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**ELPRO 415U-2-CX Long Range Wireless Ethernet Gateway** 



## **Product Usage Instructions**

- When selecting an antenna, consider radio proximity.
- Follow Figure 1 as a guide for installing the antenna and attaching it to the 415U-2-Cx.
- Connect the Coax to the building earth by IEC60728-11:2005 standards.
- Ensure proper grounding by following the guidelines provided.
- Attach the antenna to the mast securely.
- Create a stress relief loop to prevent damage to the coaxial cable.
- Install a surge arrestor for protection (recommended).
- Use weatherproof connections (recommended: 3MTM 23 self-bonding tape) for durability.
- Maintain a minimum of one wavelength distance between components.

### **EXPLOSION HAZARD**

### **WARNING – EXPLOSION HAZARD**

 Do not disconnect the device while the circuit is live unless the area is known to be non-hazardous.

#### **NOTE**

• All connections must be SELV <50 Vac and <60Vdc.

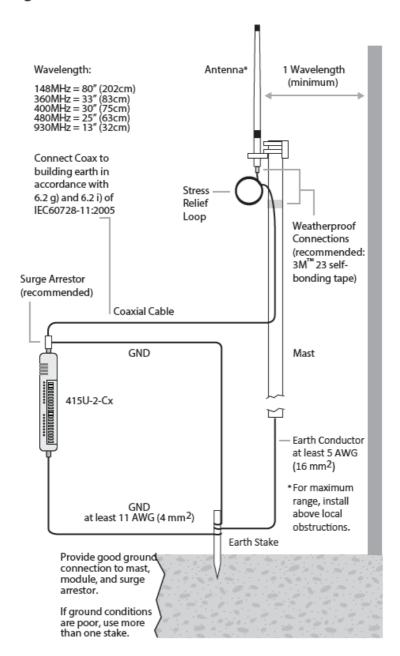
### Models

- 415U-2-C1 148 to 174MHz
- 415U-2-C3 360 to 400MHz
- 415U-2-C4 400 to 480MHz
- 415U-2-C5 470 to 520MHz
- 415U-2-C9 928 to 960MHz

### **Antenna installation**

- When selecting an antenna, consider radio proximity.
- Use Figure 1 as a guide for installing an antenna and attaching it to the 415U-2-Cx.

Figure 1. Antenna installation



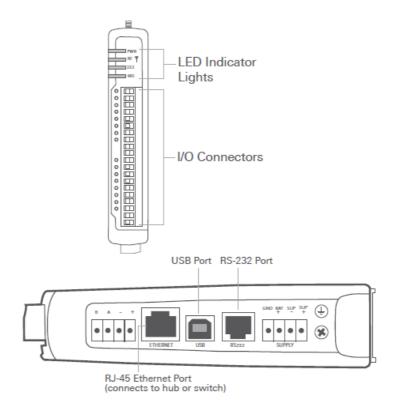
## Connecting to the module for configuration

- Download and install the configuration utility software, available from the Elpro Technolgies website. <a href="https://www.elprotech.com">www.elprotech.com</a>
- Connect to the PC using the supplied USB cable.
- Connect to the device by selecting the USB connection and using the IP address 192.168.111.1 or 1.1.1.1 for older firmware (pre V2.28)
- The PC will automatically be assigned an IP address from the module via DHCP. A
  new network adaptor will be created using IP address 192.168.1.2 (or 1.1.1.2)

Username: user

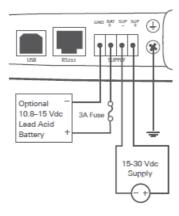
Password: user

The following illistrations show the port connections on the 415U-2-Cx.



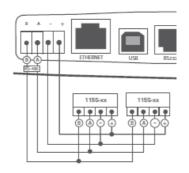
### **Power Supply Wiring**

- The ground (GND) and "SUP —" terminals are connected internally to the ground (Earth) terminal.
- Connect the screw terminal on the end plate to ground (Earth) for surge protection.



### Expansion I/O Power and RS485 serial connection

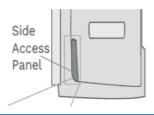
- An on-board RS-485 terminating resistor provides line termination for long runs.
- Only enable the terminating resistor on the last device connected on the RS-485 cable.



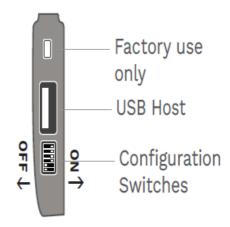
### **INSTALL GUIDE**

# **Configuration Switches**

• Use the DIP switches in the side access panel to select analog input voltage or current, and to enable the default configuration.



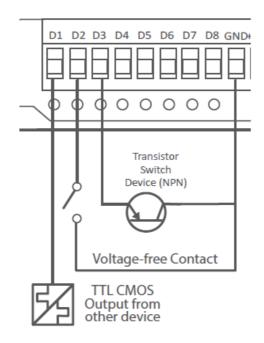
DIP	Description	OFF	ON
1	Al3 Current / Voltage	Voltage	Current
2	Al3 Current / Voltage	Voltage	Current
3	Al4 Current / Voltage	Voltage	Current
4	Al4 Current / Voltage	Voltage	Current
5	Unused	Off	On
6	Default configuration	Normal	Enabled



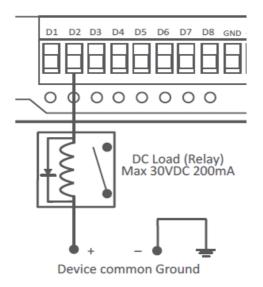
# **Input and Output connections**

• The digital input/output channels can be wired as inputs or outputs.

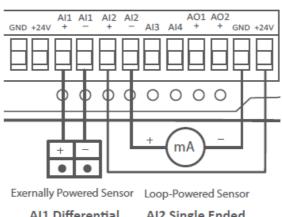
# **Digital Input**



### **Digital Output**

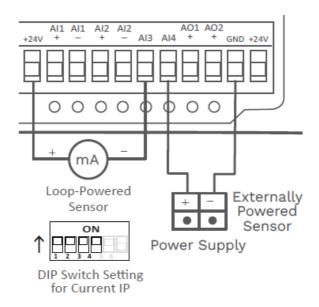


### Al1, Al2 - Differential 4-20mA inputs

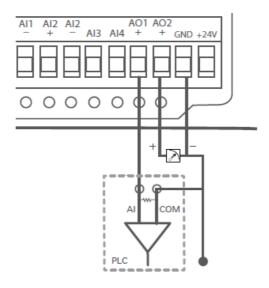


Al1 Differential AI2 Single Ended

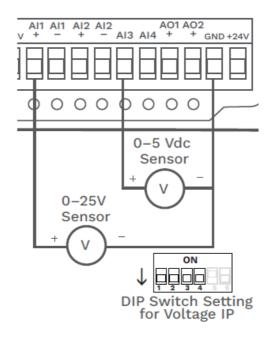
Al3, Al4 - Single Ended 4-20mA inputs



AO1 & AO2 – Analog Output (0-20mA)



Al3 & Al4 – Single-ended voltage input



#### **HOW TO ORDER**

 Simply send us an email at <u>sales@elprotech.com</u>, contact your local distributor, or phone +61 7 3352 8600

#### CONTACT

#### **Australia**

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- 29 Lathe Street
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- E sales@elprotech.com
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- T +1 855 443 5776
- E sales@elprotech.com
- W elprotech.com

#### **FAQ**

- Q: How do I ensure proper grounding for the antenna installation?
  - A: To ensure proper grounding, follow the guidelines provided in sections 6.2 g)
     and 6.2 i) of IEC60728-11:2005 when connecting Coax to the building earth.

# **Documents / Resources**



ELPRO 415U-2-CX Long Range Wireless Ethernet Gateway [pdf] Installat ion Guide

415U-2-CX Long Range Wireless Ethernet Gateway, 415U-2-CX, Long R ange Wireless Ethernet Gateway, Wireless Ethernet Gateway, Ethernet Gateway teway

### References

- User Manual
- **■** ELPRO
- 415U-2-Cx, 415U-2-CX Long Range Wireless Ethernet Gateway, ELPRO, Ethernet Gateway, Long Range Wireless Ethernet Gateway, Wireless Ethernet Gateway

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