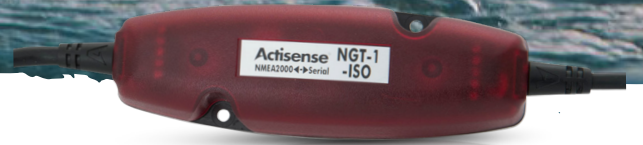


## NGT-1 NMEA 2000 TO PC INTERFACE



### Interface your PC to the NMEA 2000<sup>®</sup> bus with a functional firewall gateway.

The Actisense NGT-1 makes it possible to send and receive NMEA 2000<sup>®</sup> data safely between a PC and an NMEA 2000<sup>®</sup> 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<sup>®</sup> network, its devices and its data.

Taking its power supply directly from the NMEA 2000<sup>®</sup> 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<sup>®</sup> bus

Configure and flash-update Actisense products on the NMEA 2000<sup>®</sup> bus

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

Sends and receives pure NMEA 2000<sup>®</sup> data (no conversions are applied)

### Features:

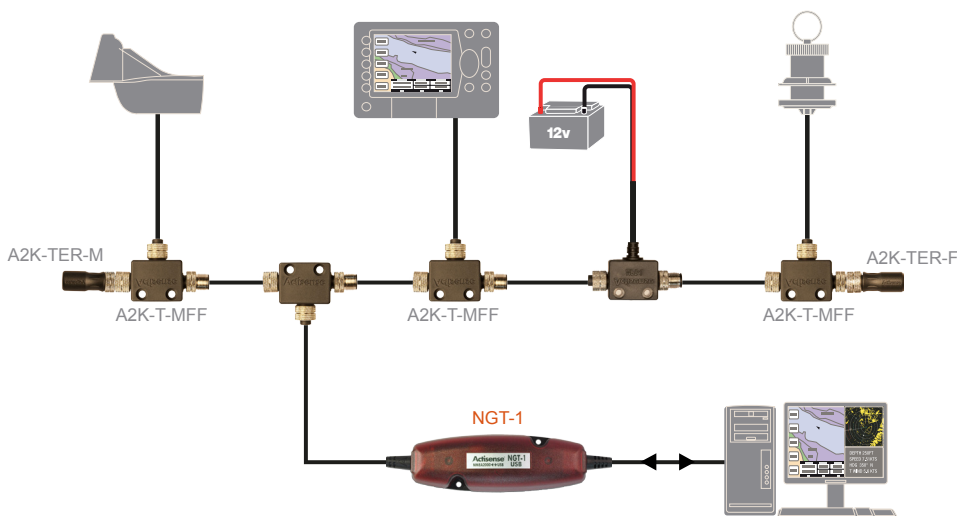
Vital NMEA 2000<sup>®</sup> diagnostic tool

USB version – isolated USB input/output

ISO version – OPTO-isolated input and ISO-Drive<sup>™</sup> output

Up to 115,200 baud data transfer rate

1500V isolation on both input & output

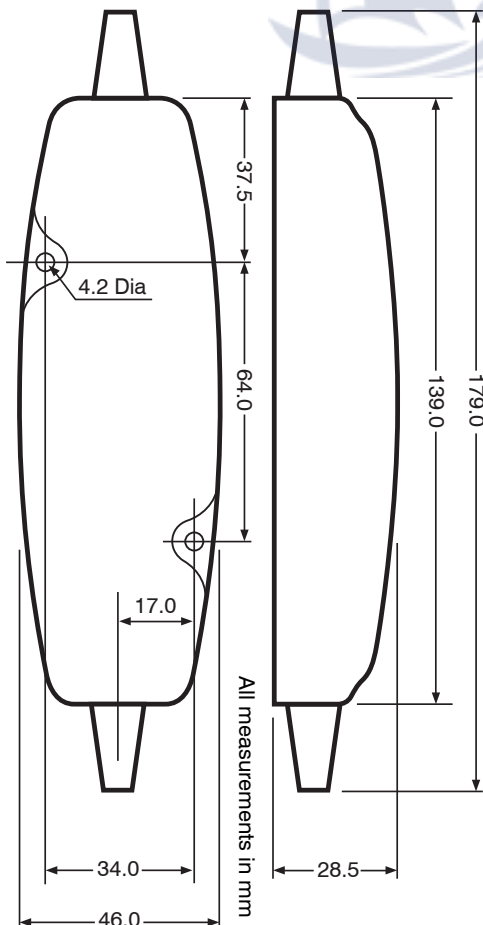


# NGT-1 Specifications



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 & <a href="http://www.actisense.com/NGT-1/Downloads">www.actisense.com/NGT-1/Downloads</a>
Drivers (Legacy OS)	Contact Actisense for full details of the legacy OS versions supported: <a href="mailto:support@actisense.com">support@actisense.com</a>
Mechanical	
Housing Material Lid	Polycarbonate
Housing Material Base	Flame retardant 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.