

# Installation & Configuration Guide

## Thermocouple Adapter for 915U-2

## 915U-TCADP

### Configuration

#### I/O Configuration:

[Analog Output Configuration](#)

[Analog Input Configuration](#)

[Digital Output Configuration](#)

[Digital Input Configuration](#)

[Pulsed Output Configuration](#)

#### Thermocouple Settings:

Thermocouple Type:

Thermocouple Polarity:

Thermocouple Error Value:

On the "I/O Configuration" web page select:

- Select Thermocouple type from the drop down list. Options are Type T, Type J, Type K.
- Select the Polarity from the drop down list (Normal or Reversed)
- Set Thermocouple Error Value to a value the integer registers (30003 and/or 30004) will go to during fail \*
- Press "Save and Activate Changes" button.

\* Error Value is set in register 30003 when the thermocouple is open circuit.

\* Error Value is set in register 30003 and 30004 when the thermocouple adaptor is not fitted

#### Thermocouple Range @ Tamb (+10- +40)

Type	Normal	Reverse
Type T	- 25°C to + 365°C	- 200°C to + 70°C
Type K	- 25°C to + 455°C	- 200°C to + 70°C
Type J	- 10°C to + 345°C	- 210°C to + 60°C

#### Thermocouple Range @ Tamb (-40- +60)

Type	Normal	Reverse
Type T	0°C to + 330°C	- 200°C to + 5°C
Type K	0°C to + 410°C	- 200°C to + 5°C
Type J	15°C to + 300°C	- 210°C to + 10°C

### Installation

915U-TCADP board plugs into the bottom 6 terminals on the 915U-2 terminal strip.

A separate 14 way terminal strip is provided to allow connection to the remaining terminals.

### Address locations

- 38005 = 32 bit Floating Point temperature value
- 38007 = 32 bit Floating Point Cold Junction value
- 30003 = Scaled 16 bit Analog value
- 30004 = Scaled 16 bit Cold Junction value

### Analog Input Scale Examples

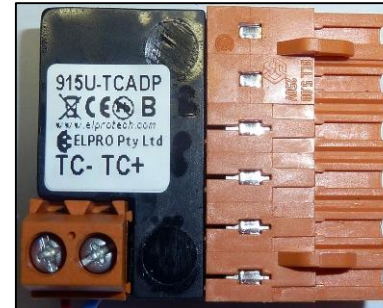
- For normal Polarity setting Zero and Span to 0 and 100 respectively will scale the register to read the temperature as an integer value, e.g. 148.25 °C will read 14825 or 26.51 °C will read 2651
- For normal Polarity, setting Zero and Span to 15019 and 682.6667 respectively will scale the register so that a temperature of -10 to 50°C will give a scaled range of 8192 to 49152
- For Reverse Polarity, setting Zero and Span to 30948 and 455.106 respectively will scale the register so that a temperature of -50 to 40°C will give a scaled range of 8192 to 49152

### Connections

#### Caution:

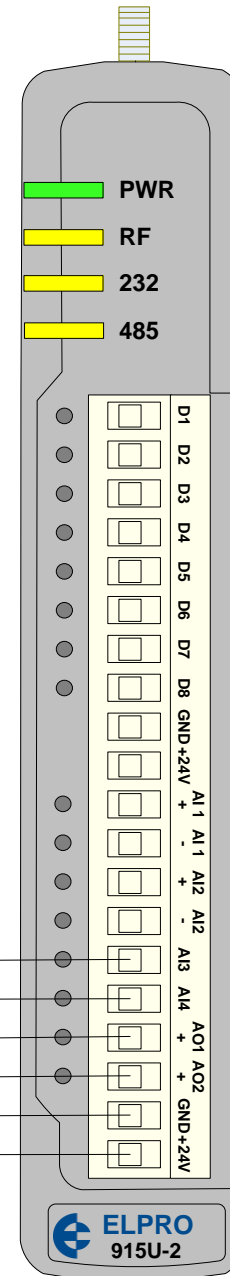
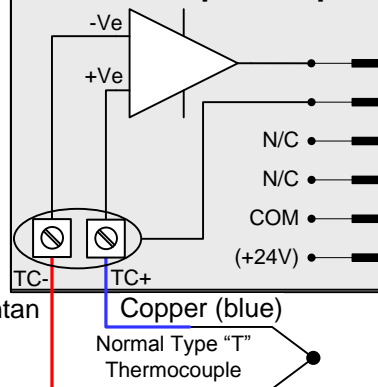
ESD Sensitive pins. Use ESD handling precautions.

Thermocouple input terminals must be within +/- 5V of the 915U-2 'GND' terminal



#### Thermocouple Adapter

If 'Thermocouple Polarity' selection is reversed Thermocouple wires must be swapped, e.g. (red) to TC+ & (blue) to TC-



### Dip Switches



All Dip Switches must be set to the OFF position.

