

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

2903241

<https://www.phoenixcontact.com/us/products/2903241>



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SCK measuring module for monitoring photovoltaic systems, 8 x current measurement up to 20 A, 1 x digital input, interface to SCK communication module, interface to voltage measuring module

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2903241 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C447 |
| Product key | CMMMD11 |
| GTIN | 4046356729703 |
| Weight per piece (including packing) | 322.9 g |
| Weight per piece (excluding packing) | 300 g |
| Customs tariff number | 90303370 |
| Country of origin | DE |

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Technical data

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 × I_N |
| Temperature coefficient, typical | 0.02 %/K (T_{K20}) |
| Maximum transmission error | ± 1 % (From the measuring range final value) |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 12 |
| Tightening torque | 0.5 Nm ... 0.6 Nm |

Interfaces

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Data: Data interface to SCK-C-MODBUS

| | |
|---------------------|---|
| Transmission length | ≤ 300 m (0.14 mm ²) ≤ 500 m (1.5 mm ²) |
| 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 |
|-----------------------|-----------------------------|

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Mounting

| | |
|---------------|-------------------|
| Mounting type | DIN rail: 35 mm |
| | DIN rail mounting |

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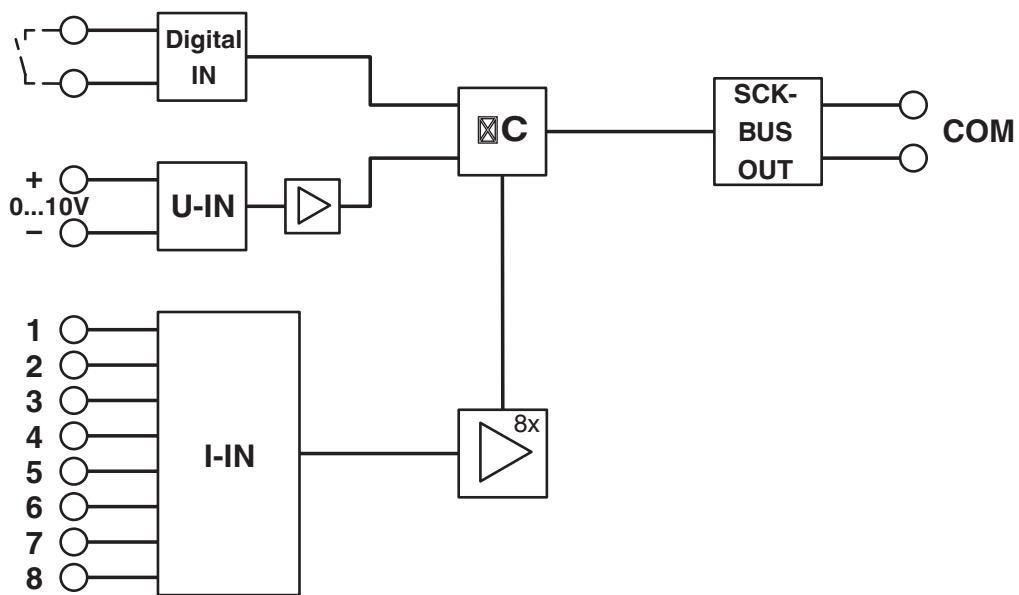


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Drawings

Block diagram



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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

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27210123 |
| ECLASS-15.0 | 27210123 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002475 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121000 |
|-------------|----------|

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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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