

Eltek TU1010 - The GS-41A transmitter

The **GS-41A** provides one physical input, "A", and two calculated channels B and C.

Input A is for use with the Skye SKS1110 or Kipp and Zonen CMP3 pyranometer.

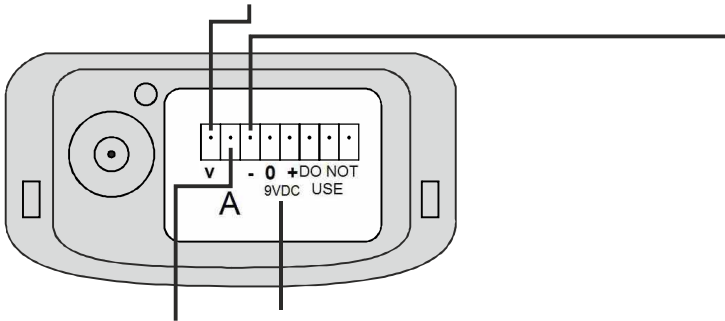
Connections

SKS1110

Connect green wire to "V", connect red and blue wires to "--"

CMP3

Connect red wire to "V", connect black(screen) and blue wires to "--"



Not in use The GS-41A can be powered from an external 9VDC (+/- 0.1V) supply or supplementary battery pack (type SP1118) and / or internal batteries. External power is connected to "+" and "0".

| Input | Function | Range | Resolution |
|------------------------|---|--|-------------------------|
| A (physical input) | Instantaneous value at point of transmission | 0-1500 W/m ² (0-15 mV input) | 0.375 mW/m ² |
| B (calculated channel) | Av Value (5 minute rolling average with 30 second period) | 0-1500 W/m ² (0-15 mV) | 0.375 mW/m ² |
| C (calculated channel) | Cumulative (Integrated) value (i.e. to give Watt hours rather than Watts) | 0-65,000 Wh | |

Setting the EU engineering units

Assume 1500W/m² for a sunny day. Configure the transmitter using Tx Set Up (in Darca Plus or Darca Heritage).

For SKS1110 (output is 10 $\mu\text{V}/\text{W}/\text{m}^2$, range 0-5000 W/m^2)

the default setting in each channel drop down should be used for Tx channels A, B and C. (Do not forget to click on "set channel"!

For CMP3 (output is typically 10.32 $\mu\text{V}/\text{W}/\text{m}^2$)

Refer to product insert for the calibration value.

Setting A (physical input)

- Channel A range is 0-15mV
- If CMP3 output is 15mV this equates to 1453.48 W/m^2 (using formula 15mV / CMP3 output in $\mu\text{V}/\text{W}/\text{m}^2$)
- In **EU Range Selector : Channel A** window (Do not click on Helper!)
 - Set maximum: to 14535
 - Set units: to W/m^2
 - Set Decimal point: to 1
 - Click OK.

Setting B (calculated channel)

- Channel B range is 0-15mV
- If CMP3 output is 15mV this equates to 1453.48 W/m^2 (using formula 15mV / CMP3 output in $\mu\text{V}/\text{W}/\text{m}^2$)
- In **EU Range Selector : Channel B** window (Do not click on Helper!)
 - Set maximum: to 14535
 - Set units: to W/m^2
 - Set Decimal point: to 1
 - Click OK.

Channel C calculation is for SKS1110 only and should NOT be used for the CMP3.

Note: When renewing batteries (and especially if transmitter is no longer operating), ensure you allow one minute with no batteries connected before installing new batteries. This is to ensure transmitter performs a power on reset.