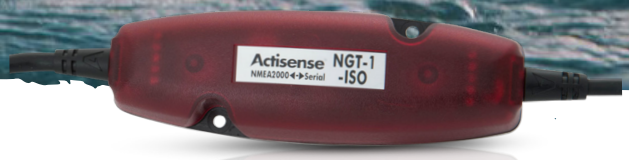
Actisense®
Award Winning NMEA Specialists

NGT-1 NMEA 2000 TO PC INTERFACE



Interface your PC to the NMEA 2000® bus with a functional firewall gateway.

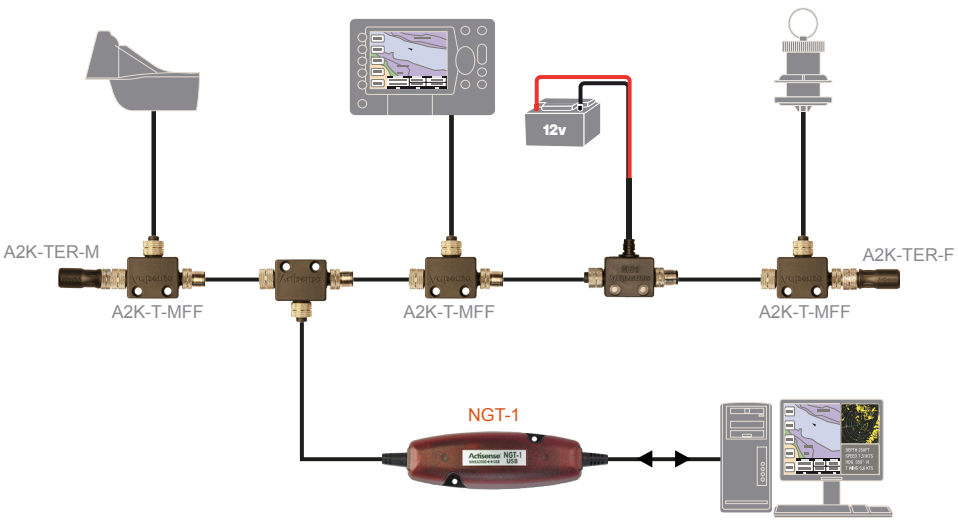
The Actisense NGT-1 makes it possible to send and receive NMEA 2000® data safely between a PC and an NMEA 2000® network. This creates the possibility of feature rich software applications replacing or complementing dedicated hardware such as a Multifunction Display (MFD) or Chart Plotter.

The freely available diagnostic software NMEA Reader from Actisense uses the NGT-1 to display all devices active on the network and all of the data messages flowing between them. The powerful set of tools that NMEA Reader offers the user can instil a better understanding of the network and help diagnose potential network issues.

A Software Development Kit (SDK) is also freely available for software developers to use in creating software applications that can fully interact with an NMEA 2000® network, its devices and its 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 USB variant offers the easiest method of connecting to a PC, whilst the ISO variant is available for customers who prefer a serial interface that does not require USB drivers.



Benefits

Provides a rule-enforcing firewall between the PC and NMEA 2000® bus

Configure and flash-update Actisense products on the NMEA 2000® bus

Use with our FREE NMEA Reader to help diagnose network problems (see page 26)

Sends and receives pure NMEA 2000® data
(no conversions are applied)

Features:

Vital NMEA 2000® diagnostic tool

USB version – isolated USB input/output

ISO version – OPTO-isolated input and ISO-Drive™ output

Up to 115,200 baud data transfer rate

1500V isolation on both input & output

Actisense®

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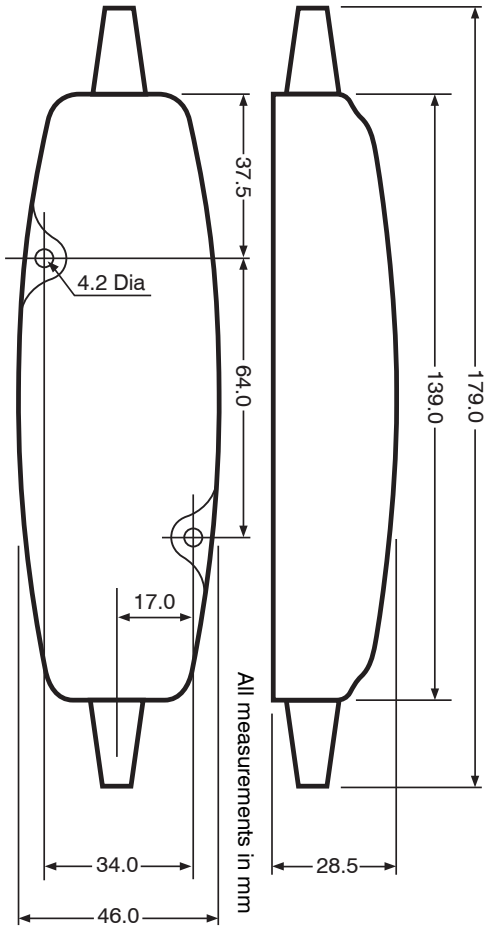
NGT-1 Specifications

GEEK MODE ON

Power Supply (ISO Variant)	
Supply Voltage (NMEA 2000 Port)	9.5 to 35V DC
Supply Current (NMEA 2000 Port)	35mA @ 12V DC, Max 50mA
Load Equivalent Number (LEN)	1
Power Supply (USB Variant)	
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
Load Equivalent Number (LEN)	1
NMEA 2000 Port (All Variants)	
Compatibility	Fully NMEA 2000 certified
Galvanic Isolation	Refer to 'ISO port' or 'USB port'
Speed / Baud Rate	250kbps
Connectivity	M12 Male (A polarised) connector moulded on cable
Cable Length NMEA 2000	1.5m
Cable Length STNG Adapter	0.4m (1.9m with NMEA 2000 cable connected)

Product Dimensions



ISO Port (NGT-1-ISO)	
Compatibility	Fully RS232 & RS422 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 40VDC
Connectivity	5mm stripped and tinned wire
Cable Length	1.5m
USB Port (NGT-1-USB)	
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/NGT-1/Downloads
Drivers (Legacy OS)	Contact Actisense for full details of the legacy OS versions supported: support@actisense.com
Mechanical	
Housing Material Lid	Polycarbonate
Housing Material Base	Flame retardent ABS
Weight NGT-1-ISO	220g
Weight NGT-1-USB	210g
Weight STNG Adapter	40g
Approvals and Certifications	
Fully NMEA 2000 Certified	
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

Professional Invitation

Actisense welcomes enquiries from software manufacturers who would like to incorporate NMEA 2000® and the NGT-1 into their software.

All specifications are taken with reference to an ambient temperature of 25°C unless otherwise specified.
All specifications correct at time of print.