



Photovoltaic connectors

Product overview 2016/2017

Photovoltaic connectors for DC and AC cabling

Are you looking for innovative and reliable connection technology for your photovoltaic panels, inverters or the complete photovoltaic system? Then Phoenix Contact is the right partner for you!

We offer the perfect and consistent solution for cabling your photovoltaic system.



Find out more with the web code

You can find web codes in this brochure: a pound sign followed by a four-digit number combination.

i Web code: #1234 (example)

This allows you to access information on our website quickly.

It couldn't be simpler:

1. Go to the Phoenix Contact website
2. Enter # and the number combination in the search field
3. Get more information and product versions

Or use the direct link:

phoenixcontact.net/webcode/#1234



DC

DC connectors

- Currents up to 65 A
- Voltages up to 1500 V
- Conductor cross sections from 2.5 to 16 mm²
- Connection technology for building-integrated photovoltaics (BIPV)

AC



AC connectors

- Currents up to 70 A
- Voltages up to 690 V
- Conductor cross sections from 1.5 to 16 mm²
- Circular and rectangular connectors
- Connection technology for micro inverters

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The right connection technology for every application



Building-integrated photovoltaics (BIPV)



Rooftop systems



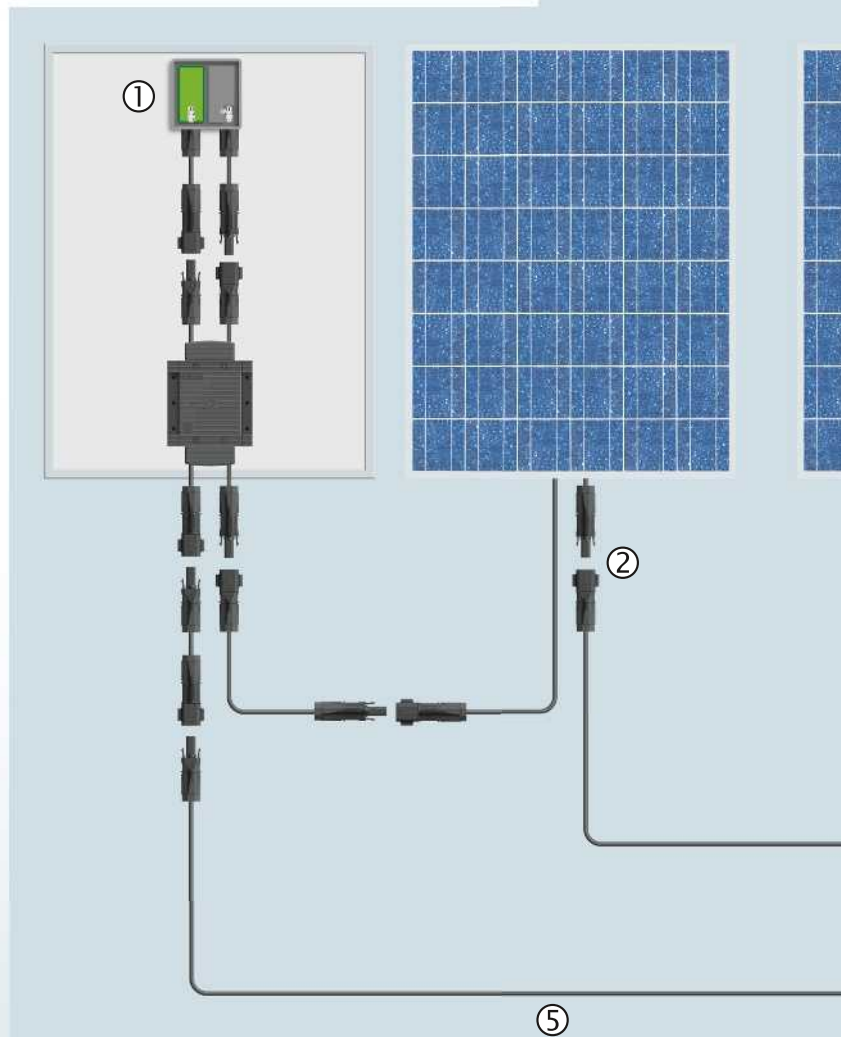
Free-standing systems

Product range overview

Photovoltaic connectors

We have the right connection solution for you – from connection technology for photovoltaic panels to DC connectors for field cabling and device connection for signals, data, and power.

The tailored, high-quality components contribute to the long-term and increased availability of your system.



Seamless connection technology from the photovoltaic panel to the supply



PCB terminal blocks for module junction boxes



Connector with crimp connection for module junction boxes



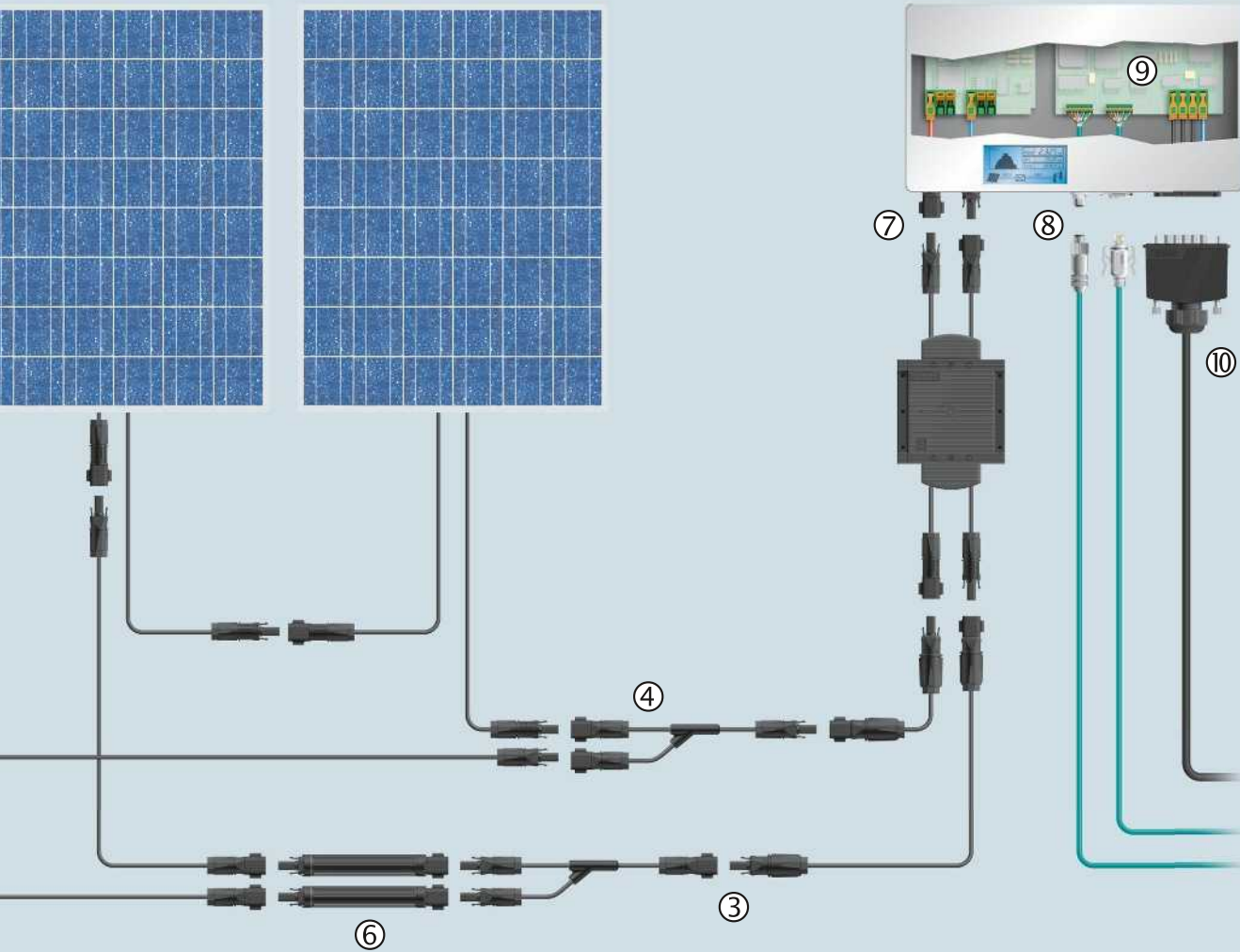
DC connectors with SUNCLIX spring connection



Y-distributors



Photovoltaic cables



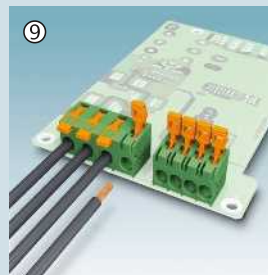
DC fuse adapters



DC panel feed-throughs



Data and signal connectors



PCB connections



AC connectors

DC connection technology for photovoltaic panels

Using cost-optimized PCB terminal blocks without insulating bodies, you can connect circular and flat conductors to the module junction box quickly and safely.

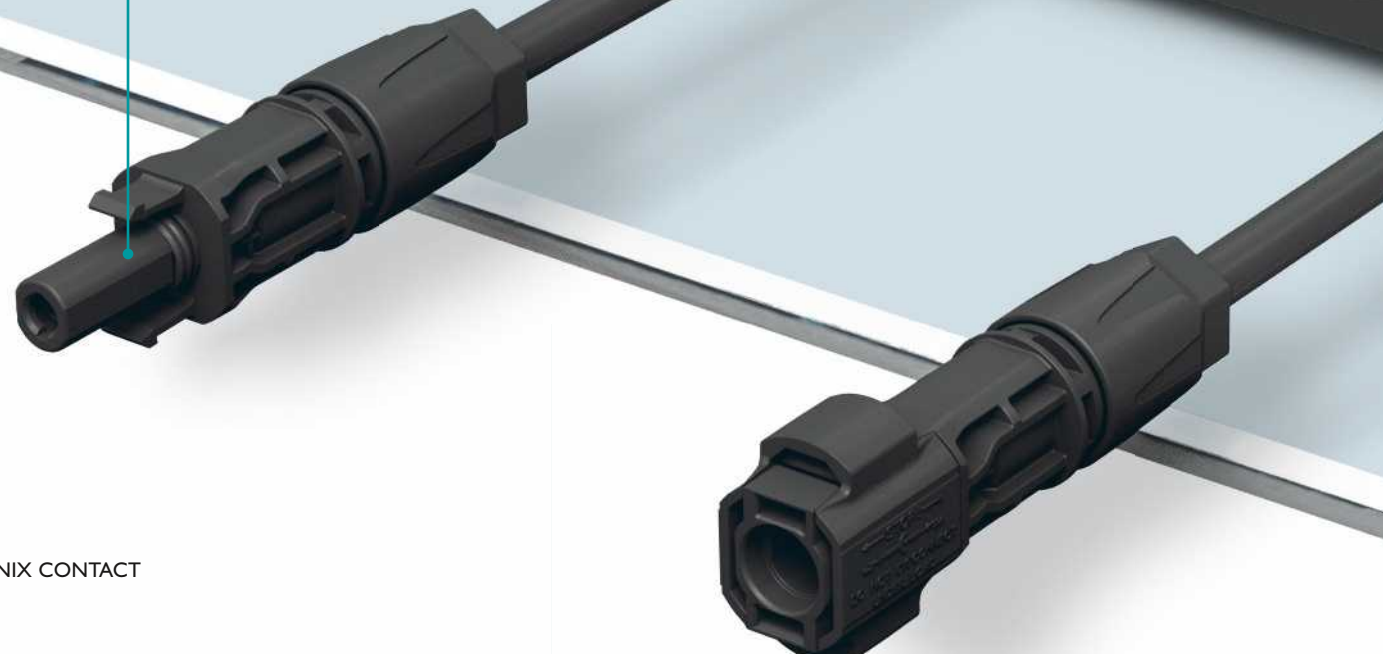
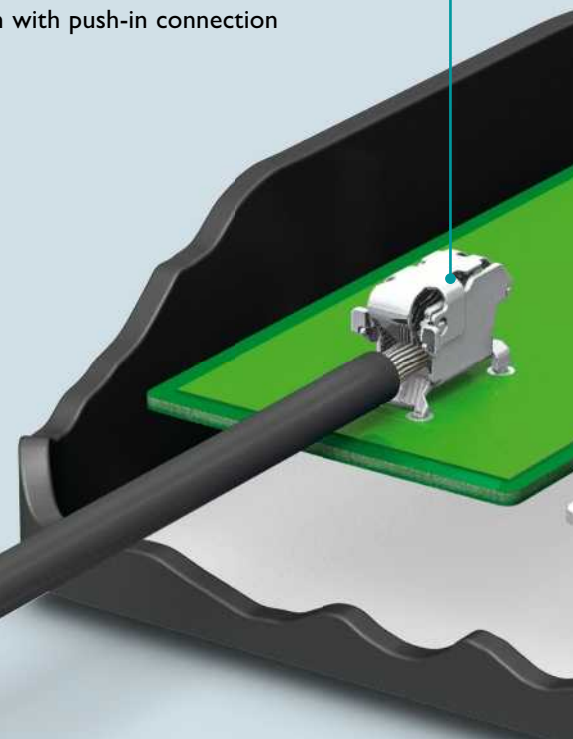
PTSPLE 6 PCB terminal block with solder connection

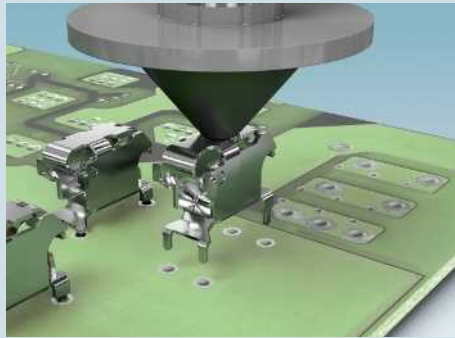
- Currents up to 41 A
- Designed for automated THR soldering processes
- Available with a solder pin length of 2.1 or 2.9 mm
- SUNCLIX spring connection for conductor cross sections from 2.5 to 6 mm²
- Closed version with push-in connection



SUNCLIX DC connector with crimp connection

- A single connector for all crimp contacts
- Conductor cross sections from 2.5 to 4 mm² (AWG 14 to AWG 12) and 6 mm² (AWG 10)
- Voltages up to 1500 V (1000 V UL)
- Degree of protection: IP68 (24 h/2 m)
- Approval in accordance with DIN EN 50521 (UL 6703 in preparation)
- Suitable for automated processing

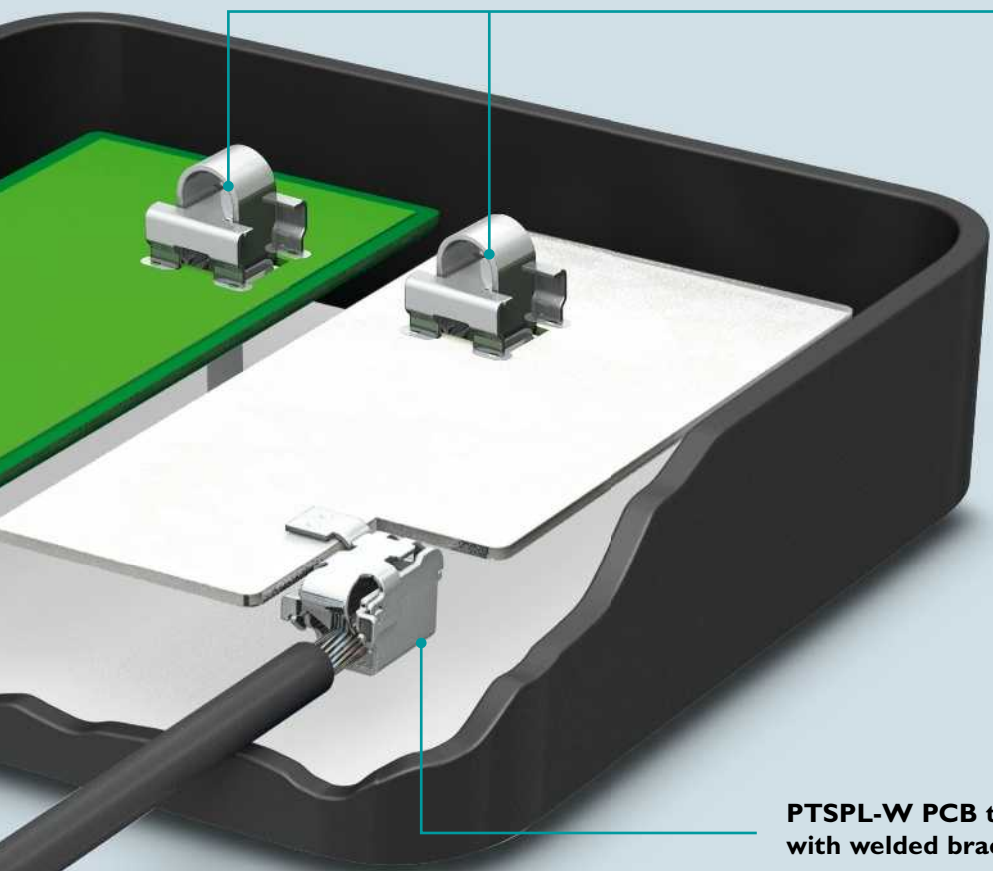




Optimized for SMT and THR mounting thanks to integrated suction areas



Insert the stripped conductor, snap in the spring, and you're done!



PT-SG 1 PCB terminal block for contacting flat-ribbon conductors

- Currents up to 41 A
- Flat-ribbon conductor: up to 8×0.1 to 2 mm^2
- Suitable for fully automated PCB assembly
- THR item for reflow soldering

PT-SPL-W PCB terminal block with welded bracket

- Currents up to 41 A
- Available with welded bracket right or left for spot-welding procedures
- SUNCLIX spring connection for conductor cross sections from 2.5 to 6 mm^2
- Delivery with closed spring in bulk or in the tray for automated processes

DC connection technology for field cabling

When installing photovoltaic systems, there is now a more efficient way of wiring cables of various lengths from the panel to the inverter – with the SUNCLIX connection system from Phoenix Contact.

The one-piece DC connectors can be connected quickly and easily without using special tools thanks to spring technology. The unique spring technology ensures that contact to the conductors is always reliable and stable.

Fuse adapters


- Robust, easy-to-install fuse element for outdoor use
- High-quality Littelfuse fuse link
- Nominal currents of the fuse link: 6 to 30 A
- 1000 V/1500 V (EN) or 600 V/1000 V (UL) system voltage
- Degree of protection: IP68 (24 h/2 m)
- UL 6703 in preparation

Connectors with crimp connection

- For conductor cross sections from 2.5 to 6 mm²
- Voltages up to 1500 V
- Degree of protection: IP68 (24 h/2 m)
- Approval in accordance with DIN EN 50521 (UL 6703 in preparation)



i Web code:
#0543



Panel feed-throughs

- Pre-assembled or for assembly with crimp connection
- Voltages up to 1500 V
- Currents up to 40 A
- Approval in accordance with DIN EN 50521 (UL 6703 in preparation)

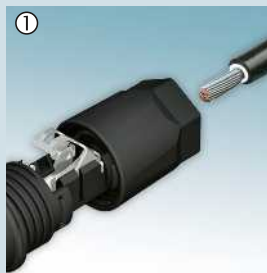
Connectors for field assembly

- Only two versions for conductor cross sections from 2.5 to 16 mm²
- Patented SUNCLIX spring connection
- Voltages up to 1100 V or 1500 V
- Degree of protection: IP68 (24 h/2 m)
- Approval in accordance with DIN EN 50521 and UL 6703

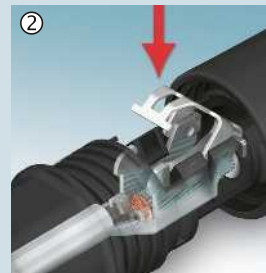
Y-distributors

- For the parallel connection of panels and strings
- Voltages up to 1100 V
- Customer-specific pre-assembly possible
- Choice of 4 or 6 mm² conductor cross section for the trunk line
- According to DIN EN 50521

SUNCLIX spring connection



① Insert the stripped photovoltaic conductor



② Press down on the spring and snap it in place



③ Tighten the screw connection - you're done!



DC panel shutdown – intelligent and autonomous

Photovoltaic rooftop systems generate DC voltages of up to 1000 volts and cannot be disconnected easily on the DC side. This presents a problem if the system is damaged. SOLARCHECK RSD automatically shuts down your system safely. You are protected from the risk of fatal electric shock during installation and maintenance or in dangerous situations.

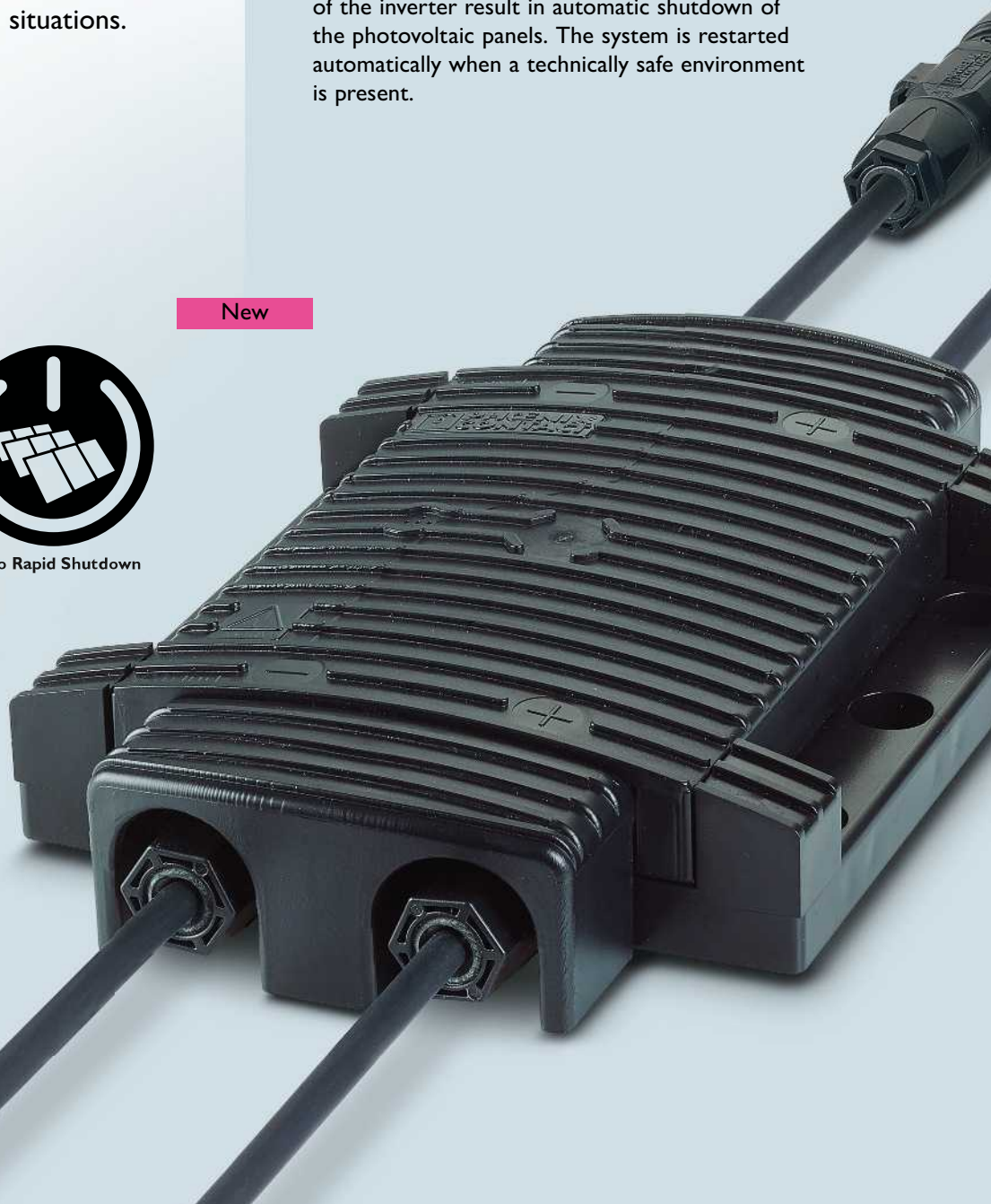
Photovoltaic panel shutdown with Auto Rapid Shutdown

SOLARCHECK RSD analyzes the current and voltage conditions on the DC side in the system. Deviations from the normal state or shutdown of the inverter result in automatic shutdown of the photovoltaic panels. The system is restarted automatically when a technically safe environment is present.

New



Auto Rapid Shutdown

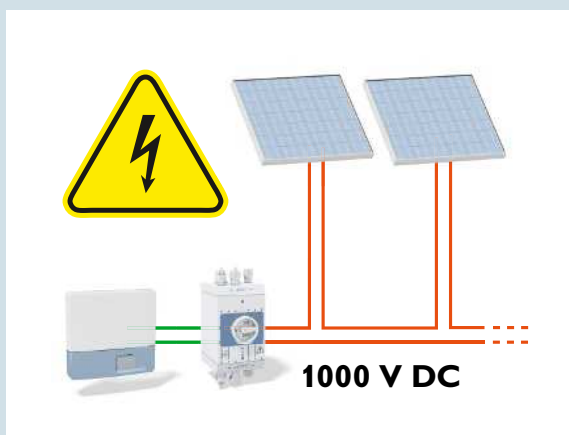




Your advantages

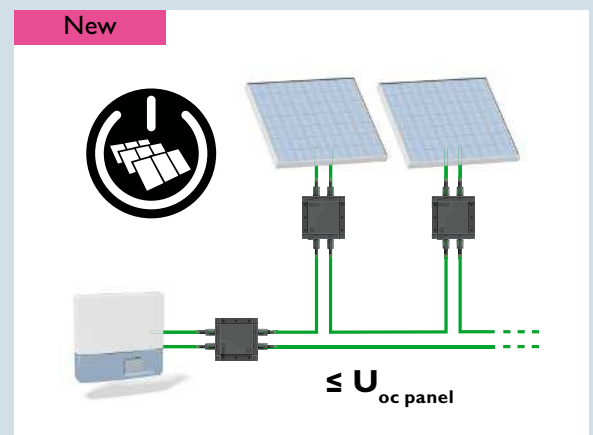
- Safe connections which are stable over the long term thanks to tried-and-tested SUNCLIX components
- Safety as a result of patented fault detection and safe photovoltaic panel shutdown
- Controlled restart via safe autostart
- No additional communication is necessary via cables or wirelessly
- Easy to install in new and existing systems using existing DC cables
- Simple startup: no programming or manual set-up

Intelligent photovoltaic panel shutdown with SOLARCHECK RSD



Danger to life without panel shutdown

The series connection of photovoltaic panels to strings generates voltages of up to 1000 volts. Disconnection at the inverter is not safe, as the DC cables continue to carry high voltages.

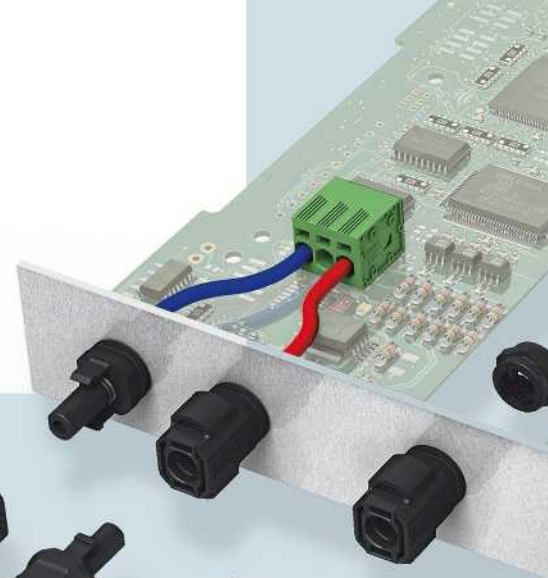


Electrical safety with panel shutdown

Each shutdown unit disconnects the corresponding photovoltaic panel from the string group. There is no risk of electric shock posed by the system.

AC and DC connection technology for the device connection

Phoenix Contact provides a comprehensive range for connection to inverters of all performance classes. Whether AC or DC, circular or rectangular, for signals, data or power – the connectors cover a wide range of requirements. Device connectors, PCB connection technology and accessories complete the comprehensive portfolio.



SUNCLIX DC connectors with spring connection

- Currents up to 65 A
- Voltages up to 1500 V
- Conductor cross section of 2.5 to 16 mm²
- Degree of protection: IP66/IP68 (24 h/2 m)

Signal and data connectors

- Copper and fiber optic-based data connectors
- M5 to M23 signal connectors
- 3- to 19-pos. signal connectors
- Connector systems for assembly and pre-assembled connector systems
- Solutions for IP20, IP65/IP67 and IP69K



PLW 16 panel feed-through terminal block with push-lock spring connection

- For 1-phase and 3-phase devices
- Easy connection and removal of conductors using a push-in spring connection on the outside
- Fast push-in spring connection on the inside
- Currents up to 41 A
- Voltages up to 1000 V
- Conductor cross section of 2.5 to 16 mm²
- Can be sealed

AC PRC connectors with screw connection

- For 1-phase and 3-phase devices
- Currents up to 35 A
- Voltages up to 630 V
- Conductor cross section of 1.5 to 6 mm²
- Degree of protection: IP68 (24 h/2 m)
- Can be sealed

VARIOCON AC connectors with screw connection

- For 1-phase and 3-phase devices
- Currents up to 70 A
- Voltages up to 690 V
- Conductor cross section of 1.5 to 16 mm²
- Degree of protection: IP65/IP68 (24 h/2 m)

AC connection technology for micro inverters

Are you looking for an innovative, universal, and easy-to-install connection technology for your micro inverters?

SUNCLIX micon, the new connection system from Phoenix Contact, was developed to meet your requirements. This connection system is user-friendly and can be pre-assembled according to your requirements to enable "Plug and Play" at the installation site.



Protective caps

Dust protective caps, made from biodegradable plastic, protect the pin connector pattern from contamination during transport. When it comes to installation, they can be easily removed from the connector without any special tools. During installation, the IP protective caps are inserted as end caps on the last connector; in order to protect the connector from atmospheric influences.



Main features

- Three-pos., coded pin connector pattern (protection against polarity reversal)
- Maximum reliability, thanks to SUNCLIX contacts
- Trunk line:
 - Nominal currents up to 600 A
 - Voltages up to 20 V
- Drop line:
 - Nominal currents up to 5 A (use of micro inverters with 500 W output power possible)
- Degree of protection: IP67
- Connection system for the AC and DC side of your micro inverters from a single source
- Approval in accordance with UL 6703



DC connectors with spring connection

With the SUNCLIX DC connectors as a device connector or for field assembly, you can also impress with performance and quality on the panel side.

Mains connectors

The mains connectors provide the connecting link between the photovoltaic system and mains. Depending on the system structure, the mains can be connected via the connector or coupling side of the AC-Y connector. The free cable end is either connected in a distributor box or fed into a service panel via a cable sleeve.

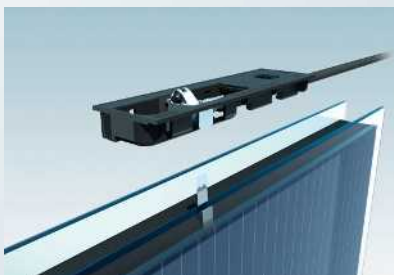


DC connection technology for building-integrated photovoltaics (BIPV)

Phoenix Contact is offering a particularly compact DC connection system, SUNCLIX mini, which is designed to meet the trend of producing energy using photovoltaics integrated into buildings. For a permanently safe and secure connection from panel to inverter.



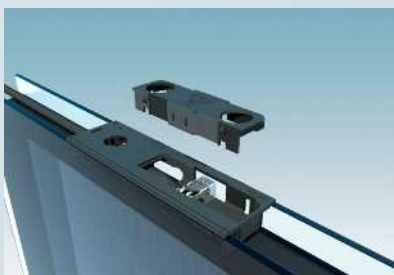
Installation of the module junction box



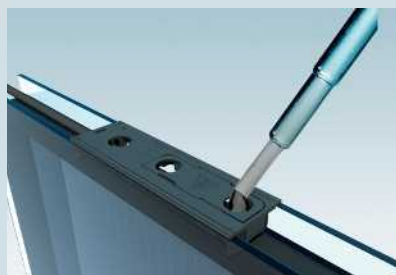
1. Position the module junction box above the ribbon



2. Remove the adhesive strip and position the module junction box on the edges of the glass



3. Insert the ribbon into the spring case and snap in the spring. Close the connection area with the cover



4. Fill the module junction box with sealant using the special openings one after the other

Single-position module junction box

One module junction box is used per ribbon (right and left module junction box). Both module junction boxes are integrated into the building-integrated panel and sealed with sealant.

- Current: 15 A
- Voltage: 1000 V DC
- Qualified ribbon:
Width: 5 mm/thickness: 0.05 to 0.2 mm
- Conductor cross section: 2.5 mm²
- Spring connection

Miniature DC connectors for assembly

The compact design of the connectors enables concealed installation behind the photovoltaic panels or direct installation within building-integrated frames.

- Current: 15 A
- Voltage: 1000 V
- Conductor cross section: 2.5 mm²
- Compact design: Ø only 11 mm
- Pierce connection
- Degree of protection: IP67
- Approval in accordance with DIN EN 50521

Compact DC string diode

The stable housing and flat design of the DC string diode protects the panels from return currents created as a result of shading. The optimized design ensures effective heat dissipation and, as a result, the long service life of the components.





- Current: 5 A
- Voltage: 1000 V
- Reverse voltage: 2200 V
- Conductor cross section: 2.5 mm²
- Degree of protection: IP67
- Approval in accordance with DIN EN 50548 (VDE 126-3)

Technical data and ordering information





The following tables contain selected components together with their key technical properties. Thanks to integrated web codes, you can find more information about the products listed in our web portal.

DC connection technology for photovoltaic panels

 Web code: #0361

| PCB connection for photovoltaic applications |  | |  | |  | |  | |
|--|--|-----------|--|-----------|--|-----------|--|-----------|
| Description | Push-lock PCB terminal block with spring connection for circular conductors | | | | Push-lock terminal block with spring connection and welded bracket | | Push-lock terminal block with spring connection for flat-ribbon conductors | |
| | Solder pin length | Order No. | Solder pin length | Order No. | Version | Order No. | Solder pin length | Order No. |
| | 2.1 mm | 1704836 | 2.1 mm | 1705081 | Welded bracket right | 1705624 | 2.1 mm | 1841830 |
| | 2.9 mm | 1704837 | 2.9 mm | 1705085 | Welded bracket left | 1705625 | 2.9 mm | 1841843 |
| Design | Closed | | Open | | Closed | | Closed | |
| Cross section | | | | | max. 6 mm ² | | | |
| Number of positions | | | | | 1 | | | |
| Nominal current | | | | | max. 41 A | | | |

 Web code: #0674

| SUNCLIX DC connectors For assembly with crimp connection |  | |  | |  | |  | |
|---|---|--|---|--|---|-------------------|---|-------------------|
| Description | Housings for male (-) crimp connectors | | Housings for female (+) crimp connectors | | Contacts for crimp connection | | Contacts for crimp connection | |
| Type | Pin (-) | | Socket (+) | | Pin contact | | Socket contact | |
| Order No. | 1622661 | | 1622662 | | 1704927 | 1704928 | 1704930 | 1704931 |
| Cross section | - | | - | | 2.5/4 mm ² | 6 mm ² | 2.5/4 mm ² | 6 mm ² |
| External cable diameter | 5 mm ... 8 mm | | 5 mm ... 8 mm | | 14 AWG/12 AWG | 10 AWG | 14 AWG/12 AWG | 10 AWG |
| Rated voltage | 1500 V (1000 V UL) | | 1500 V (1000 V UL) | | - | - | - | - |
| Nominal current | - | | - | | max. 30 A | | max. 30 A | |
| Degree of protection | IP68 (24 h/2 m) | | IP68 (24 h/2 m) | | - | | - | |
| Product information | Temperature range: -40 °C ... +90 °C, Protection class II, approval in accordance with UL 6703 and DIN EN 50521 (in preparation). | | | | Pcs./Pkt.: 1000 pcs./roll | | Pcs./Pkt.: 1000 pcs./roll. | |

DC connection technology for field cabling

i Web code: #0358

SUNCLIX DC connectors

For assembly with SUNCLIX
spring connection



| Type | Pin (-) | Socket (+) | Pin (-) | Socket (+) | Pin (-) | Socket (+) |
|----------------------|--|------------|--|------------|--|------------|
| Order No. | 1774687 | 1774674 | 1789834 | 1789821 | 1790797 | 1790784 |
| Cross section | 2,5 mm² ... 6 mm² | | 2,5 mm² ... 6 mm² | | 6 mm² ... 16 mm² | |
| Rated voltage | 1100 V | | 1500 V | | 1500 V | |
| Nominal current | max. 40 A | | max. 40 A | | max. 65 A | |
| Degree of protection | IP65/68 (24 h/2 m) | | IP66/68 (24 h/2 m) | | IP66/68 (24 h/2 m) | |
| Product information | Temperature range: -40 °C ... +85 °C, protection class II, approval in accordance with UL 6703 and DIN EN 50521. | | Temperature range: -40 °C ... +85 °C, protection class II, approval in accordance with DIN EN 50521. | | Temperature range: -40 °C ... +85 °C, protection class II, approval in accordance with DIN EN 50521. | |

SUNCLIX



| Description | Solar cable | | | | Fuse adapter | | | | Y-distributors (cable-based) | | |
|---------------------------------|---|------------|------------|-------------|---|------------------|---------|------------------|--|-------------------------|-----------|
| Product information | Tin-plated single litz wires, suitable for permanent and flexible installation; double insulation, voltage 1800 V DC; insulating and sheath material offers excellent resistance to weather, UV rays, and wear; TÜV and VDE-certified cable in accordance with DIN EN 50618 | | | | Fuse adapters for securing panels and devices in photovoltaic systems | | | | Connection set with branch line (4 mm²) for fast parallel interconnection of photovoltaic panels. Length of the individual cables: 120 mm each; other lengths possible on customer request. | | |
| | Cross section | 100 m ring | 500 m drum | 1000 m drum | Nominal voltage | | | | Trunk line cross section | Design | Order No. |
| Order No. | 2.5 mm² | 1459509 | 1459540 | 1459566 | 1000 V | I _{nom} | 1500 V | I _{nom} | 4 mm² | Pin to 2x socket (-/++) | 1795019 |
| Order No. | 4 mm² | 1459511 | 1787700 | 1459579 | 1622153 | 6 | 1622787 | 5 | 4 mm² | Socket to 2x pin (+/-) | 1795022 |
| Order No. | 6 mm² | 1459524 | 1787713 | 1459582 | 1622154 | 8 | 1622146 | 7 | 6 mm² | Pin to 2x socket (-/++) | 1787726 |
| Order No. | 10 mm² | 1459537 | 1459553 | 1459595 | 1622155 | 10 | 1622147 | 10 | 6 mm² | Socket to 2x pin (+/-) | 1787739 |
| Order No. | | | | | 1622156 | 12 | 1622148 | 11 | | | |
| Order No. | | | | | 1622157 | 15 | 1622149 | 13 | | | |
| Order No. | | | | | 1622158 | 20 | 1622150 | 17 | | | |
| Order No. | | | | | 1622159 | 25 | 1622151 | 23 | | | |
| Order No. | | | | | | 28 | 1622152 | 25 | | | |
| Degree of protection | | | | | | | | | IP66/IP68 (24 h/2 m) | | |
| Ambient temperature (operating) | | | | | | | | | -40 °C ... +85 °C | | |
| Accessories | | | | | A spacer for improved heat dissipation is available as an option (see Accessories on page 20) | | | | | | |

SOLARCHECK RSD DC panel shutdown

i Web code: #0609

SOLARCHECK RSD



| Type | Shutdown unit | Startup unit, autonomous | Startup unit, externally supplied |
|---------------------|------------------------|--------------------------|-----------------------------------|
| Order No. | SCK-RSD-100 2905029 | SCK-RSD-400 2905030 | SCK-RSD-600 2906273 |
| Input voltage range | 20 V DC ... 50 V DC | 40 V DC ... 800 V DC | 40 V DC ... 800 V DC |
| System voltage | ≤ 1000 V DC | ≤ 1000 V DC | ≤ 1000 V DC |
| Max. input current | 10 A | 10 A | 10 A |

DC connection technology for the device connection

i Web code: #0359






| SUNCLIX DC device connector 130 mm litz wire length; other lengths available on request | | | | | | |
|---|---|---------|-----------------------|---------|-----------------------|---------|
| Type | Pin | Socket | Pin | Socket | Pin | Socket |
| Order No. | 1805148 | 1805135 | 1805164 | 1805151 | 1805180 | 1805177 |
| Cross section | 2.5 mm ² | | 4 mm ² | | 6 mm ² | |
| Rated voltage | 1500 V | | 1500 V | | 1500 V | |
| Nominal current | max. 27.5 A | | max. 40 A | | max. 40 A | |
| Degree of protection | IP65/66/68 (24 h/2 m) | | IP65/66/68 (24 h/2 m) | | IP65/66/68 (24 h/2 m) | |
| Properties | Temperature range: -40 °C ... +85 °C, approval in accordance with DIN EN 50521 and UL 6703 (in preparation), Required accessories: 1775880. | | | | | |

| SUNCLIX DC device connector For user assembly | | | | | | |
|---|--|---------|--|---------|-------------------------------|---------|
| Description | Plastic housings | | Contacts for crimp connection | | Contacts for crimp connection | |
| Type | Pin | Socket | Pin | Socket | Pin | Socket |
| Order No. | 1704925 | 1704926 | 1704927 | 1704930 | 1704928 | 1704931 |
| Cross section | | | 2.5 mm ² /4 mm ² (14 AWG/12 AWG) | | 6 mm ² (10 AWG) | |
| Rated voltage | 1500 V | | | | | |
| Nominal current | | | max. 40 A | | max. 40 A | |
| Degree of protection | IP66/IP68 (24 h/2 m) | | | | | |
| Properties | Temperature range: -40 °C ... +85 °C, approval in accordance with DIN EN 50521 and UL 6703 (in preparation), required accessories: 1775880. | | Temperature range: -40 °C ... +85 °C, approval in accordance with DIN EN 50521. Pcs./Pkt.: 1000 pcs./roll. | | | |

Accessories and tools

i Web code: #0362

| | | | | |
|-------------|---|---|---|---|
| |  |  |  |  |
| Description | Fastening nut | Protective cap | Filler plug | Spacer |
| Order No. | 1775880 | 1785430 | 1775631 | 1623253 |
| Properties | Nut for securing the SUNCLIX device connectors to the housing. | IP67 protective cap for SUNCLIX connectors; transport protection for the pin connector pattern; for sealing and protecting unused device inputs and for transport protection. | Filler plug for SUNCLIX connectors, IP67 in the cable gland. | Spacer for fuse adapters ensure better heat dissipation if multiple fuses are bundled in one application. |

| | | | | | |
|-------------|---|--|---|--|--|
| |  |  |  |  |  |
| Description | Crimping pliers | Mounting pliers | Test pin | SZF 1 screwdriver | Wirefox stripping tool |
| Order No. | 1212755 | 1200137 | 1705589 | 1204517 | 1212511 |
| Properties | For PV-CF(M) contacts 2.5, 4, and 6 mm ² (AWG 14/12/10). | To snap the crimp contacts into the plastic housing. Suitable for conductor diameters of 4.2 ... 6.0 mm. | For SUNCLIX device connectors, to check correct positioning of contacts during user assembly. | Actuation tool, for unlocking the SUNCLIX connectors as well as opening the SUNCLIX spring connection, also suitable for use as a flat-bladed screwdriver; size: 0.6 x 3.5 x 100 mm, 2-component handle, with non-slip grip. | For standard 2.5, 4, and 6 mm ² solar cables, with 15 mm longitudinal stop, for SUNCLIX field connectors. |

| PRC | | | | | |
|-------------------------|---|---------------------|-------------------|-------------------|------------------|
| Description | Field connectors | Device connectors | Device connectors | Device connectors | Test plugs |
| Order No. | 3-pos. 1410661 | 1409219 | 1409220 | 1409221 | 1621326 |
| Order No. | 5-pos. 1410656 | 1409211 | 1409212 | 1409213 | 1621325 |
| Conductor cross section | 1,5 mm ² ... 6 mm ² | 2,5 mm ² | 4 mm ² | 6 mm ² | |
| Cable length | | 150 mm | 150 mm | 150 mm | |
| Screw connection | | M25 | M25 | M25 | |
| Connection method | Screw connection | Crimp connection | Crimp connection | Crimp connection | Screw connection |

| PRC | | | | | |
|---|-----------------|-------------------------------|----------------|--------------------------------------|---------|
| Description | Holders | Contacts | Protective cap | PRC crimping tool | Nut |
| Order No. | 3-pos.: 1409218 | 2.5 mm ² : 1409207 | | 2.5 mm ² : 1867419 | 1457937 |
| Order No. | 5-pos.: 1409206 | 4 mm ² : 1409208 | | 4 mm ² : 1867419, 1205859 | |
| Order No. | | 6 mm ² : 1409209 | | 6 mm ² : 1205859 | |
| Order No. device connector protective cap | | | 1409237 | | |
| Order No. field connector protective cap | | | 1409236 | | |

PLUSCON device
Modular rectangular connectors for the AC connection

| Description | | Panel feed-through with screw connection and panel mounting frame | Panel feed-through with conductor connection | Field connector sleeve housing | Field connector contact inserts |
|----------------------------------|--------------------|---|--|--------------------------------|---------------------------------|
| Type | Order No. | | | | |
| Design: VC 2 | 4-pos. | 1607745 + 1852985 | 1583877 | 1852948 + 1855107 | 1607467 |
| Design: VC 3 | 5-pos. | 1607748 + 1852998 | 1583878 | 1852961 + 1855120 | 1607474 |
| Crimp contacts | 4 mm ² | | 1761467 | | |
| Crimp contacts | 10 mm ² | | 1761470 | | |
| Crimp contacts | 16 mm ² | | 1761483 | | |
| Rated voltage | | 690 V | 690 V | | 690 V |
| Nominal current | | 63 A | 70 A | | 70 A |
| Number of positions | | 4 – 7 | 4 – 5 | | 4 – 7 |
| Contact/contact surface material | | Cu alloy/Ag | Cu alloy/Ag | | Cu alloy/Ag |
| Connection method | | Solder connection | Crimp connection | | Screw connection |





| SUNCLIX micon | | | | | | |
|----------------------|---|---------|---|---------|---|---------|
| | | | | | | |
| Description | AC-Y connectors for PV micro inverters | | Mains connector for the coupling side of the AC-Y distributor | | Mains connectors for the connector side of the AC-Y distributor | |
| Order No. | 1706518 | | 1706517 | | 1706609 | |
| Cross section | Trunk | 12 AWG | 12 AWG | | 12 AWG | |
| | Drop | 18 AWG | | | | |
| Cable length | Trunk | 1150 mm | Trunk | 1000 mm | Trunk | 1000 mm |
| | Drop | 500 mm | | | | |
| Rated voltage | | | 600 V | | | |
| Nominal current | Trunk | 20 A | 20 A | | 20 A | |
| | Drop | 5 A | | | | |
| Degree of protection | IP67 | | IP67 | | IP67 | |
| Product information | Version for the North American market. Approval in accordance with UL 6703. | | | | | |





| Accessories | | | | | | |
|----------------------|--|---------|--|---------|---|--|
| | | | | | | |
| Description | Dust protective caps for protecting the pin connector pattern during transport | | IP protective caps for safe operation of the connection system | | Unlocking tool for releasing the connectors | |
| Order No. | For connector | 1706608 | For connector | 1706610 | 1706514 | |
| | For coupling | 1706599 | For coupling | 1706515 | | |
| Degree of protection | IP20 | | IP67 | | | |
| Properties | Biodegradable plastic, can be removed without an unlocking tool. | | Can only be removed with an unlocking tool. | | After releasing the connector, the tool does not fall off, instead it remains on the connector housing. | |





SUNCLIX mini







| Description | Miniature DC connectors for assembly | | Single-position module junction box | | Compact DC string diode | |
|---------------------|---|------------|---|---------|--|------------------------------------|
| | Pin (-) | Socket (+) | Left | Right | with SUNCLIX mini connectors | without connector, free cable ends |
| Type | | | | | | |
| Order No. | 1795336 | 1795323 | 1705132 | 1705131 | 1463065 | 1811239 |
| Cross section | 2.5 mm ² | | 2.5 mm ² | | 2.5 mm ² | |
| Rated voltage | 1000 V | | 1000 V | | 1000 V | |
| Nominal current | 15 A | | 15 A | | 5 A | |
| Product information | Protection class II, Ø 11 mm, degree of protection: IP67, temperature range: -40°C ... +85°C, approval in accordance with DIN EN 50521. | | The width of the module junction box can be adapted by the customer (width from 18.3 mm ... 34.3 mm). Ribbon width: < 5 mm, 0.05 ... 0.2 mm thick, temperature range: -40°C ... +85 °C. | | Protection class II, 100 x 38 x 11 mm (L x W x H), temperature range: -40 °C ... +85 °C, approval in accordance with DIN EN 50548. | |





| COMBICON power PCB terminal blocks and PCB connectors for power electronics up to 125 A | |  |  |  |  |
|---|-----------|---|---|---|---|
| Description | | Push-in PCB terminal block up to 6 mm ² | Push-in PCB terminal block up to 10 mm ² | Push-lock PCB terminal block with lever-type actuation up to 16 mm ² | Push-lock/push-in panel feed-through terminal block up to 16/6 mm ² |
| 5-pos. | Order No. | 1719341 | 1735817 | 1770490 | 1821083 |
| Cross section | | 6 mm ² | 16 mm ² | 16 mm ² | 16/6 mm ² |
| Pitch | | 7.5 mm | 10 mm | 10 mm | - |
| Number of positions | | 2 – 12 | 2 – 9 | 2 – 8 | 3 – 5 |
| IEC/UL rated voltage | | 1000 V/600 V | 1000 V/600 V | 1000 V/600 V | 1000 V/600 V |
| IEC/UL nominal current | | 41 A/35 A | 76 A/66 A | 76 A/51 A | 41 A/- |
| Comment | | 1-pos. on request | 1-pos. on request | 1-pos. on request | UL/CUL on request |

| COMBICON control PCB connectors for data and power transmission in MCR technology | |  |  |  |  |
|---|-----------|---|---|---|---|
| Description | | TWIN bus connector with push-in spring connection up to 1.5 mm ² | Flat connector with push-in spring connection up to 1.5 mm ² | Flat connector with push-in spring connection up to 2.5 mm ² | Inverted connector with screw connection up to 2.5 mm ² |
| 5-pos. | Order No. | 1713868 | 1952050 | 1732771 | 1858905 |
| Cross section | | 1.5 mm ² | 1.5 mm ² | 2.5 mm ² | 2.5 mm ² |
| Pitch | | 5 mm | 3.5 mm | 5 mm/5.08 mm | 7.62 mm |
| Number of positions | | 2 – 20 | 2 – 20 | 2 – 18 | 2 – 12 |
| IEC/UL rated voltage | | 320 V/250 V | 160 V/150 V | 320 V/250 V | 630 V/250 V |
| IEC/UL nominal current | | 10 A/8 A | 8 A/8 A | 12 A/10 A | 12 A/12 A |

| COMBICON control / compact PCB terminal blocks and connectors for signal transmission in MCR technology | |  |  |  |  |
|---|-----------|--|---|---|---|
| Description | | PCB terminal block with push-in spring connection with 35° angle up to 1.5 mm ² | PCB terminal block with push-in spring connection up to 2.5 mm ² | PCB terminal block with push-in double spring connection up to 2.5 mm ² | PCB terminal block with push-in spring connection for SMD application up to 0.5 mm ² |
| 5-pos. | Order No. | 1751503 | 1792892 | 1725341 | 1771059 |
| Cross section | | 1.5 mm ² | 1.5 mm ² | 2.5 mm ² | 0.5 mm ² |
| Pitch | | 3.81 mm | 5 mm | 5 mm | 2.5 mm |
| Number of positions | | 2 – 12 | 2 – 12 | 2 – 16 | 2 – 8 |
| IEC/UL rated voltage | | 160 V/300 V | 400 V/300 V | 400 V/300 V | 160 V/150 V |
| IEC/UL nominal current | | 9 A/10 A | 12 A/10 A | 13.5 A/13.5 A | 6 A/5 A |

For more connectors, please visit phoenixcontact.com

| PLUSCON circular Circular connectors for sensor/actuator applications | |  |  |  |  |
|--|-----------|---|---|--|---|
| Description | | M8 flush-type connectors with halogen-free litz wires, front mounting | M12 flush-type connectors with halogen-free litz wires, front mounting | M12 flush-type connectors for wave soldering processes, two-piece, rear mounting | M12 flush-type connectors, for reflow processes, two-piece, rear mounting |
| Type | Order No. | | | | |
| Pin | 5-pos. | 1440119 | 1520068 | 1436602 | 1551752 |
| Socket | 5-pos. | 1440106 | 1520042 | 1436563 | 1542622 |
| Number of positions | | 4/5 | 4/5 | 4/5 | 4/5 |
| Rated voltage | | 30 V | 60 V | 60 V | 60 V |
| Nominal current | | 2 A | 4 A | 4 A | 4 A |
| Contact carrier material | | PA 66 | PA 66 | PA 66 | PPA |
| Contact/contact surface material | | Cu alloy/Au | Cu alloy/Au | Cu alloy/Au | Cu alloy/Au |
| Connection method | | Individual litz wires | Individual litz wires | Solder pins | THR solder connection |

| PLUSCON data Connectors with standard interfaces such as RJ45, USB and M12 for data transmission | |  |  |  |  |
|--|----------------|---|---|---|---|
| Description | | RJ45 socket inserts and panel mounting frames, for Freenet system | RJ45 socket inserts and panel mounting frames, for PCB connection | USB socket inserts and panel mounting frames, for flat-ribbon cable connection | M12 flush-type connector for wave soldering processes, one-piece |
| Socket insert | CAT5 | 1652936 | 1688586 | 1653854 | |
| Socket insert | CAT6 | 1652949 | 1653090 | 1653867 | |
| Panel mounting frame | | 1653744 | 1689446 | 1653744 | |
| Flush-type connector | 4-pos., socket | | | | 1551503 |
| Flush-type connector | 8-pos., socket | | | | 1553860 |
| Rated voltage | | 50 V | 150 V | 30 V | 250 V |
| Nominal current | | 1 A | 1.5 A | 1 A | 4 A |
| Number of positions | | 8 | 8 | 4 | 4-pos./8-pos. |
| Contact material | | Cu alloy | Cu alloy | Cu alloy | Cu alloy |
| Connection method | | IDC | Solder connection | Flat-ribbon cable connection | Solder pins |

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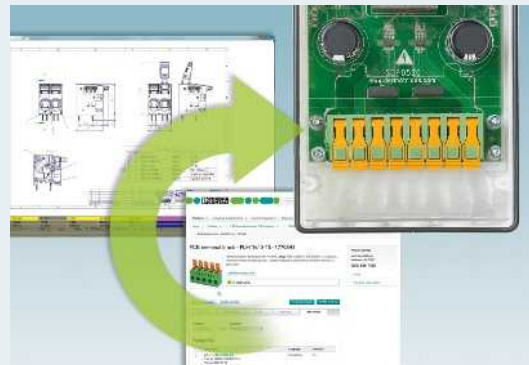
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