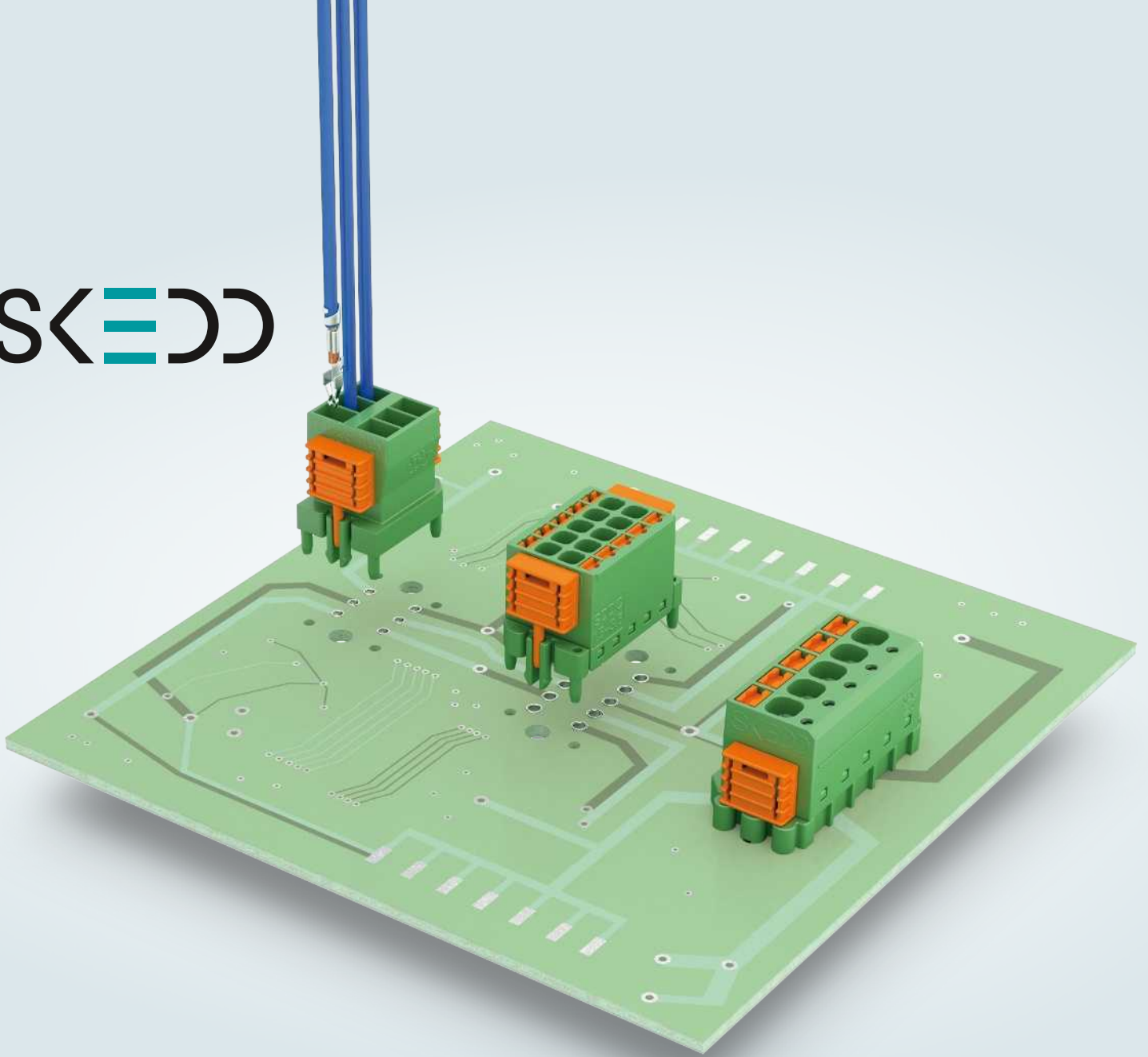


SKEDD



The new way to make contact

Direct connector with SKEDD technology

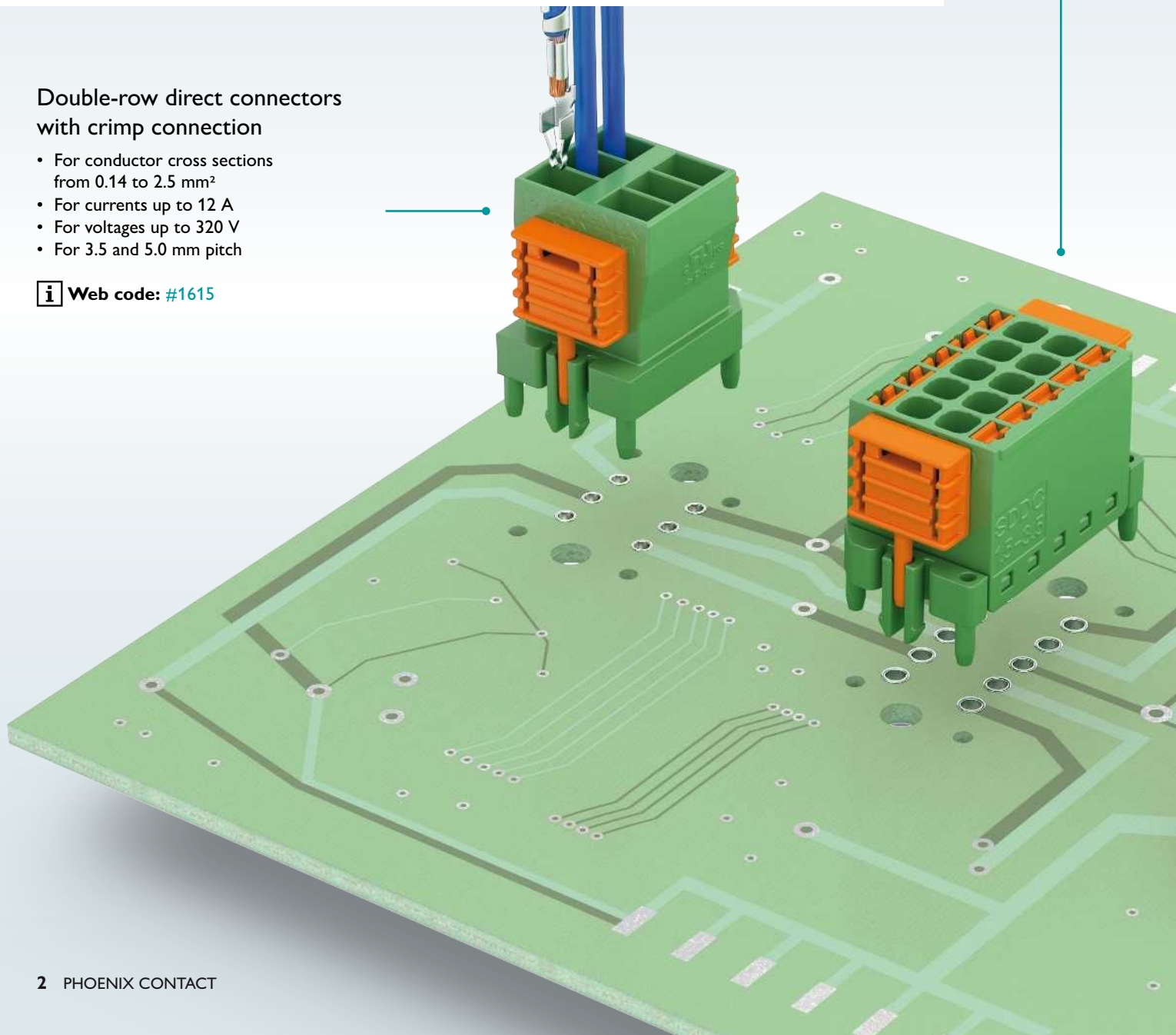
The new method of contacting direct connectors with SKEDD technology

Innovation from a single source: Phoenix Contact presents direct connectors with crimp or Push-in spring connection. Thanks to SKEDD technology, you can significantly reduce your component and processing costs. Position, insert, and latch: it could not be easier to connect the SKEDD direct connectors to the PCB.

Double-row direct connectors with crimp connection

- For conductor cross sections from 0.14 to 2.5 mm²
- For currents up to 12 A
- For voltages up to 320 V
- For 3.5 and 5.0 mm pitch

i Web code: #1615



Double-row direct connectors with Push-in spring connection

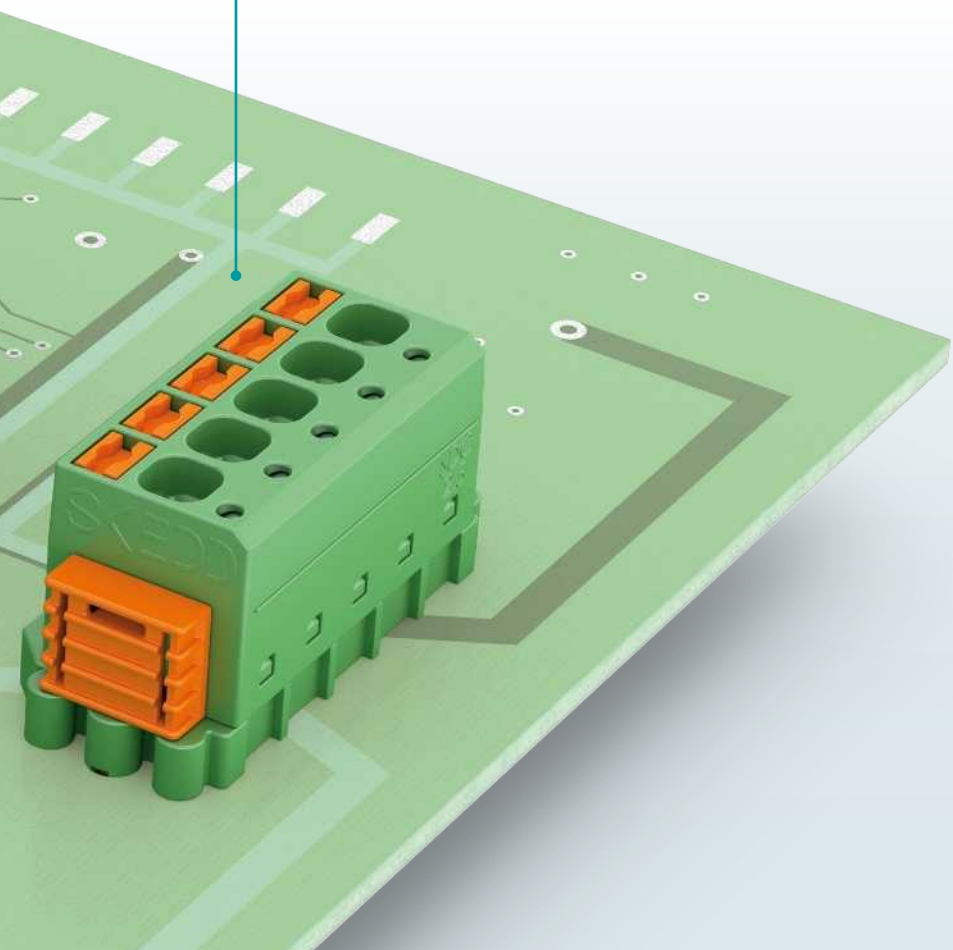
- For conductor cross sections from 0.2 to 1.5 mm²
- For currents up to 8 A
- For voltages up to 160 V
- For 3.5 mm pitch

i Web code: #1206

Single-row direct connectors with Push-in spring connection

- For conductor cross sections from 0.2 to 2.5 mm²
- For currents up to 12 A
- For voltages up to 320 V
- For 5.0 mm pitch

i Web code: #0786

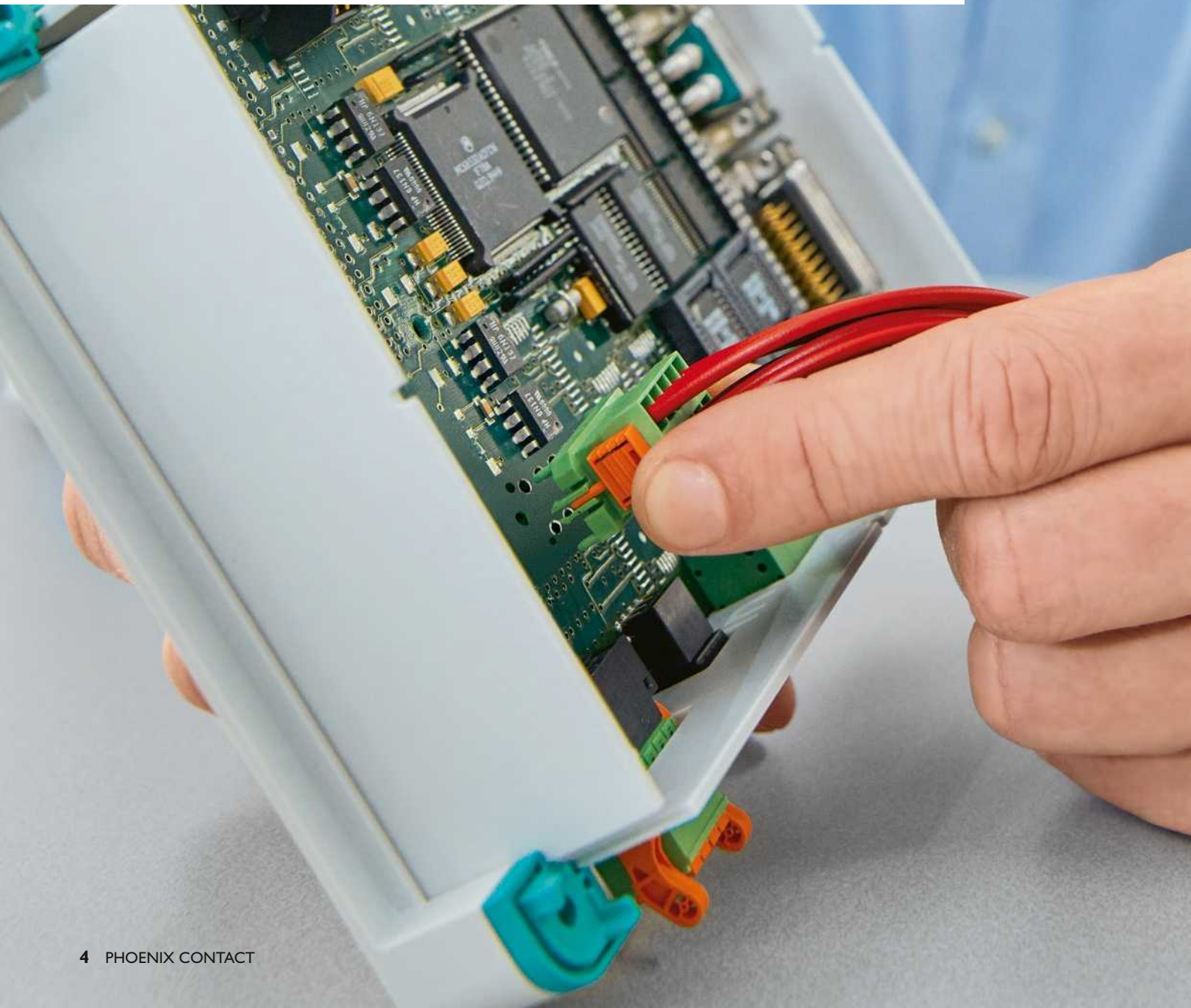


Contents

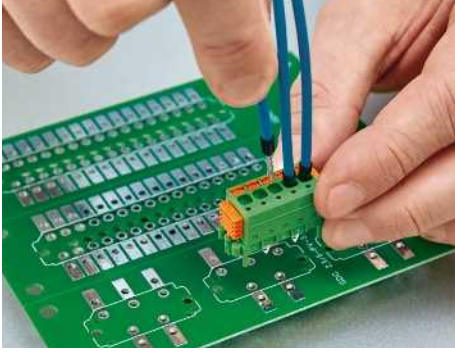
Your advantages	4-5
Mounting options	6-7
Application areas	8-9
Technical data	10-11
Product lists	12-15

Intuitive, tool-free, and reliable – direct connection technology for maximum convenience

SKEDD is an innovative mounting technology for connecting PCB connectors directly to the PCB via through-contacted drill holes. Mounting is tool-free and no additional header is required. Body-bound rivets on the side of the connector ensure a reliable and vibration-resistant connection.

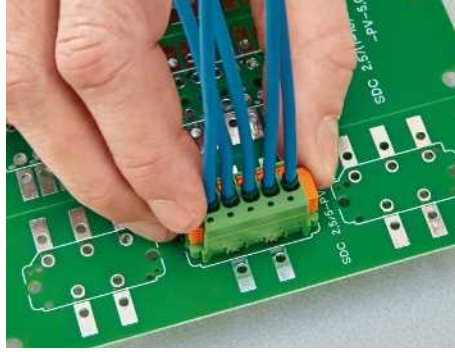


Your advantages



Tool-free, time-saving Push-in spring connection

Connect solid and flexible conductors with ferrules directly by hand.



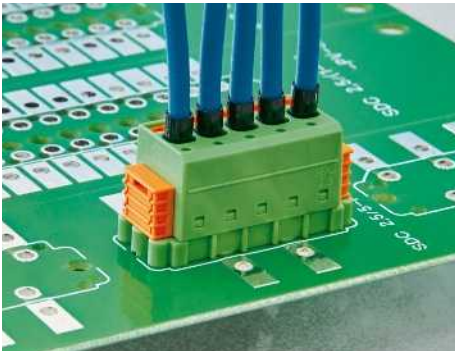
Flexible positioning on the PCB

Integrate through-contacted drill holes anywhere on the PCB.



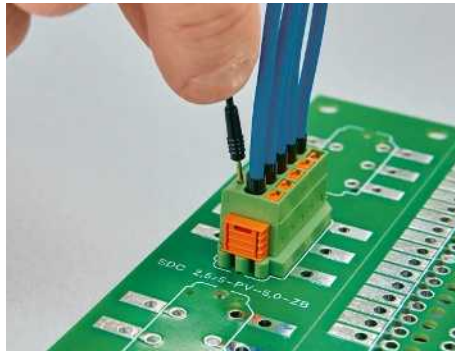
Coding pins ensure no risk of mismatching

Take advantage of up to six codings that ensure no risk of mismatching.



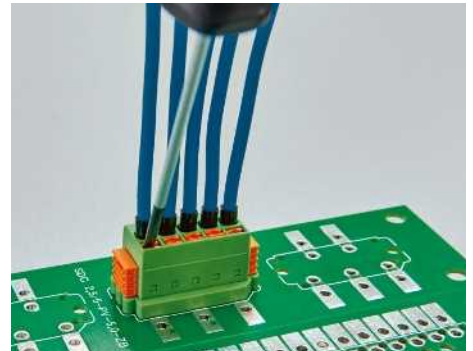
Reduced component, process, and storage costs

Reduce your overall costs, as there is no need for a header.



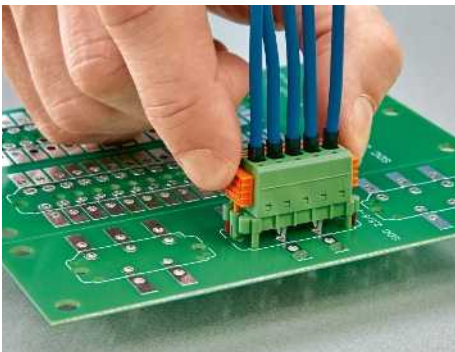
Quick and convenient testing, thanks to the integrated testing option

Check the function of every connection terminal safely during operation.



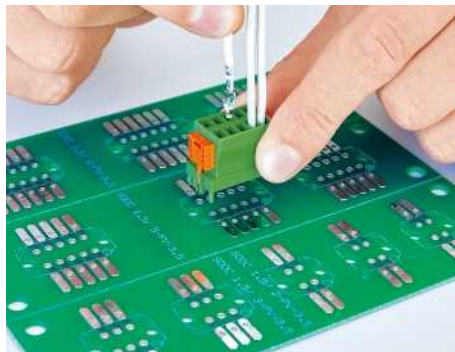
Intuitive operation, thanks to color-coded push button

Open the terminal point via the integrated push button as required.



Simply plug and unplug directly

Mount and remove the connectors easily without a tool.



Inexpensive connection of pre-assembled conductors

The crimp connection guarantees connection convenience for high volumes.

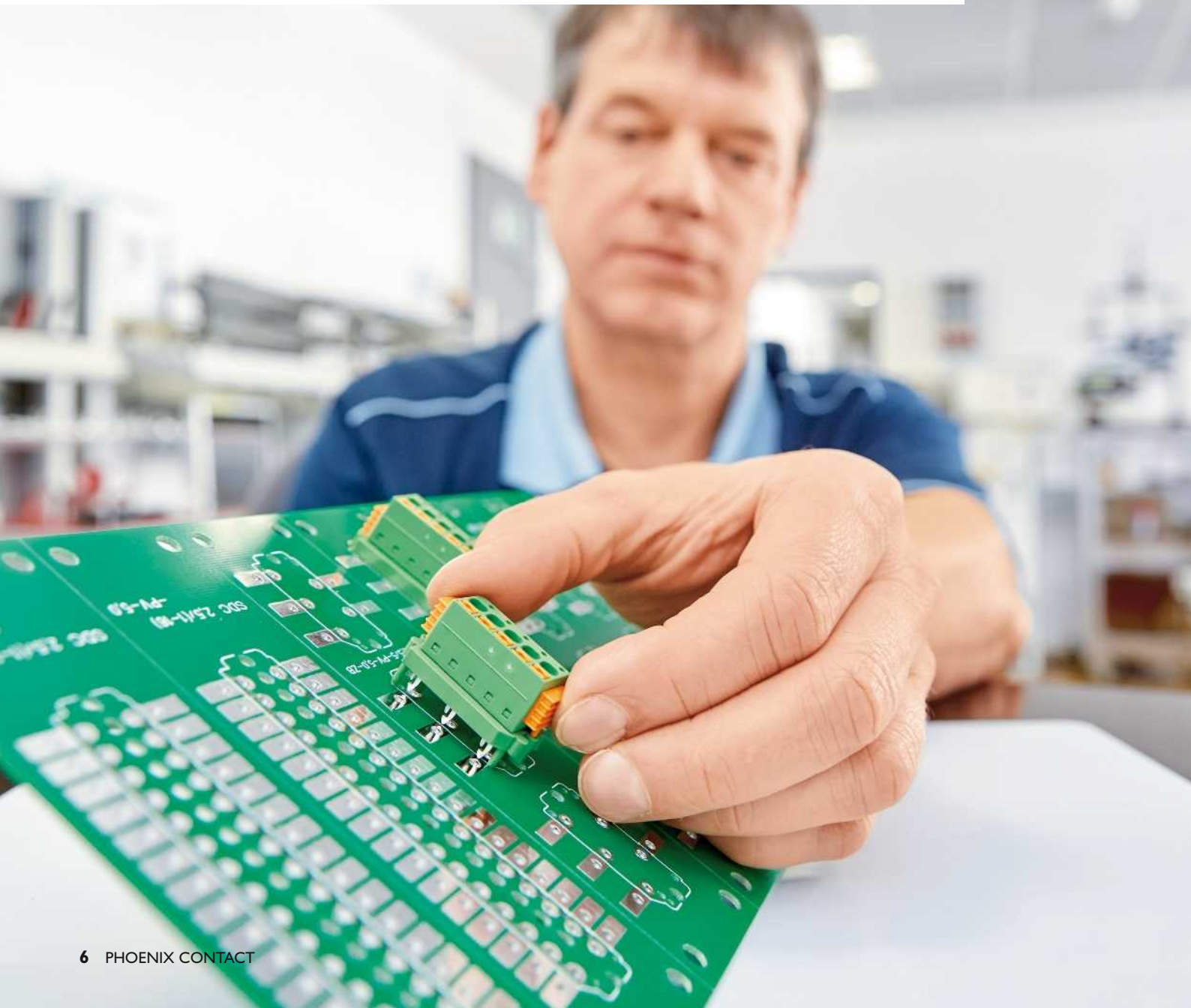


Tools for manual and automated crimping

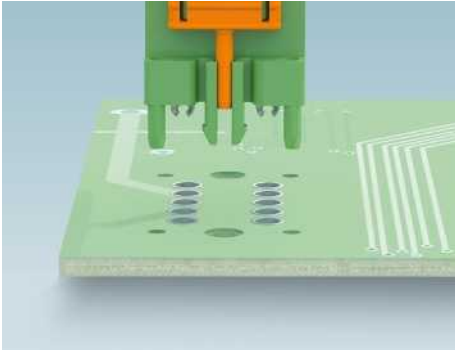
Use qualified tools for a high level of operating convenience.

Innovative solutions for reversible connections to the PCB

The SKEDD direct connection technology enables pluggable and detachable connections between conductors and PCBs. No soldering required yet completely reliable. The tool-free and reversible mounting is ideal for test plugs, internal wiring, and connections on the rear of the PCB.

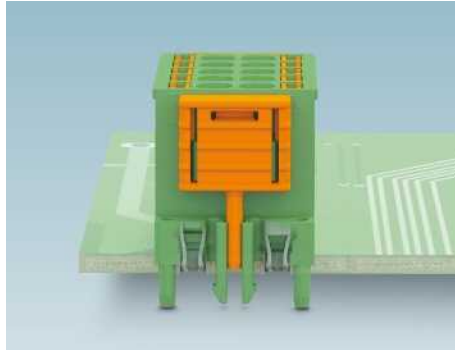


Detailed overview of the technology and application examples



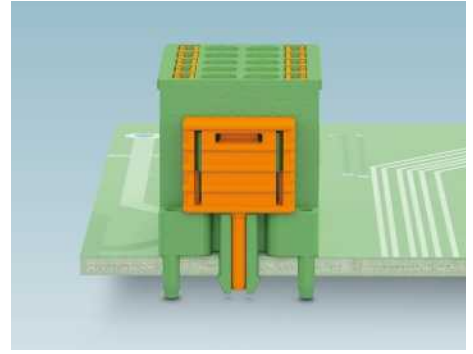
Through-contacted drill holes

Press-in technology, wave soldering, THR soldering, and SMT soldering are established processes in PCB assembly. None of these are needed with the new SKEDD direct connection technology. Integrate through-contacted drill holes anywhere on the PCB. You will benefit from a whole new level of flexibility when it comes to your PCB layout.



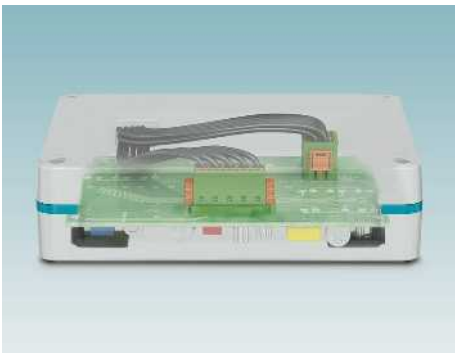
Spring-loaded contact handles

For the first time, SKEDD direct connection technology enables directly pluggable and detachable connections at any position on the PCB. SKEDD contacts consist of two spring-loaded slightly curved contact handles that adapt to the diameter of the PCB drill holes and make reliable contact. Direct connectors therefore do not require a header and are connected directly by hand, without tools.



Body-bound rivets on the side

Body-bound rivets on the side ensure a firm connection, even in case of mechanical loads such as vibrations. SKEDD direct connectors are qualified for 25 plugging and unplugging cycles and have passed vibration tests in accordance with DIN EN 60068-2-8 with an acceleration of approximately 50 m/s^2 in a frequency range of 60.1 Hz to 150 Hz.



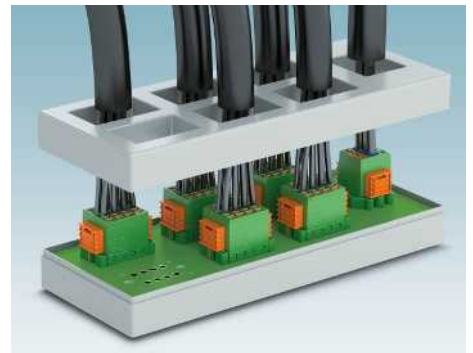
Connection on the rear of the PCB

The innovative direct connectors enable straightforward implementation of applications that require a conductor connection on the rear of the PCB. Thanks to SKEDD direct connection technology, there is no need for a manual soldering process for integration of additional PCB connection technology.



Internal device wiring of two PCBs

You can even connect the pre-assembled SKEDD direct connectors to the PCB during production and therefore wire several PCBs in the device. To integrate additional functions, all you need to do is provide through-contacted drill holes on the motherboard. You can then easily integrate further SKEDD direct connectors as required.



Connect several devices via one distributor PCB

With SKEDD direct connectors, you can create simple distributor boards that do not require a higher degree of protection, e.g. to connecting I/O devices to a controller. Thanks to direct connection technology, the entire PCB can be assembled without a soldering process.

One technology, many solutions – application areas for direct connectors

Direct connectors with SKEDD technology can be used in a wide range of industries and applications. Whether implemented in building technology, industrial automation or infrastructure, thanks to the range of pitch sizes, conductor cross sections, and number of positions, the SDC, SDDC, and CDDC series always provide impressive solutions for your requirements.



Heating and A/C control systems



Smart meters



Blind controllers



Industrial controllers



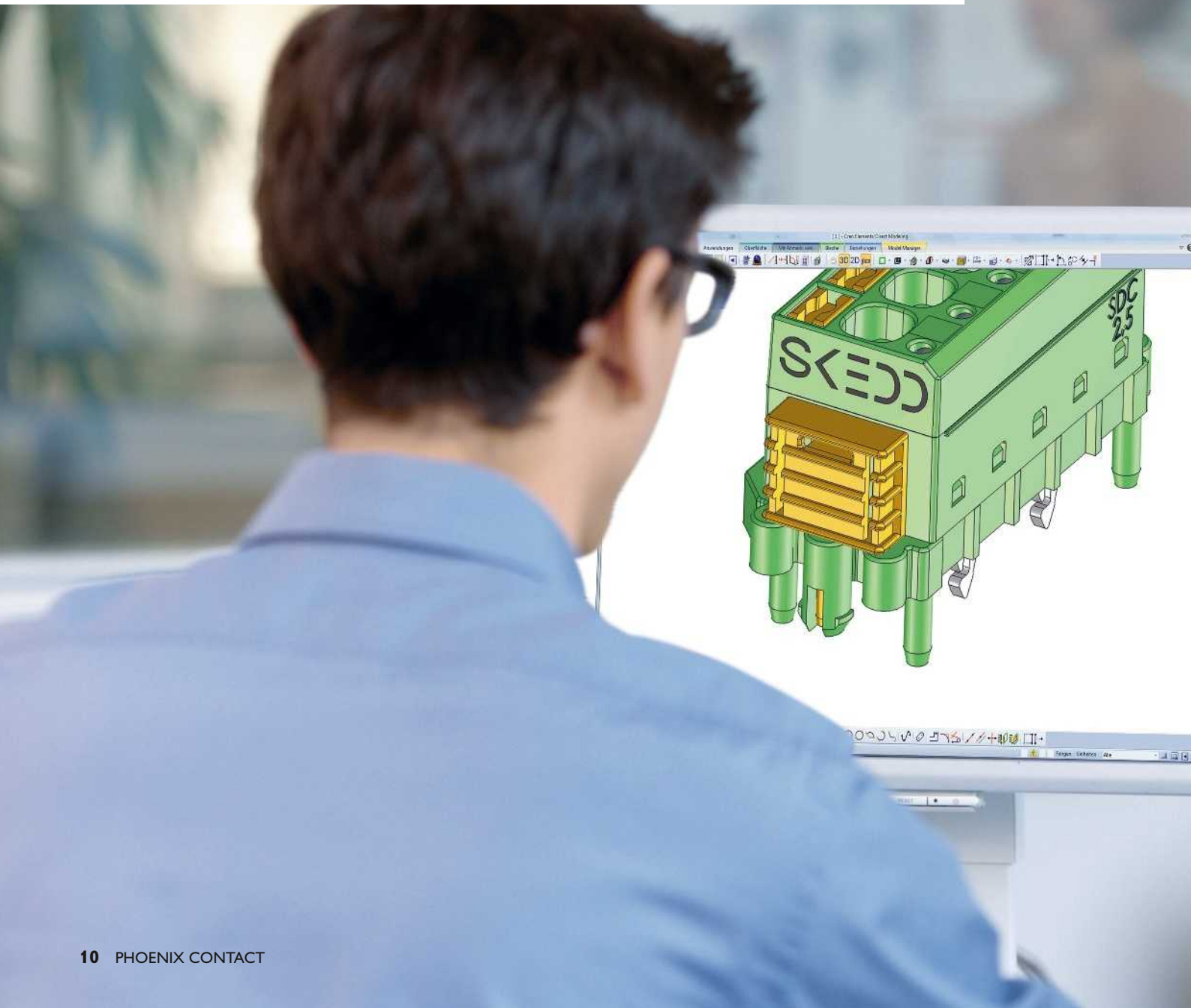
Frequency converters



Charging stations for electromobility

Process reliability, easy assembly, and reliable connection

SKEDD direct connectors are suitable for all established production processes. The connectors are assembled manually after the soldering process which places no additional demands on the PCB used. Comprehensive testing and approvals guarantee that SKEDD direct connectors establish completely safe and reliable connections.



Technical requirements and approvals

1. PCB design

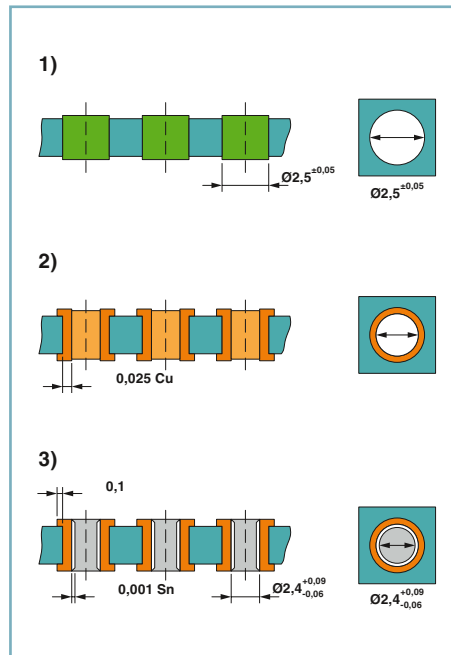
SKEDD direct connectors from Phoenix Contact are qualified for standard PCBs that are 1.6 mm thick with a chemically tin-coated or HAL surface (Hot Air Leveling) and have no further material or surface requirements. During PCB production, it must simply be ensured that tin-coated and through-contacted drill holes are provided for the SKEDD contacts and untinned drill holes are provided for the interlocking and guide pins.

2. Soldering process

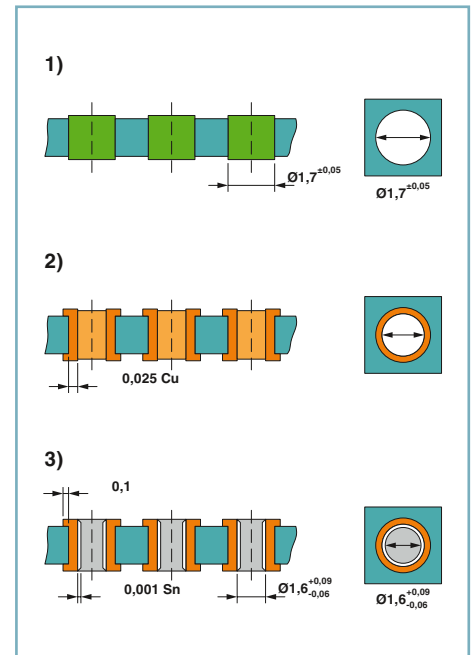
Unlike standard PCB terminal blocks and headers, or special components for surface assembly (SMD = Surface Mount Device), the SKEDD direct connectors are not soldered in place. The soldering process used therefore only depends on the other electromechanical and electric components on the PCB. If the wave soldering process is used on the PCB, the provided drill holes can be covered with the soldering frame, Kapton band or a blue mask to prevent any unwanted solder residue. If the THR or SMD process is used on the PCB, the drill holes can be protected by soldering templates.

3. Manual assembly

The SKEDD direct connectors are mounted manually following the soldering process and before final assembly of the device. The connectors are connected manually and secured using the body-bound rivets on the side. If the connectors are positioned closely beside one another and the body-bound rivets



Internal diameter of the drill holes that receive SDC 2.5 contacts (all dimensions in mm)



Internal diameter of the drill holes that receive SDDC 1.5 / CDDC 1.5 / CDDC 2.5 contacts (all dimensions in mm)

therefore cannot easily be operated by hand, they can also be locked using a screwdriver, thanks to their grooves and contact surfaces.

Standards and approvals

SKEDD direct connectors of the SDC and SDDC series are approved in accordance with UL 1059, CAN/CSA C22.2 No.158-10, and DIN EN 61984 (connector standard). VDE and UL approvals have been commissioned for the CDDC range of products.

The direct connectors meet the requirements of the glow-wire test in accordance with DIN EN 60335-1 (household appliances standard). Information on the glow-wire ignition temperature (GWIT) and glow-wire flammability rating (GWFI) is detailed in the product data sheets.

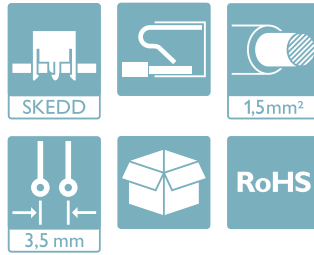
In addition, all three product ranges have passed the durability test in accordance with DIN EN 61373:2011-03 (Shock and vibration testing for railway applications) in category 1 and class B.



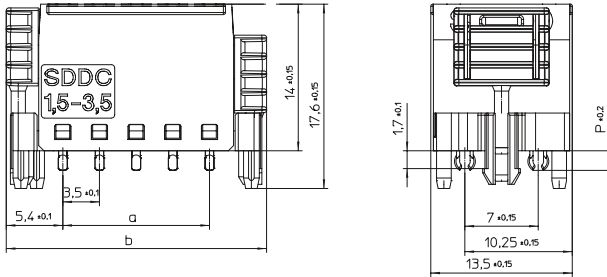
Vibration test in test laboratory

Double-row direct connectors with Push-in spring connection

i Web code: #1206



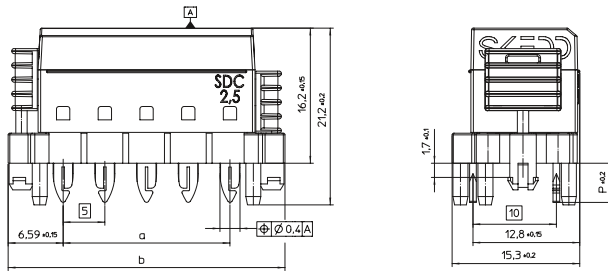
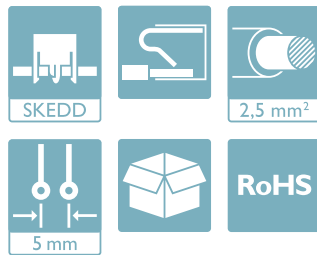
Technical data	
Conductor cross section solid/stranded min. (AWG)	0.2 mm ² (24)
Max. conductor cross section, solid/stranded (AWG)	1.5 mm ² (16)
Rated voltage III/2 (UL)	160 V (300 V)
Rated current	8 A
Length x height	13.5 mm x 17.6 mm
Pin length (p)	1.7 mm
Color	Green
Contact surface	Tin
Plugging and unplugging cycles	25



Number of positions	Type	Order No.	Gauge of outer positions (a)	Width (b)
2	SDDC 1,5/2-PV-3,5	1848642	3.5 mm	14.3 mm
3	SDDC 1,5/3-PV-3,5	1848655	7.0 mm	17.8 mm
4	SDDC 1,5/4-PV-3,5	1848668	10.5 mm	21.3 mm
5	SDDC 1,5/5-PV-3,5	1848671	14 mm	24.8 mm
6	SDDC 1,5/6-PV-3,5	1848684	17.5 mm	28.3 mm
7	SDDC 1,5/7-PV-3,5	1848697	21.0 mm	31.8 mm
8	SDDC 1,5/8-PV-3,5	1848707	24.5 mm	35.3 mm
9	SDDC 1,5/9-PV-3,5	1848710	28.0 mm	38.8 mm
10	SDDC 1,5/10-PV-3,5	1848723	31.5 mm	42.3 mm
11	SDDC 1,5/11-PV-3,5	1848736	35.0 mm	45.8 mm
12	SDDC 1,5/12-PV-3,5	1848749	38.5 mm	49.3 mm
13	SDDC 1,5/13-PV-3,5	1848752	42.0 mm	52.8 mm
14	SDDC 1,5/14-PV-3,5	1848765	45.5 mm	56.3 mm
15	SDDC 1,5/15-PV-3,5	1848778	49.0 mm	59.8 mm
16	SDDC 1,5/16-PV-3,5	1848781	52.5 mm	63.3 mm

Single-row direct connectors with Push-in spring connection

i Web code: #0786

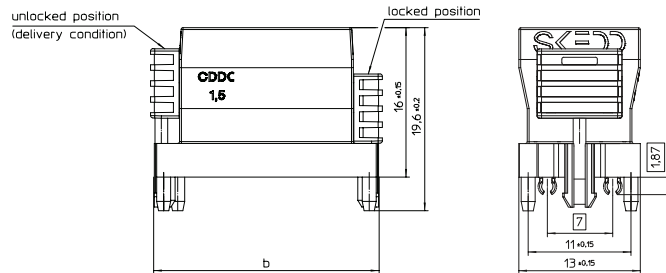
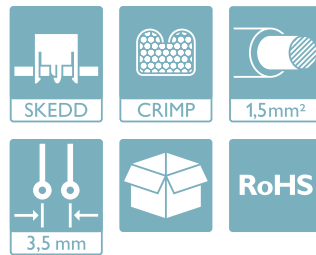


Technical data	
Conductor cross section solid/stranded min. (AWG)	0.2 mm ² (24)
Max. conductor cross section, solid/stranded (AWG)	2.5 mm ² (12)
Rated voltage III/2 (UL)	320 V (300 V)
Rated current	12 A
Length x height	15.3 mm x 21.2 mm
Pin length (p)	4.7 mm
Color	Green
Contact surface	Tin
Plugging and unplugging cycles	25

Number of positions	Type	Order No.	Gauge of outer positions (a)	Width (b)
1	SDC 2,5/1-PV-5,0-ZB	1864024	–	13.18 mm
2	SDC 2,5/2-PV-5,0-ZB	1864037	5.0 mm	18.18 mm
3	SDC 2,5/3-PV-5,0-ZB	1864040	10.0 mm	23.18 mm
4	SDC 2,5/4-PV-5,0-ZB	1864053	15.0 mm	28.18 mm
5	SDC 2,5/5-PV-5,0-ZB	1864066	20.0 mm	33.18 mm
6	SDC 2,5/6-PV-5,0-ZB	1864079	25.0 mm	38.18 mm
7	SDC 2,5/7-PV-5,0-ZB	1864082	30.0 mm	43.18 mm
8	SDC 2,5/8-PV-5,0-ZB	1864095	35.0 mm	48.18 mm
9	SDC 2,5/9-PV-5,0-ZB	1864105	40.0 mm	53.18 mm
10	SDC 2,5/10-PV-5,0-ZB	1864118	45.0 mm	58.18 mm
11	SDC 2,5/11-PV-5,0-ZB	1864121	50.0 mm	63.18 mm
12	SDC 2,5/12-PV-5,0-ZB	1864134	55.0 mm	68.18 mm
13	SDC 2,5/13-PV-5,0-ZB	1864147	60.0 mm	73.18 mm
14	SDC 2,5/14-PV-5,0-ZB	1864150	65.0 mm	78.18 mm
15	SDC 2,5/15-PV-5,0-ZB	1864163	70.0 mm	83.18 mm
16	SDC 2,5/16-PV-5,0-ZB	1864176	75.0 mm	88.18 mm

Double-row direct connectors with crimp connection in 3.5 mm pitch

i Web code: #1614



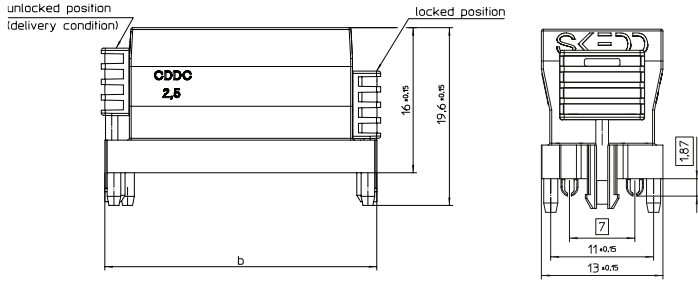
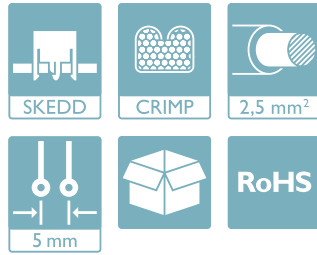
Technical data	
Conductor cross section, stranded, min. (AWG)	0.14 mm ² (26)
Max. AWG conductor cross section, stranded	1.5 mm ² (16)
Rated voltage III/2	160 V
Rated current	8 A
Length x height	13 mm x 16 mm
Pin length (p)	1.87 mm
Color	Green
Contact surface	Tin
Plugging and unplugging cycles	25

Number of positions	Type	Order No.	Width (b)
2	CDDC 1,5/2-PV-3,5	1016515	14.3 mm
3	CDDC 1,5/3-PV-3,5	1016513	17.8 mm
4	CDDC 1,5/4-PV-3,5	1016512	21.3 mm
5	CDDC 1,5/5-PV-3,5	1016516	24.8 mm
6	CDDC 1,5/6-PV-3,5	1016517	28.3 mm
7	CDDC 1,5/7-PV-3,5	1016518	31.8 mm
8	CDDC 1,5/8-PV-3,5	1016519	35.3 mm
9	CDDC 1,5/9-PV-3,5	1016520	38.8 mm
10	CDDC 1,5/10-PV-3,5	1016521	42.3 mm
11	CDDC 1,5/11-PV-3,5	1016510	45.8 mm
12	CDDC 1,5/12-PV-3,5	1016522	49.3 mm
13	CDDC 1,5/13-PV-3,5	1016523	52.8 mm
14	CDDC 1,5/14-PV-3,5	1016524	56.3 mm
15	CDDC 1,5/15-PV-3,5	1016525	59.8 mm
16	CDDC 1,5/16-PV-3,5	1016526	63.3 mm

Crimp contact	Order No.	Comment	Manual crimping pliers	Quick change tool	Supplier
CDC-MP 0,14-0,5	1016664	Individual contacts available as bulk goods	1142831		
CDC-MP 0,5-1,5	1016662		1142832		
CDC-MP 0,14-0,5-R	1016663	Taped contacts		951-08730-001	Hanke Crimp-Technik GmbH Hirschfelder Ring 8 02763 Zittau, Germany info@hankect.de www.hankect.de
CDC-MP 0,5-1,5-R	1016661			951-08731-001	

Double-row direct connectors with crimp connection in 5 mm pitch

i Web code: #1615



Technical data	
Conductor cross section, stranded, min. (AWG)	0.14 mm ² (26)
Max. AWG conductor cross section, stranded	2.5 mm ² (14)
Rated voltage III/2	320 V
Rated current	12 A
Length x height	13 mm x 16 mm
Pin length (p)	1.87 mm
Color	Green
Contact surface	Tin
Plugging and unplugging cycles	25

Number of positions	Type	Order No.	Width (b)
2	CDDC 2,5/2-PV-5,0	1016293	15.8 mm
3	CDDC 2,5/3-PV-5,0	1016292	20.8 mm
4	CDDC 2,5/4-PV-5,0	1016290	25.8 mm
5	CDDC 2,5/5-PV-5,0	1016289	30.8 mm
6	CDDC 2,5/6-PV-5,0	1016288	35.8 mm
7	CDDC 2,5/7-PV-5,0	1016286	40.8 mm
8	CDDC 2,5/8-PV-5,0	1016285	45.8 mm
9	CDDC 2,5/9-PV-5,0	1016280	50.8 mm
10	CDDC 2,5/10-PV-5,0	1016279	55.8 mm
11	CDDC 2,5/11-PV-5,0	1016278	60.8 mm
12	CDDC 2,5/12-PV-5,0	1016277	65.8 mm
13	CDDC 2,5/13-PV-5,0	1016276	70.8 mm
14	CDDC 2,5/14-PV-5,0	1016274	75.8 mm
15	CDDC 2,5/15-PV-5,0	1016273	80.8 mm
16	CDDC 2,5/16-PV-5,0	1016272	85.8 mm

Crimp contact	Order No.	Comment	Manual crimping pliers	Quick change tool	Supplier
CDC-MP 0,14-0,5	1016664	Individual contacts available as bulk goods	1142831		Hanke Crimp-Technik GmbH Hirschfelder Ring 8 02763 Zittau, Germany info@hankect.de www.hankect.de
CDC-MP 0,5-1,5	1016662		1142832		
CDC-MP 1,5-2,5	1016660		1142833		
CDC-MP 0,14-0,5-R	1016663	Taped contacts		951-08730-001	
CDC-MP 0,5-1,5-R	1016661			951-08731-001	
CDC-MP 1,5-2,5-R	1016659			951-08732-001	

Open communication with customers and partners worldwide

Phoenix Contact is a global market leader based in Germany. We are known for producing forward-thinking products and solutions for the comprehensive electrification, networking, and automation of all sectors of the economy and infrastructure. With a global network, we maintain close relationships with our customers, something we believe is essential for our common success.

You can find your local partner at
phoenixcontact.com

