

# 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



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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



## MATERIALS

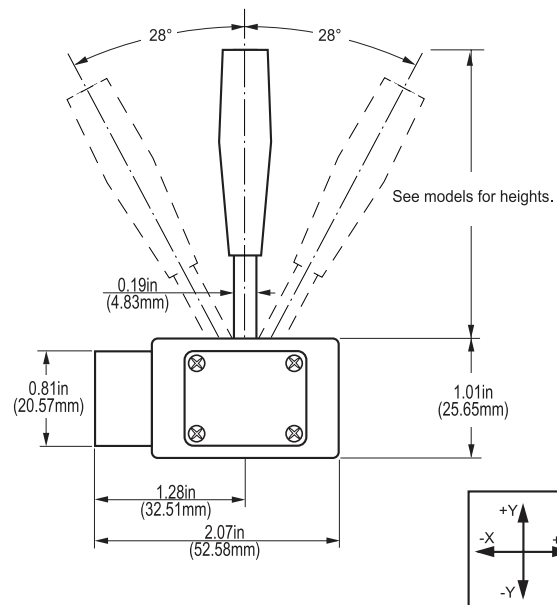
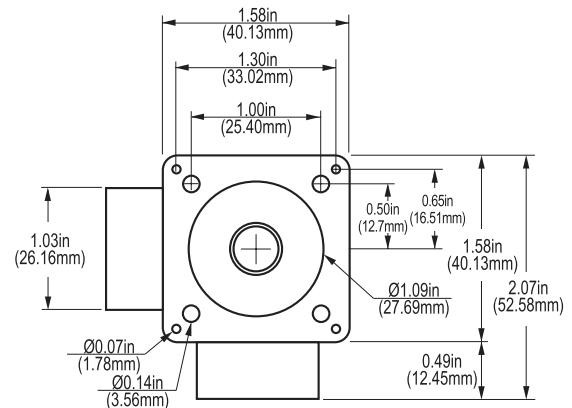
- Handle: Glass filled nylon
- Body: Glass filled nylon
- Boot: Silicone
- Shaft: 3/16" nickel plated brass
- Main pivot ball: precision ground stainless steel



Distribución de componentes eléctricos y electrónicos



## 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			
<b>1</b>	2 axis	<b>C</b> Split bezel	<b>0</b> Spring centering	<b>0</b> Tapered handle	<b>0</b> 0V to 5V
<b>2</b>	2 axis with pushbutton	<b>L</b> Rubber boot		<b>1</b> Concave handle	<b>1</b> 0.5V to 4.5V
<b>3</b>	3 axis	<b>X</b> No bezel		<b>2</b> Flat tipped	<b>2</b> 0.25V to 4.75V
<b>4</b>	3 axis with pushbuttons			<b>3</b> Concave tip - long	<b>3</b> 2V to 3V
				<b>C</b> Ball tip	<b>4</b> 1V to 4V
				<b>6</b> Straight tip - short	
				<b>A</b> Straight tip - mid	
				<b>B</b> Straight tip - long	
				<b>5</b> Pushbutton	
				<b>E</b> Pushbutton	
				<b>G</b> Pushbutton	
				<b>H</b> Pushbutton	
				<b>D</b> 3 axis	
				<b>F</b> 3 axis	
				<b>J</b> 3 axis and 1 pushbutton	
				<b>L</b> 3 axis and 2 pushbuttons	

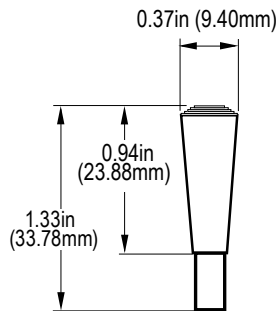
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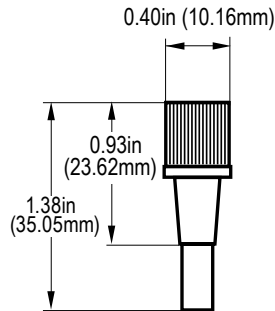


## HANDLE OPTIONS

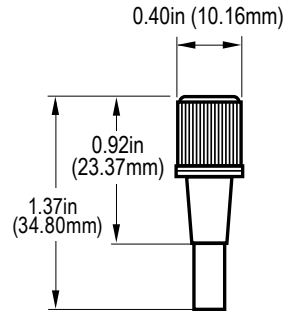
HANDLE 0



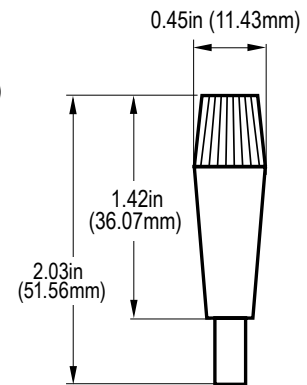
HANDLE 1



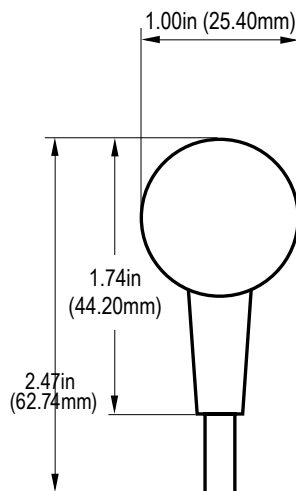
HANDLE 2



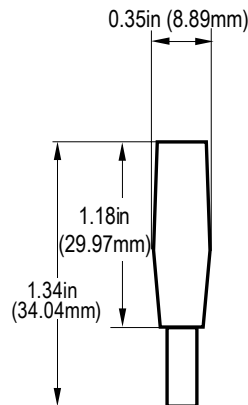
HANDLE 3



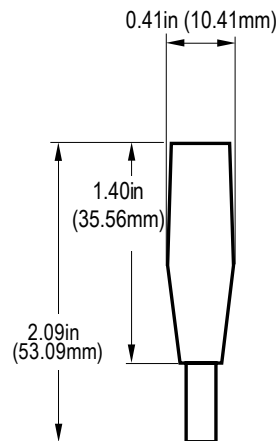
HANDLE C



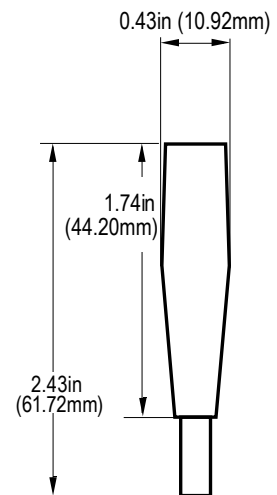
HANDLE 6



HANDLE A



HANDLE B



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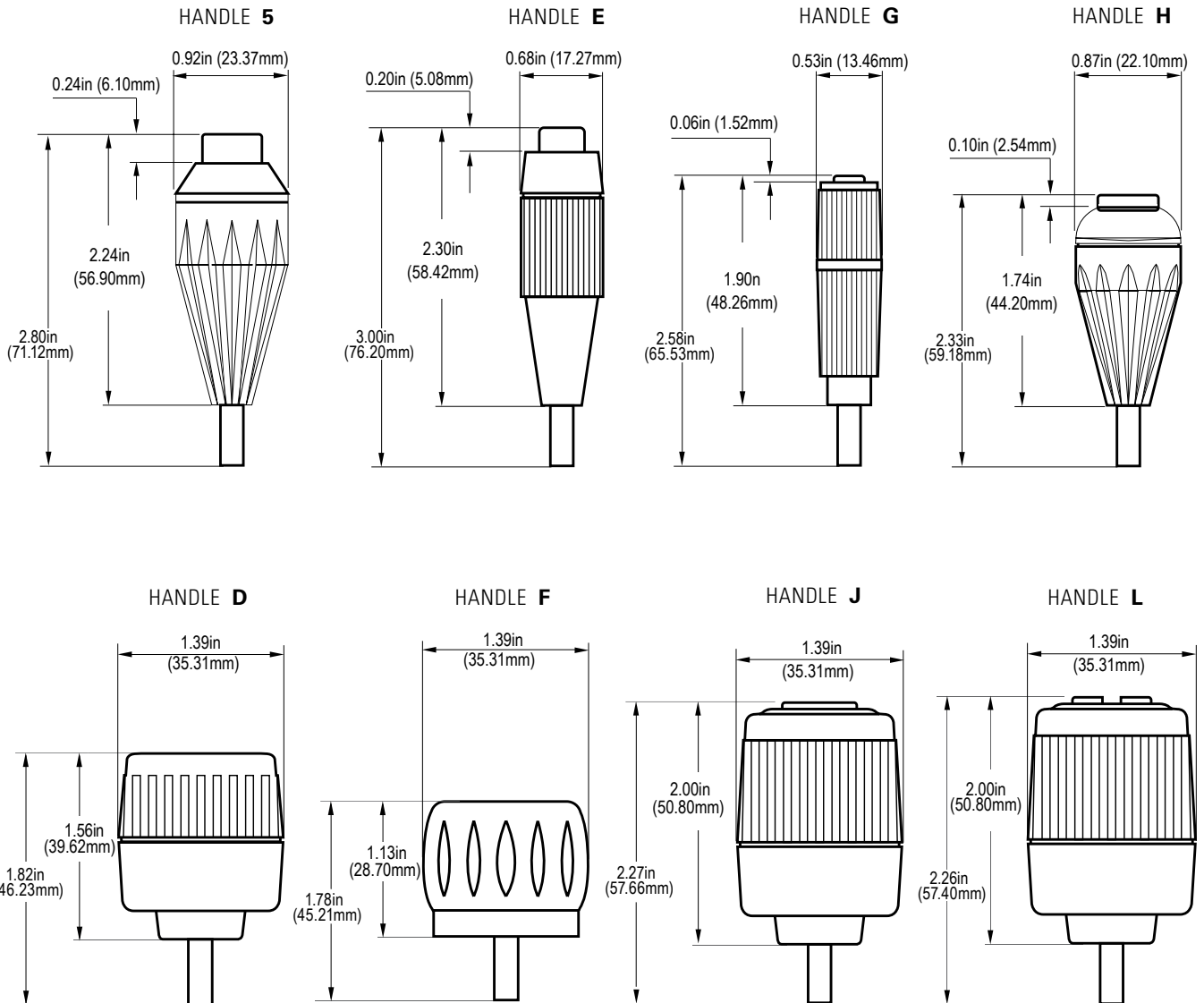
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Drawing are not to scale.

The company reserves the right to change specifications without notice.