

NMEA 2000 to 0183 Gateway NGW-1 / NGW-1-USB

Hook up to NMEA 2000 now, while keeping your current NMEA 0183 devices...

The Actisense NMEA 2000 to NMEA 0183 Gateway (**NGW**) provides an easy way to link between your boat's data networks. The **NGW** makes it possible to convert NMEA 0183 data into NMEA 2000 data and vice-versa.

The **NGW** comes factory configured to translate the core NMEA data, and using the advanced configuration software provided, it is simple to set up which data items you want.

Multiple **NGW** units can be used to multiplex many NMEA 0183 devices onto the NMEA 2000 network, using the network as a means of combining and transferring all data from one place to another. The high reliability of NMEA 2000 data transfers ensure effective communication even in the presence of interference. The required data can be taken from the bus wherever it's needed, reducing wiring complexity.

The **NGW** comes in two versions that feature the latest **Actisense** innovations.

The **NGW-1** utilises Actisense's ISO-Drive technology to provide a fully isolated serial output port that can "float" safely up to 1.5 kV from ground. The serial input port is also fully OPTO isolated using a 2.5 kV OPTO circuit. These features make the **NGW-1** free from ground loop installation issues.

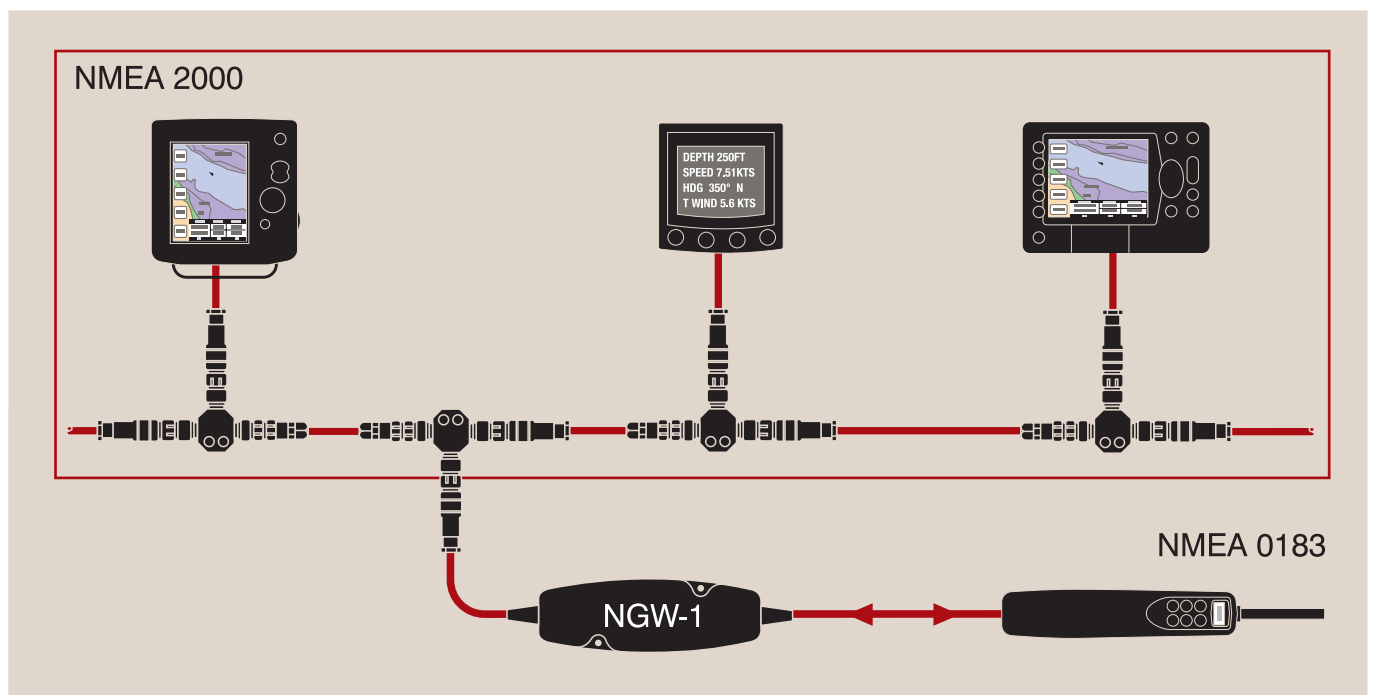
Also available is the **NGW-1-USB** which allows quick connection of the NMEA 2000 network to a computer via the USB port running NMEA 0183 compatible software (such as chart plotter software). 2.5 kV isolation between the NMEA 2000 and USB ports mean that the **NGW-1-USB** can be used with peace of mind.

Features

- Full bi-directional electrical isolation
- Can connect to either PC COM Port or NMEA 0183 marine serial interfaces
- Up to 230400 bps data transfer rate

Uses

- Upgrade your current NMEA 0183 equipment and connect it to your NMEA 2000 network
- Allow your NMEA 0183 instruments to receive vital NMEA 2000 data
- Provide a gateway between the new and old bus systems, allowing data sharing both ways
- Use the NMEA 2000 network to multiplex many NMEA 0183 signals onto a single bus



NMEA 2000 to 0183 Gateway NGW-1 / NGW-1-USB

Specifications (Common)

NMEA 2000 Connection

- Full specification NMEA 2000 port using a 2.5 kV isolated CAN bus connection at 250 kbps

Built-in Firmware

- The **NGW** firmware runs on one of the latest low power 32-bit microprocessors
- Flash upgradable and field reprogrammable for the future
- Factory settings are fully configurable to suit any installation requirements

PC Software (USB drivers & configuration tool)

- Operating systems supported: Windows 98, ME, 2000, XP and Vista
- Supplied on CD

Supported Conversions

- For the latest comprehensive list of conversions please refer to the '**NGW-1**' area on the [Actisense website](#)

Power supply

- Supply power taken from the NMEA 2000 bus, and USB port (**NGW-1-USB**)
- NMEA 2000 supply voltage range: 10 to 35 volts DC
- Current Consumption:
30 mA off load @ 12v DC
16 mA off load @ 24v DC

Environmental

- Recommended operating temperature: -20°C to +70°C
- Splash proof plastic casing provided with sealing grommets to IP54
- Recommended humidity: 0 - 80% RH

General

- Dimensions: see diagram
- Cable lengths:
NMEA 2000 micro-fit male - 1.5 metre
Serial - 1.5 metres (**NGW-1**)
USB - 1.8 metres (**NGW-1-USB**)
- Guarantee: 3 years RTB

Specifications (Specialist version NGW-1-USB)

USB specification

- Full compliance with both v1.1 and v2.0 USB specifications
- Upstream and downstream buffers for smoother data transfer

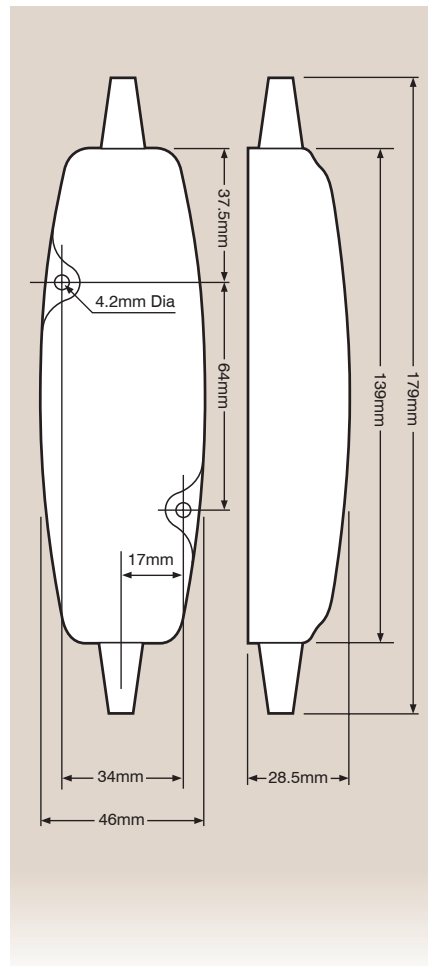
System Requirements

- Operating systems supported:
Windows 98, ME, 2000, XP, Vista
MAC OS X
(check the [Actisense website](#) for other versions and operating systems)
- USB Host Controller installed on the PC system

Part Number

- **NGW-1-USB**

Dimensions



Specifications (Standard version NGW-1)

ISO-Drive Flexible Output

- Electrically isolated from both NMEA 2000 port and OPTO input
- Exceeds all NMEA 0183 output drive specifications
- Fully RS232, RS422 and RS485 (listeners only) compatible
- Capable of driving up to 8 NMEA 0183 compliant listeners
- Short circuit protected
- Static discharge protected
- Baud rate selectable from 4800 to 230400 (defaults to 4800 Baud)

OPTO-Isolated Flexible Input

- Full galvanic opto-isolation offering up to 2.5 kV protection from both NMEA 2000 port and ISO-Drive output
- Compatible with PC (RS232) or Marine (RS422/NMEA 0183) data talkers
- Current limited to meet the NMEA 0183 specification
- Overdrive protection to 40 volts DC
- Baud rate selectable from 4800 to 230400 (defaults to 4800 Baud)

Part Number

- **NGW-1**

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