

NSI 50MM LASER TRACKBALL MODULE



Waterproof IP68 sealed Trackball Module

- Waterproof & Environmentally Sealed to IP68 standards when properly installed
 - Solid state sensing technology Laser tracking engine
 - Smooth operation in rugged environments
 - Various top plate configurations
 - Custom connector options
 - Output: PS/2 & USB or Quadrature
- (\$210 - *If you have a requirement please [contact us](#) for availability.*)



PRODUCT DESCRIPTION

Utilizing the latest and most advanced laser tracking technology, the X50 Series laser Trackerball™ is an extremely high specification, contact-less device, ideal for the most demanding of cursor control applications.

The laser tracking engine provides accurate cursor motion at all speeds and on virtually any ball, combining the benefits of solid state sensing (no moving parts except the ball). The X50 trackballs are available with a variety of electrical outputs and sealing to IP68. The solid state design allows the device to be subjected to extreme conditions and provides the user with the ability to wash down, decontaminate, and sterilise, making it the ideal trackball for a wide range of demanding applications and environments.

The unit has been designed to be back of panel mounted as part of OEM keyboards and consoles.

ADDITIONAL INFORMATION

Industrial Approvals

IP68 (BS EN 60529)

Ball: Epoxy Resin, 50,8 mm

Tracking Force: 20 grams nominal – damper ring / 30 – 80 grams – PTFE seal

Ball Load: 200N Maximum downward pressure (20 Kg) for 2 mins.

Resolvable Ball Speed: 40 Inches/sec.

Housing Material: Polycarbonate / ABS

Transducer: Optical Navigation Technology (solid state sensing)

Mechanical

Mounting Position: All angles

Sealing gasket: Cellular silicone

Resolution: 2400 counts per ball revolution @ 5 IPS (inches per second) +/- 10% (USB, PS/2 protocol)

Resolution: 1200 counts per ball revolution @ 1 IPS (inches per second) +/- 10% (Quadrature protocol)

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

Power

Supply voltage: 4.4V to 5.25V D.C.

Supply current: 25mA typical, 30mA maximum

Temperature Range

Operating: 0°C to +55°C (IEC 60068-2-1, IEC60068-2-2)

Storage: -40°C to +85°C (IEC 60068-2-1, IEC60068-2-2)

Humidity

Operating: 93% RH @ 40°C, non-condensing (IEC 60068-2-78)

Storage: 10%-95% non-condensing (IEC 60068-2-78)

Shock

Operating: 15g/11ms, ½ sine, 3 shocks in +ve and -ve direction, all 3 axes (IEC 60068-2-27)

Storage: 50g/11ms, ½ sine, 3 shocks in +ve and -ve direction, all 3 axes (IEC 60068-2-27)

Vibration

5g, 10-500Hz, 1 octave/min, 10 sweep cycles (IEC 60068-2-6)

Dimensions

2.89"(W) x 2.89"(D) x 1.53"(H) (73.6mm x 73.6mm x 38.9mm)

Connector / Input

Output connector: 10 Way JST, right-angled header, part no. S10B-PH-SM3-TB

Switch Inputs (USB, PS/2): 3 switches: left, middle, right.

Connection through 4-way JST, right-angled header, part no: S4B-PH-SM3-TB

Warranty

1 Year limited Warranty Standard

Model Numbers

X50-76021D