























DELTA T SPN1 | PYRANOMETER

CABLE RECOMMENDATION

Signal cable up to 150m: **6x0.5 mm² + shield**. For longer cable, please consult sensor manufacturer.

SENSOR WIRING TABLE

Sensor Model	Sensor Pin		Manufacturer Cable Colors		Orbit 360			EOL Zenith	
					Section	Terminal	Type	Section	Terminal
	Ref	Reference		Green	Analog Channels	47 51 55 59 64 68 72 76 80 87	(-)	Analog Inputs	
	Total	Total Output (Global)		White	Analog Channels	48 52 56 60 65 69 73 77 81 84 85 86 90 91 92	Signal	Analog Inputs Extra Analog	 
	Diff	Diffuse Output		Brown	Analog Channels	48 52 56 60 65 69 73 77 81 84 85 86 90 91 92	Signal	Analog Inputs Extra Analog	 
	Sun	Contact closure on sunshine		Yellow	Analog Channels	48 52 56 60 65 69 73 77 81 84 85 86 90 91 92	Signal	Analog Inputs Extra Analog	 
				(cable)	Analog Channels	63	2v5	Analog Inputs	
	GND	Supply (-)		Grey	Analog Channels	47 51 55 59 64 68 72 76 80 87	(-)	Analog Inputs	
	Vcc	Supply (+)		Pink	Power Input			BAT	
	Shield		Yellow Green	Power Input			BAT		

Note: 0V = Sun present; 2.5V = No Sun.

REQUIRED DATA LOGGER VERSION

Minimum data logger required: **ORBIT 360 BASIC PLUS**.

Minimum **firmware** required: **any**.

HOW TO CONFIGURE IN ATLAS

Start Atlas and open the data logger you are working on. Now go to *Site settings* and scroll down to the *Channels* section and select the following type and model:

TOTAL RADIATION

- Group: Analog channels
- Sensor Type: Voltage
- Sensor Model: **Volts**
- Slope: 1000
- Offset: 0

DIFFUSE RADIATION

- Group: Analog channels
- Sensor Type: Voltage
- Sensor Model: **Volts**
- Slope: 1000
- Offset: 0

SUNSHINE DURATION (hours)

- Group: Analog channels
- Sensor Type: Voltage
- Sensor Model: **Volts**
- Slope & Offset *

* Slope & offset are different depending on the data logger averaging time: (hours where DNI > 120W/m2)

1minute

- Slope: -0.006667
- Offset: 0.016667

5minutes

- Slope: -0.033333
- Offset: 0.083333

10minutes

- Slope: -0.066667
- Offset: 0.166667

Important! Please make sure you are working with the latest version of Atlas. To check for new updates click the *Check for updates* button in the left-hand menu located in the main dashboard.

For more information please contact web@kintech-engineering.com or visit our website www.kintech-engineering.com

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HOW TO CONFIGURE THIS SENSOR ON SITE

We recommend performing the entire sensor configuration using Atlas at the office before installing sensors onsite. Once the sensor is correctly setup in Atlas, use the *Upload settings* tool, to upload the sensor configuration to the data logger.

In case you are already on site and need to configure the sensor directly on the data logger, follow these steps:

1. Turn on the data logger.
2. Using the keypad on the data logger, navigate the menu until you see *Sensor model*, then click the “right arrow” on the keypad.
3. Now scroll down to the channel you are going to connect the sensor to, and click the “right arrow” on the keypad.
4. Now click “Set” on the keypad and scroll up in the menu to set the sensor model type according to the table here below. Once you have found the correct sensor model, click the “right arrow” key twice to select it and save.
5. Click the “left arrow” several times to go back to the main menu.

Data logger model	Firmware version	Sensor model type on data logger		
		Magnitude	Number	Name
ORBIT 360	any	Solar radiation TOTAL	01	milliVolts
		Solar radiation DIFFUSE	01	milliVolts
		SUNSHINE DURATION	01	milliVolts
EOL ZENITH	any	Solar radiation TOTAL	01	miliVolts
		Solar radiation DIFFUSE	01	miliVolts
		SUNSHINE DURATION	01	miliVolts

Keep in mind: if the sensor channel has been configured as milliVolts, the output values on data logger display will always be shown in milliVolts. Remember to fill in both the slope and the offset for the pyranometer sensor to see real sensor values in W/m^2 & SunHours in your datasets during a real-time connection with the data logger (from either Atlas or Atlas Mobile).

HOW TO CONFIGURE IN EOL MANAGER

Open EOL Manager and go to *Settings* of the data logger you are working on. Open the *Inputs* tab and select the following type and model:

TOTAL RADIATION

- Group: Analog Inputs
- Sensor Type: Voltmeter
- Sensor Model: **Generic Voltmeter**
- Slope: 1000
- Offset: 0

DIFFUSE RADIATION

- Group: Analog Inputs
- Sensor Type: Voltmeter
- Sensor Model: **Generic Voltmeter**
- Slope: 1000
- Offset: 0

SUNSHINE DURATION (hours)

- Group: Analog Inputs
- Sensor Type: Voltmeter
- Sensor Model: **Generic Voltmeter**
- Slope & Offset *

*** Slope & offset are different depending on the data logger averaging time: (hours where DNI > 120W/m2)**

1minute

- Slope: -0.006667
- Offset: 0.016667

5minutes

- Slope: -0.033333
- Offset: 0.083333

10minutes

- Slope: -0.066667
- Offset: 0.166667

Last modified: 02.12.2022

