

Actisense®

Connect without limits



OPTO-4 Serial Opto Isolator

Isolate an RS232 (PC) port to protect against ground loops.

The OPTO-4 provides a safe and low cost way of connecting an NMEA 0183 system to a PC or any other device with a standard RS232 9-pin port.

As a bi-directional NMEA 0183 to RS232 interface cable, the OPTO-4 utilises OPTO-isolation to protect the PC input and spike protection for the PC output, providing comprehensive isolation of PC hardware when connecting to an NMEA 0183 bus.

If isolation in both directions is required, the Actisense USG-2 offers bi-directional isolation in a USB to RS422 (NMEA 0183) form.

The Actisense design integrates an over-moulded case for excellent water resistance and a small footprint for installation into tight spaces.

The OPTO-4 takes power from the host RS232 signals including TX and the handshaking lines RTS and DTR, making the OPTO-4 suitable for most PC serial ports.

In systems that cannot provide power on the handshaking lines, e.g. serial devices with only Rx and Tx lines, a DC power supply can be used.

Note: Connecting an external power supply may create a ground loop between the PC port and the supply. Check that the supply ground is at the same potential as the PC ground before connecting.

Please refer to the Quick Start Guide for detailed wiring instructions, including how to use an external power supply.

Benefits

Protects PC from damage
Water resistant cable

Features:

One OPTO-isolated input
One NMEA output
Up to 115200 baud
Port powered
Shielded cable and case

What is OPTO-Isolation?

Ground loops are very easy to create in an NMEA0183 environment without even knowing about it and can wreak havoc with NMEA 0183 devices.

OPTO-isolation (also referred to as optical isolation) is a way of creating a physical barrier to the flow of electrical current to prevent ground loops from happening. Electrical energy is converted to light and transmitted over a small gap where it is converted back to electrical energy using an electronic circuit.

