSOR SPECIFICATIONS

- Sensor: Hall effect
- Supply voltage range: 5.00 VDC
- Center voltage max: 2.50VDC  $\pm$  50mV
- Supply current max: 10mA per axis
- Transient overvoltage: 16V max
- Reverse voltage protection: -10V
- Response time: 40-80uSEC
- Ratiometric output voltage: See configuration options
- Output current: 5mA per axis
- Electrical MTBF 1,000,000 operational (power on) hours



## MATERIALS

- Handle: Glass filled nylon
- Body: Glass filled nylon
- Boot: Silicone
- Shaft: 3/16" nickel plated brass
- Main pivot ball: precision ground stainless steel

The company reserves the right to change specifications without notice.



JOYSTICKS

APEM

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## MECHANICAL SPECIFICATIONS (X/Y AXIS)

- Deflection force: 0.14lbs. @ 27° @ 2 7/8" above pivot point
- Mechanical travel: ± 28° from center
- Mounting: rear panel
- Panel thickness: 0.500" to .187
- Lever action (centering): Spring"

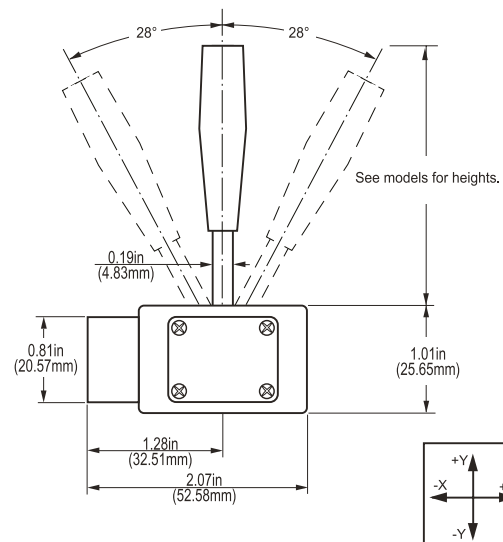
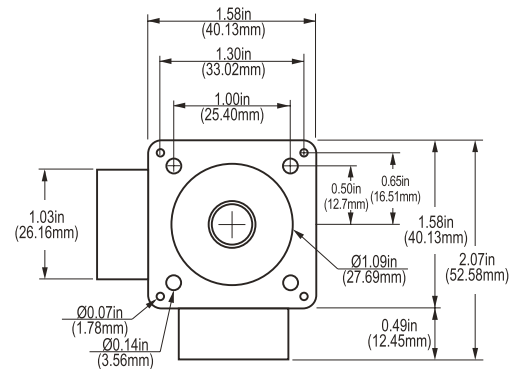


## MECHANICAL SPECIFICATIONS (Z AXIS)

- Breakout torque: .80lbf. in
- Operating torque: 1.07lbf.in
- Maximum torque: 22.13lbf.in
- Mechanical rotation: ± 45°
- Handle action: Spring return to center



## MOUNTING



## WIRING DIAGRAM

DEFAULT WIRE COLOR CODE	
COLOR	FUNCTION
Red	5VDC
Black	GND
Blue	X AXIS
Yellow	Y AXIS
Green	Z AXIS
Orange	Pushbutton 1
Violet	Pushbutton 2
White	Pushbutton common

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## BUILD YOUR PART NUMBER

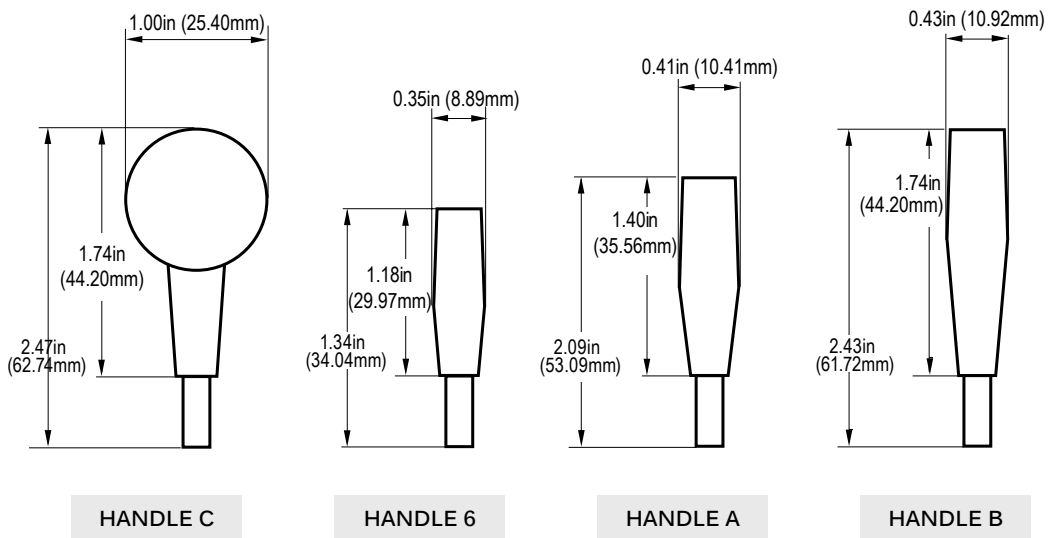
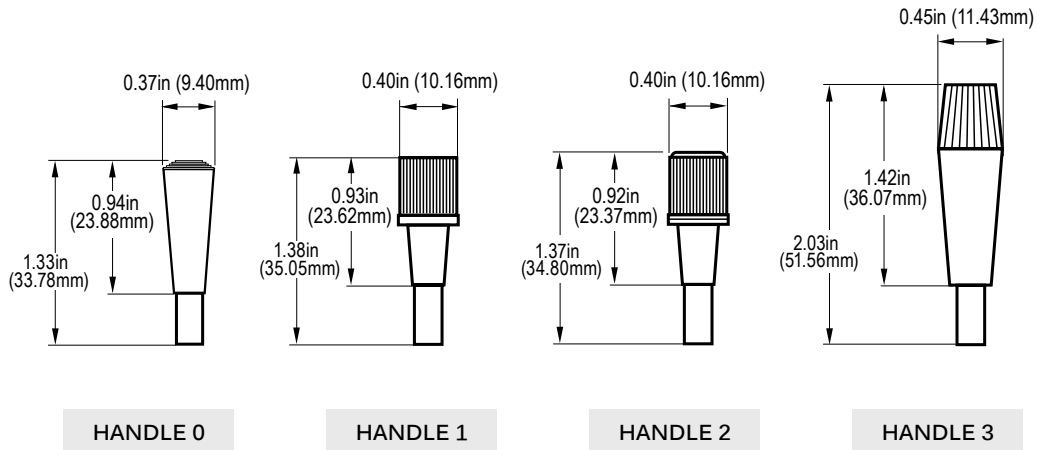
SERIES	MODEL	MOUNTING BEZEL	CENTERING	HANDLE	OUTPUT OPTIONS
JC					
1	2 axis	C Split bezel	0 Spring centering	<b>Model 1: 2 axis handles</b>	0 0V to 5V
2	2 axis with pushbutton	L Rubber boot		0 Tapered handle	1 0.5V to 4.5V
3	3 axis	X No bezel		1 Concave handle	2 0.25V to 4.75V
4	3 axis with pushbuttons			2 Flat tipped	3 2V to 3V
				3 Concave tip - long	4 1V to 4V
				C Ball tip	
				6 Straight tip - short	
				A Straight tip - mid	
				B Straight tip - long	
				<b>Model 2: 2 axis handles with pushbuttons</b>	
				5 Pushbutton	
				E Pushbutton	
				G Pushbutton	
				H Pushbutton	
				<b>Model 3: Three axis</b>	
				D 3 axis	
				F 3 axis	
				<b>Model 4: Three axis with pushbuttons</b>	
				J 3 axis and 1 pushbutton	
				L 3 axis and 2 pushbuttons	

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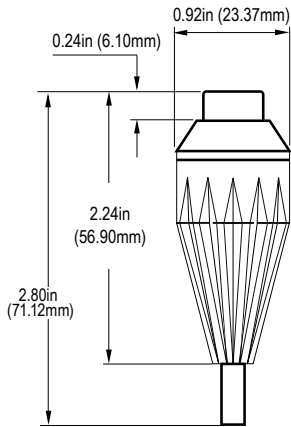
## HANDLE OPTIONS



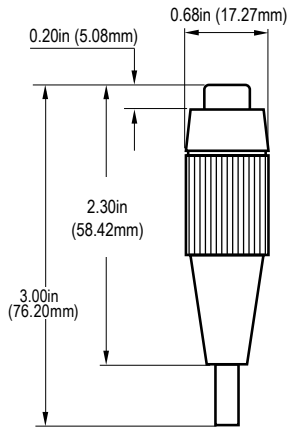
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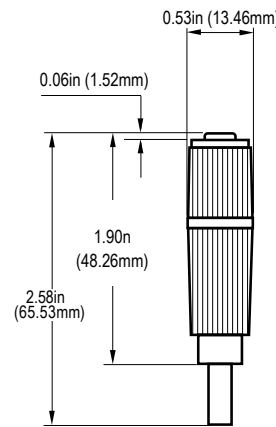
 **HANDLE OPTIONS (CONTINUED)**



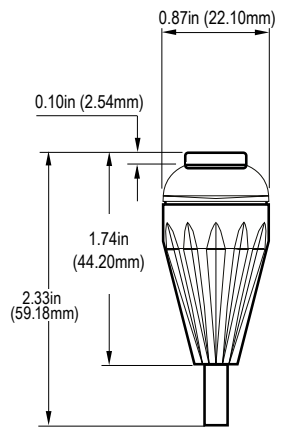
**HANDLE 5**



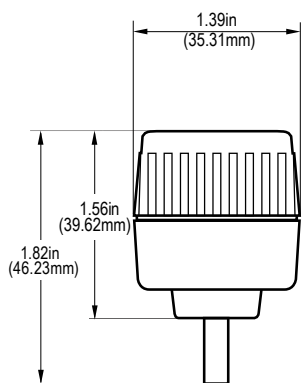
**HANDLE E**



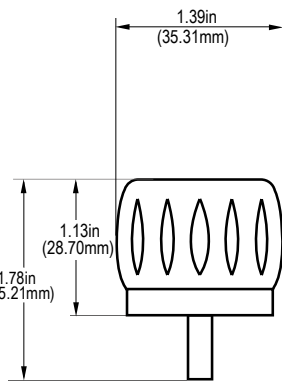
**HANDLE G**



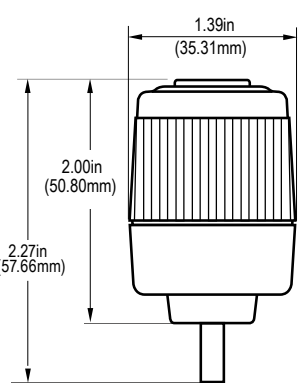
**HANDLE H**



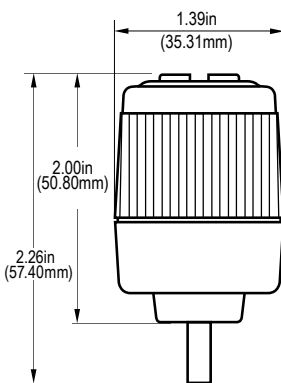
**HANDLE D**



**HANDLE F**



**HANDLE J**



**HANDLE L**

Drawing are not to scale.

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## We are here for you. Addresses and Contacts.

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