

# SCK-M-I-4S-20A - PV string monitoring module



2903242

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SCK measuring module for monitoring photovoltaic systems, 4 x current measurement up to 20 A, 1 x digital input, interface to SCK communication module

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2903242             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product key                          | CK4D11              |
| Catalog page                         | Page 243 (C-5-2019) |
| GTIN                                 | 4046356729697       |
| Weight per piece (including packing) | 253 g               |
| Weight per piece (excluding packing) | 240.5 g             |
| Customs tariff number                | 90303370            |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|                |                    |
|----------------|--------------------|
| Product type   | Current transducer |
| Product family | SOLARCHECK         |

### Insulation characteristics

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

### Electrical properties

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

### Supply

|                         |                                         |
|-------------------------|-----------------------------------------|
| Supply voltage range    | via the SOLARCHECK communication module |
| Own current consumption | 43 mA (typical)<br>50 mA (maximum)      |

### Input data

#### Signal: digital

|                          |                          |
|--------------------------|--------------------------|
| Description of the input | Digital input            |
| Available input sources  | Floating switch contacts |
| Cable length             | ≤ 30 m                   |

#### Measurement

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Number of inputs                 | 4                                            |
| 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 <sub>N</sub>                           |
| Temperature coefficient, typical | 0.02 %/K (T <sub>K20</sub> )                 |
| Maximum transmission error       | ± 1 % (From the measuring range final value) |

### Connection data

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection method                | Screw connection                            |
| Conductor cross section rigid    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| 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 mm <sup>2</sup> )<br>≤ 500 m (1.5 mm <sup>2</sup> ) |
| Protocols supported | Proprietary                                                       |

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## 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

|                               |                                                                      |
|-------------------------------|----------------------------------------------------------------------|
| 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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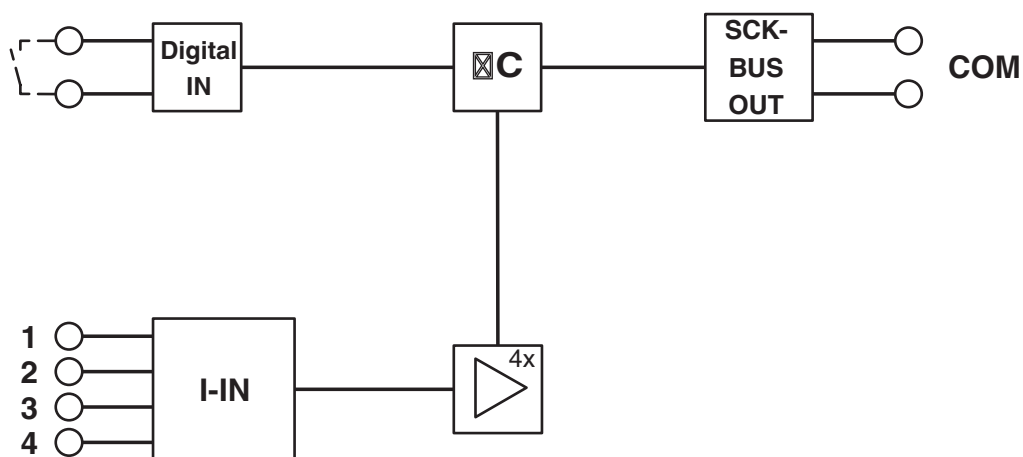
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## Drawings

Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2903242>



**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 | 27210123 |
| ECLASS-12.0 | 27210123 |
| ECLASS-13.0 | 27210123 |

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

|            |                                                                                                              |
|------------|--------------------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                               |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                               |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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