JC 100

SINGLE-AXIS FINGERTIP JOYSTICK

JC100

Developed for applications where ergonomics and system integrity are paramount, the JC100 is a compact, low profile joystick that provides precise fingertip control in one axis.

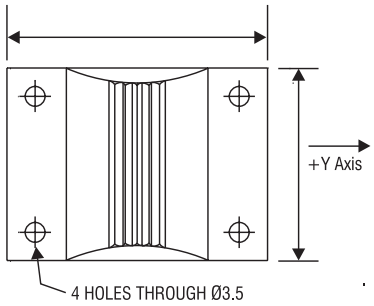
Designed for use with an electronic controller, the conductive plastic track in the JC100 generates analogue and switched reference signals, proportional to the distance and direction over which the handle is moved. The analogue output is configured to provide signals for fault detection circuits within the controller. A center tap on the analogue track provides an accurate voltage reference for the center position or a zero point for a bipolar supply voltage.

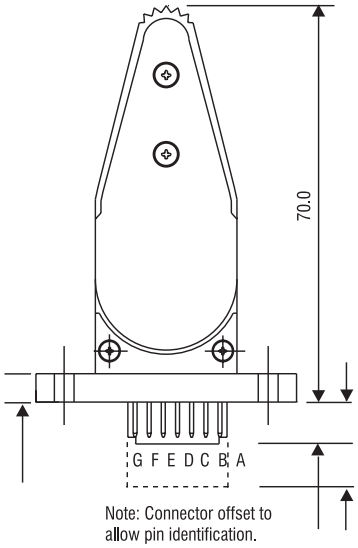
Standing only 70mm high, the JC100 is less susceptible to unintentional operation. With all of the components in the handle, it is ideal for mounting in low profile panels and arm rests. Installation time has been reduced through the use of a standard electronic connector, whilst the absence of all micro switches and camshafts has eliminated the need to maintain the joystick throughout its operating life in excess of five million cycles.

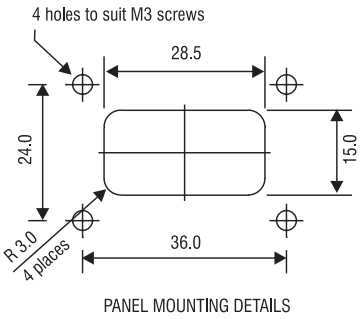
Typical applications include remote control chest packs and the control of agricultural or material handling equipment.

ORDER CODE	
JC100 with 0% to 100% Output Voltage Range	JC100-006-4k
JC100 with 10% to 90% Output Voltage Range	JC100-002-5k
JC100 with 25% to 75% Output Voltage Range	JC100-007-5k
7 Way Connector & Pins	SA47269

Specifications







PANEL MOUNTING DETAILS

Mechanical		
Breakout Force	2.3N	At top of handle
Operating Force	3.4N	Full deflection, at top of handle
Maximum Applied Force	50N	Full deflection, at top of handle
Mechanical Angle of Movement	±30°	
Electrical Angle of Movement	±28°	
Expected Life (operations)	>5 million	
Mass	45g	

Environmental		
Operating Temperature Range	-25°C to +70°C	
Storage Temperature Range	-40°C to +85°C	
Environmental Sealing Above the Flange	IP66	BSEN60529
	Unit supplied with foam gasket	

Electrical General		
Maximum Load Current	See Design Note in rear of data sheet	
Maximum Power Dissipation	0.25W at 25°C	
Mating Connector Body	Dupont Dubox Connector 65240-007	
Mating Connector Pins	Dupont Dubox Pins 76357-301	

Analogue Track		
Total Track Resistance	4kΩ or 5kΩ	Tolerance ±20%
Output Voltage Range	0% to 100%Vs, 10 to 90%Vs, 25% to 75%Vs	Tolerance ±2%
Center Tap Voltage (1MΩ load)	50%Vs	Tolerance ±2%
Center Tap Angle	2.5° either side of center	Tolerance ±1°

Directional or Center Off Switch		
Switch Operating Angle	5° either side of center	Tolerance ±1°
Maximum Supply Voltage (Vs)	35Vdc	
Minimum Load Resistance	10kΩ	
Maximum Load Current	2mA	
Typical Contact Resistance	150Ω	

Termination Details	
Description	**Pin**
Positive voltage supply	B
Center tap	A
Negative or zero voltage supply	D
Output voltage signal	C
N/O signal handle forward (+Y)	F
N/O signal handle back (-Y)	E
Common terminal for directional switch	G

All dimensions in mm