

# JC100

## SINGLE AXIS JOYSTICK

Developed for applications where ergonomics and system integrity are paramount, the JC100 is a compact, low profile joystick that provides smooth, precise fingertip control in one axis. The JC100 is sealed to IP66 to enable it to operate in extreme environments. With all the components contained within the handle, and standing only 70mm high, 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 its operating life of greater than five million operations.

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

### PERFORMANCE MECHANICAL

|                            |   |                      |
|----------------------------|---|----------------------|
| Breakout force             | N | 2.3*                 |
| Operating force            | N | 3.4* Full deflection |
| Maximum allowable force    | N | 50* Full deflection  |
| Lever operating angle      | ° | ±30                  |
| Lever action               |   | Self centering       |
| Expected life (operations) |   | >5 million           |
| Weight                     | g | 45                   |

\*At top of handle

### ENVIRONMENTAL

|                                       |    |                                                        |
|---------------------------------------|----|--------------------------------------------------------|
| Operating temperature                 | °C | -25 to +70                                             |
| Storage temperature                   | °C | -40 to +85                                             |
| Environmental protection above flange |    | IP66† IEC 60529<br>Unit supplied with foam gasket seal |

†Seal integrity can only be achieved when using sealing gasket supplied and screws are tightened to 0.7Nm. The installer should also ensure the mounting screws are adequately sealed.

### 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 @ 25°C     | W   | 0.25 (no load)                       |

\*\* 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

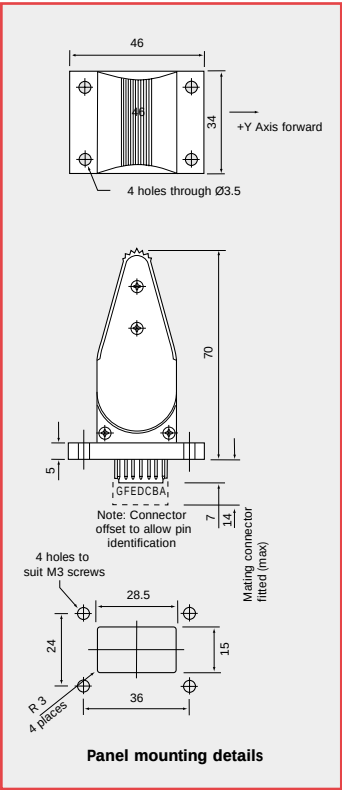
|                            |     |                         |
|----------------------------|-----|-------------------------|
| Switch operating angle     | °   | 5 either side of center |
| Supply voltage - maximum   | Vdc | 35                      |
| Load resistance - minimum  | kΩ  | 10                      |
| Load current - maximum     | mA  | 2 (resistive)           |
| Typical contact resistance | Ω   | 150                     |

ORDERING CODES

|                                 |           |
|---------------------------------|-----------|
| 0-100% output voltage range, 4k | JC100-006 |
| 10-90% output voltage range, 5k | JC100-002 |
| 25-75% output voltage range, 5k | JC100-007 |
| Mating connector kit            | SA47269   |

DIMENSIONS AND MOUNTING OPTIONS

**JC100**  
It is recommended that the JC100 joystick is fitted from the top of the mounting panel using four M3 screws (not supplied). The panel cut-out and centers for the screw positions are as shown in the panel mounting detail below.



ELECTRICAL CONNECTIONS

Connection  
Mating connector kit (order separately)  
FCI DUBOX™ 7 way male connector (76382-307)  
SA47269 (contains DUBOX™ 65240-007 female connector and 7 pins 76357-301 suitable for AWG 22-30 wire size). Requires crimping pliers (FCI No. HT234) to fit pins to wires.

