

MULTI-AXIS INDUCTIVE JOYSTICK



JC200-B with K1 handle

A compact, inductive joystick with a life in excess of 15 million operations and EMC immunity of 50V/m, the JC200 offers fingertip control in two axes.

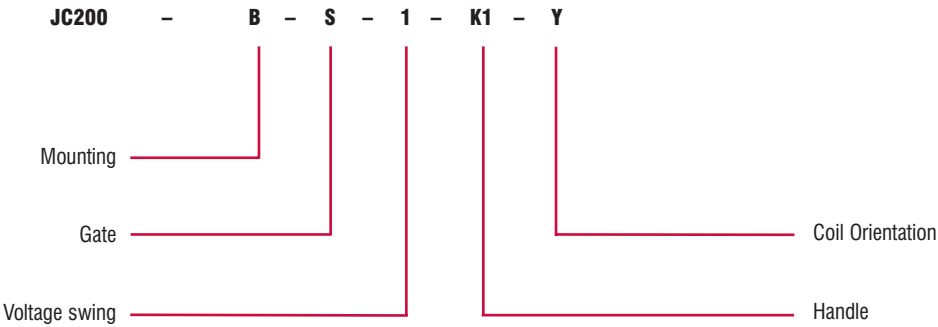
Designed for use with an electronic controller, the inductive circuit inside the JC200 generates analogue signals proportional to the distance over which the handle is moved in either axis. This output is configured to provide signals for fault detection circuits within the controller, whilst a center tap provides an accurate voltage reference for the center position.

The inductive circuit can be mounted at 45° to the normal axis to provide reference signals for dual channel motor controllers.

The output voltage range can be further restricted in one or more directions, by the selection of the correct gate geometry. This can be used to limit, for example, the maximum speed of a vehicle when reversing around a corner.

Typical applications include the control of wheelchairs, fork lift trucks and agricultural machinery.

ORDER CODE



Mounting	B		P
	Four hole square flange		Two hole bezel flange

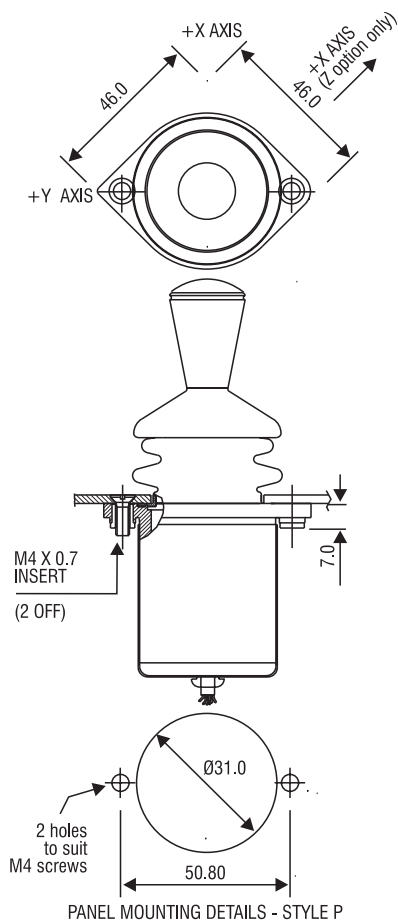
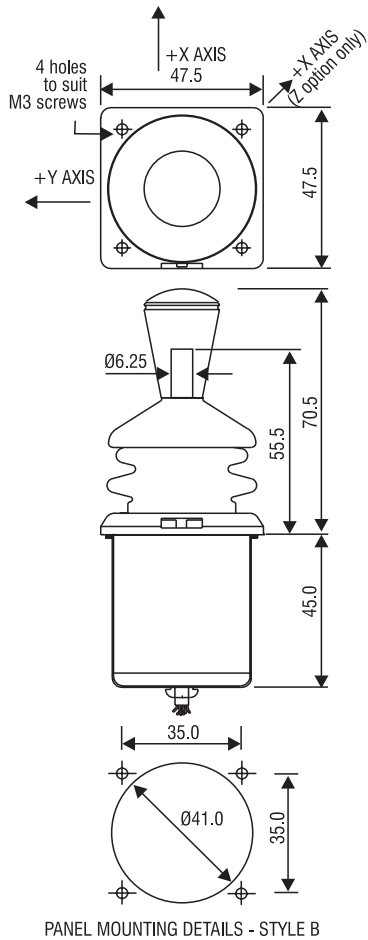
Gates	S	R	N
Shape	Square	Round	Notch

Voltage Swing	1	2	3
Input Voltage (Vs)	10Vdc	12Vdc	12Vdc
Output Voltage Swing	±10%Vs	±8.3%Vs	±10%Vs

Handles	K0	K1
Shape	No handle	Standard knob

Coil Orientation	Y	Z
	Normal to Axis	45° to Axis

Specifications



All dimensions in mm

Mechanical

Breakout Force	1N	Full deflection, 50mm above flange with square gate
Operating Force	2N	
Maximum Applied Force	50N	
Mechanical Angle of Movement	$\pm 18^\circ$	On axis with square gate fitted
Expected Life (Operations)	> 15 million	
Mass	120g	With K1 handle option

Environmental

Operating Temperature Range	-25°C to +65°C	BSEN60529 10MHz to 1GHz, 1KHz 80% sine wave modulation 10 discharges through air
Storage Temperature Range	-40°C to +70°C	
Environmental Sealing Above the Flange	IP66	
EMC Immunity Level	50V/m	
ESD Immunity Level	$\pm 25\text{kV}$	

Electrical

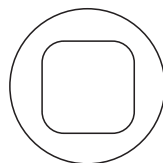
Supply Voltage Range (Vs)	0-8V, 0-10V or 0-12V	Maximum 14Vdc
Output Impedance	1k Ω	
Output Voltage Swing	$\pm 10\%V_s$, $\pm 8.3\%V_s$ with respect to the center tap	
Error Signal	$> \pm 25\%V_s$	
Center Tap Voltage	50%Vs $\pm 1\%$	
Center Tap Impedance	0.4k Ω	
Return to Center Voltage	$\pm 0.03V_s$ or 30mV, whichever is less	
Resolution	Infinite	
Connection	Flying Leads 200mm long (14 x 0.12 pvc)	

Termination Details

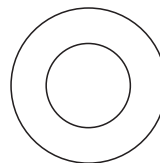
Description	Wire color
Positive voltage supply	Red
Center tap	Green
Zero voltage supply	Black
X-axis output voltage signal	Blue
Y-axis output voltage signal	Yellow

Note: Output signals should be referenced to the center tap voltage

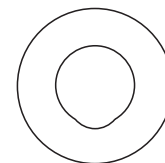
Gate Options



Square



Round



Notch

Alternative gate geometry can be developed to meet the needs of your potential application