Actisense®
Connect without limits



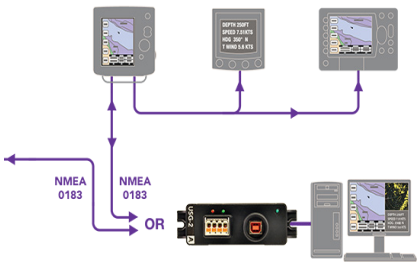
USG-2
USB to NMEA 0183 Gateway

Advanced technology for safe, reliable and simple connection of your NMEA 0183, RS422 and RS232 devices to your PC's USB port.

The USG-2 converts a USB port into a bi-directional serial port suitable for connecting to a marine standard NMEA 0183 data bus.

It provides a far safer connection when compared to standard USB to serial converters.

Electrical isolation is provided by the ISO-DriveTM output and OPTO-isolated input making installation simple and free from ground loops.





The input uses the Actisense OPTO-isolation circuitry to protect any connected equipment from the most common system faults. The input can receive very low level signals that are often too small to be received by a PC serial port.

The high quality, shielded USB lead included with the USG-2 makes connection to a PC simple while providing a high level of water protection when connected to the custom designed USB socket.

The pluggable screwless connector makes installation quick and easy, and the specifically designed DIN rail mount option ensures a reliable secure bulkhead mount for the USG-2.

Multiple LEDs make diagnosing connection issues quick and easy. The blue power LED Illuminates solid blue when the USB driver has successfully loaded and the USG-2 is powered, while a green (receive) LED and an orange (transmit) LED indicate whether data is present.

Benefits

Inputs & outputs protected against over voltage, ESD & short circuits.

Simple installation.

Protects PC from damage.

Eliminates ground loops.

Features:

NMEA 0183, RS422 & RS232 compatible ISO-Drive™ technology

Isolated input (2500V)

Isolated output (1500V)

Encapsulated electronics

High retention USB socket

Diagnostic LEDs

Baud rates from 300 to 230400 bps

Bulkhead mount, with optional DIN rail mount kit

Pluggable screwless connector with locking latch & strain relief

Actisense®

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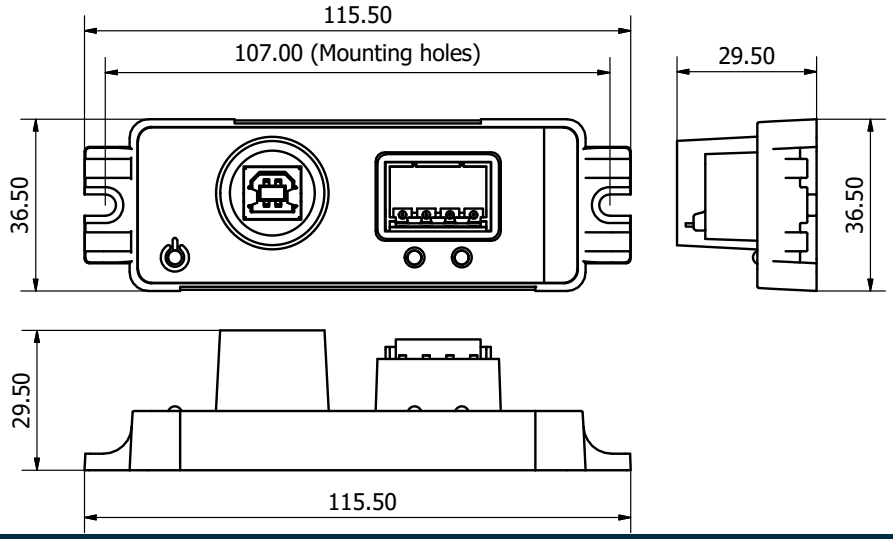
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USG-2 Specifications

Power Supply (USB)	
Power source	Bus powered
Maximum bus current	50mA
NMEA 0183 Port - Talker & Listener	
Number of Listener / input ports	One isolated NMEA 0183 Listener
Number of Talker / output ports	One isolated NMEA 0183 Talker
Compatibility	Fully NMEA 0183, RS422 & RS232 compatible. RS485 Listener compatible
Galvanic Isolation	NMEA 0183 Talker and Listener Isolation
Speed / baud rate	4800 to 230400 bps / baud
Connectivity	Pluggable screwless connector with locking latch and integrated push-button. Utilises cage clamp for 12 to 24 AWG wires (both solid and stranded)
Talker output voltage drive	>2.0V (differential) into 100Ω
Talker output current drive	20mA max.
Talker output protection	Short circuit and ESD
Listener input voltage tolerance	-15V to +15V continuous
Listener input protection	Current limited, overdrive protection to 40V DC and ESD protection
USB Port	
Compatibility	USB 1.1, 2.0 and 3.0
Speed / baud rate	300 to 230400 Baud
Connectivity	High retention type-B receptacle (supplied cable includes a custom USB Type-B sealing plug)
Withdrawal force	1.5Kg
Drivers (Latest OS)	Windows XP, Vista, 7, 8, 10 & MAC OS X supplied on CD & Actisense website

Mechanical	
Materials	Housing - ABS (PA-765), flame retardant to UL94 V-0
	PCB encapsulant - polyurethane, flame retardant to UL94 V-0
	Pluggable screwless connector - PPA-GF with CrNi spring and tin plated Ecu contacts
Mounting	Bulkhead mount (s/s self tapping screws included) or optional DIN rail mount kit available
Weight	Main body 65g, USB cable 70g
USB cable length	2.0m shielded USB Type-A to Type-B cable including custom USB Type-B sealing plug
Approvals & Certifications	
EMC	EN 60945 (sections 9 & 10)
Environmental protection	IP67 (Encapsulated electronics)
Operating temperature	-25°C to +70°C
Storage temperature	-40°C to +85°C
Relative Humidity (RH)	0 to 93% RH
Guarantee	5 years

Product Dimensions



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