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|---------------------------|---|
| Bezeichnung | E50-76A2AD-M004 |
| Ausführung | Backpaneleinbau |
| Tastenzahl | 3 + Scrollrad |
| Cursorsteuerung | Kunststofftrackball |
| Technologie | Infrarot-Optik |
| Balldurchmesser | 50,1 mm |
| Ballmaterial | Epoxydharz |
| Front | Edelstahl lackiert |
| Gehäusematerial | Kunststoff |
| Schutzgrad | IP68 |
| Betriebstemperatur | 0°C ... +55°C |
| Abmessungen | 175 x 145 x 88 mm |
| Zusatzfunktion | herausnehmbare Kugel für einfache Reinigung |
| Zertifizierung | DIN EN / IEC 60945 Marine, CE |
| Artikelnummer | E50-76A2AD-M004 |
| Einsatzbereich | Industrie, Hygiene, Gerätebau, Marine |
| Schnittstellen | USB, PS/2 |

KEYBOARDS & POINTING DEVICES FOR THE MOST DEMANDING JOBS



E50-M



Cursor Controls



- 50 mm optical ball
- IP68 sealing
- Integrated scroll wheel

IEC60945 MARINE ERGONOMIC 50 MM TRACKBALL

The E50 Series desktop trackball is an extremely high specification device that incorporates the latest IP68 technology. The trackball combines the patented optical trackball technology with the new hall-effect scroll wheel to provide a fully waterproof desktop trackball solution. To compliment these two technologies the trackball also includes left, middle, and right switch functionality as found in all conventional desktop trackballs/mice making the E50 trackball a complete human interface solution for control of a cursor.

In the standard configuration the E50 Series is supplied with a black soft touch case, USB and PS/2 output, and a grey scroll wheel. The ergonomic trackball is available as desktop or as panel mount unit. The freestanding desktop device optimises desk space when compared to a mouse. The panel mount unit has been designed as part of OEM keyboards and consoles.

MECHANICAL SPECIFICATIONS

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|-----------------------------|--|
| UNIT | |
| Weight | ~500 grams |
| Case material | PC/ABS |
| Case colour/finish | Black/soft touch |
| TRACKBALL MODULE | |
| Ball size/material | Ø50.8mm (2")/Epoxy resin, metallic grey |
| Tracking force | 30-80 grams – PTFE seal |
| Ball load | 200N (20Kg) maximum downward pressure for 2 minutes @ 20°C |
| Resolvable ball speed | 30 IPS (inches per second) |
| Tracking engine | Infra-red optical navigation technology |
| Removable ring style/colour | Bayonet style locking ring/black |
| SCROLL WHEEL | |
| Wheel diameter | Ø25mm |
| Wheel material | PC/ABS |
| Wheel colour | Grey – various colours available |
| Encoding technology | Hall effect |
| Magnet strength | N42 |
| Detent-scrolling force | 30 grams nominal |
| Switch actuation force | 275 ± 125 grams force |
| LEFT/RIGHT SWITCH | |
| Switch actuation force | 150 ± 50 grams force |

FEATURES

- Certificate of Conformity fully compliant with IEC60945
- Sealing to IP68 (fully waterproof)
- Infra-red optical navigation technology
- Integrated IP68 hall-effect scroll wheel
- Integrated left, middle and right switch functionality
- Large 50mm ball for precise cursor movement
- Removable ball for easy cleaning
- Outputs: USB & PS/2 (auto select)
- Smooth operation in rugged environments
- No special driver required



ORDER INFO

| | | |
|-------------|------------------------|---------------------------|
| desktop | E50-76A31D-M000 | Output : PS/2 & USB Combo |
| panel mount | E50-76A2AD-M004 | |

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ELECTRICAL SPECIFICATIONS

| | |
|-------------------------|--|
| Protocol | USB & PS/2 (auto-select) |
| Supply voltage | 4.4V to 5.25V DC |
| Supply current | 100mA Max. |
| Trackball resolution | 1200 counts per ball revolution @ 1 IPS (inches per second) +/- 10% 2400 counts per ball revolution @ 5 IPS (inches per second) +/- 10% |
| Scroll wheel resolution | 24 counts per wheel revolution |
| Output connector | USB "A" type connector with 2 metre cable |
| Mating output connector | Standard USB "A" type socket |

ENVIRONMENTAL SPECIFICATIONS

| | |
|-----------------------|---|
| Operating temperature | 0°C to +55°C (IEC 60068-2-1, IEC60068-2-2) |
| Storage temperature | -40°C to + 85 °C (IEC 60068-2-1, IEC60068-2-2) |
| Operating humidity | 93% RH @ 40°C, non-condensing (IEC 60068-2-78) |
| Storage humidity | 10%-95% non-condensing (IEC 60068-2-78) |
| Vibration | 2g, 10-500Hz, 1 octave/min, 10 sweep cycles (IEC 60068-2-6) |
| Operating Shock | 15g/11ms, ½ sine, 3 shocks in +ve and -ve direction, all 3 axes (IEC 60068-2-27) |
| Mechanical lifetime | 1 million ball revolutions |
| MTBF | in excess of 80,000 hours (MIL-STD-217F) |
| ESD | 15kV air-discharge and 8kV contact discharge (IEC 61000-4-2) |
| EMC | Radiated immunity - limits according to level 3 of IEC 61000-4-3 Radiated emissions to EN55022 class B |
| Sealing capability | IP68 |

The E50 trackball provides conventional X and Y axis cursor movement with an additional Z-axis scroll wheel. The Z-axis scroll wheel provides scroll/zoom and middle button capabilities for more effective navigation in complex user interfaces and operating systems (please note the function of the scroll wheel is software dependent). The trackball also features a removable retention ring enabling the user to remove the ball for servicing and maintenance purposes.



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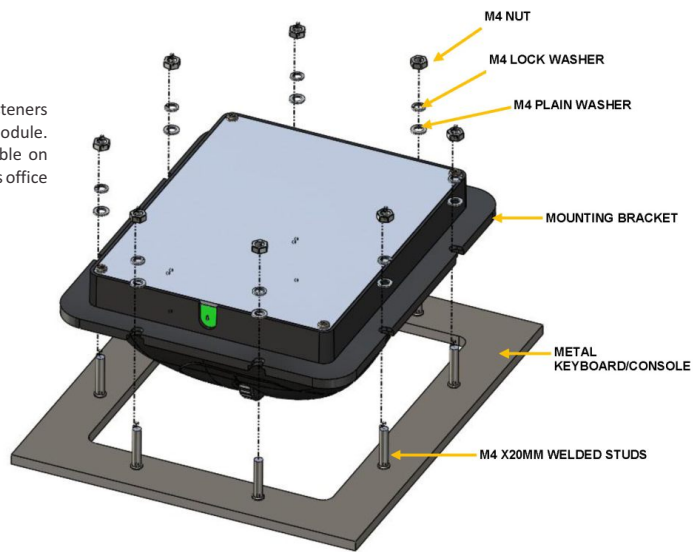


INSTALLATION PANEL MOUNT UNIT

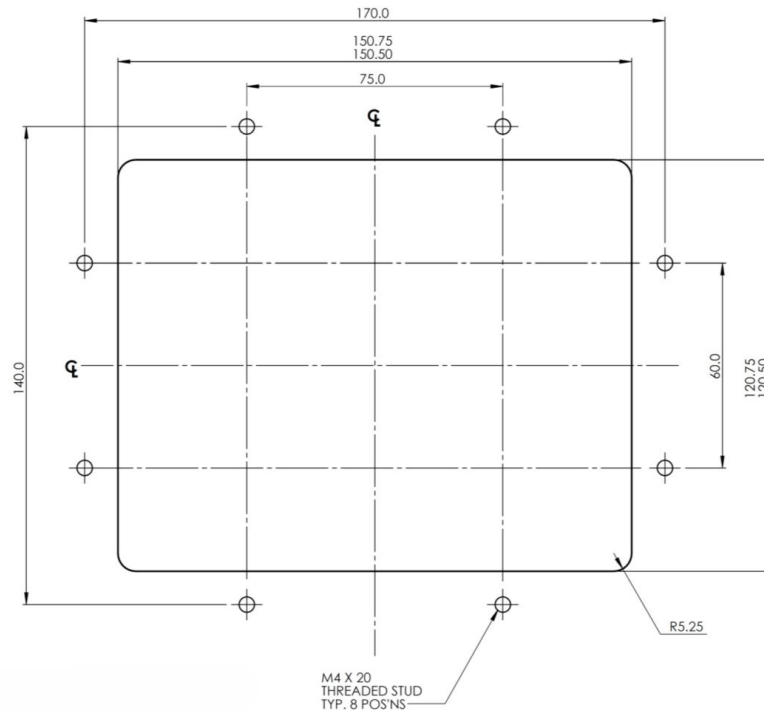
The E50 Series, panel mount, ergonomic trackball module has been designed to be installed into the back of a user interface panel, key console. The following mounting arrangement is recommended;

- 1 x 5mm thick metal panel
The metal panel shall have 8 x M4 threaded studs (M4 x 20mm) spot welded to the underside of the metal panel. The metal panel shall have a cut-out as detailed in section 8 of this datasheet.
- 8 x M4 plain washers*
- 8 x M4 nuts*
- 8 x M4 lock washers*

*Please note that the fixings and fasteners are not supplied with the E50 Series module. Custom mounting brackets are available on request - please contact your local sales office for more information.



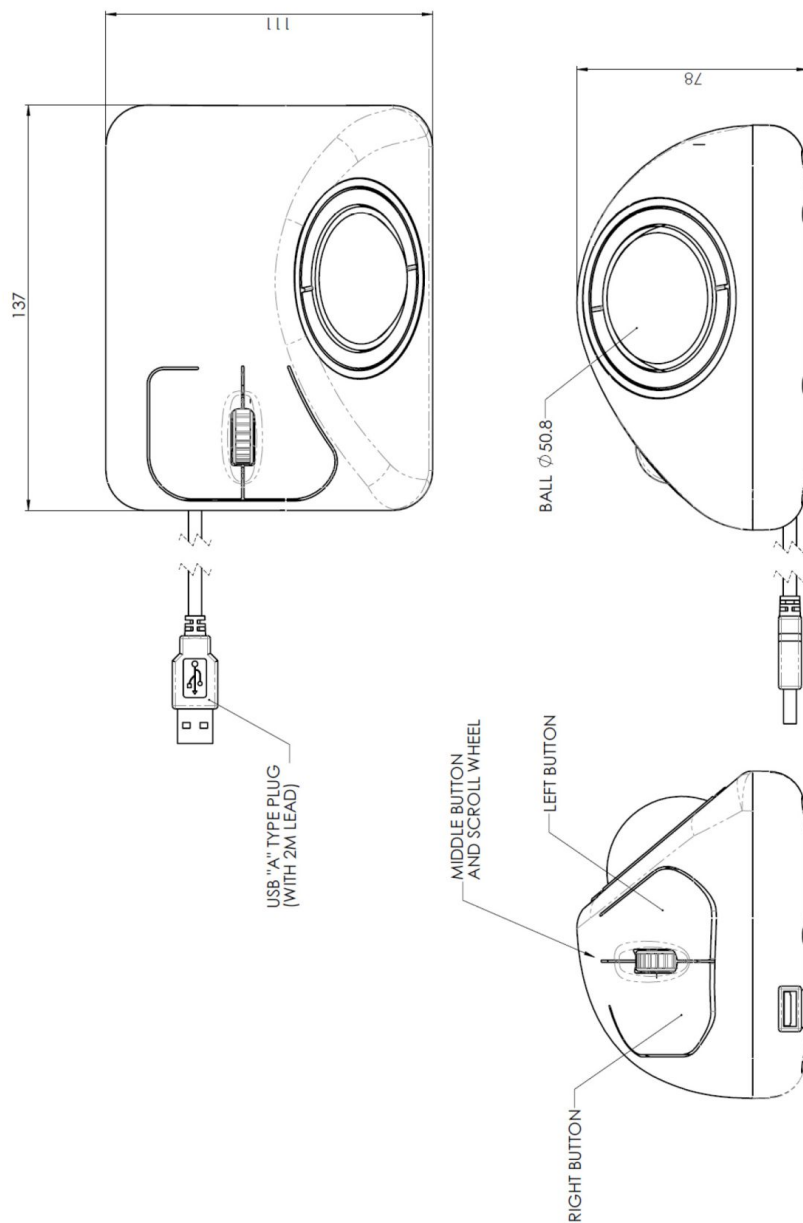
RECOMMENDED PANEL CUT-OUT - PANEL MOUNT UNIT



KEYBOARDS & POINTING DEVICES FOR THE MOST DEMANDING JOBS



DIMENSIONAL DRAWING
Desktop version



Dimensional drawing specifies factory default orientation.
All dimensions are in mm unless otherwise stated.
Tolerances +/- 0.2mm unless otherwise stated

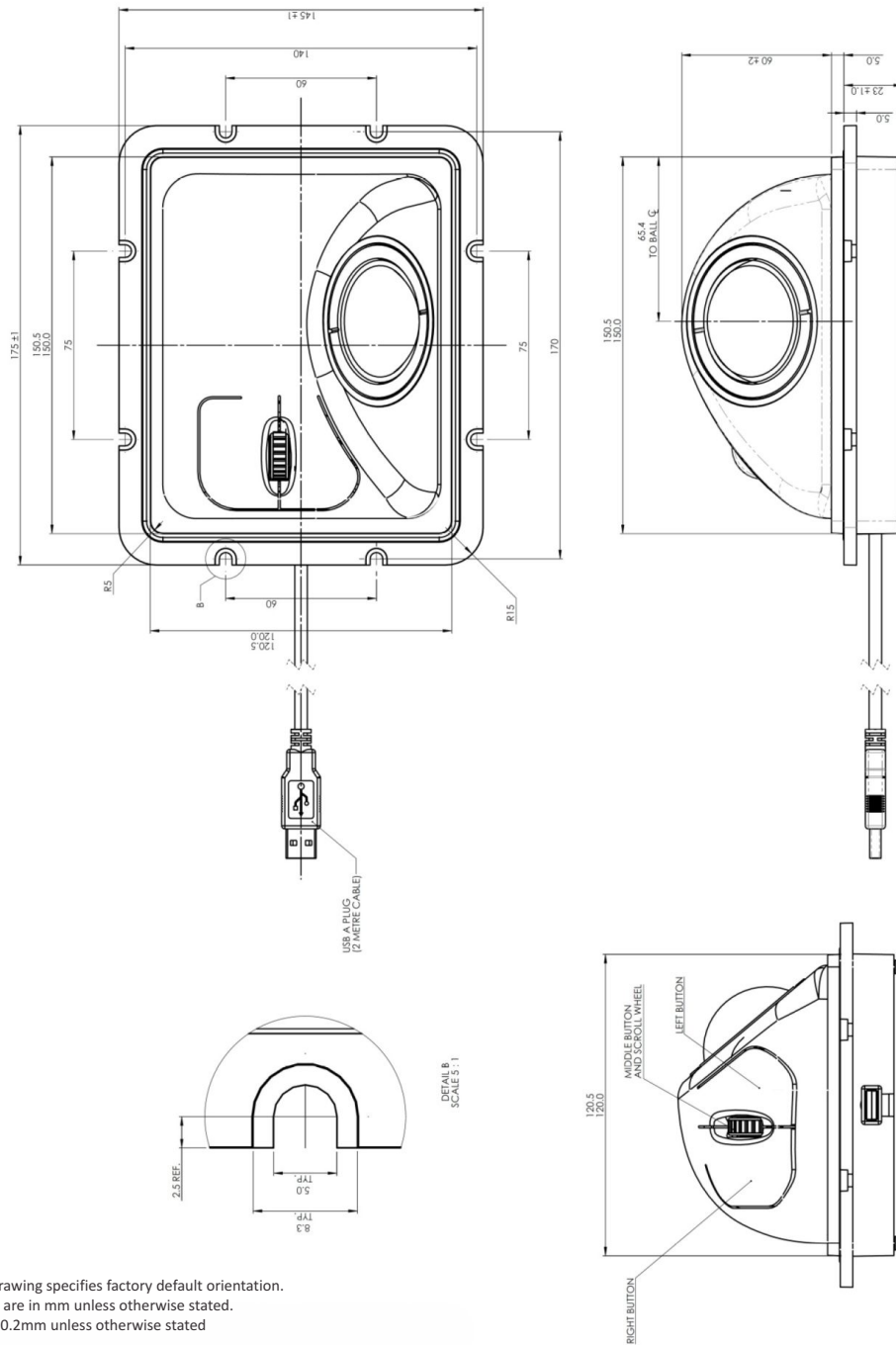
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DIMENSIONAL DRAWING
Panel mount version

E50-M



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