AMBIENT TEMPERATURE SENSOR

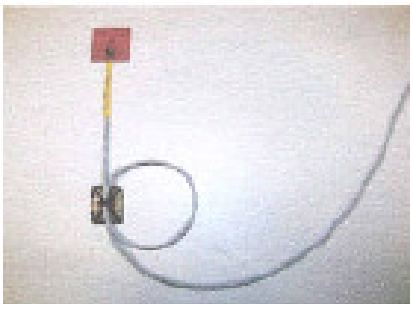
Due to its large temperature range the ambient temperature sensor is suited for measuring outside temperature as well as room temperature.

TECHNICAL DATA

Sensor	PT1000
Measuring range	-40°C to +180°C; -40 F to 356 F;
Accuracy	± 0,8°C (in the range –40°C to 100°C) ± 1,5 F (in the range –40 F to 212 F)
Design	Sensor in a cylindrical housing of stainless steel
Dimensions	Length 50mm, ∅ 6mm
Cable	3m Cu-cable, 2x0,5 mm, silicon isolated, ferrules, UV-resistant
Max. cable length (distance: Sensor Card/Box – sensor)	20m
Fronius Art. Nr.	**43,0001,1188**

Mounting tip: For this sensor, there is no special mounting construction. The ambient temperature sensor can e.g. simply be placed under the pv-modules.

MODULE TEMPERATURE SENSOR



In general this sensor measures the temperature on surfaces. By fixing the sensor on the back side of the pv-module, the module temperature can be told.

The temperature of the pv-module is one of the decisive facts for the power output. By supervision, the pv-owner can draw conclusions to the performance of the power chart.

TECHNICAL DATA

Sensor	PT1000
Measuring range	-4° F to +302° F
Accuracy	± 0,45 °C (im Bereich -20 °C bis 150 °C) ± 0,81 ° F (in the range –4 ° F to 302 ° F)
Design	Sensor on an adhesive film for measurement on surfaces
Dimensions	32 x 32 mm
Cable	5m cable, CU-nickel-plated, FEP/silicon isolated, ferrules, UV-resistant
Max. cable length (distance: Sensor Card/Box – sensor)	20m
Fronius Art. Nr.	**43,0001,1190**

Mounting tip: In the scope of supply are the sensor, a fastening element for the cable, and 2 cable straps included.

Before adherence the elements of the sensor on the module, clean it until it is greaseless, dry, and dust-free.

Run the cable to the PV-module and mount it with one of the cable straps on the frame of the module. Please take care, that the cable is long enough for a loop, which you can fix with the second cable strap. The loop can be used for revisions.

The next step is to mount the fastening element in an acceptable distance below the destined measuring point.

As final step adherence the sensor on the measuring point above the fastening element.

(The sensor cable has to run directly from the sensor to the fastening element)

IRRADIATION SENSOR

This sensor is for measuring the irradiated energy and is in most cases fixed on the frame of the solar module.

Comparison of the irradiated power to thus of the inverter gives a rapid overview on the proper operation of the PV-system.

TECHNICAL DATA

Sensor	Mono crystalline Si-Sensor
Sensor voltage	approx. 75mV at 1000W/m^2 (exact calibration voltage is written on the sensor)
Accuracy	± 5% (average over a year)
Ambient temperature	-40°C to +85°C; -40° F to 185° F
Design	Sensor is mounted on Z-shaped aluminium profile;
Dimensions	l x w x h = 55 x 55 x 10 mm
Cable	3m Cu-cable; ferrules, UV-resistant
Max. cable length (distance: Sensor Card/Box – sensor)	30m
Fronius Art. Nr.	**43,0001,1189**

Mounting tip: The sensor comes fixed onto an aluminium profile with an 6 mm hole. Thus screwing onto the module frame is very easy. Please mind, that the sensor does not cast any shadow on the module.

WIND SPEED SENSOR

The sensor measures exactly the speed of wind.

It is a useful in combination to the other sensors and to complete the private weather station.

TECHNICAL DATA

Sensor	Cup Anemometer
Output signal	Rectangle: Low ≤ 0,5V / High ≥ 3,5V
Calibration factor	5,22 Hz = 1km/h 18,79 Hz = 1m/s
Threshold	2,5m/s wind speed
Resolution	1m/s; 1km/h
Accuracy	± 5% at wind speed ≥ 5m/s
Degree of protection	IP54
Ambient temperature	-20°C to +60°C; -4 F to 140 F
Dimensions	85 x 93 x 115 mm
Cable	2m Cu-cable; ferrules, UV-resistant
Max. cable length (distance: Sensor Card/Box – sensor)	30m
Fronius Art. Nr.	**42,0411,0027**