

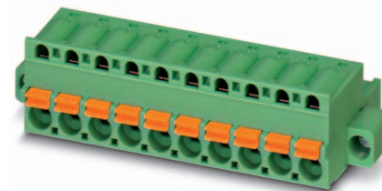
Data sheet

2017-10-11
Product version 08
Document revision 0

Order No.: 1873249

Type: FKC 2,5/ 6-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. | 6 | • 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/1873249

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1873249 FKC 2,5/ 6-STF-5,08

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



1873249 FKC 2,5/ 6-STF-5,08**5 item properties**

Order No.	1873249
Type	FKC 2,5/ 6-STF-5,08
Type of contact	Female connector
Range of articles	FKC 2,5/...STF
Pitch	5.08 mm
Number of positions	6
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	

1873249 FKC 2,5/ 6-STF-5,08**6 Dimensions****6.1 Dimensions for the product**

Length	25.73 mm
Width	40.58 mm
Total height	15 mm
Dimension a	25.4 mm

7 Series drawing

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1873249 FKC 2,5/ 6-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)

1873249 FKC 2,5/ 6-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

1873249 FKC 2,5/ 6-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

1873249 FKC 2,5/ 6-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

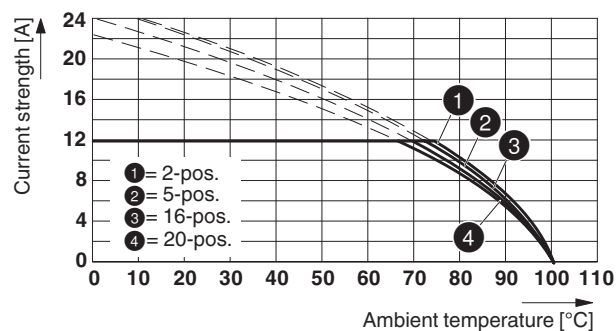
Number of positions

See diagram

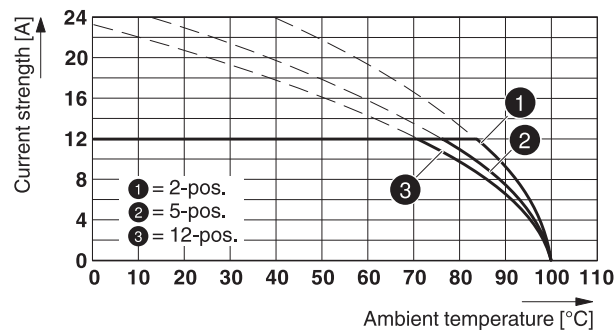
Conductor cross section

2.5 mm²

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



1873249 FKC 2,5/ 6-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 				
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IECEE CB Scheme 				
mm ² /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	12 A			

1873249 FKC 2,5/ 6-STF-5,08**16 Commercial Data**

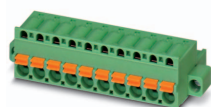
Order No.	1873249
Type	FKC 2,5/ 6-STF-5,08
Pieces per package	50
Net weight	11.61 g
GTIN	4017918142636
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 corresponding headers

Order No.	Type
1776540	MSTB 2,5/ 6-GF-5,08
1777112	MSTBV 2,5/ 6-GF-5,08
1842403	MDSTB 2,5/ 6-GF-5,08
1845675	MDSTBV 2,5/ 6-GF-5,08
1899029	DFK-MSTBA 2,5/ 6-GF-5,08
1899320	DFK-MSTBVA 2,5/ 6-GF-5,08
1899650	EMSTB 2,5/ 6-GF-5,08
1915259	EMSTBV 2,5/ 6-GF-5,08
1927603	MSTB 2,5/ 6-GF-5,08 THT
1940936	MSTBV 2,5/ 6-GF-5,08 THT
1954731	CC 2,5/ 6-GF-5,08 P26THR
1954841	CC 2,5/ 6-GF-5,08 P26THRR56
1955675	CCV 2,5/ 6-GF-5,08 P26THR
1955785	CCV 2,5/ 6-GF-5,08 P26THRR56
1956302	CC 2,5/ 6-GFL-5,08P26THR
1956373	CC 2,5/ 6-GFL-5,08P26THRR56
1956441	CC 2,5/ 6-GFR-5,08P26THR
1956519	CC 2,5/ 6-GFR-5,08P26THRR56
1959668	CCV 2,5/ 6-GFL-5,08P26THR
1959736	CCV 2,5/ 6-GFL-5,08P26THRR56
1959804	CCV 2,5/ 6-GFR-5,08P26THR
1959875	CCV 2,5/ 6-GFR-5,08P26THRR56

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

1873249 FKC 2,5/ 6-STF-5,08**19 Combination tests****FKC 2,5/...-STF**

Specification

Mechanical tests (A)

Insertion/withdrawal force per position

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

Test current

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

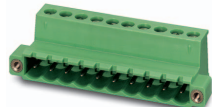
Test sequence 1: low temperature storage

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

**IC 2,5/...-STGF**

IEC 61984

approx. 7 N / 7 N

Test passed

Test passed

1.5 m Ω

25

1.6 m Ω

4.8 kV

2.21 kV

> 0.6 T Ω

20

2.5 mm²

12 A DC

Test passed

-40 °C/2 h

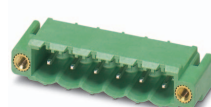
100 °C/168 h

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

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.1 m Ω

25

1.2 m Ω

4.8 kV

2.21 kV

> 24 G Ω

24

2.5 mm²

12 A DC

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