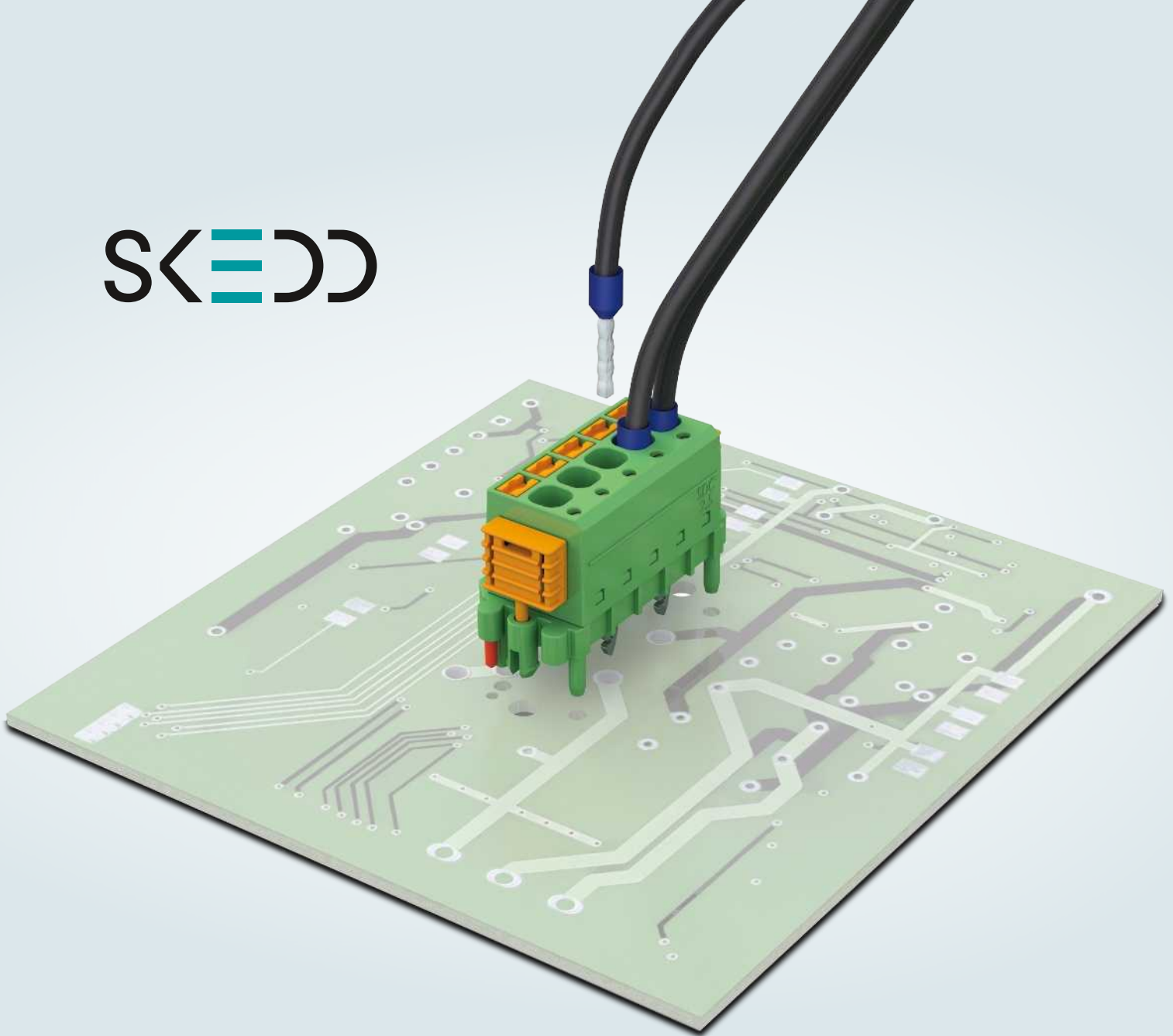


SKEDD

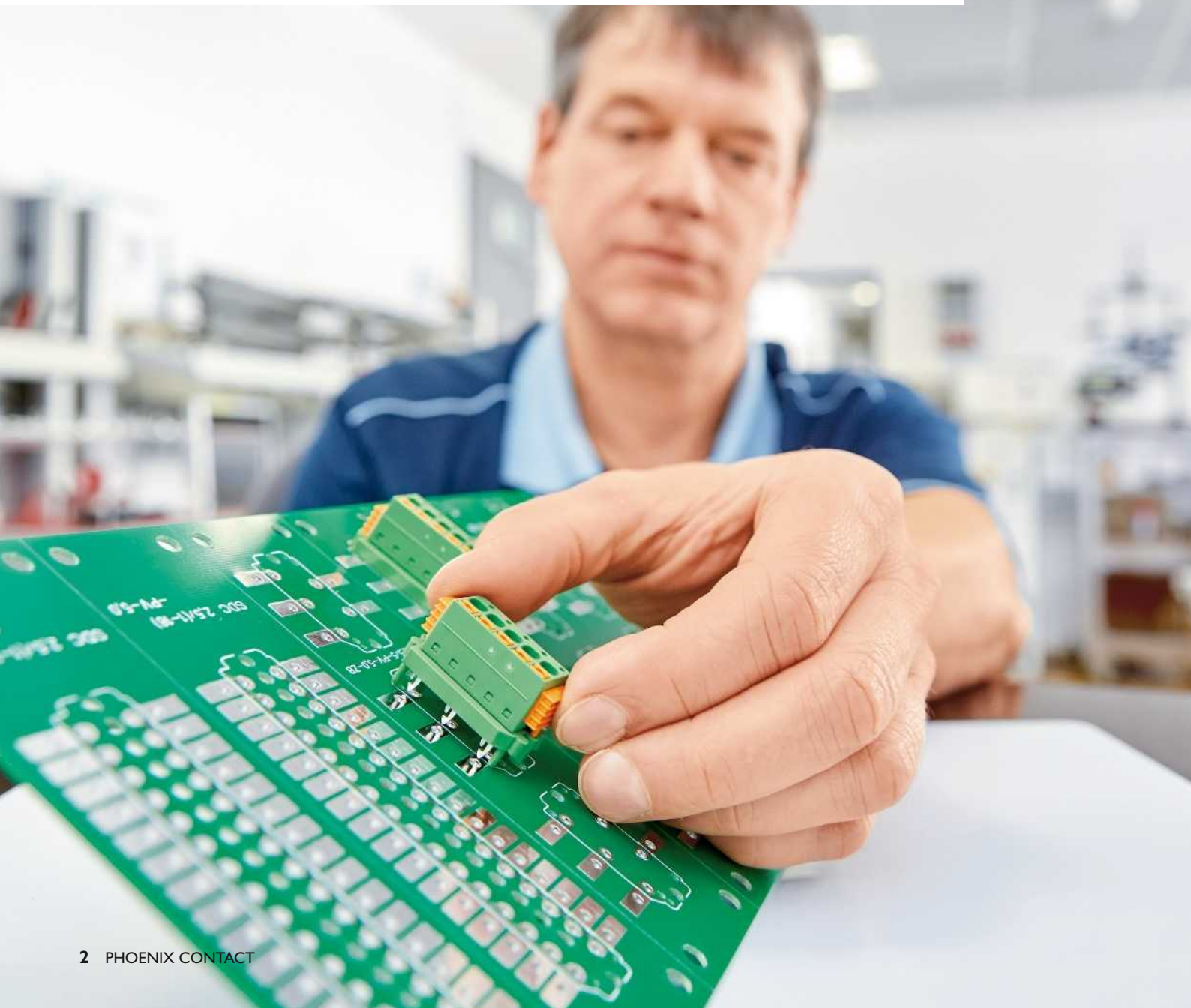


# The new way to make contact

PCB connectors with SKEDD direct connection technology

## The new way to make contact – direct connection technology for maximum convenience

SKEDD is an innovative mounting technology for connecting PCB connectors directly to the PCB via through-contacted bore holes. Mounting is carried out without the need for any tools or an additional header. Body-bound rivets on the side of the connector ensure a reliable and vibration-resistant connection.



# Connection couldn't be easier



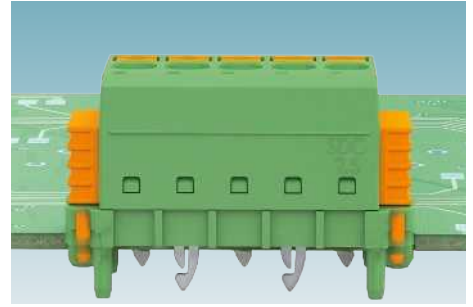
## 1. Position with flexibility

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



## 2. Connect directly

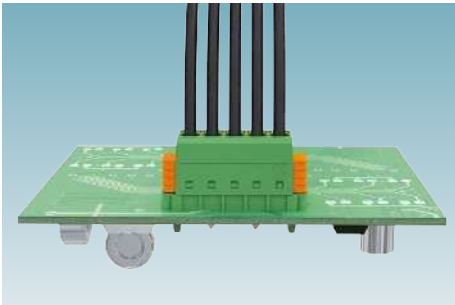
Previously, direct plug-in and detachable connections could only be established on PCB edges using edge connectors, which were connected to solder pads. For the first time, SKEDD direct connection technology enables direct plug-in and detachable connections in any position on the PCB. SKEDD direct connectors do not require a header and can be connected directly by hand, without tools, in through-contacted bore holes on the PCB.



## 3. Connect with reliability

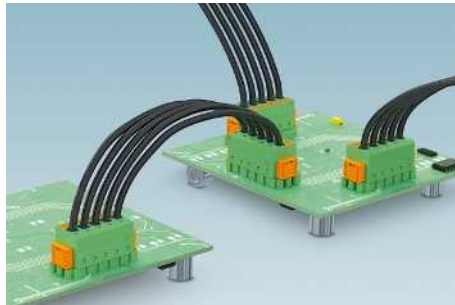
SKEDD contacts consist of two flexible contact limbs that are easy to bend outward and that adapt to the diameter of the through-contacted PCB bore holes and make reliable contact. Body-bound rivets on the side ensure a firm connection, even in the event of mechanical loads such as vibrations. SKEDD direct connectors are qualified for 25 insertion and withdrawal cycles and have passed vibration tests according to DIN EN 60068-2-8 with an acceleration of approximately 50 m/s<sup>2</sup> in a frequency range of 60.1 Hz to 150 Hz.

## Application examples



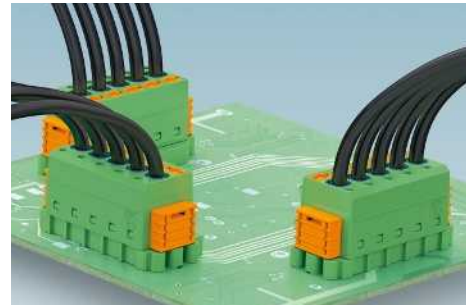
### Connection on the rear of the PCB

With these innovative direct connectors, you can easily carry out applications which require conductor connection on the rear of the PCB. Thanks to SKEDD direct connection technology, there's no need for a manual soldering process for 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 thereby wire several PCBs in the device. To integrate additional functions, you simply need to provide through-contacted bore holes on the motherboard. You can then easily integrate further SKEDD direct connectors as required.



### Connect several devices via one distributor PCB

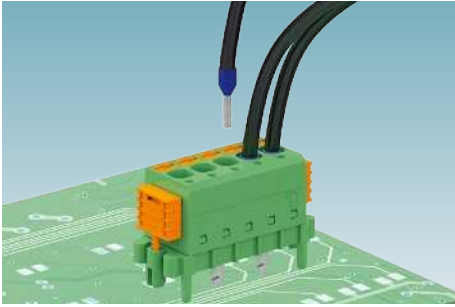
With SKEDD direct connectors, you can create simple distributor boards, which do not require an increased degree of protection, for example for connecting I/O devices to a controller. Thanks to the direct connection technology, the entire PCB can be produced without a soldering process.

## Safe, cost-effective, and compact – SKEDD technology in detail.

As a market leader in PCB connection technology, Phoenix Contact presents the world's first direct connector with Push-in spring connection. Position, insert, and lock: it couldn't be easier to connect SDC 2,5 and SDDC 1,5 series connectors to the PCB.

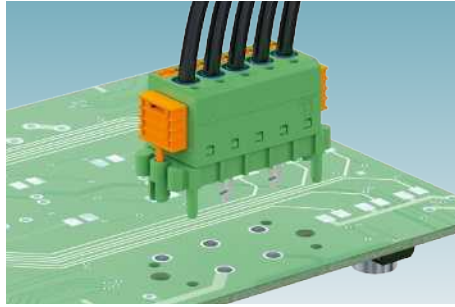


## Your advantages



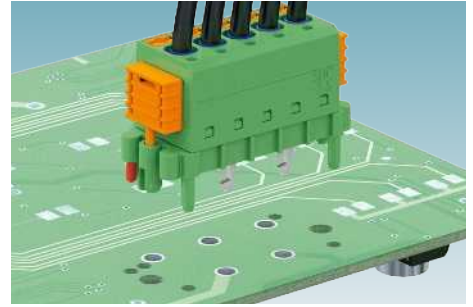
### Tool-free, time-saving Push-in spring connection

Connect solid and stranded conductors with ferrule directly by hand.



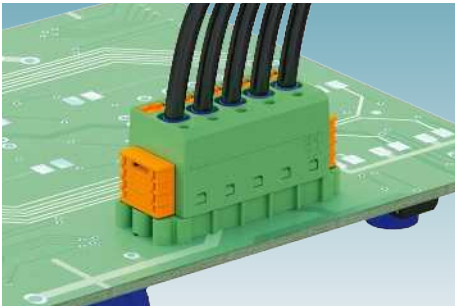
### Flexible positioning on the PCB

SKEDD direct connectors do not need a header. The necessary through-contacted bore holes can be provided anywhere on the PCB.



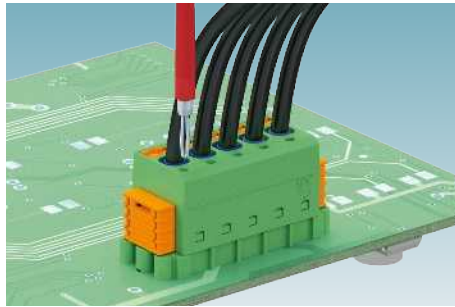
### Coding

Possible coding pin receptacles permit up to six codings with protection against mismatching. Furthermore, the SDC 2,5 connector can also be coded via the position of the zig-zag pinning.



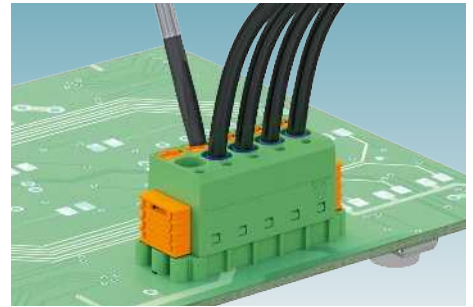
### Lower component, process, and warehousing costs

As the connectors do not require a header, there are no costs for an additional component and you can lower your process and warehousing costs.



### Quick and convenient testing using integrated testing option

Thanks to the integrated test point, you can also check that each connection position is functioning correctly even while the device is in operation.



### Intuitive operation, thanks to color-coded push button

Open the terminal point via the integrated push button to connect stranded conductors without ferrule or release connected conductors.

# One technology, numerous solutions – areas of application for direct connectors

Direct connectors with SKEDD technology are suitable for a wide range of industries and applications. Whether it's building technology, industrial automation or infrastructure – thanks to a variety of pitches, conductor cross sections, and numbers of positions, the SDC 2,5 and SDDC 1,5 series offer impressive solutions for your requirements, every time.



Heating and A/C control systems



Smart meters



Blind controllers



Industrial controllers



Frequency inverters



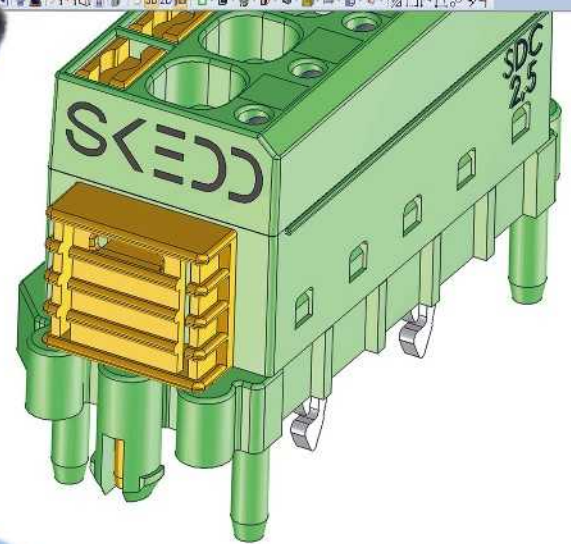
Charging stations for E-Mobility

# Consistently digitally described – all information for your design-in

Phoenix Contact offers you consistent digital access to standardized product data according to eCl@ss, ETIM, and UNSPSC. Approval data, CAD files, and comprehensive product datasheets provide all the information you need for design-in. Benefit from greater efficiency in design-in, production, and installation. You can find all the digital information on the detailed item pages of our web portal. A product list of all available direct connectors can be found via the web code below.



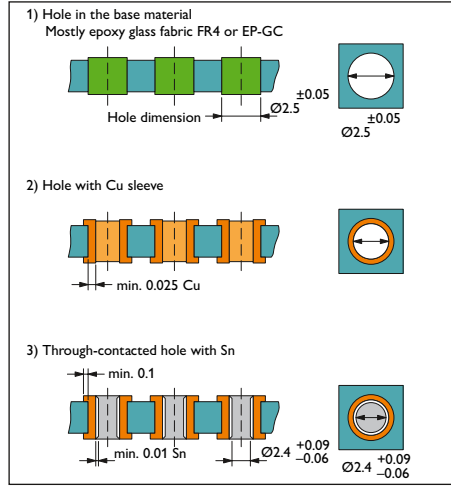
 Web code:  
#0671



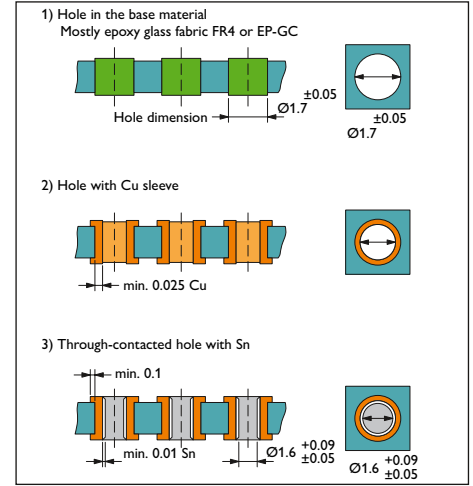
# Technical requirements and approvals

## Requirements on the PCB and bore holes to be provided

When using connectors with SKEDD direct connection technology, there are no special requirements with regard to the PCB used. The SKEDD contacts can be connected directly in the tin-plated, through-contacted bore holes on the PCB. For many applications, these bore holes are already provided during PCB manufacture – for example, for THR soldering processes. SKEDD direct connectors from Phoenix Contact are qualified for PCBs with a HAL surface (Hot Air Leveling). This is the standard surface for PCBs in the wave soldering process. The locking of the body-bound rivets on the sides is designed for printed-circuit boards with a thickness of 1.6 mm.



Internal diameter of the bore holes for accommodating the single-row SDC 2,5 (all dimensions in mm)



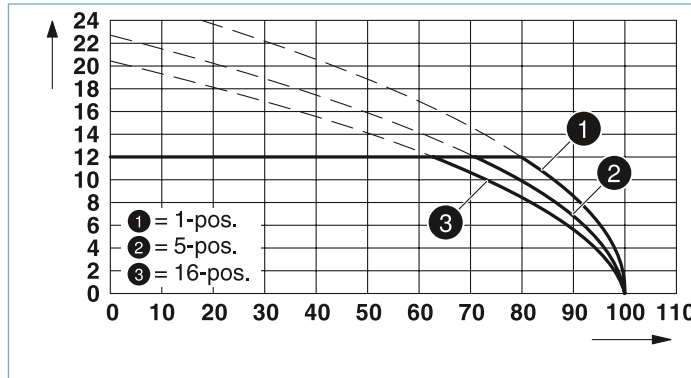
Internal diameter of the bore holes for accommodating the double-row SDDC 1,5 (all dimensions in mm)

## Derating curves

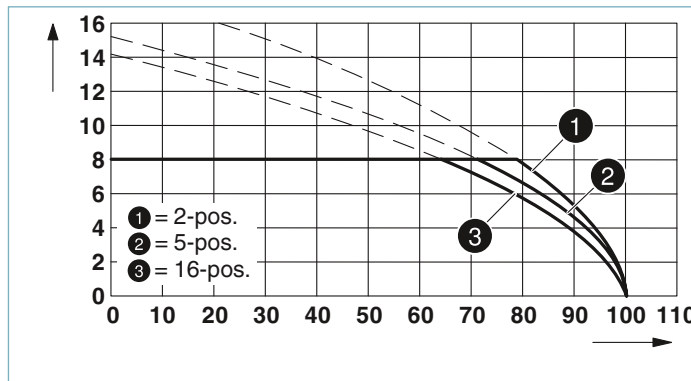
The derating curves indicate which connector current carrying capacity is possible at which ambient temperature for the individual numbers of positions. In the five-position version, the SDDC 1,5 is designed for 8 A at an ambient temperature of up to +70 °C, the five-position SDC 2,5 can be loaded with up to 12 A at the same ambient temperature.

### Standards and approvals

The SDC 2,5 and SDDC 1,5 connectors are approved according to UL 1059, CAN/CSA C22.2 No. 158-10, and DIN EN 61984 (connector standard). Furthermore, the connectors meet the requirements of the glow-wire test according to DIN EN 60335-1 (household appliances standard). In addition, the SDC 2,5 connectors have passed the service life test according to DIN EN 61373:2011-03 (Shock and vibration testing for railway applications) in category 1 and class B.



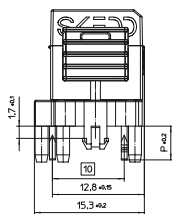
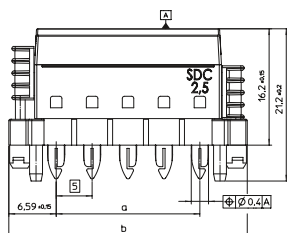
SDC 2,5 series



SDDC 1,5 series

# SDC 2,5/..-PV single-row direct connectors

**i** Web code: #0786



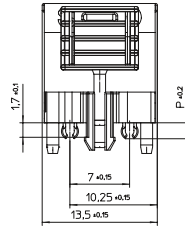
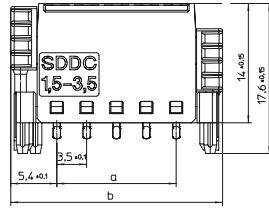
## Technical data

Min. conductor cross section, solid/stranded (AWG)	0.2 mm <sup>2</sup> (24)
Max. conductor cross section, solid/stranded (AWG)	2.5 mm <sup>2</sup> (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
Insertion and withdrawal cycles	25

Number of positions	Type	Order No.	Gauge of outer positions (a)	Width (b)	Pcs./Pkt.
1	SDC 2,5 / 1-PV-5,0-ZB	1864024	–	13.18 mm	50 pieces
2	SDC 2,5 / 2-PV-5,0-ZB	1864037	5.0 mm	18.18 mm	50 pieces
3	SDC 2,5 / 3-PV-5,0-ZB	1864040	10.0 mm	23.18 mm	50 pieces
4	SDC 2,5 / 4-PV-5,0-ZB	1864053	15.0 mm	28.18 mm	50 pieces
5	SDC 2,5 / 5-PV-5,0-ZB	1864066	20.0 mm	33.18 mm	50 pieces
6	SDC 2,5 / 6-PV-5,0-ZB	1864079	25.0 mm	38.18 mm	50 pieces
7	SDC 2,5 / 7-PV-5,0-ZB	1864082	30.0 mm	43.18 mm	50 pieces
8	SDC 2,5 / 8-PV-5,0-ZB	1864095	35.0 mm	48.18 mm	50 pieces
9	SDC 2,5 / 9-PV-5,0-ZB	1864105	40.0 mm	53.18 mm	50 pieces
10	SDC 2,5 / 10-PV-5,0-ZB	1864118	45.0 mm	58.18 mm	50 pieces
11	SDC 2,5 / 11-PV-5,0-ZB	1864121	50.0 mm	63.18 mm	50 pieces
12	SDC 2,5 / 12-PV-5,0-ZB	1864134	55.0 mm	68.18 mm	50 pieces
13	SDC 2,5 / 13-PV-5,0-ZB	1864147	60.0 mm	73.18 mm	50 pieces
14	SDC 2,5 / 14-PV-5,0-ZB	1864150	65.0 mm	78.18 mm	50 pieces
15	SDC 2,5 / 15-PV-5,0-ZB	1864163	70.0 mm	83.18 mm	50 pieces
16	SDC 2,5 / 16-PV-5,0-ZB	1864176	75.0 mm	88.18 mm	50 pieces

# SDDC 1,5/..-PV double-row direct connectors

**i** Web code: #1206



## Technical data

Min. conductor cross section, solid/stranded (AWG)	0.2 mm <sup>2</sup> (24)
Max. conductor cross section, solid/stranded (AWG)	1.5 mm <sup>2</sup> (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
Insertion and withdrawal cycles	25

Number of positions	Type	Order No.	Gauge of outer positions (a)	Width (b)	Pcs./Pkt.
2	SDDC 1,5/2-PV-3,5	1848642	3.5 mm	14.3 mm	250 pieces
3	SDDC 1,5/3-PV-3,5	1848655	7.0 mm	17.8 mm	250 pieces
4	SDDC 1,5/4-PV-3,5	1848668	10.5 mm	21.3 mm	250 pieces
5	SDDC 1,5/5-PV-3,5	1848671	14 mm	24.8 mm	100 pieces
6	SDDC 1,5/6-PV-3,5	1848684	17.5 mm	28.3 mm	100 pieces
7	SDDC 1,5/7-PV-3,5	1848697	21.0 mm	31.8 mm	100 pieces
8	SDDC 1,5/8-PV-3,5	1848707	24.5 mm	35.3 mm	100 pieces
9	SDDC 1,5/9-PV-3,5	1848710	28.0 mm	38.8 mm	100 pieces
10	SDDC 1,5/10-PV-3,5	1848723	31.5 mm	42.3 mm	50 pieces
11	SDDC 1,5/11-PV-3,5	1848736	35.0 mm	45.8 mm	50 pieces
12	SDDC 1,5/12-PV-3,5	1848749	38.5 mm	49.3 mm	50 pieces
13	SDDC 1,5/13-PV-3,5	1848752	42.0 mm	52.8 mm	50 pieces
14	SDDC 1,5/14-PV-3,5	1848765	45.5 mm	56.3 mm	50 pieces
15	SDDC 1,5/15-PV-3,5	1848778	49.0 mm	59.8 mm	50 pieces
16	SDDC 1,5/16-PV-3,5	1848781	52.5 mm	63.3 mm	50 pieces

## In dialog with customers and partners worldwide

Phoenix Contact is a globally present, Germany-based market leader. Our group is synonym for future-oriented components, systems, and solutions in the fields of electrical engineering, electronics, and automation. A global network across more than 100 countries, and 15,000 employees ensure a close proximity to our customers, which we believe is particularly important.

The wide variety of our innovative products makes it easy for our customers to find future-oriented solutions for different applications and industries. We especially focus on the fields of energy, infrastructure, process and factory automation.



You will find our complete product range at:  
[phoenixcontact.com](http://phoenixcontact.com)

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