

mining systems

Trackball

computer input device for hazardous areas

IEC Ex TSA 09.0040X



The ATB-1 Trackball (and IBTB-1 interface) is an ideal input device for mining environments.

As an alternative to Intrinsically Safe (IS) keyboards, the system provides a reliable, low maintenance solution for user input into hazardous area equipment.

Located within a small IP54 rated metallic enclosure, the Trackball can be mounted to the outside face of a range of machinery, including DCBs, control and monitoring units, pump stations, substations or any other piece of equipment where a SCADA system is in use.

Features:

- Easy to operate
- Generic two or three button drivers, enabling use with most popular menu-driven operating systems
- Can be supplied with USB or custom plugs to fit existing customer equipment
- Can be configured for either left or right handed users
- The buttons can be rotated to sit above or below the unit to suit the environment

The Trackball has been used and proven to be a reliable input device in the United Kingdom and has recently gained certification for use in Australia.

AMPCONTROL[®]

Trackball

The ATB-I Trackball connects to the non-IS circuits through a Trackball Interface IBTB-1 situated in a safe area or within a separately certified flameproof enclosure. The ATB-1 Trackball module is provided with an integral cable which is to be terminated at an Ex d Bush, Ex d connector or through an Ex d cable gland mounted in the wall of the flameproof enclosure.

The unit comprises a Trackball with three sealed push switches, mounted within a metallic enclosure with a degree of protection of at least IP54.

The electronic components are mounted on four printed circuit boards supported within an inner transparent plastic framework and are provided with a degree of protection of at least IP54. Movement of the trackball is encoded via optical readers which view the trackball through the transparent inner housing.

The ATB-1 Trackball is suitable for operation within an ambient temperature range of -20°C to +40°C.

Interface Board

The IBTB-1 Interface Board for the Trackball is designed to be supplied from unspecified safe area equipment at PL1/PL5 and a 12 Volt Power Supply at Terminal PL3. It provides an intrinsically safe output at Terminals PL2 & PL4 for connection to the certified ATB-1 Trackball or a certified USB flash drive within the hazardous area.

The IBTB-1 Interface Board is only to be installed within a safe area, or within a hazardous area when suitably protected by, for example, a separately certified IP54 flameproof enclosure.

The interface components are mounted on a printed circuit board which is provided with terminals and sockets for connection to the external circuits.

The IBTB-1 Interface Board is suitable for operation within an ambient temperature up to +40°C.

