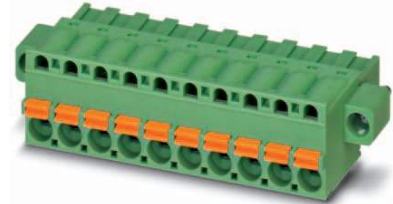


Data sheet

Order No.: 1902330

Type: FKCT 2,5/ 5-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. | 5 | • 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/1902330

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
6	Dimensions.....	4
	6.1 Dimensions for the product	4
7	Series drawing.....	5
8	Packaging information	6
9	Application.....	6
	9.1 Temperature limit values	6
10	Mechanical tests.....	7
	10.1 Termination and connection method.....	7
	10.2 Pull-out test	7
11	Electrical tests	8
	11.1 Electrical data	8
	11.2 Air and creepage distances	8
12	Current carrying capacity/derating curves	9
13	Environmental and durability tests	10
	13.1 Vibration test	10
14	Classification for connectors.....	10
15	Approvals	10
16	Commercial Data.....	11
17	corresponding headers.....	11
18	Accessories.....	11
19	Combination tests.....	12

1902330 FKCT 2,5/ 5-STF-5,08

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



1902330 FKCT 2,5/ 5-STF-5,08**5 item properties**

Order No.	1902330
Type	FKCT 2,5/ 5-STF-5,08
Type of contact	Female connector
Range of articles	FKCT 2,5/...-STF
Pitch	5.08 mm
Number of positions	5
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 Material data

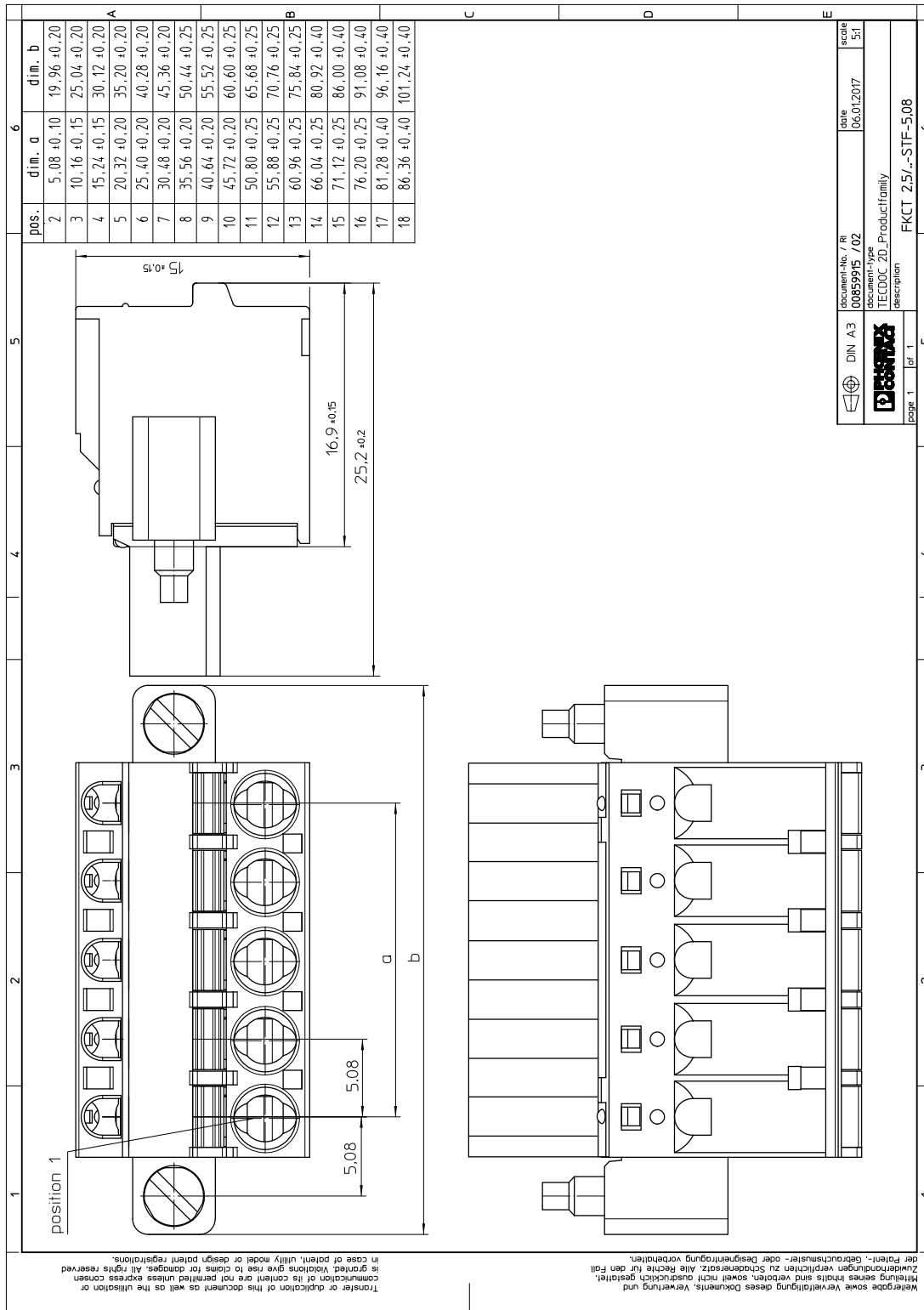
Material of metal parts		
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201	
Contact material	Cu alloy	
Terminal point surface	Sn 4 µm ... 8 µm	
Surface contact area	Sn 4 µm ... 8 µm	
Surface characteristics	hot-dip tin-plated	
Insulating material data	Housing	Actuation element
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	

6 Dimensions**6.1 Dimensions for the product**

Length	25.2 mm
Width	35.5 mm
Total height	15 mm
Dimension a	20.32 mm

1902330 FKCT 2,5/ 5-STF-5,08

7 Series drawing



1902330 FKCT 2,5/ 5-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)

1902330 FKCT 2,5/ 5-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.	
Withdraw strength per pos. approx.	
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.	37 N

10.1 Termination and connection method

Specification	IEC 60999-1:1999-11
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

1902330 FKCT 2,5/ 5-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	1.2 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	3.2 mm	3 mm	3.2 mm

1902330 FKCT 2,5/ 5-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: FKCT 2,5/...-STF-5,08 with MSTB 2,5/...-GF-5,08

87257_1000_en





1902330 FKCT 2,5/ 5-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		
IECEE CB Scheme 			
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 			

1902330 FKCT 2,5/ 5-STF-5,08**16 Commercial Data**

Order No.	1902330
Type	FKCT 2,5/ 5-STF-5,08
Pieces per package	50
Net weight	9.377 g
GTIN	4017918187460
	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
1776537	MSTB 2,5/ 5-GF-5,08
1777109	MSTBV 2,5/ 5-GF-5,08
1845662	MDSTBV 2,5/ 5-GF-5,08
1899016	DFK-MSTBA 2,5/ 5-GF-5,08
1899317	DFK-MSTBVA 2,5/ 5-GF-5,08
1899647	EMSTB 2,5/ 5-GF-5,08
1915246	EMSTBV 2,5/ 5-GF-5,08
1927593	MSTB 2,5/ 5-GF-5,08 THT
1940923	MSTBV 2,5/ 5-GF-5,08 THT BK
1954728	CC 2,5/ 5-GF-5,08 P26THR
1954838	CC 2,5/ 5-GF-5,08 P26THRR56
1955662	CCV 2,5/ 5-GF-5,08 P26THR
1955772	CCV 2,5/ 5-GF-5,08 P26THRR56

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
	0201744	MPS-MT
	0201663	MPS-IH WH
	0201676	MPS-IH RD
	0201689	MPS-IH BU
	0201702	MPS-IH GN
	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
	0805412	SK 5,08/3,8:UNBEDRUCKT
	0805085	SK 5,08/3,8:SO

1902330 FKCT 2,5/ 5-STF-5,08

19 Combination tests

**FKCT 2,5/..-STF**

Specification

Mechanical tests (A)Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R_1

Insertion/withdrawal cycles

Contact resistance R_2 Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ Insulation resistance
Requirements > 5 M Ω **Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ **Environmental and endurance tests (E)**

Specification

Degree of protection

**MSTB 2,5/..-GF**

IEC 61984

Test passed

Test passed

1.2 m Ω

25

1.2 m Ω

4.8 kV

2.21 kV

> 0.2 T Ω

18

2.5 mm²

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger