

# Model C90 Full Size Heavy Duty Joystick



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**C90 Series Full Size Heavy Duty Joystick**  
**Heavy Duty Joystick Series**

## Features

- One, Two, or Three Axis Joystick (X,Y, Z)
- 6.49" handle height
- 45° deflection angle ( $\pm 22.5^\circ$ )
- Hand-grip style knob standard
- Spring return to center
- Circular deflection pattern standard
- 10K ohm precision potentiometer
- Protective rubber boot
- IP65 rating above panel
- Panel mounting bracket

## Options

- Single Axis (X) - Knob Q
- Three Axis (X, Y, Z) - Knob T
- Square or Cross (+) limiter plate
- Friction clutch (holds position, replaces spring return)
- Non-standard resistance
- Center detent pots
- Center-tapped pots
- Dual gang pots
- Inductive (non contacting) pots
- Sealed pots
- Dual direction switches
- Single direction switch; Center detect switch
- Push button handle; Tapered handle
- Cannister style base enclosure
- Without Mounting Plate

## Electrical Specifications

Resistance: 10K Ohms Conductive Plastic  
Resistance Tolerance:  $\pm 15\%$   
Independent Linearity:  $\pm 3.0\%$   
Power Rating: (X, Y) 0.2 watt  
Lever Electrical Angle: (X,Y) - 44°  
Resolution: Essentially infinite  
Output Smoothness: Below 0.2% against input voltage  
Contact Resistance Variation: Below 5%  
Insulation Resistance: 1000 Meg@500VDC  
Dielectric Strength: 1 minute @ 500 VAC  
Max. Wiper Output: 5mA, 1ma rec.

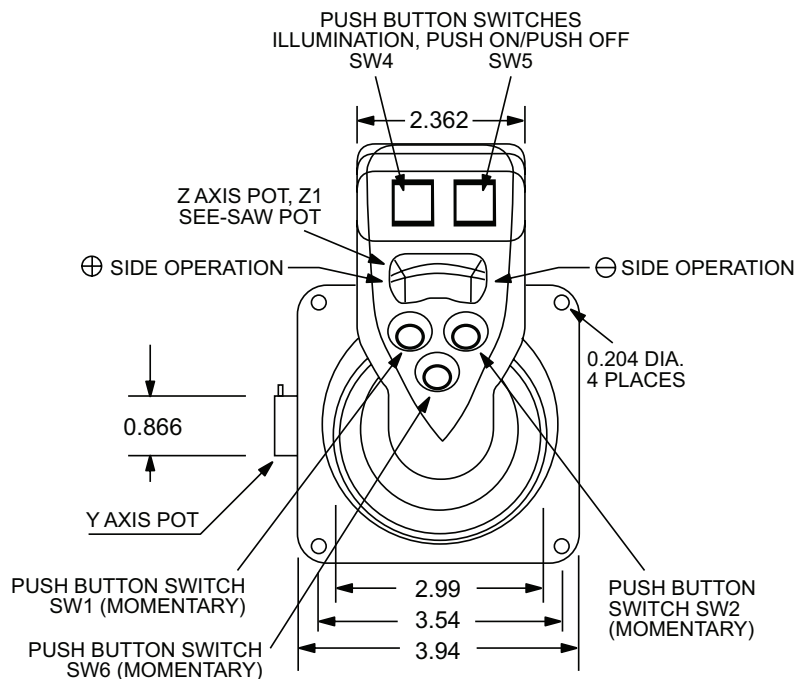
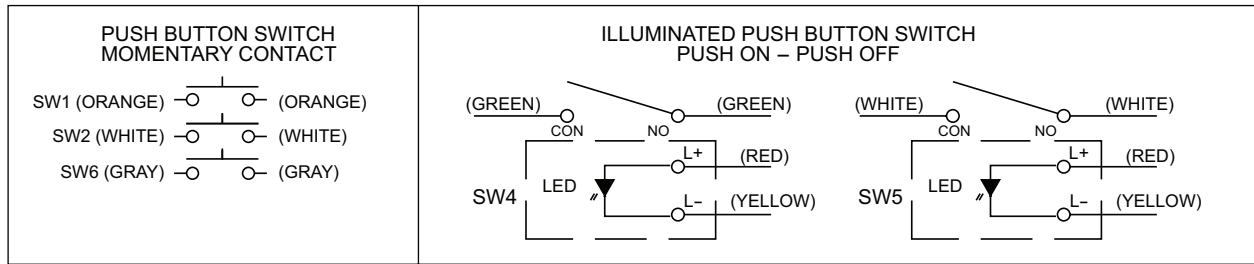
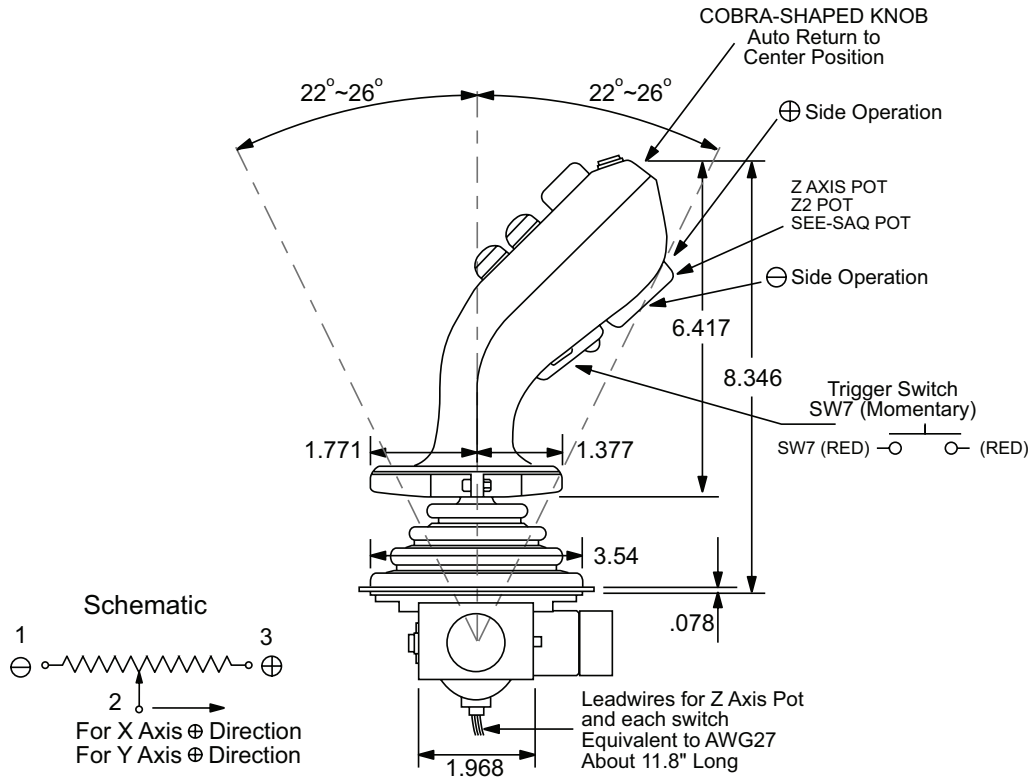
## Mechanical Specifications

Lever Deflection (X,Y):  $\pm 22^\circ$  to  $\pm 26^\circ$   
Operating Force (X, Y): 7.2 to 43.2 oz-F  
Housing: Aluminum  
Knob Material: Hard plastic  
Weight: Approx 23 oz  
Service Life: 5,000,000 operations

## Environmental Specifications

Operating Temperature: -20°C to +60°C  
Rating: IP 65 Above Panel

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## Ordering Information

Example Part Number: **C90-2-Dual-CD-FR-TS**

C90	2	(None)	Dual	CD FR	(None)	(None)	TS
<b>Model C90</b>	<b>Axis</b> 1 = Single axis (X) 2 = 2 axis (X,Y) (standard) 3 = 3 axis (X,Y,Z)	<b>Limiters Plate</b> <b>None</b> = Circular deflection: no limiter plate (standard) <b>Square</b> <b>Cross (+)</b>	<b>Switch</b> <b>Single</b> = Single direction switch <b>Dual</b> = Dual direction switches <b>Center</b> = Center detect switch	<b>Base Options</b> <b>FR</b> = Friction clutch <b>CD</b> = Center Detent <b>NS</b> = Non-standard resistance <b>CT</b> = Center Tapped pots <b>DG</b> = Dual Gang pots <b>IP</b> = Inductive (non contacting) pots <b>SP</b> = Sealed potentiometers <b>CB</b> = Cannister style base enclosure <b>WM</b> = Without Mounting Plate	<b>Rocker Potentiometers:</b> <b>None</b> = Not selected <b>Z1-Z1</b> = Rocker Potentiometer <b>Z2-Z2</b> = Rocker Potentiometer <b>Z1Z2</b> = Z1 & Z2 Rocker Potentiometer	<b>Rocker Switches:</b> <b>None</b> = Not selected <b>Z1-Z1</b> = Rocker Switches <b>Z2-Z2</b> = Rocker Switches <b>Z1Z2</b> = Z1 & Z2 Rocker Switches	<b>Switch Options</b> <b>TS</b> = Momentary Trigger switch <b>1S</b> = One illuminated switch <b>2S</b> = Two illuminated switches <b>ES</b> = Extended life switch - non-illuminated

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