



- 50 mm steel ball
- IP54 sealing

## 50 MM STEEL OEM TRACKBALLMODULE

The GS50 series are ruggedised professional trackballs. The ball and the trim are made of quality stainless steel giving the unit a stylish all metal look. The double-sided seal ring provides a sealing to IP54. Stainless steel shafts and bearings ensure a solid and precise pointer control.

### GENERAL TECHNICAL SPECIFICATIONS

|                             |                                |
|-----------------------------|--------------------------------|
| Sealing                     | : IP54                         |
| Casing material             | : ABS/Polycarbonate            |
| Ball & trim material        | : Stainless steel              |
| Ball diameter               | : 50,8 mm                      |
| Weight                      | : 700 grams                    |
| Seal material               | : PTFE composite               |
| Shaft diameter              | : 9,5 mm                       |
| Tracking force              | : 60 grams nominal             |
| Mounting angle              | : Max. 60° to horizontal plane |
| Lifetime - Ball revolutions | : > 2 million                  |
| Supply voltage (quadrature) | : 5 Vdc +/- 5%                 |
| Supply current (quadrature) | : 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 GS50-4502 is PS/2 compatible. The GS50-4602 can be plugged into any USB port or hub. Both types are supplied with 1,6m long shielded straight cables and external switch cables.

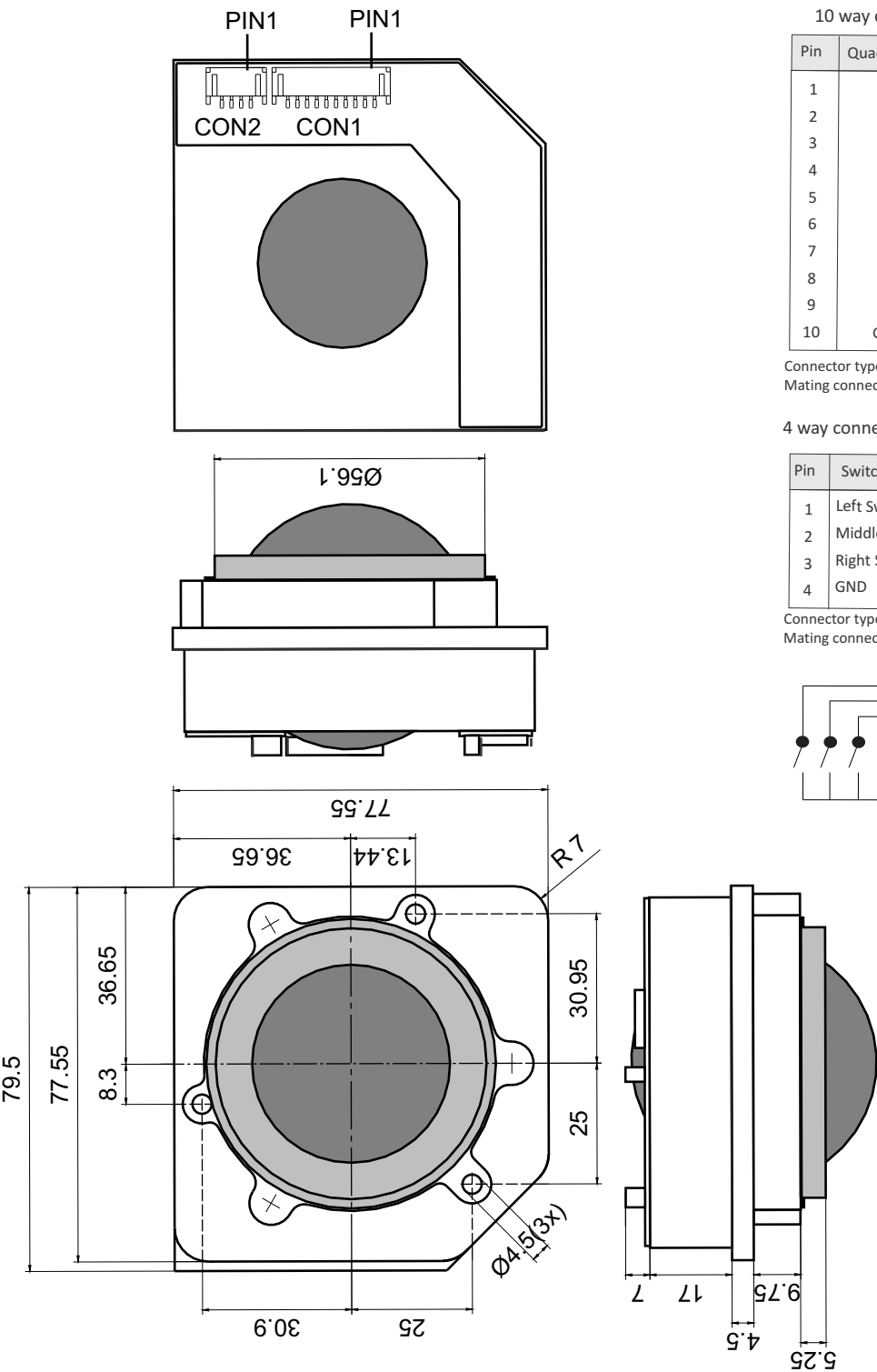
The GS50-4002 has phase quadrature output: X1(Y1) leads X2(Y2) when motion of ball in positive X(Y) direction. No device driver is supplied with the unit. Please use standard available drivers in your operating system. It is supplied with a 10-way connection cable of 35 cm.

\* 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 | <b>GS50-4002</b> | P50-50028C Trackball module only<br>IC101035 : 35 cm interconnection cable to CON 1   |
| PS/2       | <b>GS50-4502</b> | P50-56028C : 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        | <b>GS50-4602</b> | P50-56028C : 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          |

DIMENSIONAL DRAWING



Dim in mm.

Dip switches : leave off, for factory use only.

10 way connector (CON1)

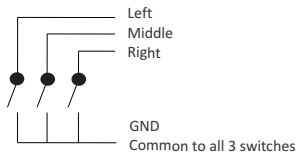
| Pin | Quadrature | PS/2 or USB |
|-----|------------|-------------|
| 1   | X1         | X1          |
| 2   | X2         | X2          |
| 3   | Y1         | Y1          |
| 4   | Y2         | Y2          |
| 5   | -          | -           |
| 6   | -          | -           |
| 7   | Vcc        | 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.



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