Actisense®
Award Winning NMEA Specialists

NGW-1 NMEA CONVERSION GATEWAY

Hook up to NMEA 2000® whilst keeping currently installed NMEA 0183 devices.

The Actisense NGW-1 is an intelligent Gateway that converts NMEA 0183 data to NMEA 2000® (and vice versa), allowing you to share information between devices from the two standards. This creates the possibility of upgrading some of the vessel's electronics to NMEA 2000® and keeping the remaining NMEA 0183 devices. This can help spread the cost of transitioning to NMEA 2000®, reducing the initial upgrade cost to accommodate a new NMEA 2000® device.

The ISO variant connects easily to NMEA 0183 devices with a dedicated pair of data wires for transmit and receive, allowing the NGW-1 to share data bi-directionally if required. As with all the latest Actisense products, OPTO-Isolation is included on the input and ground

breaking ISO-DriveTM technology on the output to keep your devices safe from hazardous ground loops.
A USB option is available for installations operating with PC software that requires NMEA 0183 data.

Taking its power supply directly from the NMEA 2000® network (ISO variants) or from a PC (USB variants) removes the need for a separate power supply, reducing installation time and complexity.

The NGW-1 can be configured for operation with AIS devices in the field, or preconfigured in the factory. Any Gateway variant can be purchased with an adaptor cable for connecting directly to Raymarine's SeaTalkNG network (part number: STNG-A06045)

Benefits

Upgrade your NMEA 0183 equipment to NMEA 2000®

Allow NMEA 0183 devices to receive vital data from the NMEA 2000® bus

Use the NMEA 2000® bus to multiplex several NMEA 0183 signals together

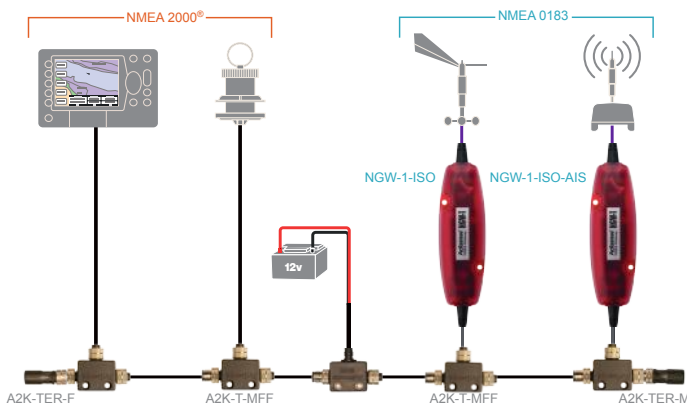Configure using NMEA Reader

Features:

One OPTO-isolated input

One ISO-DriveTM output

Up to 115,200 baud

Integrate seamlessly with Raymarine® products

The STNG-A06045 adaptor cable enables users to integrate Raymarine SeaTalkNG products into the standard configured NMEA 2000® bus and vice-versa. Currently only available when purchased with an Actisense NMEA 2000® Gateway product.

NMEA 2000®   NMEA 0183

NGW-1-ISO   NGW-1-ISO-AIS

A2K-TER-F   A2K-T-MFF   A2K-T-MFF   A2K-TER-M

A pre-configured version is available for AIS conversions (NGW-1-ISO-AIS).

Actisense®

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NGW-1 Specifications

Power Supply (ISO & ISO-AIS Variants)	
Supply Voltage (NMEA 2000® Port)	9.5 to 35V DC
Supply Current (NMEA 2000® Port)	35mA @ 12V DC Max 50mA
LEN	1
Power Supply (USB Variants)	
Supply Voltage (NMEA 2000® Port)	9 to 29V DC
Supply Current (USB Host Port)	85mA @ 5V DC
Supply Current (NMEA 2000® Port)	15mA @ 12V DC Max 50mA
LEN	1
Mechanical	
Housing Material Lid	Polycarbonate
Housing Material Base	Flame retardent ABS
Weight NGW-1-ISO & ISO-AIS	220g
Weight NGW-1-USB	210g
Approvals and Certifications	
NMEA 2000® Certified	
Meets all IEC 61162-1 & 61162-2 requirements	
Meets all IEC 61162-3 requirements	
EMC	IEC 60945 (Sections 9,10 &11.2)
Environmental Protection	IP54
Operating Temperature	-20°C to +55°C
Storage Temperature	-30°C to +70°C
Recommended Humidity	0 - 93% RH
Guarantee	3 years

NMEA 0183 Port (ISO, ISO-AIS Variants)	
Compatibility	Full NMEA 0183, RS232 & RS422 compatible. RS485 Listener compatible
Galvanic Isolation	2500V input to ground 1500V output to ground using **ISO-Drive™**
Speed/Baud Rate	4800 to 115200 Baud
Output Voltage Drive	>= 2.1V (differential) into 100Ω
Output Current Drive	20mA max.
Output Protection	Short circuit and ESD
Input Voltage Tolerance	-15V to +15V continuous -35V to +35V short term (< 1 second)
Input Protection	Current limited and overdrive protection to 40V DC
Connectivity	5mm stripped and tinned wire
Cable Length	1.5m
USB Port (USB Variant)	
Compatibility	USB 1.1, 2.0 and 3.0
Galvanic Isolation	2500V input to ground
Speed / Baud Rate	4800 to 230400 Baud
Connectivity	Male type A plug moulded onto cable
Cable Length	1.5m
Drivers (Latest OS)	Windows XP, Vista, 7, 8 & MAC OS X supplied on CD & **www.actisense.com/NGW-1/Downloads**
Drivers (Legacy OS)	Contact Actisense for full details of the legacy OS versions supported: **support@actisense.com**

NMEA 2000® Port (All Variants)	
Compatibility	Fully NMEA 2000® certified
Galvanic Isolation	Refer to 'NMEA 0183 port' or 'USB port'
Speed / Baud Rate	250kbps
Connectivity	M12 Male (A polarised) connector moulded on cable
Cable Length NMEA 2000	1.5m

Product Dimensions

All measurements in mm