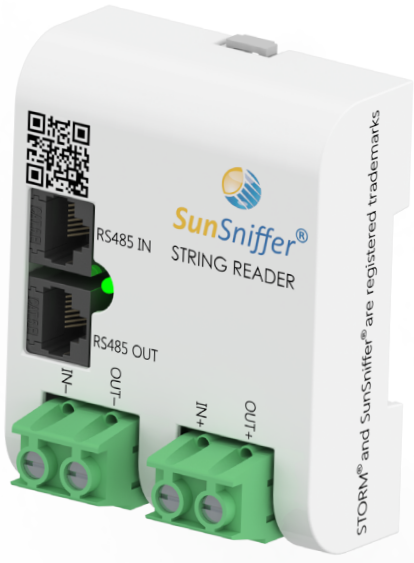
Item number: 10329

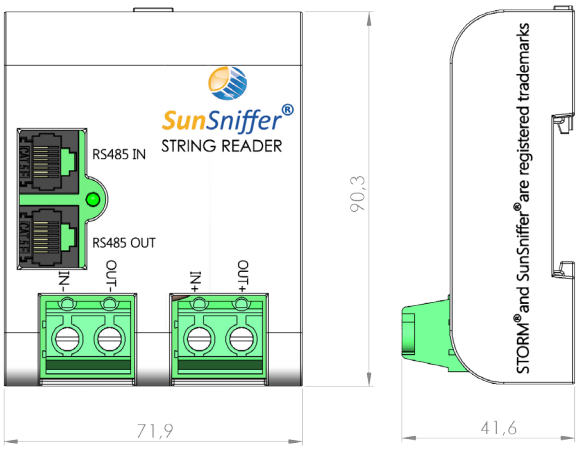
SunSniffer®
String Reader
- DIN-I -

Essential component of the SunSniffer® technology for consistent data collection from individual strings.

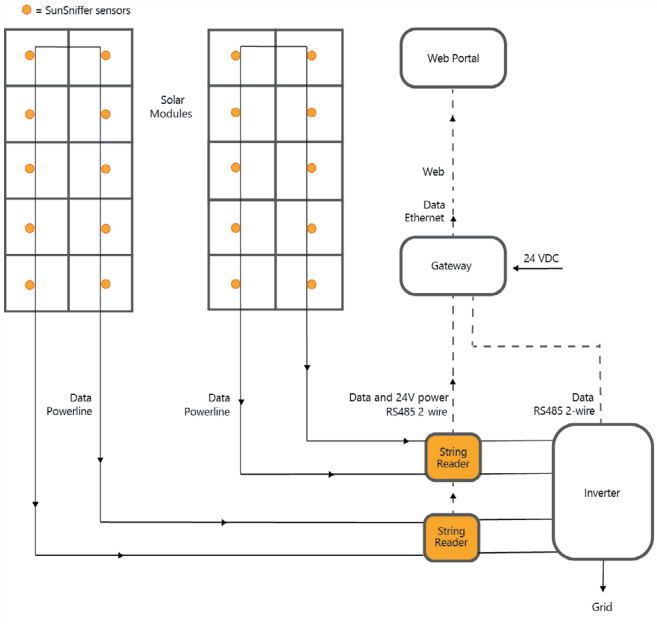
An essential component of the SunSniffer® technology, the StringReader is designed to measure current and voltage of selected PV strings and to read the measurements transmitted by the SunSniffer® sensors placed within the junction box of solar modules. The StringReader provides the essential data for module-level diagnostics of the PV installation.



Picture 1. SunSniffer® StringReader



Picture 2. StringReader dimensions



Picture 3. SunSniffer® - technological scheme

SunSniffer® Technology

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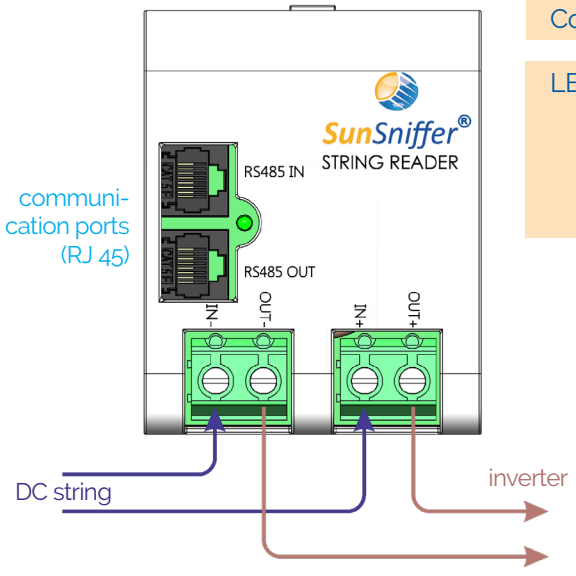
INSTALLATION:

StringReader connected in series between PV string and inverter input (see picture 4 below).
Up to 30 StringReaders can be connected to the same RS485 line.
Please refer to the related installation manual for installation instructions.



Picture 4. StringReader connection scheme

TECHNICAL SPECIFICATIONS:

Accuracy of voltage measurement	± 1 %
Accuracy of current measurement (shunt)	± 1 %
Measurement range string voltage (U_{STR}) *Specified accuracy of +-1% only applies to > 350 V*	0 - 1.500 V
Measurement range string current (I_{STR})	0 - 10,8 A
Maximum overload current *Exceeding this value will damage the device*	15,8 A
Maximum number of PV modules per string (N_{MOD})	30
Power supply voltage (U_S), supplied through Gateway *Minimal supply voltage (US): 8V*	24 V
Power consumption (P_S)	< 0,5 W
Operating temperature range	-20 - +75 °C
Dimensions (W x L x H) Packaging box (W x L x H)	71,9 x 90,3 x 41,6 mm 7,6 x 10,5 x 4,5 mm
Weight / including box	126 g / 151 g

COMMUNICATION:

Communication interface	2-wire RS485 (4 cables)
Communication speed	9600 Baud
Communication protocol	MODBUS RTU
LED pattern description	**off**: no power supplied **blinking**: power supplied, no connection to Gateway **on**: power supplied, connection with Gateway established

Measurement by shunt resistor

Firmware remotely updateable

Link to Accuracy Report
(https://www.sunsniffer.de/images/downloads/String_Reader_Current_Measurement_Accuracy_2019.pdf)

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RECOMMENDED RS485 CABLE LENGTH:

Number StringReaders	Cable lengths m
1	1000
2	707
3	471
4	354
5	283
6	236
7	202
8	177
9	157
10	141
11	129
12	118
13	109
14	101
15	94
16	88
17	83
18	79
19	74
20	71
21	67
22	64
23	61
24	59
25	57
26	54
27	52
28	51
29	49
30	47

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CABLE SPECIFICATIONS:

Cable material:	copper
Wire gauge:	24AWG
Usage type:	Outdoor
Shielding:	shielded

NOTICE:

It is recommended not to exceed the cable lengths specified on the left to ensure the required power supply for the StringReaders.

The specified cable lengths also include the cables connecting the StringReaders to each other.

>>> Attention! Plant specifications stated by the customer in the „Compatibility Sheet“ have to be followed. Any deviation will lead to loss of warranty. The installation must be carried out by a specialist. In the event of improper installation, the warranty expires and no liability is assumed. <<<

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