SCK-M-I-8S-20A - PV string monitoring module

2903241

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CRA-READY



SCK measuring module for monitoring photovoltaic systems, 8 x current measurement up to 20 A, 1 x digital input, interface to the SCK communication module, interface to the voltage measurement module. Product is being prepared for compliance with the Cyber Resilience Act (CRA).

Product description

In PV system monitoring, PV string measurement plays a central role in increasing efficiency. Detect malfunctions and take countermeasures: the SOLARCHECK PV string monitoring system reliably provides you with information on the performance of your photovoltaic system. The system enables you to respond immediately to power losses in individual strings, which may be caused by damaged panels or defective contacts and cabling, for example.

Your advantages

- Low costs and wiring effort, as an additional power supply unit is not required in the device connection box
- Space-saving installation with the compact design
- Easy integration into monitoring systems with Modbus/RTU communication
- Monitoring of remote indication contacts by means of an additional digital input

Commercial data

Item number	2903241
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C447
Product key	CMMD11
GTIN	4046356729703
Weight per piece (including packing)	300 g
Weight per piece (excluding packing)	300 g
Customs tariff number	90303370
Country of origin	DE

Technical data

Notes

Note on application

Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Product properties

Product type	Current measuring transducer
Product family	SOLARCHECK

Insulation characteristics

Pollution degree	2

Electrical properties

Maximum power dissipation for nominal condition	1.15 W
Protective circuit	Surge protection; 33 V suppressor diode

Supply

Supply voltage range	via the SOLARCHECK communication module
Own current consumption	43 mA (typical)
	50 mA (maximum)

Input data

Signal: digital

Description of the input	Digital input
Available input sources	floating switch contacts
Cable length	≤ 30 m

Signal: analog

Description of the input	Analog input
Voltage input signal	0 V ... 10 V

Measurement

Number of inputs	8
Input current range	0 A DC ... 20 A DC (UL: 0 A DC...25 A DC)
Reverse current detection	-1 A DC ... 0 mA
LSB: Current	20 mA
Overload capacity	5 x I_N
Temperature coefficient, typical	0.02 %/K (T_{K20})
Maximum transmission error	± 1 % (From the upper range value)

Connection data

Connection method	Screw connection
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 12
Tightening torque	0.5 Nm ... 0.6 Nm

Interfaces

Data: Data interface to SCK-C-MODBUS

Transmission length	≤ 300 m (0.14 mm²)
	≤ 500 m (1.5 mm²)
Protocols supported	Proprietary

Dimensions

Item dimensions

Width	22.5 mm
Height	102 mm
Depth	128.5 mm

Circular conductor

Diameter	9.5 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	≤ 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

Identification	508 Listed

UL, USA

Identification	1741 Recognized

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal

	deviations.

Noise emission

Standards/regulations	EN 61000-6-4

Standards and regulations

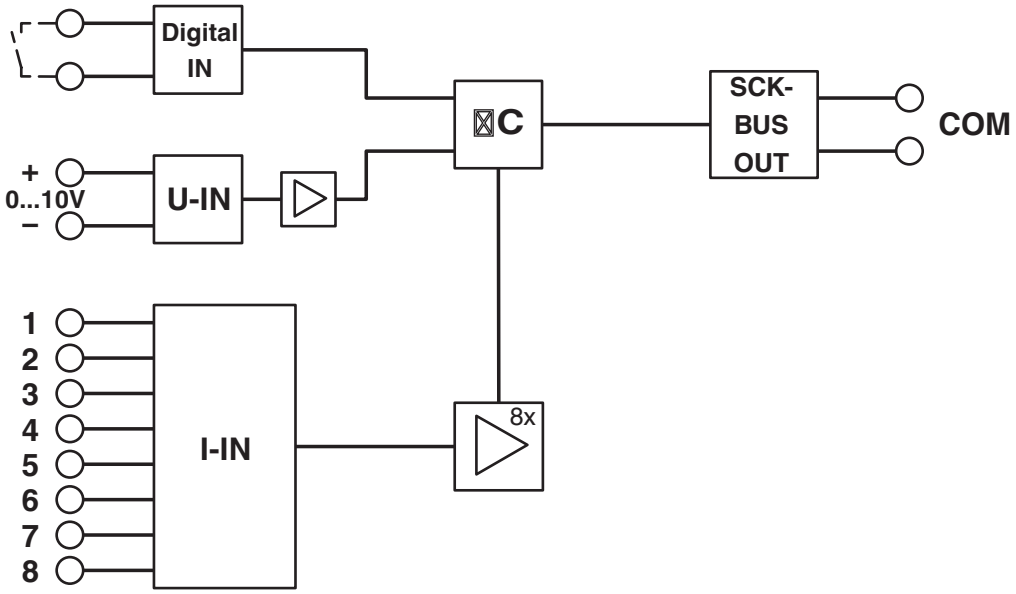
Standards/regulations	EN 61010-1
	EN 61010-2-30

Mounting

Mounting type	DIN rail: 35 mm
	DIN rail mounting

Drawings

Block diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2903241

UL Recognized
Approval ID: FILE E 325209

EAC
Approval ID: RU*DE.*08.B.01536/19

UL Listed
Approval ID: E140324

cUL Listed
Approval ID: E140324

UL Recognized
Approval ID: FILE E 325209

cUL Listed
Approval ID: E140324

UL Listed
Approval ID: E140324

Classifications

ECLASS

ECLASS-13.0	27210123
ECLASS-15.0	27210123

ETIM

ETIM 10.0	EC002475

UNSPSC

UNSPSC 21.0	39121000

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	fb391da0-3fbe-49f0-8eaa-a6224a23c97c

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