

Technical Data

Solar-Log Base 15

Solar-Log Base 100

Solar-Log Base 2000

Interfaces

RS485/RS422	2 x RS485 or 1 x RS422
Ethernet network ¹⁾	2 x 100 Mbit/s
USB connection ²⁾	2 x USB 2.0
S ₀ in	1 x S ₀

Basic Functions

Maximum plant size	15 kWp	100 kWp	2 MWp ³⁾
Inverter connection options	Ethernet, 2x RS485 or 1x RS422 ⁴⁾		
Battery storage: visualization, charging time shifts	●	●	●
Smart Energy	●	●	●
Powermanagement	●	●	●
Direct Marketing	●	●	●
Bus Analysis Function	●	●	●
Maximum cable length ⁵⁾	Maximum cable length 1000 m twisted pair		

Extension licences

Expandable license for max. plant size	up to 30 kWp	up to 250 kWp	-
Solar-Log™ interconnection control licence	●	●	●
Modbus TCP direct marketing licence	●	●	●
Modbus TCP PM licence	●	●	●
Solar-Log™ PM PRO licence	●	●	●
SCB Software license	-	-	●

Additional function interfaces via the Solar-Log™ HBUS module connector ⁶⁾

Digital control outputs	via an additional module (Solar-Log MOD I/O) ⁷⁾
Digital control inputs	via an additional module (Solar-Log MOD I/O) ⁷⁾
Interface for a ripple control receiver (PM+)	via an additional module (Solar-Log MOD I/O) ⁷⁾
RS485 ⁸⁾	via an additional module (Solar-Log MOD 485) ⁷⁾
RS422 ⁸⁾	via an additional module (Solar-Log MOD 485) ⁷⁾

Visualization

Integrated web servers	●	●	●
Graphic visualization	local and portal		
Multilingual (DE, EN, ES, FR, IT, CN)	●	●	●

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Recording duration: Daily, monthly, annual values			up to 10 years
TFT Display	●	●	●
Display on the device	●	●	●
Data transfer to external portals ⁹⁾			API, ftps, ftp
HTTP data transfers to Solar-Log WEB Enerest™ for low data volumes	●	●	●
Compatible with large external display (RS485 and Modbus TCP)	●	●	●

Installation

Power supply unit ¹⁰⁾			Depending on the output voltage (24V DC (+5%), if required 12V DC (+5%)), observe component requirement
Installation wizard	●	●	●
Network detection / DHCP	●	●	●
Name resolution solar-log	●	●	●

Powermanagement

Reduction to X percent (with and without the calculation of self-consumption)	●	●	●
Control PV systems for providing active and reactive power (VDE 4110-compliant) ¹¹⁾	●	●	●

Plant Monitoring

Inverter Failure, Status, Error and Performance Deviation notifications in the portal	●	●	●
Yield forecast	●	●	●
MPP Tracker Comparison	●	●	●
Sensor system connection (irradiation / temp. / wind)	●	●	●
Self-produced energy consumption; Digital electricity meter	●	●	●
Self-produced energy consumption: Managing external appliances	●	●	●

General Data

Device voltage ¹²⁾			24V DC (+5%), if required 12V DC (+5%)
Device current ¹²⁾			max. 1 A
Power consumption			typ. 2,4 W
Memory			4 GB internal
Real-time clock (RTC)			Battery buffered in case of power failure

Dimensions / Weight	Housing / Dimensions (W x H x D)	3TE / 53,6mm x 89,7 mm x 60,3mm
	Height from top edge of mounting rail	~54,5mm
	Net weight	112 g
Mounting type	DIN rail	TH 35 / 7,5 or TH 35 / 15 to IEC/EN 60715
	Wall mounting	Mounting / screw clips (without DIN rail or additional modules)
Connection data	Connection technology	Push-in SPRING CLAMP®
	Solid conductor	0,2 ... 1,5 mm ² / 24 ... 16 AWG
	Fine-stranded conductor	0,2 ... 1,5 mm ² / 24 ... 16 AWG
	Fine stranded conductor with ferrule	0,14 ... 1 mm ²
	Stripping length	8.5 ... 9.5 mm / 0.33 ... 0.37 inch, with ferrules ≥ 6 mm. Please note the diameter of the plastic collar
Material data	Housing material	PC/ABS
	Colour	black
Ambient conditions	Ambient temperature	-20°C to +50°C (without condensation)
	Ambient temperature storage/transport	-20°C to +60°C
	Protection rating to EN 60529	IP20
	Mounting position	any
Warranty		2 years
Conformity marking		CE

- 1) No switch function. Only use Ethernet 2 interface for components.
- 2) USB interfaces for the specific use of enabled functions (firmware updates, configuration and data backups).
- 3) Several Solar-Log Bases can be combined into a virtual system in the portal for visual display purposes. An interconnection control licence is necessary if the PV plant needs to be completely controlled.
- 4) An RS485 meter cannot be connected when using RS422.
- 5) Depending on the inverter used, cable type and electrical boundary conditions (specifications may vary depending on the device type).
- 6) Additional modules connected to the Solar-Log Base are supplied with power and voltage via the Solar-Log™ HBUS module connector. The following aspects must be observed in this regard:
 1. The supply voltage on the Solar-Log™ HBUS module connector corresponds to the supply voltage on the Solar-Log Base.
 2. If the connected modules are not supplied separately with a higher voltage when required, the voltage at the outputs corresponds to the supply voltage at the Solar-Log™ HBUS module connector.
 3. The Solar-Log MOD I/O outputs can draw a maximum of ~0.4A from the Solar-Log™ HBUS module connector. If more current is required in total at the Solar-Log MOD I/O outputs, the Solar-Log MOD I/O must be supplied separately with its own power supply unit of sufficient capacity (note: a maximum current of ~0.15A is possible per Solar-Log MOD I/O output).
 4. If external components are to be supplied via the voltage outputs of the interfaces, an additional voltage supply for the Solar-Log MOD 485 module is essential.
- 7) Maximum number of expansion modules = 1 Solar-Log MOD I/O and/or 1 Solar-Log MOD 485.
- 8) Can only be used with Solar-Log Base firmware 6.x or higher.
- 9) Licence for a fee.
- 10) Only use NEC Class 2 power supplies for installations in the US market.
- 11) Further components (e.g. a PM package) may be necessary depending on the requirements of the energy supplier. You can find more details in our feed-in management section.
- 12) The Solar-Log Base and the Solar-Log MOD 485 module may only be supplied with 12V DC when used in conjunction with the special Piggy Back (Art 220020). Please also note the power supply for sensor boxes via the bus.

No power supply unit is included in the scope of delivery.

Inverter interfaces

RS485/RS422 – interface	2x RS485 or 1x RS422	2x RS485 or 1x RS422	2x RS485 or 1x RS422
	Inverter connection (Fronius / Sunville can be connected on an RS422 interface without an additional interface converter)		
	Connection of a Sensor Box Professional Plus to record environmental data (irradiance, module and ambient temperature, wind sensor)		
	Sensor Box Professional		
RS485/RS422 – interface usage	Meter connection, numerous options		
	Connection of the display panels produced by Schneider Displaytechnik, Rico or HvG		
	Solar-Log™ Smart Relay Box connection for the management of consumption data		
	-	-	Connecting the Utility Meter

Additional interfaces

S ₀ -In	S ₀ pulse input – for optional recording and calculation of self-produced power consumption
	Input to connect an additional power meter
USB Connection	To access data / Import firmware updates
PM+	Only possible with Solar-Log MOD I/O
Network	Connection to the internet (Ethernet, fixed IP address or DHCP)

Relays

Article number	Solar-Log Base 15	Solar-Log Base 100	Solar-Log Base 2000	
Solar-Log™ Smart Relay Station V2 ¹⁾	257257	●	●	●
Solar-Log™ Smart Relay Box	255656	●	●	●

Smart Heater

Article number	Solar-Log Base 15	Solar-Log Base 100	Solar-Log Base 2000	
AC ELWA-E	257196	●	●	●
AC THOR	257255	●	●	●
AC THOR 9s	257256	●	●	●

Meters

Article number	Solar-Log Base 15	Solar-Log Base 100	Solar-Log Base 2000	
Solar-Log™ PRO380	255913	●	●	●
Solar-Log™ PRO380-CT	256059	●	●	●
Solar-Log™ PRO1	255914	●	●	●
Solar-Log™ PRO2	256324	●	●	●
Utility Meter UMG 104	255385	● ²⁾	● ²⁾	●
Utility Meter UMG 604 E-PRO	257197	● ²⁾	● ²⁾	●

Sensors

Article number	Solar-Log Base 15	Solar-Log Base 100	Solar-Log Base 2000	
Sensor Box Professional Plus	220060	●	●	●
Sensor Box Professional	255896	●	●	●
Lufft, Kipp&Zonen	On request	●	●	●

1) The Smart Relay Station V2 is supported starting with firmware version 6.0.

2) Can only be used as a consumption meter with firmware lower than 6.X.

