

# skyCONNi-Sun

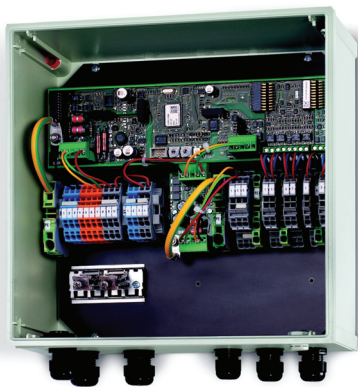
## Universal Weather Unit



Our universal system for the measurement of ambient conditions. skyCONNi-Sun is capable of integrating a number of different weather sensors into the plant communication network. The basic system offers integrated ambient and module temperature sensors as well as two interfaces for the connection of irradiation sensors,

be it pyranometers or reference cells.

A compact weather station providing information about wind, precipitation and humidity conditions can also be connected. The skyCONNi-Sun cabinet is of robust design and suitable for outdoor installation.



skyCONNi-Sun



Plastic cabinet

## PRODUCT OVERVIEW

- > New member of the skyCONNi family which replaces our previous individual weather measuring devices.
- > The sensor kit is capable of measuring a wide range of weather data relevant for the operation and revenue of your PV power plant:
  - irradiation
  - ambient temperature
  - module temperature
  - atmospheric pressure
  - air humidity
  - wind speed
  - wind direction
  - amount, duration and intensity of rain and hail

## FEATURES

- > Add-on feature:
  - pyranometer air conditioning with ventilation unit for enhanced accuracy and reliability of the pyranometer
- > Suitable for indoor and outdoor application
  - wall mounting
  - module-frame mounting, or
  - pole mounting





## TECHNICAL DATA

<b>Basic Hardware</b>	Processor	16 Bit industry microcontroller, 24 MHz, 20 kB RAM, 512 kB Flash, 128 kB EEPROM
	Hex switch	to set CAN address
	Reset button	to set CAN address and reset device
	CAN protection	passive overvoltage protection and electrical isolation from external interfaces
	Industrial power supply unit	230 V AC–24 V DC (PV02.01 only)
<b>Electrical Data skyCONNi-Sun PV01.01</b>	Power supply	16-32 V DC nominal 24 V DC via CAN-Bus (standard) or externally (option)
	Power consumption	max. 800 mA at 24 V DC
	Interfaces	24 V DC supply, electrically isolated CAN-Bus, electrically isolated 2 temperature measurement channels, precision: ±1 k 2 voltage measurement channels for reference cells (0-150 mV) or pyranometers (0-25 mV) RS485 (HD) with overvoltage protection for Vaisala weather transmitter WXT520 external 24 V DC supply (option)
<b>Electrical Data skyCONNi-Sun PV02.01</b>	Power supply	16-32 V DC nominal, 24 V DC/0.1 A via CAN-Bus 230 V AC
	Power consumption	max. 170 mA at 24 V DC (measurement boards) max. 400 mA at 230 V DC (ventilation unit)
	Interfaces	24 V DC supply, electrically isolated CAN-Bus, electrically isolated 2 temperature measurement channels, precision: ±1 k 2 voltage measurement channels for reference cells (0-150 mV) or pyranometers (0-25 mV) 2 impulse interfaces and 2 digital outputs for Kipp & Zonen ventilation unit CVF 3 230 V AC
<b>Electrical Data skyCONNi-Sun PV03.01</b>	Power supply	24 V DC
	Power consumption	max. 170 mA at 24 V DC (measurement boards)
	Interfaces	24 V DC supply, electrically isolated Ethernet with overvoltage protection 2 temperature measurement channels, precision: ±1 k 2 voltage measurement channels for reference cells (0-150 mV) or pyranometers (0-25 mV) RS485 (HD) with overvoltage protection for Vaisala weather transmitter WXT520 external 24 V DC supply (option)
<b>Data Transfer CAN Bus</b>	Protocol	CANopen according to CiA standard DS-301
	Data rate	20 kBit/s default 50 kBit/s, 125 kBit/s, 250 kBit/s, 500 kBit/s, 800 kBit/s, 1 MBit/s possible
	Cable recommended	Li2YCYv (TP) 8x2x0.5
<b>Data Transfer Ethernet</b>	Protocol	Ethernet
	Data rate	10/100 Mbits
	Cable recommended	Cat.5e
<b>Conformity</b>	Standards	EN 60950-1, EN 61000-6, UL 60950-1, CSA C22.2 No. 60950-1 / cETLus listed
<b>Mechanical Data</b>	Degree of protection	IP 66/67 when mounted with mounting frames, IP 66/67 when mounted at a pole or module frame, IP 65 when mounted directly onto a wall or a rack NEMA class: 4, 4X
	Coastal installations	Severity level 1 according to DIN EN 60068-2-52:1996
	Dimensions H x W x D in mm / in	300 x 300 x 170 / 11.8 x 11.8 x 6.67
	Weight in kg / lb	approx. 4 / 9
	Material of cabinet	polycarbonate with polyurethane sealing
	<b>Ambient Conditions</b>	Operation temperature
Storage temperature		-30 °C to +70 °C / -22 °F to 158 °F
Relative air humidity		up to 95 %, non-condensing