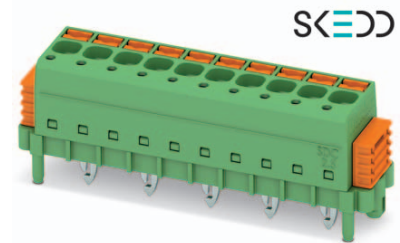


Order No.: 1864134

Type: SDC 2,5/12-PV-5,0-ZB

Plug component, Push-in spring connection



The figure shows a 10-position version

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • Number of positions | 12 | • Nominal current | 12 A |
| • Conductor cross section | 2.5 mm ² | • Nominal voltage | 200 V |
| • Color | green | • Connection direction | 0 ° |
| • Pitch | 5.00 mm | • Type of packaging | packed in cardboard |
| • Connection method | Push-in spring connection | | |

2 Your advantages

- ✓ SKEDD direct plug-in technology enables flexible positioning on the PCB
- ✓ Reduced component and process costs: simple insertion by hand and vibration-resistant connection
- ✓ Time saving push-in connection, tools not required
- ✓ Intuitive use through colour coded actuation lever
- ✓ Quick and convenient testing using integrated test option



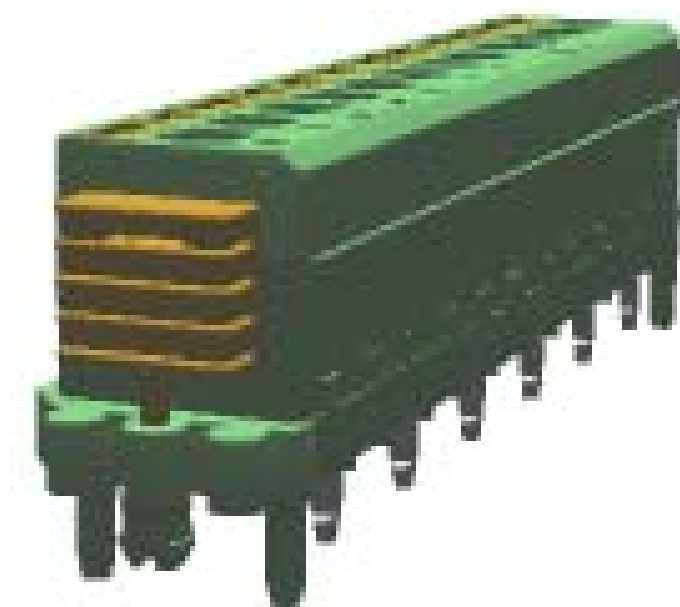
Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1864134

3 Table of contents

| | | |
|----|---|---|
| 1 | Main features..... | 1 |
| 2 | Your advantages | 1 |
| 3 | Table of contents | 2 |
| 4 | 3D model in PDF can be activated (Acrobat Reader only)..... | 3 |
| 5 | Item properties..... | 4 |
| | 5.1 Connection capacity | 4 |
| | 5.2 Material data | 4 |
| | 5.3 Dimensions | 4 |
| 6 | Series drawing..... | 5 |
| 7 | Packaging information | 6 |
| 8 | Application..... | 6 |
| | 8.1 Temperature limit values | 6 |
| 9 | Mechanical tests..... | 7 |
| | 9.1 Air and creepage distances | 7 |
| 10 | Electrical tests | 8 |
| | 10.1 Electrical data | 8 |
| | 10.2 Current carrying capacity/derating curves | 8 |
| 11 | Type approval and special tests | 8 |
| 12 | Approvals | 8 |
| 13 | Commercial data | 8 |
| | 13.1 Combination tests..... | 9 |

1864134 SDC 2,5/12-PV-5,0-ZB

4 3D model in PDF can be activated (Acrobat Reader only)



1864134 SDC 2,5/12-PV-5,0-ZB**5 Item properties**

| | |
|---------------------|---|
| Order No. | 1864134 |
| Type | SDC 2,5/12-PV-5,0-ZB |
| Range of articles | SDC 2,5/...-PV |
| Pitch | 5.00 mm |
| Number of positions | 12 |
| Connection method | Push-in spring connection |
| Mounting type | SKEDD - Direct plug-in technology |
| Pin layout | ZB - Zig-zag back pinning W |
| Note | WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201 |

5.1 Connection capacity

| | |
|---|---|
| Conductor cross section, solid | 0.2 mm ² to 2.5 mm ² |
| Conductor cross section, flexible | 0.2 mm ² to 2.5 mm ² |
| Conductor cross section AWG/kcmil | 24 to 12 |
| Conductor cross section flexible, with ferrule without plastic sleeve | 0.25 mm ² to 2.5 mm ² Ferrule see above |
| Conductor cross section flexible, with ferrule with plastic sleeve | 0.25 mm ² to 2.5 mm ² Ferrule see above |
| Stripping length | 10 mm |

5.2 Material data

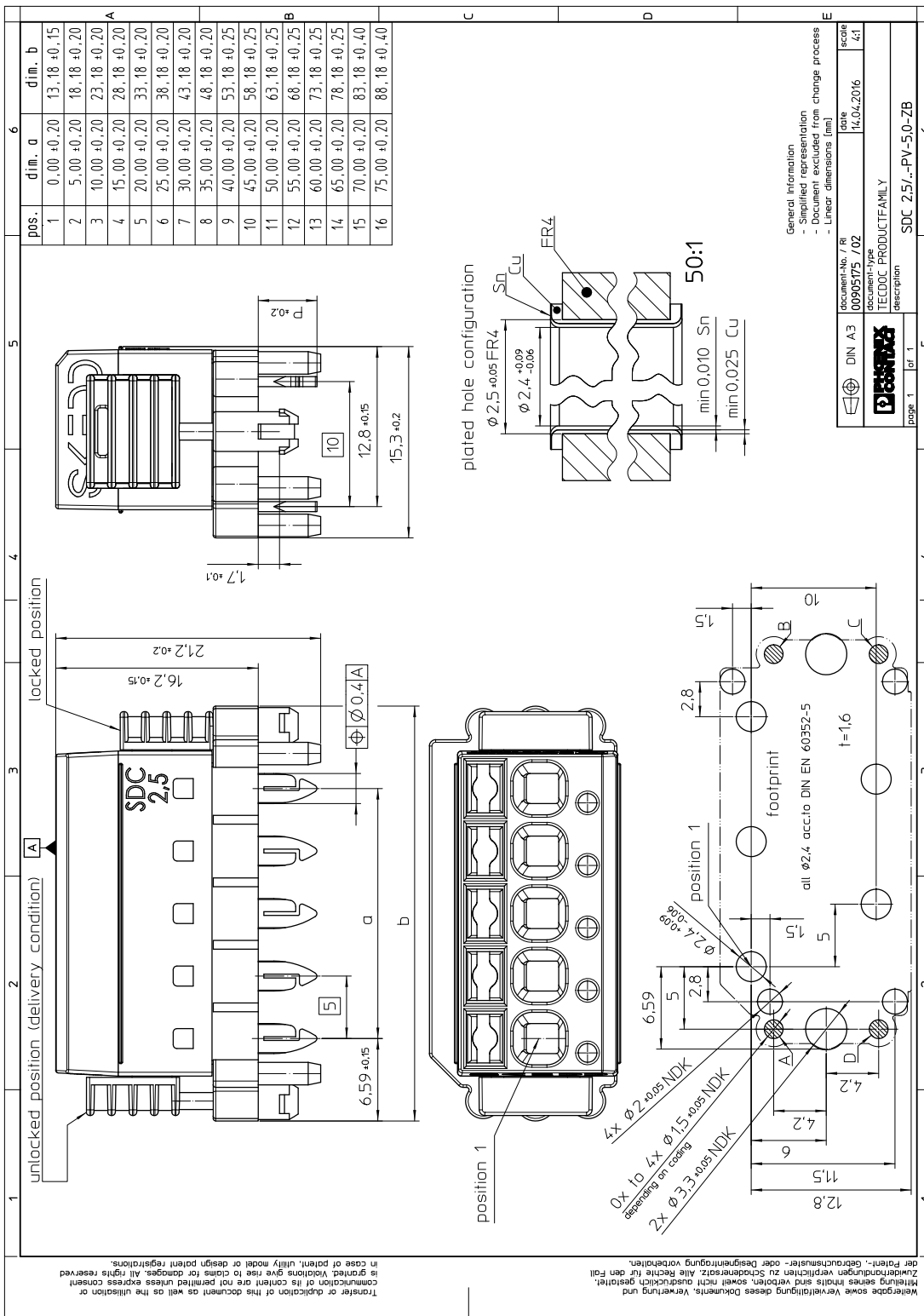
| | | |
|--|---------------------------------------|-------------------|
| Material of metal parts | | |
| Contact material | Cu alloy | |
| Surface contact area | Ni 1.5 µm ... 4 µm , Sn 4 µm ... 8 µm | |
| Soldering area surface | | |
| Surface characteristics | Tin-plated | |
| Insulating material data | Housing | Actuation element |
| Insulating material | PA | PBT |
| CTI according to IEC 60112 | 600 | 275 |
| Flammability rating according to UL 94 | V0 | V0 |
| Color | green (6021) | orange (2003) |

5.3 Dimensions

| | |
|------------------------------|----------|
| Dimension a | 55 mm |
| Length | 15.3 mm |
| Width | 68.18 mm |
| Constructional height | 21.2 mm |
| Height | 21.2 mm |
| Length of the solder pin [P] | 4.7 mm |
| Pin spacing | 10.00 mm |
| Hole diameter | 2.4 mm |

1864134 SDC 2,5/12-PV-5,0-ZB

6 Series drawing



1864134 SDC 2,5/12-PV-5,0-ZB**7 Packaging information**

| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

8 Application**8.1 Temperature limit values**

| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... X °C (dependent on the derating curve) |

1864134 SDC 2,5/12-PV-5,0-ZB**9 Mechanical tests**

| Mechanical test group A | |
|-------------------------------------|------------------------|
| Specification | IEC 61984:2008-10 |
| Visual test | Test passed |
| Specification | IEC 60512-1-1:2002-02 |
| Dimensional test | Test passed |
| Specification | IEC 60512-1-2:2002-02 |
| Resistance of marking | Test passed |
| Specification | IEC 60068-2-70:1995-12 |
| Insertion and withdrawal force | Test passed |
| Specification | IEC 60512-13-2:2006-02 |
| No. of cycles | 25 |
| Insertion strength per pos. approx. | 8 N () |
| Withdraw strength per pos. approx. | 6 N () |
| Polarization and coding | Test passed |
| Specification | IEC 60512-13-5:2006-02 |
| Test force | 20 N |
| Contact retention in insert | Test passed |
| Specification | IEC 60512-15-1:2008-05 |
| Test force per pos. | 20 N |

9.1 Air and creepage distances

| Component | | | |
|---|---------------------|--------|--------|
| Specification | IEC 60664-1:2007-04 | | |
| Mains type | unearthed mains | | |
| Insulating material group | | | |
| Comparative tracking index (IEC 60112:2003-01) | CTI 275 | | |
| Rated insulation voltage | 200 V | 320 V | 320 V |
| Rated surge voltage | 4 kV | 4 kV | 4 kV |
| Degree of pollution | 3 | 2 | 2 |
| Overvoltage category | III | III | II |
| Minimum clearance case A (inhomogeneous field) | 3 mm | 3 mm | 3 mm |
| Minimum value of the creepage path requirement in acc. with table | 3.2 mm | 3.2 mm | 3.2 mm |

1864134 SDC 2,5/12-PV-5,0-ZB**10 Electrical tests****10.1 Electrical data**

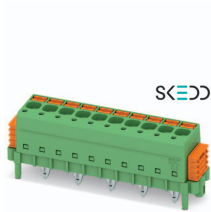
| | | | | |
|--|------|--|--|---|
| Rated current/rated insulation voltage/rated surge voltage/degree of pollution | 12 A | | | 2 |
|--|------|--|--|---|

10.2 Current carrying capacity/derating curves

| | |
|-------------------------|---|
| Specification | |
| Note | Representation based on IEC 60512-5-2:2002-02 |
| Reduction factor | |
| Number of positions | See diagram |
| Conductor cross section | |
| Note | |

11 Type approval and special tests**12 Approvals****13 Commercial data**

| | |
|-----------------------|----------------------|
| Order No. | 1864134 |
| Type | SDC 2,5/12-PV-5,0-ZB |
| GTIN | 4055626210537 |
| Pieces per package | 50 |
| Net weight (SAP) | 2.22 g |
| Customs tariff number | |
| Country of origin | |

1864134 SDC 2,5/12-PV-5,0-ZB**13.1 Combination tests****SDC 2,5/..-PV**

| | | | | |
|---|---|--|--|--|
| Specification | IEC 61984 | | | |
| Mechanical tests | | | | |
| Insertion/withdrawal force per position | 8 N / 6 N | | | |
| | Test passed | | | |
| Contact holder in insert Requirements > 24 N | Test passed | | | |
| | | | | |
| | 1.1 mΩ | | | |
| Insertion/withdrawal cycles | 25 | | | |
| | Test passed | | | |
| | Test passed | | | |
| Rated voltage (III/2) | 320 V | | | |
| | | | | |
| | 16 | | | |
| | 2.5 mm ² | | | |
| Test current | Test passed | | | |
| | | | | |
| | -40 °C/2 h | | | |
| | 100 °C/168 h | | | |
| | 0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle | | | |
| | Test passed | | | |
| | Test passed | | | |
| | Test passed | | | |
| Environmental and durability tests | | | | |
| Result, degree of protection, IP code | Finger safety (IP20 test finger) in acc. with IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08 | | | |