



## 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

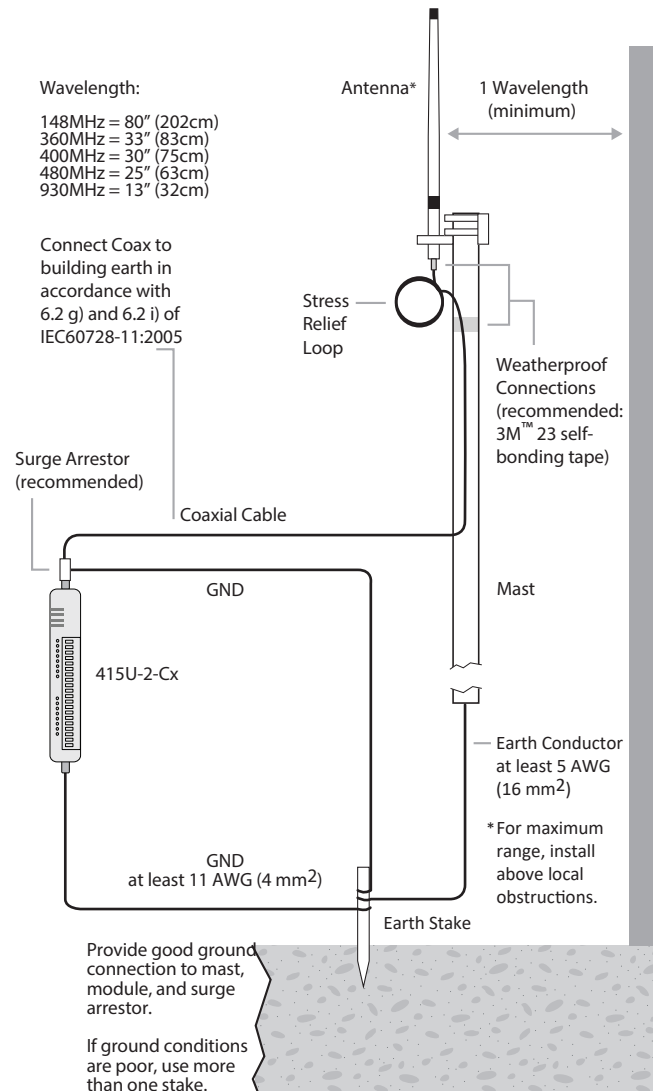
- 415U-2-C1 – 148 to 174MHz
- 415U-2-C3 – 360 to 400MHz
- 415U-2-C4 – 400 to 480MHz
- 415U-2-C5 – 470 to 520MHz
- 415U-2-C9 – 928 to 960MHz

## 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.

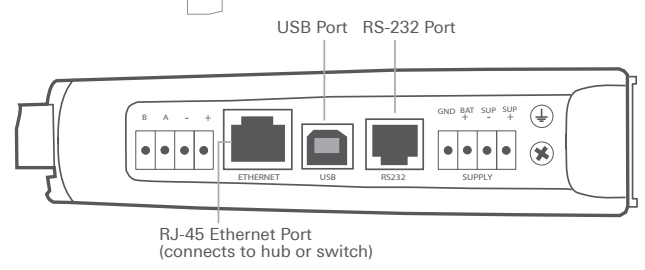
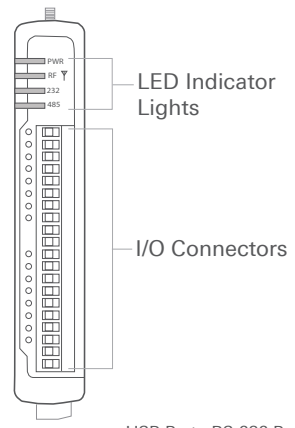
**Figure 1. Antenna installation**



## Connecting to the module for configuration

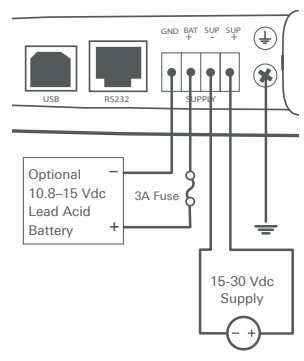
- Download and install configuration utility software, available from the Elpro Technologies website. [www.elprotech.com](http://www.elprotech.com)
- Connect to PC using supplied USB cable.
- Connect to the device by selecting USB connection and using the IP address 192.168.111.1 or 1.1.1.1 for older 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 illustrations show the port connections on the 415U-2-Cx.



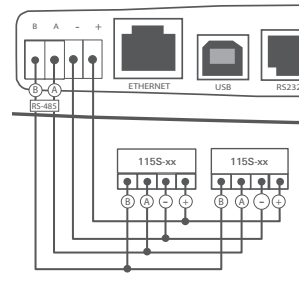
**Power Supply Wiring**

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.



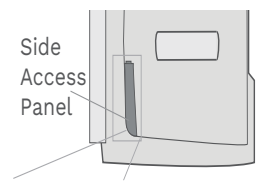
**Expansion I/O Power and RS485 serial connection**

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

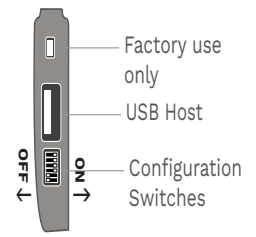


**Configuration Switches**

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



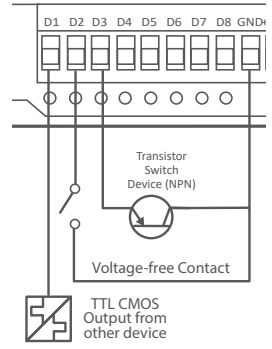
DIP	Description	OFF	ON
1	AI3 Current / Voltage	Voltage	Current
2	AI3 Current / Voltage	Voltage	Current
3	AI4 Current / Voltage	Voltage	Current
4	AI4 Current / Voltage	Voltage	Current
5	Unused	Off	On
6	Default configuration	Normal	Enabled



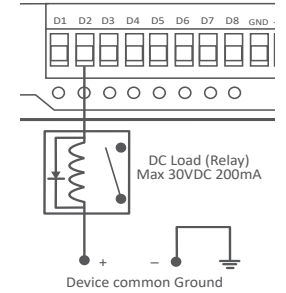
**Input and Output connections**

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

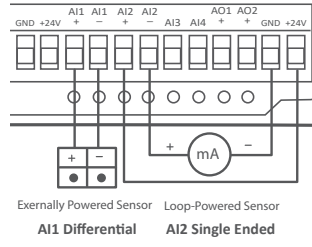
**Digital Input**



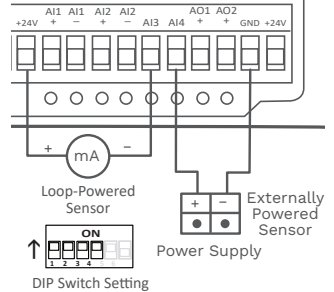
**Digital Output**



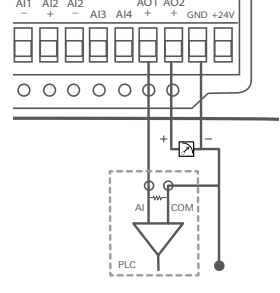
**AI1, AI2 - Differential 4-20mA inputs**



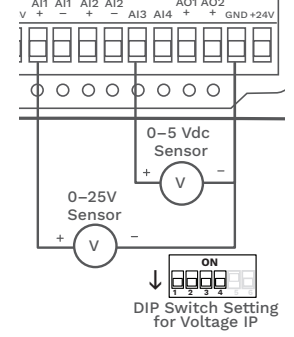
**AI3, AI4 - Single Ended 4-20mA inputs**



**AO1 & AO2 - Analog Output (0-20mA)**



**AI3 & AI4 - Single Ended voltage input**



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**HOW TO ORDER**

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