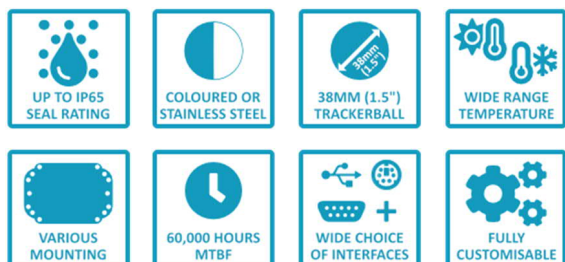


Fully customisable TB_38 Series Trackball

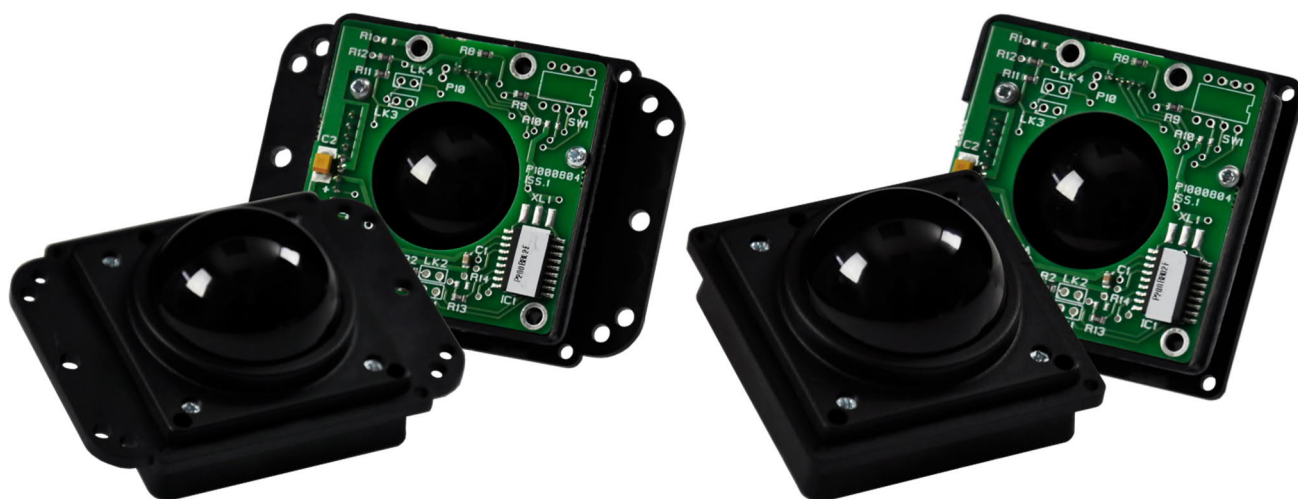


Overview

The steel manufacturing, military, and distribution industries rely on accurate trackerballs for rugged applications. Our TB_38 – 38.1 mm (1.5") rugged industrial Trackball has the features ideal for these operations. It is made with a phenolic resin material which resists wear and liquid chemicals. As a result, it can withstand prolonged use in many industrial processes. See all of the specifications below, and if something isn't listed that you may require, contact us and let us know as we may already have the solution you need!

TB_38U – Universal

TB_38 –Reduced



General Specifications

MECHANICAL

Ball Material	Phenolic Resin
Ball Colour	Black
Ball Size	38mm (1.5")
Resolution	170 pulses/ball revolution
Tracking Force	<20gms (nominal)
Ball Revolutions	>6 million
Mounting	Fixing holes to allow mounting at any angle to horizontal
Dimensions (mm)	See Dimensions on Page 2
Weight (g)	0.08Kg (Universal Plate)

ELECTRICAL AND ELECTRONIC

Supply Voltage	5V DC \pm 5%
Supply Current	<12mA (PS2 / RS232) / <20mA (USB / PS2)
Interface	USB / PS2 / AT / RS232 / RS422 / RS485 / XT / TTL / DEC / SUN

ENVIRONMENTAL

Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Relative Humidity	95% non-condensing
IP Seal Level	IP65

Vibration

5G, 5-2KHz any plane

CUSTOMISATION

Tracksball

Various colours and stainless steel

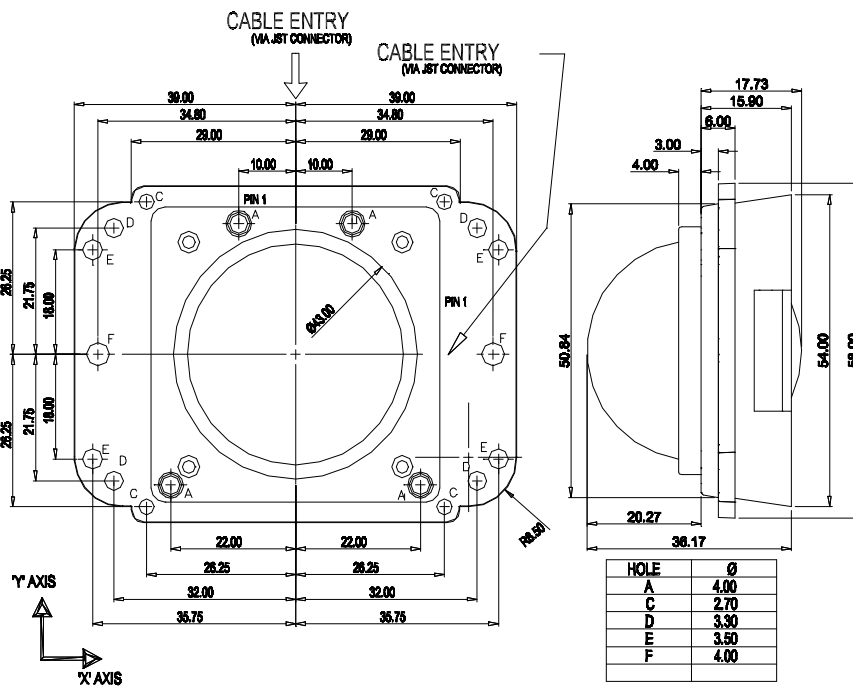
WARRANTY

Warranty Period

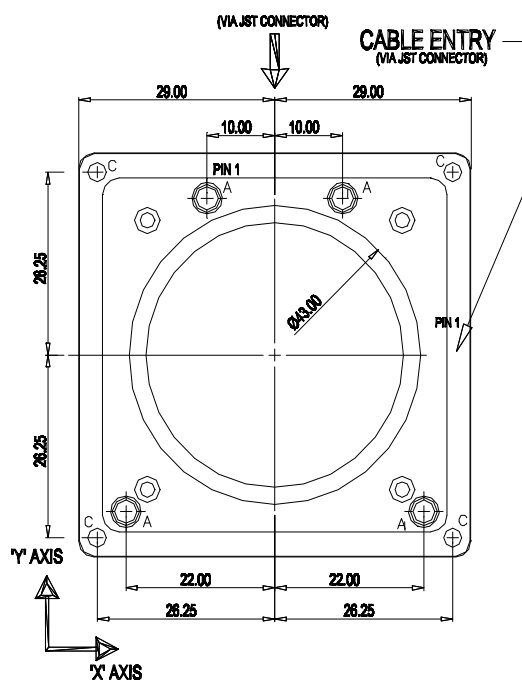
3 Years standard return to base. Extendable to 5 Years if required

Dimensions

UNIVERSAL



REDUCED



Connector Details

QUADRATURE SWITCH ASSEMBLY CONNECTIONS

PIN NO	1	2	3	4
Description	GND	S3 (R)	S2 (M)	S1 (L)

Connector type JST S4B-PH-K. Mating connector JST 04CR-6H

QUADRATURE OUTPUT CONNECTIONS (6 WAY)

PIN NO	1	2	3	4	5	6
Description	GND	Y1	Y2	X1	X2	VCC

Connector type JST S6B-PH-K. Mating connector JST 06CR-6H

QUADRATURE TRACKSBALL CONNECTOR DETAILS

PIN NO	1	2	3	4	5	6	7	8	9
Description	GND	S3 (R)	S2 (M)	S1 (L)	Y1	Y2	X1	X2	VCC

Connector type JST S9B-PH-K. Mating connector JST 09CR-6H

PROTOCOL SWITCH ASSEMBLY CONNECTIONS

PIN NO	1	2	3	4
Description	S1 (L)	S2 (M)	S3 (R)	GND

Connector type JST S4B-PH-K. Mating connector JST 04CR-6H

PS2 / RS232 CONNECTOR DETAILS

PIN NO	1	2	3	4	5	6	7	8	9
Description	RS232 Tx	RS232 Rx	DTR	RTS	-	GND	VCC	PS2 CLOCK	PS2 DATA

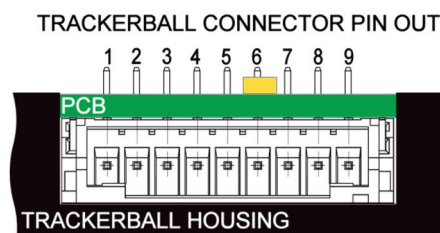
Connector type JST S9B-PH-K. Mating connector JST 09CR-6H

PS2 / USB CONNECTOR DETAILS

PIN NO	1	2	3	4	5	6	7	8	9
Description	CONNECT TO PIN 3 FOR PS/2 **	-	CONNECT TO PIN 1 FOR PS/2 **	-	-	GND	VCC	PS2 CLOCK / USB DATA+	PS2 DATA / USB DATA-

**Please note in order to use the Trackball with PS/2 interface, a loopback must be connected between Pins 1 & 3 detailed above. Without this loopback the Trackball will work in USB interface.

Connector type JST S9B-PH-K. Mating connector JST 09CR-6H





Protocol DIP-switch Settings

PS2 / RS232 TRACKSBALL VERSION

SWITCH NO	DESCRIPTION	DIP SWITCH SETTINGS
1	Protocol Select	See Protocol Table
2	X / Y Orientation Select	Switches Select Axis + / -
3	Baud Rate Select	See Baud Rate Table
4	Baud Rate Select	X / Y Orientation Select
5	-	-
6	X / Y Orientation Select	Changes X Axis for Y Axis
7	Middle Switch Latching	Off Selects Latching Off / On Selects Latching On
8	Protocol Select	See Protocol Table

PROTOCOL TABLE

DIP SWITCH 1	DIP SWITCH 8	PROTOCOL SET
On	Off	PS2
On	Off	Microsoft
Off	On	Sun
Off	Off	Mouse Systems

BAUD RATE TABLE

DIP SWITCH 3	DIP SWITCH 4	BAUD RATE SET
On	On	1200
On	Off	2400
Off	On	4800
Off	Off	9600