

SCK-M-U-1500V - PV string monitoring module



2903591

<https://www.phoenixcontact.com/us/products/2903591>

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SCK measuring module for monitoring photovoltaic systems, 1 x voltage measurement up to 1500 V DC, 1 x analog output (2 ... 10 V)

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2903591 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C447 |
| Product key | CK4D12 |
| Catalog page | Page 243 (C-5-2019) |
| GTIN | 4046356752398 |
| Weight per piece (including packing) | 184.7 g |
| Weight per piece (excluding packing) | 172.5 g |
| Customs tariff number | 90303370 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|----------------|--------------------|
| Product type | Voltage transducer |
| Product family | SOLARCHECK |

Insulation characteristics

| | |
|------------------|---|
| Pollution degree | 2 |
|------------------|---|

Electrical properties

| | |
|--------------------|---|
| Protective circuit | Surge protection; 33 V suppressor diode |
|--------------------|---|

Supply

| | |
|-------------------------|--|
| Nominal supply voltage | 24 V DC -10 % ... +25 % (or via SSCK-M-I-8S-20A) |
| Supply voltage range | 21.6 V DC ... 30 V DC |
| Own current consumption | 8 mA (typical) |
| | 65 mA (maximum) |

Input data

Measurement

| | |
|-----------------------------------|--|
| Number of inputs | 1 |
| Input voltage range | 0 V DC ... 1500 V DC (CAT III) |
| | 0 V DC ... 1000 V DC (UL) |
| Input resistance of voltage input | 2x 20 M Ω |
| Connection method | Screw connection |
| Impulse form | DC voltage |
| Temperature coefficient, typical | < 0.01 %/K |
| Maximum transmission error | \pm 1 % (after additional tuning (valid for 100 - 1,500 V DC)) |

Output data

Signal: analog

| | |
|-----------------------|--------------------|
| Voltage output signal | 2 V DC ... 10 V DC |
| Load | 10 k Ω |
| Cable type | Twisted, shielded |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| 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 |

Dimensions

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| | |
|--------|----------|
| Width | 22.5 mm |
| Height | 102 mm |
| Depth | 128.5 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

| | |
|-------------------------------|--|
| 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. |
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | 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 |

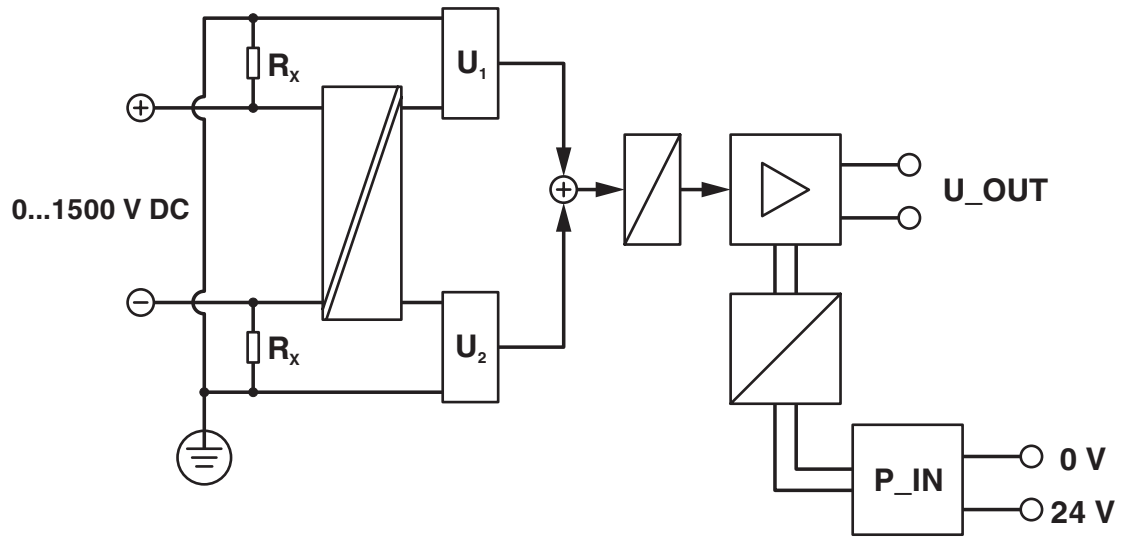
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Drawings

Block diagram



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Approvals

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UL Recognized

Approval ID: FILE E 325209



EAC

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



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324

cULus Listed

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27210125 |
| ECLASS-12.0 | 27210125 |
| ECLASS-13.0 | 27210125 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC002477 |
|----------|----------|

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 | 68c42f43-49d8-452d-b48c-8eb78674784b |

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