

## 50 MM TRACKBALL MODULE

IP65 sealed



The GK50 is a high specification keyboard or panel mounted trackball. It is constructed from a glass loaded PBT chassis and benefits from its large diameter shafts for smooth running. The GK50 is sealed to IP65 static (ball in rest). Designed to be panel mounted as part of OEM systems, the GK50 is ideal for demanding applications such as medical equipment, process control, air traffic control and ruggedised keyboards.

### GENERAL TECHNICAL SPECIFICATIONS

|                             |                                |
|-----------------------------|--------------------------------|
| Sealing                     | : IP65 (static)                |
| Casing material             | : Glass loaded PBT             |
| Top plate material          | : ABS                          |
| Ball material               | : Phenolic resin               |
| Ball colour                 | : Black                        |
| Ball diameter               | : 50,8 mm                      |
| Weight                      | : 270 grams                    |
| Seal material               | : PTFE                         |
| Shaft diameter              | : 9,5 mm                       |
| Tracking force              | : 50 grams nominal             |
| Mounting angle              | : Max. 90° to horizontal plane |
| Lifetime - Ball revolutions | : > 2 million                  |
| Supply voltage (GK50-4002)  | : 5 Vdc +/- 5%                 |
| Supply current (GK50-4002)  | : 6 mA typ                     |
| Storage temperature         | : -25°C to +80°C               |
| Operating temperature       | : -10°C to +60°C               |
| Relative humidity           | : 95% non-condensing           |
| Vibration                   | : 5G, 5-2KHz any plane         |

### CONNECTIVITY

The GK50-4502 is PS/2 compatible. The GK50-4602 can be plugged into any USB port or hub. Both types are supplied with 1,6m long shielded straight cables and external switch cables.

The GK50-4002 has phase quadrature output: X1(Y1) leads X2(Y2) when motion of ball in positive X(Y) direction. No device driver is supplied with the unit. Please use standard available drivers in your operating system. It is supplied with a 10-way connection cable of 35 cm.

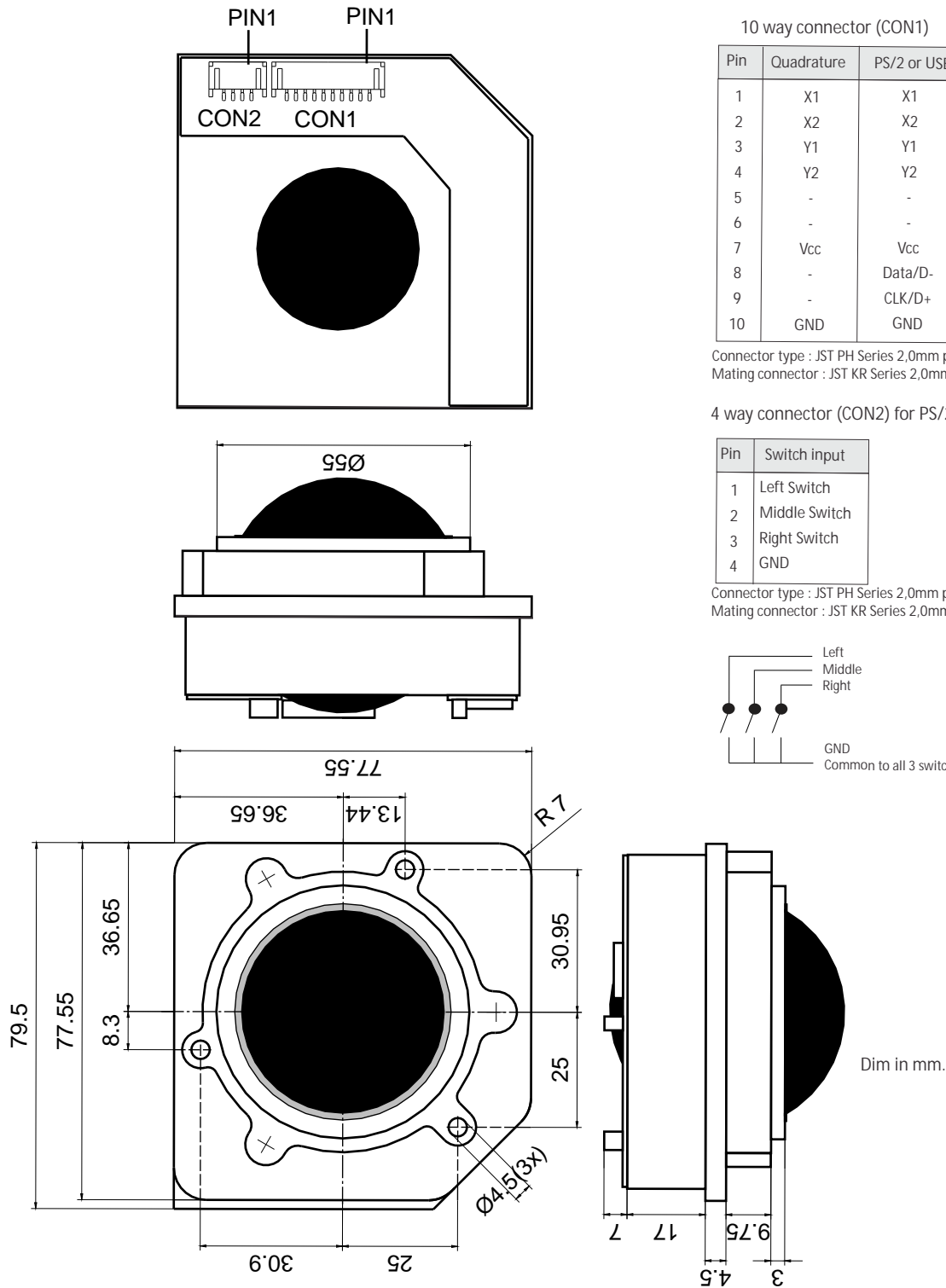
\* Due to the increasing differences of the mouse port specifications of the various PC manufacturers, we do recommend that this unit should be tested on the final PC configuration and operating system prior to installing it in series.

### ORDER INFO

| OUTPUT     | ORDER NUMBER | Consisting of :   |
|------------|--------------|---|
| Quadrature | GK50-4002    | P50-500230 Trackball module only<br>IC101035 : 35 cm interconnection cable to CON 1   |
| PS/2       | GK50-4502    | P50-560230 : Trackball module only<br>OC6010160 : 1,6 m shielded PS/2 cable with 6 pin mini DIN plug<br>IC040035 : 35 cm switch cable (4 wires) to CON2 |
| USB        | GK50-4602    | P50-560230 : Trackball module only<br>OC5010160 : 1,6 m shielded cable with USB type A plug<br>IC040035 : 35 cm switch cable (4 wires) to CON2          |

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DIMENSIONAL DRAWING



Dip switches : leave off, for factory use only.

10 way connector (CON1)

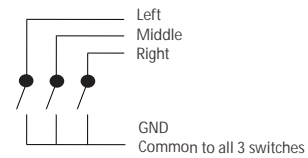
| Pin | Quadrature | PS/2 or USB |
|-----|------------|-------------|
| 1   | X1         | X1          |
| 2   | X2         | X2          |
| 3   | Y1         | Y1          |
| 4   | Y2         | Y2          |
| 5   | -          | -           |
| 6   | -          | -           |
| 7   | Vcc        | Vcc         |
| 8   | -          | Data/D-     |
| 9   | -          | CLK/D+      |
| 10  | GND        | GND         |

Connector type : JST PH Series 2,0mm pitch.  
Mating connector : JST KR Series 2,0mm pitch.

4 way connector (CON2) for PS/2 & USB only

| Pin | Switch input  |
|-----|---------------|
| 1   | Left Switch   |
| 2   | Middle Switch |
| 3   | Right Switch  |
| 4   | GND           |

Connector type : JST PH Series 2,0mm pitch.  
Mating connector : JST KR Series 2,0mm pitch.



Dim in mm.

The company reserves the right to alter without prior knowledge the specification or design of any standard product or service.