



Introduction

The Hukseflux SR30 is a Class A digital pyranometer with a built-in heater & ventilator. The current version, SR30-M2-D1, has a Modbus RS-485 output. These instructions explain how to configure a SymphoniePRO data logger to use with the SR30-M2-D1.

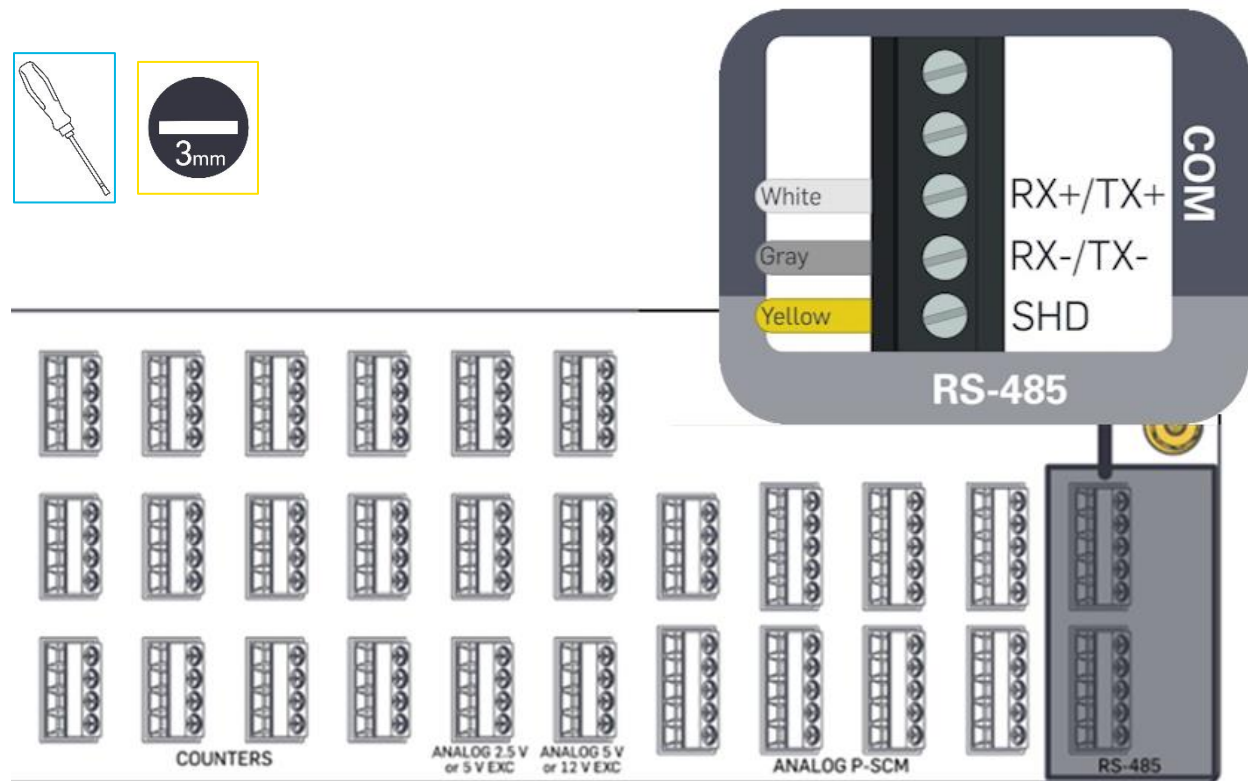
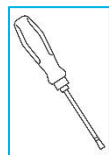


Refer to Hukseflux SR30 User Manual for more information when necessary.

Hukseflux SR30 Configuration

The SR30-M2-D1 arrives preconfigured when purchasing the sensor from NRG Systems. If any changes need to be made to the sensor configuration, refer to the SR30-M2-D1 User Manual from Hukseflux.

SymphoniePRO Wiring Panel Connections



Hukseflux SR30 can be connected to a SymphoniePRO logger 26-channel wiring panel on the RS-485 terminals at the right side of the panel.

*When wiring the SR30 through an NRG Systems UPS-PV or RPS+PV Control Box, the RX+/TX+ & RX-/TX- wires land at terminal blocks labeled accordingly inside the Control Box. A separate cable is used to bring the sensor signal to the SymphoniePRO wiring panel.



Note: NRG Systems makes an effort to maintain up-to-date information on wiring, but individual wire colors may be subject to change without notice.

SymphoniePRO Channel Configuration

SR30 Sensor Configuration File

Navigate to C:\Users**UserName**\Documents\Renewable NRG Systems\Sensor Configurations and verify that the file “**SR30.config.json**” is present. If it is not in this folder, contact NRG Technical Support (support@nrgsystems.com) to request a copy.



*Before using the Hukseflux SR30 pyranometer with a SymphoniePRO logger, the configuration file **MUST** be loaded onto the PC being used to configure the logger. If the configuration file is not present in the correct folder then the user will be unable to select the sensor from the drop-down menu in the serial channel rows.*

SymphoniePRO .LGR File Configuration

1. Open the **Channels** tab in the SymphoniePRO Desktop App & navigate to Serial Channels.
2. Click on the + icon at the left to expand the rows of the desired channels.
3. Select the appropriate **COM Port** (corresponding to the wiring panel terminal).
4. Enter the **Slave Address** (matching the Device-ID configured in the sensor).
5. Select “SR30 Pyranometer” from the **Device** drop-down.
6. Select the desired **Measurand** from the drop-down.
7. Select “Statistics” or “Stats & Samples” from the **Data Logging Mode** drop-down.
8. Fill in **Description**, **Serial Number**, **Height**, and **Boom Bearing**, as appropriate.
 - > Best practice is to add the pyranometer position (for example: “RHI” or “GHI”) to the Description field for differentiating each pyranometer from any others connected to the same logger.



Hukseflux SR30 | Sensor Configuration & PRO Wiring

- The **Scale Factor**, **Offset**, and **Units** under Sensor Transfer Function default to the correct values for each measurand and should not be changed.

The screenshot displays the configuration interface for a Modbus RTU sensor. The top status bar shows: 27, Statistics, Modbus RTU, Port A: Slave 1; SR30-Irradiance, 2.00m, 90.0° (E), 1, 0, W/m².

The configuration is organized into three main panels:

- Left Panel (General Settings):**
 - COM Port: A
 - Slave Address: 1
 - Device: SR30 Pyranometer
 - Measurand: Solar Irradiance
 - Data Logging Mode: Statistics
 - Channel Type: Modbus RTU
- Middle Panel (Physical & Transfer Settings):**
 - Description: SR30-Irradiance
 - Serial Number: (empty)
 - Height: 2 Meters
 - Boom Bearing: 90 Degrees
 - Sensor Transfer Function:**
 - Scale Factor: 1
 - Offset: 0
 - Units: W/m²
- Right Panel (Modbus Settings):**
 - Register Address: 2
 - Number of Registers: 2
 - Baud Rate: (empty)