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WGX-1-ISO
NMEA 2000 Wi-Fi
Gateway

Actisense WGX-1-ISO NMEA 2000 Wi-Fi Gateway User Guide

Contents

Actisense WGX-1-ISO NMEA 2000 Wi-Fi Gateway

USA: Federal Communications Commission (FCC) Statement
This device complies with FCC Part 15 FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, under part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used by the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device meets the FCC and IC requirements for RF exposure in public or uncontrolled environments. Suppliers Declaration of Conformity 47 CFR § 2.1077 Compliance Information Unique Identifier: Actisense WGX-1-ISO Responsible Party – US Contact Information GEMECO Marine Accessories 1141 S.Ron McNair Boulevard Lake City, SC 29560 Phone: **803-693-0777** / Fax **803-693-0477** **https://www.gemeco.com/**

Canada: Industry Canada (IC) Statement
IC Notice to Users English/French by RSS GEN Issue 3:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Union:
The full text of the EU Declaration of Conformity is available at the following internet address:
https://www.actisense.com/acti_download/wgx-1-declaration-of-conformity/

Hereby, Active Research Ltd declares that the WGX-1-ISO complies with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Intended Use
The WGX-1-ISO is a Multi-function NMEA2000 Gateway, providing Wi-Fi streaming, NMEA data conversion, and data logging functionality and includes an ISO (serial / NMEA 0183) port. It's a powerful routing device that allows advanced routing of data between the NMEA 2000 network, its ISO (serial / NMEA 0183) port, and its 3 separate Wi-Fi data servers. This allows the sharing of vessel data with connected devices. It also provides high-speed data logging to a micro SD card for voyage data recording.

Safety Precautions and Warnings

All Safety Precautions and Warnings must be followed to prevent personal injury and to ensure the correct operation of the WGX-1-ISO. Incorrect installation may invalidate the guarantee.

- **Installation and Operation**: Warning: This product must be installed and operated according to the instructions provided. Failure to do so could result in personal injury, damage to your boat, and/or poor product performance. It is to be used as a navigational aid only and must never be used in preference to sound navigational judgment.
- **Installation Code of Practice:** Warning: When wiring the power supply to the WGX-1-ISO ensure the isolation switch is o? to prevent damage to the device. Any connection to a battery or power supply must meet the mandatory essential safety requirements that may be imposed by local regulatory agencies, this should include suitable fusing. All wiring should be by the requirements of the NMEA 0400 installation specification.
- **Mounting Requirements:** Warning: Do not mount the device while it is powered, or the cable harness is connected. Select a flat location to mount the device. Mounting on a contoured surface may cause damage to the case.
  The WGX-1-ISO has an internal antenna which is located on the end opposite to the NMEA 2000 connector and it should not be mounted on a metal surface. To ensure the best range it should be located centrally on the vessel and mounted as high as possible, avoiding other metallic objects.
- **Safe Distance:** Warning: The WGX-1-ISO should not be mounted within 5m of a compass or operated within 20cm of a human body. To avoid potential injury, it should be mounted at a height of less than 2m from floor level.

Product Disposal
Please consider the environment when disposing of this product. It should be disposed of according to the European WEEE Directive, or according to the applicable local regulations for the disposal of electrical equipment. The product packaging is recyclable.

Radio Transceiver

The WGX-1-ISO contains a Wi-Fi / BT Radio Transceiver operating in the 2400 – 2484 MHz band with a maximum transmit power of 84mW.

Guarantee

The product is covered by a 5-year "return to base" guarantee if registered. (else it is 3 years) Please refer to the full user manual.

Operating Instructions

A full user manual is available at www.actisense.com and additional help is available via the "Help" menu on the device's built-in web application. The WGX-1-ISO should be connected to a correctly powered and terminated NMEA 2000 network which has at least 2 NMEA certified devices attached.

Note: It is powered via the network and the Blue "Power" LED will pulse showing correct operation. The colors of the ISO port talker and listener pairs are shown in the technical specifications and the full user manual contains additional information on different connection options.

Connecting to Wi-Fi
The WGX-1-ISO will power up in Access Point mode and it will broadcast its SSID as "wgx-<serial number>" The serial number and default password can be found printed on the back of the case. Connect to it using a Web browser on the connected device and type the IP address 192.168.4.1 into the address bar.

Configuring
The device can be configured using the built-in web application. The default login Username is "admin" and the default password is printed on the back of the case. The operating mode, routing, and data servers can be configured, the factory default is "convert" mode.

Note: The WGX-1-ISO can also be configured to use Client (Station) mode to join an existing Wi-Fi network

Technical Specifications

Supply Voltage (NM EA 2000 Port)	9 to 30V DC
Supply Current (NM EA 2000 Port)	78mA @ 9V DC, M ax 220mA
Load Equivalent Number (LEN)	2
Frequency Band	Wi-Fi: 2412 -2484M Hz
M ax Output power	Wi-Fi: 19.14dB m (802.11b) 19.22dB m (802.11g) 19.12dB m (802.11n)
Weight	112g
Dimensions	126mm x 73mm x 24mm
Operating Temperature	-25°C to +70°C
Environmental Protection	IP 67
ISO Cable Talker Pair Colour	A / +: White B / − : Brown
ISO Cable Listener Pair Colour	A / +: Yellow B / − : Green

Manufactured by:

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Documents / Resources

Actisense WGX-1-ISO NMEA 2000 Wi-Fi Gateway [pdf] User Guide
WGX-1-ISO NMEA 2000 Wi-Fi Gateway, WGX-1-ISO, NMEA 2000 Wi-Fi Gateway, 2000 Wi-Fi Gateway, Wi-Fi Gateway, Gateway

References

- **A** **Actisense | Marine Network Technology & Vessel Monitoring**
- **G** **gemeco.com/**
- **User Manual**