# JC120 SINGLE AXIS JOYSTICK

Developed for applications where ergonomics and system integrity are paramount, the JC120 is a minimum width, low profile joystick that provides smooth, precise fingertip control in one axis with a choice of two lever lengths. The JC120 is sealed to IP66 to enable it to operate in extreme environments. Standing only 54 or 64mm high, the JC120 is less susceptible to unintentional operation. With all of the components contained within 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, and the joystick has been designed for maintenance-free operation throughout on operating life of greater than five million operations. An optional neoprene boot is available for the short handle version, allowing operation in environments where aggressive materials are present, protecting from dust and dirt ingress.

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

PERFORMANCE						
MECHANICAL		Short handle	Short handle with boot	Long h	andle	
Breakout force	N	3.1*	3.8*	2.3*		
Operating force	N	5.1*	13.2*	3.4*	Full deflection	
Maximum allowable force	N	50*	50*	35*	Full deflection	
Lever operating angle	۰	±30	±30	±30 (0	r 0-60)	
Lever action		Self centering	Self centering	Self cer	ntering or end return	
Expected life (operations)		>5 million	>1million for boot (replaceable)	>5 mil	lion	
Weight	g	45	47	45		
		*At top of handle				
ENVIRONMENTAL						
Operating temperature	°C	-25 to +70				
Storage temperature	°C	-40 to +85				
Environmental protection		IP66† IEC 60529				
above flange		†Seal integrity can only be achieved when using sealing gasket supplied and screws are tightened to 1Nm. Sealing gasket not required when neoprene boot is fitted to short handle version.				
ELECTRICAL						
Analogue Track						
Resolution		Virtually infinite				
Track resistance (±20%)	kΩ	4 or 5				
Track electrical angle	•	±28				
Output voltage range	%	0-100, 10-90 or 25-75 of input (±2%)				
Center tap voltage (no load)	%	48 - 52 of applied voltage				
Center tap angle	•	2.5 either side of center				
Supply voltage - maximum	Vdc	32				
Wiper circuit impedance	MΩ	Greater than 0.1**				
Power dissipation @ 20°C	w	0.25 (no load)				
Switch -		** The long life resistive elements require a high impedance load in the wiper circuit to minimise the current flowing through the wiper for optimum conditions				

Switch -Directional or Center Off

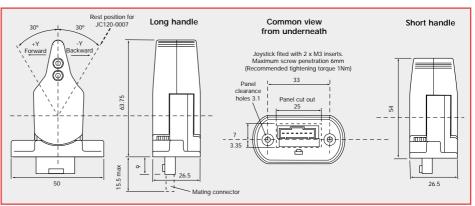
Switch operating angle	٥
Supply voltage - maximum	Vdc
Load resistance - minimum	kΩ
Load current - maximum	mA
Typical contact resistance	Ω

### **ORDERING CODES**

Short handle	0-100% output voltage range, 4k with boot fitted 10-90% output voltage range, 5k with boot fitted 25-75% output voltage range, 5k with boot fitted	JC120-0001 JC120-0011 JC120-0002 JC120-0012 JC120-0003 JC120-0013
Long handle	0-100% output voltage range, 4k 10-90% output voltage range, 5k 25-75% output voltage range, 5k	JC120-0004 JC120-0005 JC120-0006
Long handle	0-100% output voltage range, 4k With lever return to backward position Ask for full specification details	<b>JC120-0007</b>
Mating connecto	r With 0.5m flyleads	SA301649
Neoprene boot	For short handle version only	P304856

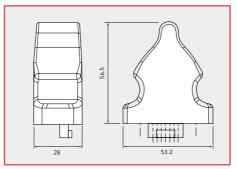
## DIMENSIONS AND MOUNTING OPTIONS

# JC120



#### JC120 short handle - neoprene boot option

Recommended JC120 pitch spacing is 39mm minimum when neoprene boot is fitted



#### ELECTRICAL CONNECTIONS Connection

Mating connector kit (order separately)

7 pin Molex series latching male (70553-0006)

SA301649 (7 pin Molex series latching female with 0.5m flyleads fitted)

	Description	Pin Number	Mating Connector/Flylead colour	
ABCDFFG	Center tap	Α	Orange	
	Positive voltage supply	В	Yellow	
	Output voltage signal	С	Green	
	Negative or zero voltage supply	D	Blue	
	N/O switch, lever backward (-Y)	E	Red	
	N/O switch, lever forward (+Y)	F	White	
	Common terminal for switches	G	Black	
		Pin A and	Pin A and E are not connected on JC 120-0007	