

# 315 Wireless HART

## User Manual



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Thank you for your selection of the 315-WH-Series Modem. We trust it will give you many years of valuable service.



## **ATTENTION!**

Incorrect termination of supply wires may cause internal damage and will void warranty. To ensure your 315-WH-Series module enjoys a long life, double check ALL your connections with the user manual before turning the power on.



## **CAUTION:**

To comply with FCC RF Exposure requirements in section 1.1310 of the FCC Rules, all Wifi antennas used with this device when installed must provide a separation distance of at least 20 cm from all persons to satisfy RF exposure compliance.

Avoid:

- Operating the transmitter when someone is within 20 cm of the antenna
- Operating the transmitter unless all RF connectors are secure and any open connectors are properly terminated
- Operating the equipment near electrical blasting caps or in an explosive atmosphere

All equipment must be properly grounded for safe operations.

All equipment should be serviced only by a qualified technician

Note: DUST or WiHART antennas have a much lower transmit power level and so do not receive the same FCC RF Exposure requirements.



## FCC Notice:

This device complies with Part 15.247 of the FCC Rules.

Operation is subject to the following two conditions:

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

This device must be operated as supplied by ELPRO. Any changes or modifications made to the device without the written consent of ELPRO may void the user's authority to operate the device.

This device must be installed by professional installers in compliance with 47 CFR Part 15 Subpart C Section 15.204 and 15.205, who will be responsible for maintaining EIRP no greater than 36 dBm in accordance with 47 CFR Part 15 Subpart C Section 15.247 (b)(2)(4).

In accordance with 47 CFR Part 15 Subpart C Section 15.204 only the following antenna/coax cable combinations can be used with each radio.

### WIFI Antenna

<i>Manufacturer</i>	<i>Model Number</i>	<i>Coax Cable</i>	<i>Net</i>
ELPRO	MD2400-EL	Includes 5m Cellfoil	2dBi Gain
ELPRO	SG2400-EL	CC3-SMA (3m)	2dBi Gain
ELPRO	Z2400-EL	CC10-SMA (10m)	4dBi Gain
ELPRO	Y2400-EL	CC20-SMA (20m)	6dBi Gain

### WI HART Antenna

<i>Manufacturer</i>	<i>Model Number</i>	<i>Coax Cable</i>	<i>Net</i>
ELPRO	Z2400-EL	CC3-SMA (3m)	6dBi Gain
ELPRO	Y2400-EL	CC3-SMA (3m)	14dBi Gain

### **Please insure correct antennas are connected to the appropriate antenna port**

- Part 15 – This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules (Code of Federal Regulations 47CFR Part 15). Operation is subject to the condition that this device does not cause harmful interference.
- Notice – Any changes or modifications not expressly approved by ELPRO could void the user's authority to operate this equipment.

To operate this equipment legally the user must obtain a radio operating license from the government agency. This is done so the government can coordinate radio users in order to minimize interference.

This Device should only be connected to PCs that are covered by either FCC DoC or are FCC certified.



## SAFETY Notice:

Exposure to RF energy is an important safety consideration. The FCC has adopted a safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated equipment as a result of its actions in Docket 93-62 and OET Bulletin 65 Edition 97-01.



## IMPORTANT Notice:

ELPRO products are designed to be used in industrial environments, by experienced industrial engineering personnel with adequate knowledge of safety design considerations.

ELPRO radio products are used on unprotected license-free radio bands with radio noise and interference. The products are designed to operate in the presence of noise and interference, however in an extreme case, radio noise and interference could cause product operation delays or operation failure. Like all industrial electronic products, ELPRO products can fail in a variety of modes due to misuse, age, or malfunction. We recommend that users and designers design systems using design techniques intended to prevent personal injury or damage during product operation, and provide failure tolerant systems to prevent personal injury or damage in the event of product failure. Designers must warn users of the equipment or systems if adequate protection against failure has not been included in the system design. Designers must include this Important Notice in operating procedures and system manuals.

These products should not be used in non-industrial applications, or life-support systems, without consulting ELPRO first.

- A radio license is not required in some countries, provided the module is installed using the aerial and equipment configuration described in the 315-WH-Series Installation Guide. Check with your local distributor for further information on regulations.
- Operation is authorized by the radio frequency regulatory authority in your country on a non-protection basis. Although all care is taken in the design of these units, there is no responsibility taken for sources of external interference. Systems should be designed to be tolerant of these operational delays.
- To avoid the risk of electrocution, the aerial, aerial cable, serial cables and all terminals of the 315-WH-Series module should be electrically protected. To provide maximum surge and lightning protection, the module should be connected to a suitable earth and the aerial, aerial cable, serial cables and the module should be installed as recommended in the Installation Guide
- To avoid accidents during maintenance or adjustment of remotely controlled equipment, all equipment should be first disconnected from the 315-WH-Series module during these adjustments. Equipment should carry clear markings to indicate remote or automatic operation. E.g. "This equipment is remotely controlled and may start without warning. Isolate at the switchboard before attempting adjustments."
- The 315-WH-Series module is not suitable for use in explosive environments without additional protection.
- The 315-WH-GT operates unlicensed Radio frequencies and proprietary protocols to communicate over the radio. Nevertheless, if your system is not adequately secured, third parties may be able to gain access to your data or gain control of your equipment via the radio link. Before deploying a system make sure you have considered the security aspects of your installation carefully.