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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

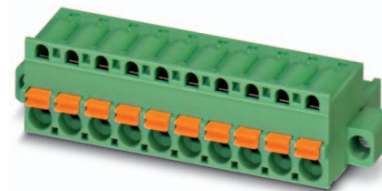


Data sheet

Order No.: 1873346

Type: FKC 2,5/16-STF-5,08

Plug component, Push-in spring connection



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|---------------------------|---------------------------|------------------------|---------------------|
| • No. of pos. | 16 | • Nominal current | 12 A |
| • Conductor cross section | 2.5 mm ² | • Nominal voltage | 320 V |
| • Color | green | • Connection direction | 0 ° |
| • Pitch | 5.08 mm | • Type of packaging | packed in cardboard |
| • Connection method | Push-in spring connection | | |

2 Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Intuitive use through colour coded actuation lever
- ✓ Quick and convenient testing using integrated test option
- ✓ Screwable flange for superior mechanical stability
- ✓ Can be combined with the MSTB 2',5 range



Make sure you always use the latest documentation.

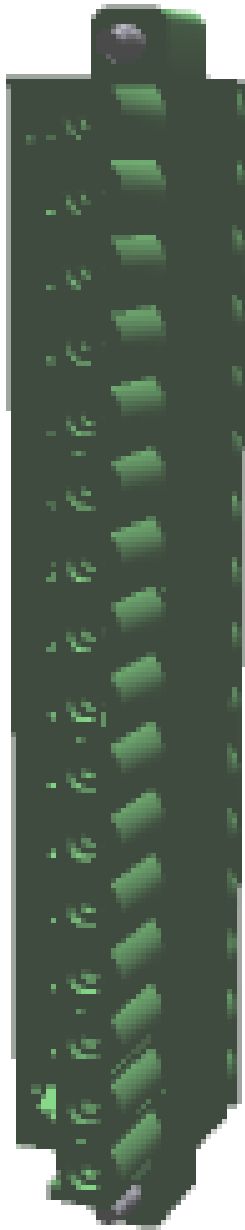
It can be downloaded at: phoenixcontact.net/product/1873346

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1873346 FKC 2,5/16-STF-5,08

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



1873346 FKC 2,5/16-STF-5,08**5 item properties**

| | |
|---------------------|---------------------------|
| Order No. | 1873346 |
| Type | FKC 2,5/16-STF-5,08 |
| Type of contact | Female connector |
| Range of articles | FKC 2,5/...STF |
| Pitch | 5.08 mm |
| Number of positions | 16 |
| Connection method | Push-in spring connection |
| Locking | Screw flange |

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 |
| Conductor cross section flexible, with ferrule with plastic sleeve | 0.25 mm ² to 2.5 mm ² |
| 2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve | 0.5 mm ² to 1.5 mm ² |
| Cylindrical gauge a x b / diameter | 2.8 mm x 2.0 mm / 2.0 mm |
| Stripping length | 10 mm |

5.2 Specifications for ferrules

| | |
|--|---|
| Ferrules without insulating collar, according to DIN 46228-1 | Cross section: 0.5 mm ² ; Length: 8 mm ... 10 mm Cross section: 0.75 mm ² ; Length: 8 mm ... 10 mm Cross section: 1 mm ² ; Length: 8 mm ... 10 mm Cross section: 1.5 mm ² ; Length: 8 mm ... 10 mm Cross section: 2.5 mm ² ; Length: 10 mm |
| Ferrules with insulating collar, according to DIN 46228-4 | Cross section: 0.5 mm ² ; Length: 8 mm ... 10 mm Cross section: 0.75 mm ² ; Length: 8 mm ... 10 mm Cross section: 1 mm ² ; Length: 8 mm ... 10 mm Cross section: 1.5 mm ² ; Length: 8 mm ... 10 mm Cross section: 2.5 mm ² ; Length: 10 mm |

5.3 Material data

| Material of metal parts | | |
|---|---|-------------------|
| Note | WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201 | |
| Contact material | Cu alloy | |
| Terminal point surface | Sn 4 µm ... 8 µm | |
| Surface contact area | Sn 4 µm ... 8 µm | |
| Surface characteristics | hot-dip tin-plated | |
| Insulating material data | Housing | Actuation element |
| Insulating material | PA | PBT |
| CTI according to IEC 60112 | 600 | 600 |
| Flammability rating according to UL 94 | V0 | V0 |
| Color | green (6021) | orange (2003) |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 | |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 | |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C | |

1873346 FKC 2,5/16-STF-5,08

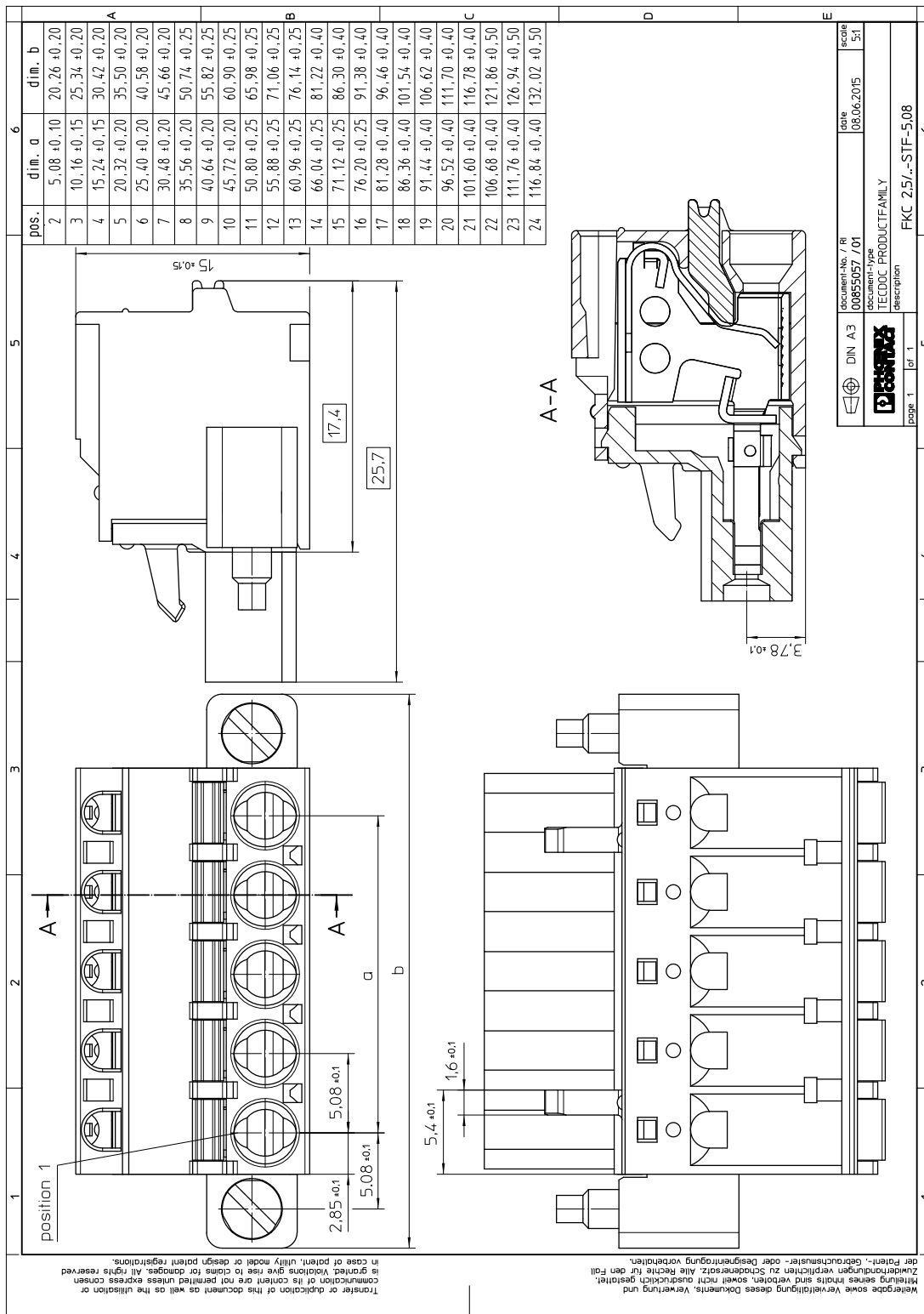
6 Dimensions

6.1 Dimensions for the product

| | |
|--------------|----------|
| | |
| Length | 25.73 mm |
| Width | 91.38 mm |
| Total height | 15 mm |
| Dimension a | 76.2 mm |

1873346 FKC 2,5/16-STF-5,08

7 Series drawing



1873346 FKC 2,5/16-STF-5,08**8 Packaging information**

| | |
|--------------------|---------------------|
| Type of packaging | packed in cardboard |
| Pieces per package | 50 |

9 Application**9.1 Temperature limit values**

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

1873346 FKC 2,5/16-STF-5,08**10 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. | 7 N |
| Withdraw strength per pos. approx. | 7 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. | 26 N |

10.1 Termination and connection method

| | |
|--|---------------------|
| Specification | IEC 60999-1:1999-11 |
| Repeated connection and disconnection | Test passed |
| Check for damage to conductor or loosening | Test passed |

10.2 Pull-out test

| Termination and connection method: pull-out test | |
|--|---|
| Specification | IEC 60999-1:1999-11 |
| Result | Test passed |
| Conductor cross section/conductor type/tractive force actual value | 0.2 mm ² / solid / > 10 N |
| Conductor cross section/conductor type/tractive force actual value | 0.2 mm ² / stranded / > 10 N |
| Conductor cross section/conductor type/tractive force actual value | 2.5 mm ² / solid / > 50 N |
| Conductor cross section/conductor type/tractive force actual value | 2.5 mm ² / stranded / > 50 N |

1873346 FKC 2,5/16-STF-5,08**11 Electrical tests****11.1 Electrical data**

| | |
|---|----------------------------|
| Rated current / conductor cross section | 12 A / 2.5 mm ² |
| Rated insulation voltage (III/2) | 320 V |
| Rated surge voltage (III/2) | 4 kV |
| Contact resistance | 1.5 mΩ |
| Degree of pollution | 2 |

11.2 Air and creepage distances

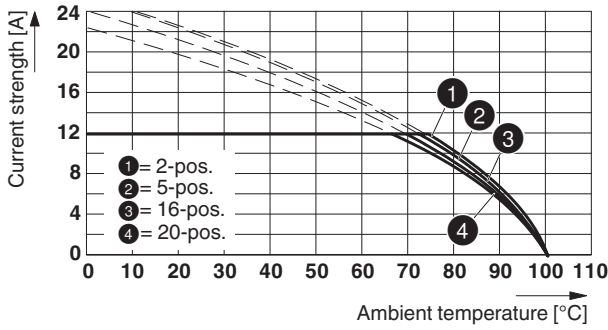
| | | | |
|---|---------------------|-------|--------|
| Component | Plug component | | |
| Specification | IEC 60664-1:2007-04 | | |
| Mains type | unearthed mains | | |
| Insulating material group | I | | |
| Comparative tracking index (IEC 60112:2003-01) | CTI 600 | | |
| Rated insulation voltage | 320 V | 320 V | 630 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 | 4 mm | 3 mm | 3.2 mm |

1873346 FKC 2,5/16-STF-5,08

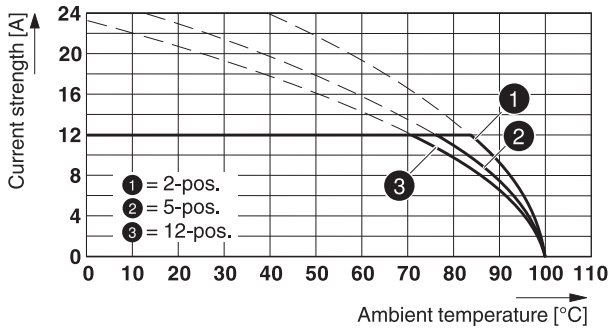
12 Current carrying capacity/derating curves

| | |
|-------------------------|---|
| Specification | IEC 61984:2008-10 |
| Note | Representation based on IEC 60512-5-2:2002-02 |
| Reduction factor | 0.8 |
| Number of positions | See diagram |
| Conductor cross section | 2.5 mm ² |

Type: FKC 2,5/...-STF-5,08 with IC 2,5/...-STGF-5,08



Type: FKC 2,5/...-STF-5,08 with CC 2,5/...-GSF-5,08 P26THR




1873346 FKC 2,5/16-STF-5,08**13 Environmental and durability tests****13.1 Vibration test**


| | |
|------------------------|------------------------|
| Specification | IEC 60068-2-6:2007-12 |
| Result | Test passed |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 - 60.1 Hz) |
| Acceleration | 5 g (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

14 Classification for connectors


| | |
|-----------------------------------|--|
| Specification | IEC 61984:2008-10 |
| Main features | Connectors without switching capacity (COC) |
| Construction form | Fixed connectors |
| Strain relief elements | without strain relief |
| Connection method | Can be reconnected |
| Protection against electric shock | Not encapsulated - touch-proof when inserted |
| Protective conductor | without PE |
| Lock | no |
| Connection method | Screwless terminal points |

15 Approvals

| | |
|---|---------|
| VDE Gutachten mit Fertigungsüberwachung  | |
| mm ² /AWG/kcmil | 0.2-2.5 |
| Voltage | 250 V |
| Current | 12 A |

| | | |
|--|-------|-------|
| cULus Recognized  | | |
| Use group | B | D |
| mm ² /AWG/kcmil | 26-12 | 26-12 |
| Voltage | 300 V | 300 V |
| Current | 10 A | 10 A |

| | |
|---|--|
| EAC  | |
|---|--|

| | |
|---|---------|
| IECEE CB Scheme  | |
| mm ² /AWG/kcmil | 0.2-2.5 |
| Voltage | 250 V |
| Current | 12 A |

1873346 FKC 2,5/16-STF-5,08**16 Commercial Data**

| | |
|--------------------|--|
| Order No. | 1873346 |
| Type | FKC 2,5/16-STF-5,08 |
| Pieces per package | 50 |
| Net weight | 28.087 g |
| GTIN | 4017918142735 |
| | Information that applies locally, see link on page 1 |
| Country of origin | Information that applies locally, see link on page 1 |

17 corresponding headers

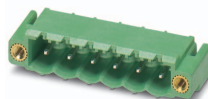
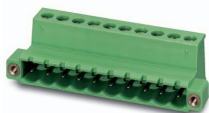
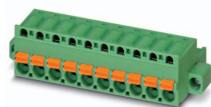
| Order No. | Type |
|-----------|---------------------------|
| 1776647 | MSTB 2,5/16-GF-5,08 |
| 1777219 | MSTBV 2,5/16-GF-5,08 |
| 1899126 | DFK-MSTBA 2,5/16-GF-5,08 |
| 1899427 | DFK-MSTBVA 2,5/16-GF-5,08 |
| 1899757 | EMSTB 2,5/16-GF-5,08 |
| 1915356 | EMSTBV 2,5/16-GF-5,08 |

18 Accessories

| Description | Order No. | Type |
|--|-----------|--------------------------|
| Coding profile, is inserted into the slot on the plug or inverted header, red insulating material | 1734634 | CP-MSTB |
| Strain relief for snapping into the latching chambers of the plugs, 4-pos. | 1876877 | STZ 4-FKC-5,08 |
| Strain relief for snapping into the latching chambers of the plug components, 8-pos. | 1876880 | STZ 8-FKC-5,08 |
| | 0201744 | MPS-MT |
| | 0201647 | RPS |
| Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip | 1205053 | SZS 0,6X3,5 |
| | 0804293 | SK 5,08/3,8:FORTL.ZAHLEN |

1873346 FKC 2,5/16-STF-5,08

19 Combination tests

**FKC 2,5/16-STF****IC 2,5/16-STGF****CC 2,5/16-GF**

Specification

IEC 61984

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

approx. 7 N / 7 N

approx. 8 N / 6 N

Polarization when inserted
Requirement >20 N

Test passed

Test passed

Contact holder in insert
Requirements >20 N

Test passed

Test passed

Durability tests (B)Contact resistance R_1 1.5 m Ω 1.1 m Ω

Insertion/withdrawal cycles

25

25

Contact resistance R_2 1.6 m Ω 1.2 m Ω Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu\text{s})$

4.8 kV

4.8 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

2.21 kV

2.21 kV

Insulation resistance
Requirements > 5 M Ω > 0.6 T Ω > 24 G Ω **Thermal tests (C)**

Tested number of positions

20

24

Tested conductor cross section

2.5 mm²2.5 mm²

Test current

12 A DC

12 A DC

Upper limiting temperature
Requirements < 100°C

Test passed

Test passed

Climatic tests (D)

Test sequence 1: low temperature storage

-40 °C/2 h

-40 °C/2 h

Test sequence 2: heat storage

100 °C/168 h

100 °C/168 h

Test sequence 3: noxious gas storage
(ISO 6988)0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycleRated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu\text{s})$

4.8 kV

4.8 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

2.21 kV

2.21 kV

Environmental and endurance tests (E)

Specification

IEC 61984:2008-10

IEC 61984:2008-10

Degree of protection

Finger safety with IP20
test fingerFinger safety with IP20
test finger