

PC-OPTO-3 NMEA to RS232 Opto-Isolator

Full galvanic isolation to help protect electronic equipment

The **Actisense PC-OPTO-3** provides a safe and low cost way of connecting an NMEA 0183 system to a PC/laptop or any other device with a standard RS232 9-pin port.

As a bi-directional NMEA 0183 to RS232 interface cable, the PC-OPTO-3 utilises full opto-isolation to protect the PC input and “tranzorb” protection for the PC output, providing comprehensive isolation of expensive PC hardware when connecting to an NMEA 0183 bus that may have picked up potentially hazardous voltages around the electrically noisy environment of a boat.

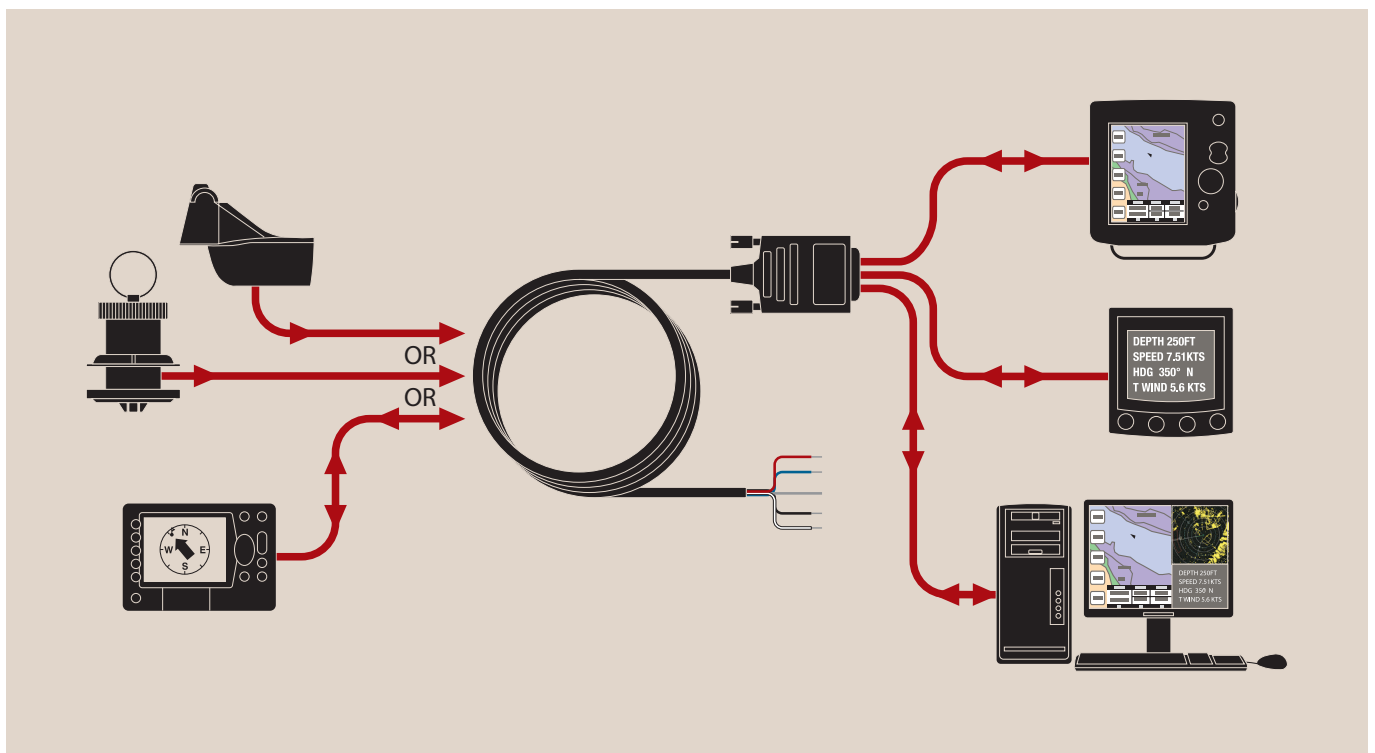
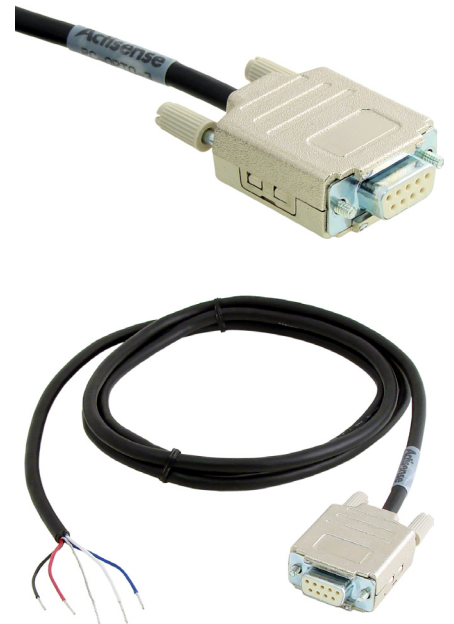
If full isolation in both directions is required, the **Actisense USG-1** offers full bi-directional isolation in a USB to RS422 (NMEA 0183) form.

No external power supply is required, as the **PC-OPTO-3** is self powered (from the PC).

Simple installation requires wiring the open end to the NMEA bus, and plugging the D-type connector into the PC. The NMEA data will then be available to the computer via its serial port.

With a fully shielded case and cable, the **PC-OPTO-3** is particularly suitable for ‘noisy’ or commercial environments. It provides a complete solution for system builders who need all components to be shielded to meet working installation regulations.

With the reassurance that the connected laptop or device benefits from isolated protection, you'll never be 'all at sea' when you chose a **PC-OPTO-3**.



PC-OPTO-3 NMEA to RS232 Opto-Isolator

Specifications

Bi-directional Opto-isolator

NMEA Input

- Exceeds all NMEA 0183 input voltage specifications
- Capable of receiving 1.8v differential signal levels
- Current limited (protects from cable faults)
- Over voltage protected to 35v DC
- Logic '1' / stop bit: Minimum -15.0v, Maximum 0.5v
- Logic '0' / start bit: Minimum 4.0v, Maximum 15.0v
- NMEA input to output protection: 2000v DC

NMEA Output

- Exceeds all NMEA 0183 output voltage specifications
- Maximum current: 10 mA (dependent on port)
- Max. short circuit current: 10 mA (dependent on port)
- Logic '1' & '0' Dependent upon RS232 port voltage levels

RS232 Input

- Voltage range: Minimum -15v, Maximum +15v
- Voltage threshold: Logic '0' > 3.0v, Logic '1' < 2.0v

RS232 Output

- Voltage swing: Minimum -V, Maximum +V volts (Loaded with 3K Ω to gnd, V = RS232 port voltage)
- Output resistance: Minimum 200 Ω

Baud rates possible

- Minimum 4800 Baud, Maximum 57600 Baud

Power supply (derived from PC port)

- Supply voltage range: 7 to 15 volts DC
- Current: Minimum 2 mA, Maximum 5 mA
- Power consumption: @ 9v, 45mW Maximum

Environmental

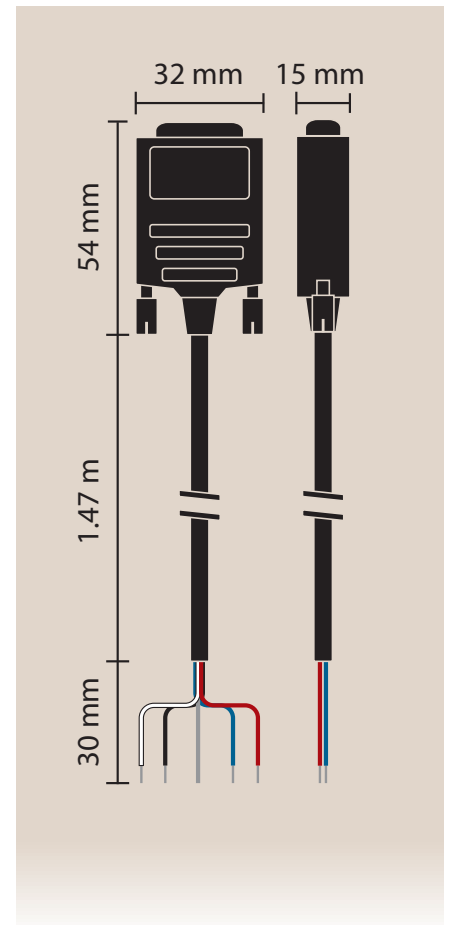
- Recommended operating temperature: -20°C to +70°C
- Miniature design fits inside a standard D-type serial plug connector.
- Includes securing bolts.

General

- 4-Core cable with screen
- Fully shielded case
- Weight: Connector 100 grams, cable 400 grams
- Dimensions: Standard D-type serial plug connector
- Cable Length: 1.5 metres
- Guarantee: 3 years

Part number

- PC-OPTO-3



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