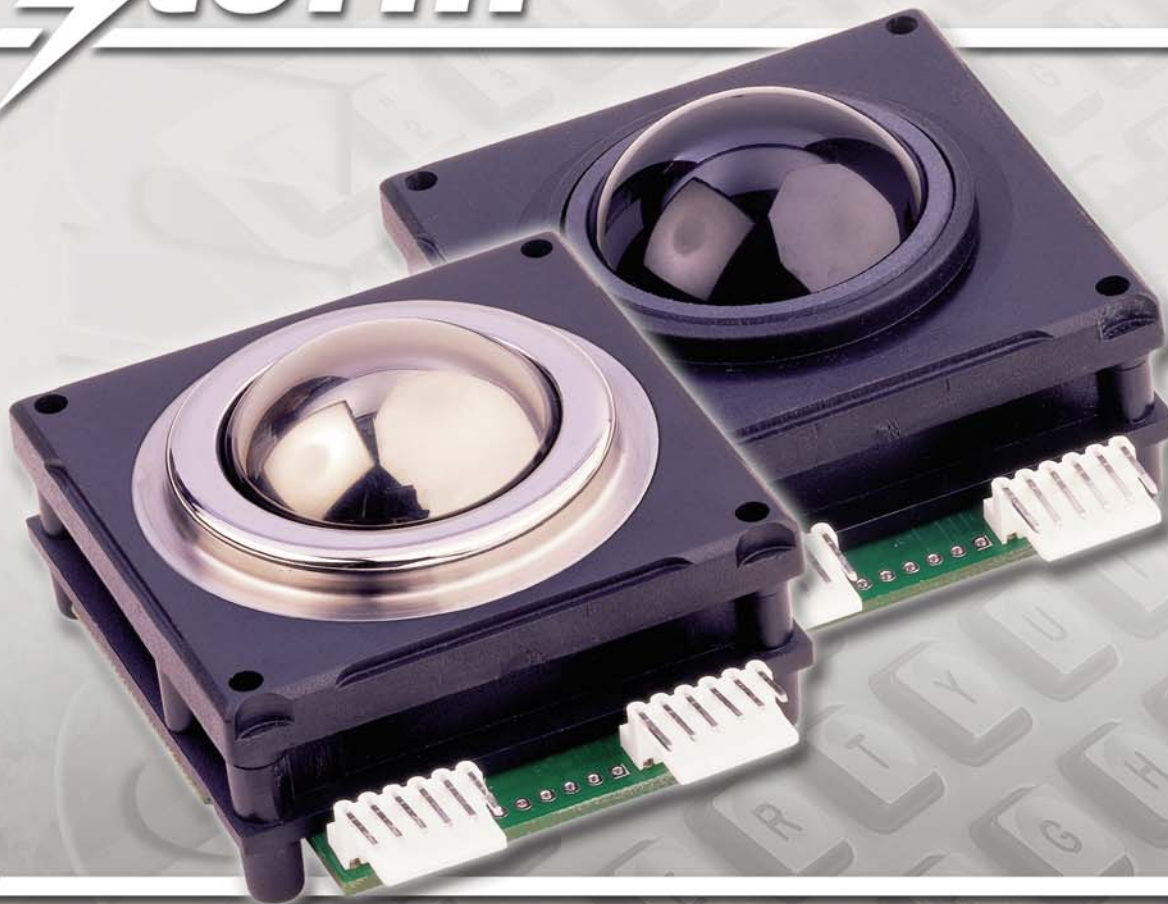




## 2200 Series Panel-mount Trackballs



### *Rugged cursor control for industrial and hostile public environments*

- 38mm panel-mount trackball provides smooth, responsive and precise cursor control
- Vandal resistant version features a stainless steel retention ring and a coated steel ball (mirror finish) (10J BS EN 60068-2-75: 1997)
- Robust version features a tough phenolic resin ball (black)
- Sealed against the ingress of liquids & dust to IP65 when ball is stationary (IP54 when rotating)
- Robust chassis designed to provide secure under-panel fixing for maximum resistance to hard use, abuse and vandalism
- On-board encoder with USB connectivity
- Two 'click keys' (not supplied) can be connected directly to the on-board encoder
- Operating temp: -20°C (dry) to +60°C



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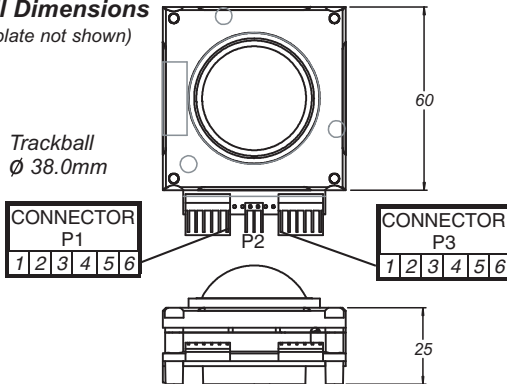


## Panel-mount trackballs for industrial and public environments

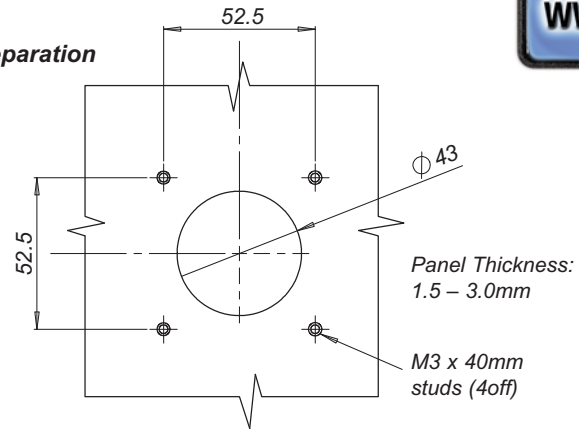
These 38mm trackballs provide smooth, accurate and responsive cursor control in wet, dirty or aggressive environments. Two selector (click) buttons (not supplied) can be configured to provide either left and right click functions or for both buttons to provide left click functions only. These trackballs can be installed as a flush mounted component in a control panel or equipment housing. The trackballs are constructed to ensure maximum resistance to hard use, abuse and vandalism.



### Overall Dimensions (Vandal plate not shown)



### Panel Preparation Details



### Connector Pinout Details

Pin	Button Connections (P1)	USB Output Connections (P3)
1	0V	D- / Data
2	Button 1 (left)	D+ / Clock
3	0V	Test Only
4	Button 2 (right)	Power +5V
5	0V	Ground 0V
6	Button 3 (middle)	Not used

If both buttons are required to be set as left click then a connection must be made between pins on connector P2 using the jumper device (supplied). Please note that the TEST input is reserved for factory test only. On no account should a connection be made to this terminal.

The button inputs are pulled high to 5V within the unit.

Both rising and falling edges of this signal are debounced for 30ms.

The Storm Trackball is designed to work with resident drivers and does not require additional software to be loaded.

### Electrical

Supply Voltage **5.0V dc  $\pm 10\%$**   
Switch Debounce **30ms rising/falling**  
Supply Current **15mA maximum**  
Resolution **150 pulses, 600 counts/revolution**

### Mechanical

Tracking Force **50g nominal any direction**  
Ball Speed **250 rpm maximum**  
Operational Life **10 million revolutions (min)**  
Mounting Angle **within 45° from horizontal**

### Environmental

Operating Temp **-20°C (dry) to +60°C**  
IP65 seal when ball stationary  
IP54 seal when ball rotating  
Humidity **95% Rh max, non-condensing**

### Material

Robust Trackball  
Vandal Resistant Trackball  
Seal Material  
Vandal Plate  
**Phenolic Resin**  
**Surface Treated Steel**  
**PTFE with low friction fill**  
**Stainless Steel**  
**NB. Robust Version does not have Vandal Plate**

### Installation

Prepare plate with hole for  $\phi 43.0\text{mm}$  bezel and M3 x 40mm studs on 52.5mm centres.  
Fit sealing gasket to trackball.  
Place trackball over studs.  
Place vandal plate over studs (VR version only).  
Secure with plain washers and Nyloc nuts.  
**IMPORTANT:** Max torque 40Nm on nuts.  
Connect switches to connector P1.  
If required, fit jumper to enable both buttons as left click.

### Part numbers [x] denotes packaging variant

2200-00020[x] Trackball Unit USB Black Phenolic Ball  
2200-00030[x] Trackball Unit USB Coated Steel Ball

Whilst every effort is made to ensure details are correct at time of print, specifications are subject to change without notice.



FM 39602



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