

JC 025/030

SINGLE-AXIS FINGERTIP ROCKER



JC025

Developed for applications where compact size and minimal above panel height is paramount, the JC025/030 rockers are very low profile whilst still providing precise fingertip control in one axis.

Designed for use with an electronic controller, the conductive plastic elements in the JC025/030 generate analogue and switched reference signals proportional to the distance and direction over which the rocker is moved. The analogue output can be 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.

The use of these rockers in a control panel allows designers to develop very low profile assemblies whilst still maintaining the functionality of a much larger single axis joystick. With the absence of microswitches and camshafts there is no need to maintain the rockers throughout their operating life in excess of 5 million cycles.

Typical applications include remote control chest packs and low profile panel assemblies.



JC030

ORDER CODE

JC025/030 – R – STD – BLK

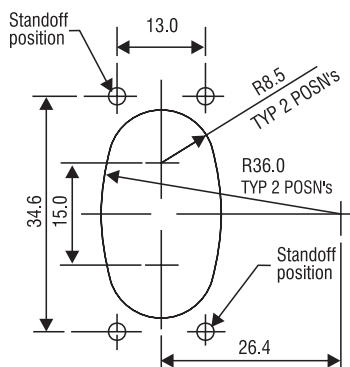
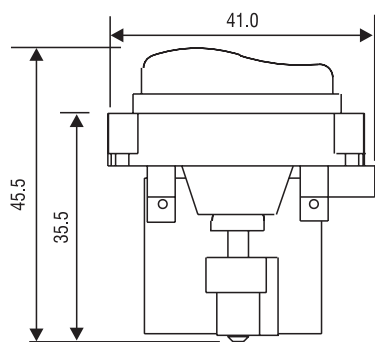


Tracks	N	R	Q	*
Track Resistance	1k6Ω	2kΩ	3k2Ω	
Output Voltage Range	0% to 100% Vs	10% to 90% Vs	25% to 75% Vs	
Directional Switch Gap	± 2.5°	± 2.5°	± 2.5°	

Center Return Spring	STD
Breakout Force	5N
Operating Force	15N

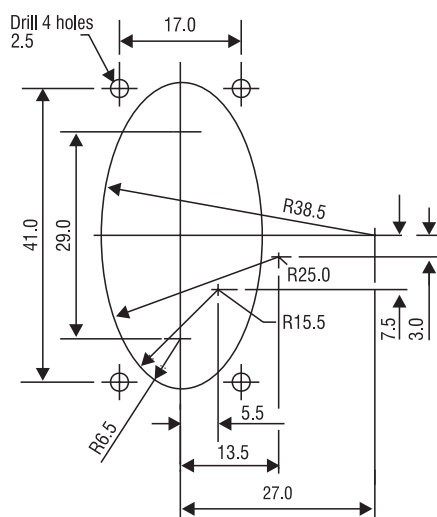
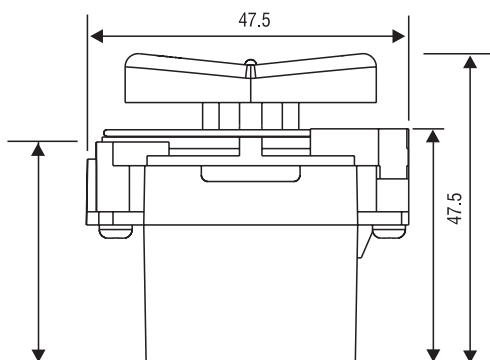
* Other track resistances – check for availability

Specifications



Panel mounting details

JC025



Panel mounting details

JC030

All dimensions in mm

Mechanical

Breakout Force	5N	14mm radius from center
Operating Force	15N	Full deflection, 14mm radius from center
Maximum Applied Force	50N	Full deflection, 14mm radius from center
Mechanical Angle of Movement	±12°	
Electrical Angle of Movement	±10°	
Expected Life (Operations)	>5 million	
Mass	30g	

Environmental

Operating Temperature Range	-25°C to +70°C
Storage Temperature Range	-40°C to +80°C
Environmental Sealing Above the Flange	IP65 (when correctly panel sealed) BSEN60529
	Unit supplied with "O" ring

Electrical General

Maximum Load Current	Potentiometer wiper - See Design Note in rear of Data Sheet
	Directional switches - 200mA Resistive
Maximum Power dissipation	0.25W at 25°C

Analogue Track

Total track Resistance	1k6Ω, 2kΩ or 3k2Ω	Tolerance ±20%
Output Voltage Range	0% to 100%Vs or 10% to 90%Vs or 25% to 75%Vs	Tolerance ±2%
Center Tap Voltage (1MΩ Load)	50%Vs	Tolerance ±2%
Center Tap Angle	1.5° either side of center	Tolerance ±1%

Directional Switch

Directional or Center Off Switch	Standard	
Switch Operating Angle	2.5° either side of center	Tolerance ±1°
Maximum Supply Voltage (Vs)	35Vdc (Switch only)	

Termination Details

Description	Wire Color
Positive supply voltage	Pink/Gray
Center tap	Yellow/Red
Negative or zero supply voltage	White/Red
Output voltage signal	Pink
N/O signal handle forward	Green
N/O signal handle back	Blue/Orange
Common terminal for directional switches	Black