



- 38 mm steel ball
- IP65 sealing

## 38 MM STEEL OEM TRACKBALLMODULE

The GS38 series are ruggedised professional trackballs for vandalproof applications. The ball and the trim are made of quality stainless steel. The double-sided seal ring provides a sealing to IP65 static (ball in rest). Stainless steel shafts and bearings ensure a solid and precise pointer control. The unit can be used for frontpanel mounting (remove the mounting bracket) or for backpanel mounting.

### GENERAL TECHNICAL SPECIFICATIONS

|                             |                                |
|-----------------------------|--------------------------------|
| Sealing                     | : IP65 (static)                |
| Casing material             | : ABS / Polycarbonate          |
| Ball & trim material        | : Stainless steel              |
| Ball colour                 | : Black                        |
| Ball diameter               | : 38,1 mm                      |
| Weight                      | : 300 grams                    |
| Seal material               | : PTFE                         |
| Shaft diameter              | : 3 mm                         |
| Tracking force              | : 65 grams nominal             |
| Mounting angle              | : Max. 60° to horizontal plane |
| Lifetime - Ball revolutions | : > 2 million                  |
| Supply voltage (quadrature) | : 5 Vdc +/- 5%                 |
| Supply current (quadrature) | : 10 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 GS38-4502 is PS/2 compatible. The GS38-4602 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 GS38-4002 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.

### OPTIONAL ANTI-VANDAL BACKPLATE

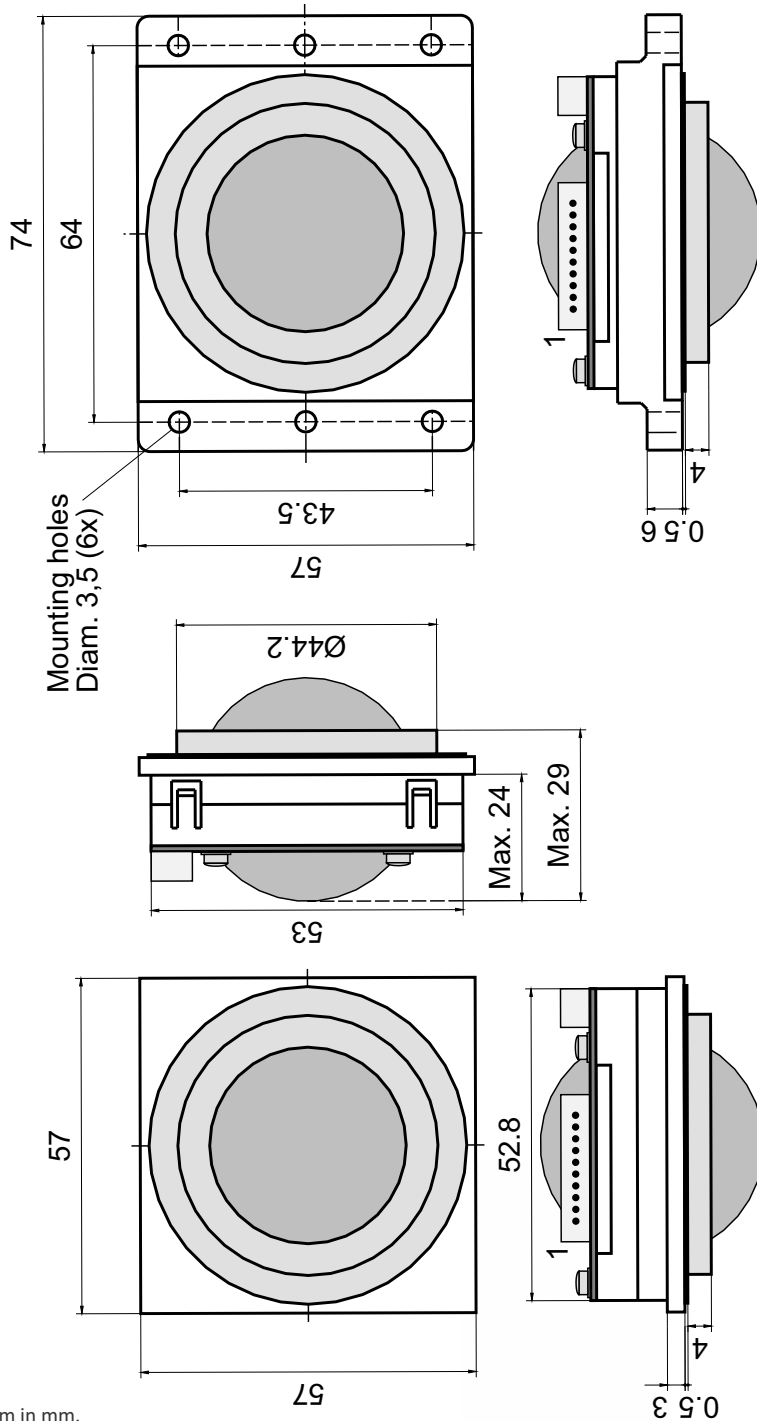
This additional backplate and mounting spacers enable the unit to absorb a very high level of abuse or impacts. When mounted properly by the end-user, this backplate will limit the hostile impacts on the ball to an acceptable level and protect shafts, bearings and other components of the unit.



### ORDER INFO

| OUTPUT     | ORDER NUMBER     | Consisting of :   |
|------------|------------------|---|
| Quadrature | <b>GS38-4002</b> | P38-50048C Trackball module only<br>IC101035 : 35 cm interconnection cable to CON 1   |
| PS/2       | <b>GS38-4502</b> | P38-56048C : 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>GS38-4602</b> | P38-56048C : 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          |
| OPTION     | <b>AP38-1</b>    | Anti-Vandal Backplate<br>Incl, spacers, washers and screws  |

DIMENSIONAL DRAWING



Dip switches : leave off, for factory use only.

10 way connector (CON1)

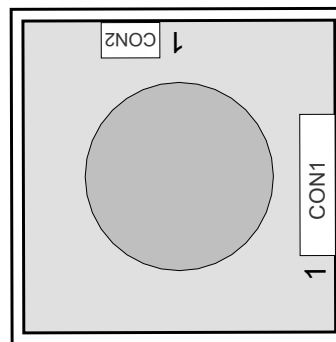
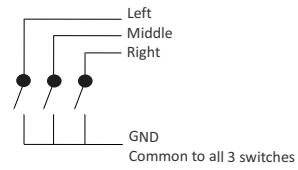
| Pin | Quadrature | PS/2 or USB |
|-----|------------|-------------|
| 1   | X1         | -           |
| 2   | X2         | -           |
| 3   | Y1         | -           |
| 4   | Y2         | -           |
| 5   | -          | EARTH       |
| 6   | -          | EARTH       |
| 7   | Vcc        |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