

Order No.: 1792627

Type: CC 2,5/ 2-GF-5,08-LR P26THR

PCB headers, Reflow/wave soldering



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|-------------------------|---------------------|------------------------|---------------------|
| • No. of pos. | 2 | • Nominal current | 12 A |
| • Nominal cross section | 2.5 mm ² | • Nominal voltage | 320 V |
| • Color | black | • Connection direction | 90 ° |
| • Pitch | 5.08 mm | • Type of packaging | packed in cardboard |
| • Mounting type | THR soldering | | |

2 Your advantages

- ✓ Designed for integration into the SMT soldering process
- ✓ Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- ✓ Screwable flange for superior mechanical stability
- ✓ Automatic locking and intuitive release through Lock and Release operating lever in contrasting color



Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1792627

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1792627 CC 2,5/ 2-GF-5,08-LR P26THR

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



1792627 CC 2,5/ 2-GF-5,08-LR P26THR**5 General Technical Data****5.1 item properties**

Order No.	1792627
Type	CC 2,5/ 2-GF-5,08-LR P26THR
Plug-in system	CLASSIC COMBICON
Product type	PCB headers
Type of contact	Male connector
Range of articles	CC 2,5/..-GF-LR
Pitch	5.08 mm
Range of positions	2...24
Number of positions	2
Number of levels	1
Number of connections	2
Number of potentials	2
Mounting type	THR soldering
Connection direction of the connector to the PCB	90 °
Pin layout	Linear pinning
Solder pins per potential	1
Type	Component suitable for through hole reflow

5.2 Mounting

Type of locking	Snap-in locking
	Lock & release threaded flange

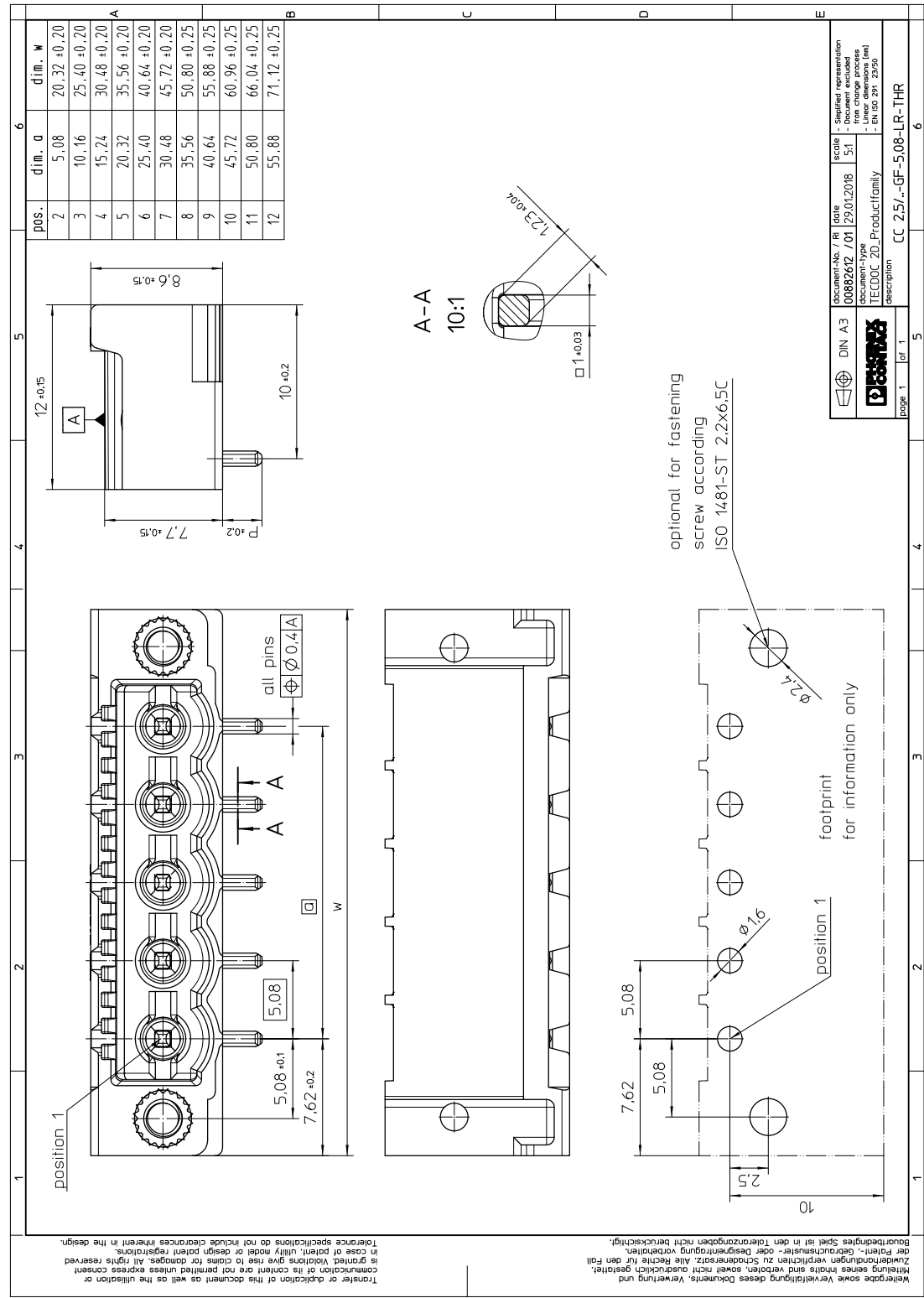
6 Material properties**6.1 Material of metal parts**

Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface contact area	Nickel (1.3 - 3 µm Ni), , Tin (3 - 5 µm Sn)
Soldering area surface	Nickel (1.3 - 3 µm Ni) , Tin (3 - 5 µm Sn)
Surface characteristics	Tin-plated
Insulating material data	Housing
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0
Color	black

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**7 Dimensions****7.1 Dimensions for the product**

Length	12 mm
Width	20.32 mm
Height (without solder pin)	8.6 mm
Total height	11.2 mm
Solder pin [P]	2.6 mm
Dimension a	5.08 mm

8 Series drawing



1792627 CC 2,5/ 2-GF-5,08-LR P26THR**9 Application****9.1 General information**

Details for soldering processes

Processing using reflow processes in compliance with IEC 60068-2-58 or DIN EN 61760-1 (latest version)
 Moisture Sensitive Level (MSL) = 1 according to IPC/JEDEC J-STD-020-C

10 Packaging information

Type of packaging

packed in cardboard

Pieces per package

50

10.1 Processing notes

Process

Reflow/wave soldering

Specification

Following IPC/JEDEC J-STD-020D.1:2008-03

Specification

Following IEC 61760-1:2006-04

Specification

Following IEC 60068-2-58:2005-02

Moisture Sensitive Level

MSL 1

Classification temperature T_c

max. 260 °C

Solder cycles in the reflow

3

swash circumference

see dimensional drawing

10.2 Temperature limit values

Ambient temperature (storage/transport)

-40 °C ... 70 °C

Ambient temperature (assembly)

-5 °C ... 100 °C

Ambient temperature (operation)

-40 °C ... 100 °C (dependent on the derating curve)

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**11 Mechanical tests****11.1 Visual examination**

Specification	IEC 61984:2008-10
Visual examination	Test passed
Specification	IEC 60512-1-1:2002-02

11.2 Dimensional test

Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02

11.3 Resistance of marking

Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12

11.4 Polarization and coding

Polarization and coding	Test passed
Specification	IEC 60512-13-5:2006-02
Test force	20 N

11.5 Contact retention in insert

Contact retention in insert	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	37 N

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**12 Insertion and withdrawal forces**

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

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**13 Electrical tests****13.1 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	2.1 mΩ
Degree of pollution	2

13.2 Air and creepage distances

Component	PCB headers		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	IIIa		
Comparative tracking index (IEC 60112:2003-01)	CTI 175		
Rated insulation voltage	250 V	320 V	400 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	3.2 mm	4 mm

1792627 CC 2,5/ 2-GF-5,08-LR P26THR

14 Current carrying capacity/derating curves

Specification

IEC 61984:2001-06

Note

Representation based on IEC 60512-5-2:2002-02

Note

For number of positions, see diagram

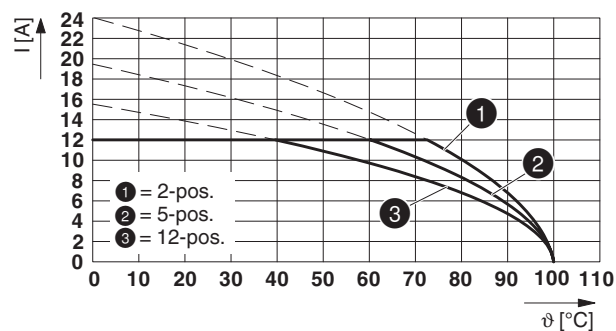
Reduction factor

0.8

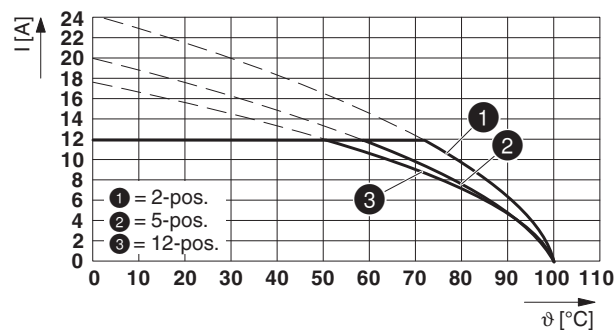
Conductor cross section

2.5 mm²

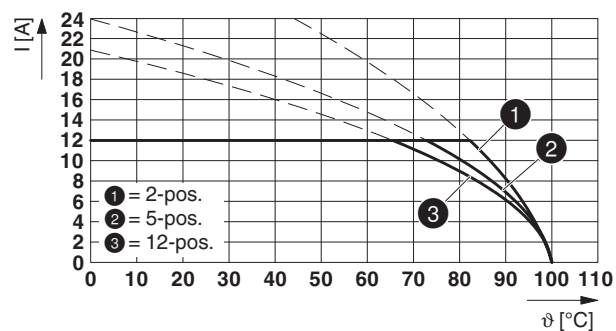
Type: MVSTB(R/W) 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR

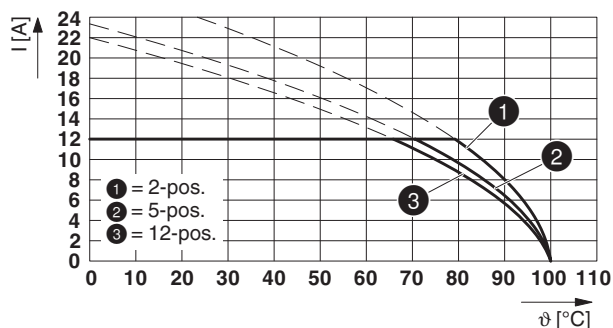
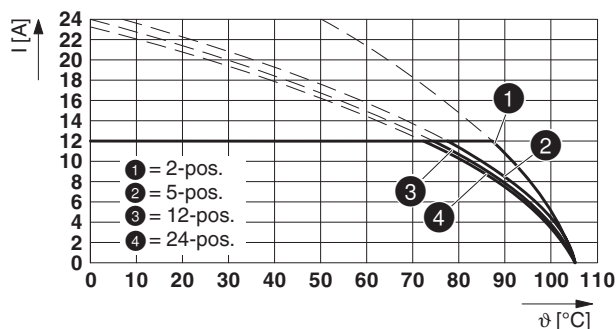
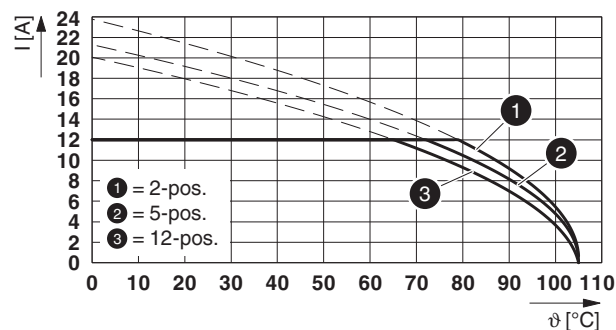
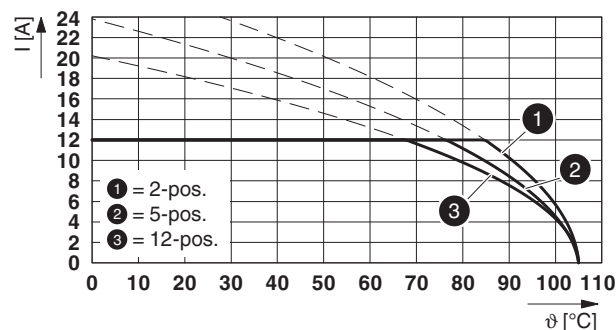


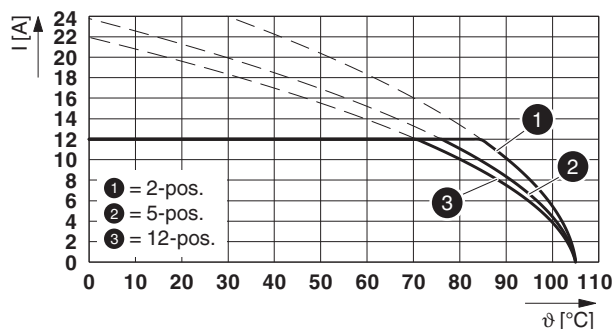
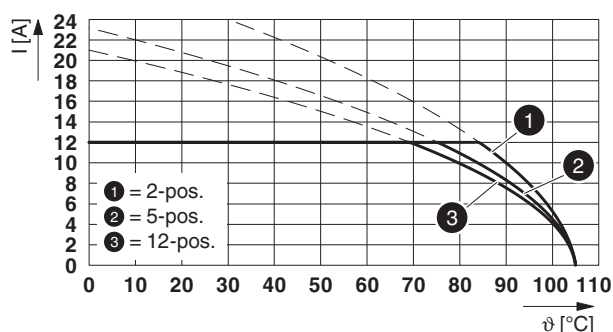
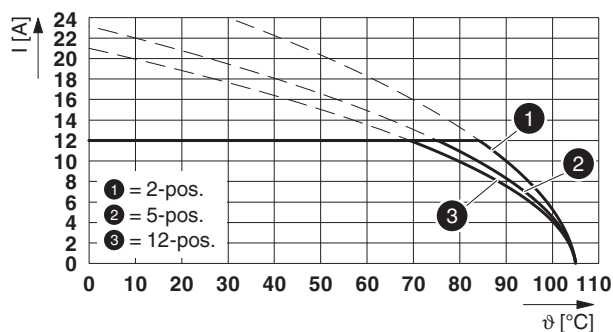
Type: SMSTB 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR



Type: MSTBT 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR



1792627 CC 2,5/ 2-GF-5,08-LR P26THR**Type: FRONT-MSTB 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR****Type: MSTB 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR****Type: FKCS 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR****Type: FKCN 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR**

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**Type: FKCT 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR****Type: FKCVR 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR****Type: FKCVW 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR****14.1 Insulation resistance**

Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 0.1 TΩ

14.2 Vibration test

Specification	IEC 60068-2-6:1995-03
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min

1792627 CC 2,5/ 2-GF-5,08-LR P26THR

Amplitude	0.35 mm (10 - 60.1 Hz)
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Acceleration	5 g (60.1 - 150 Hz)
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Test duration per axis	2.5 h
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Test directions	X-, Y- and Z-axis
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Note

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**15 Approvals / Certificates**

IECEE CB Scheme 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	400 V	12 A	-	-
EAC 				
VDE Gutachten mit Fertigungsüberwachung 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	400 V	12 A	-	-
cULus Recognized 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
Usegroup B				
	300 V	16 A	-	-
Usegroup D				
	300 V	10 A	-	-

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**16 Commercial Data**

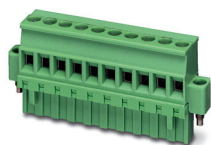
Order No.	1792627
Type	CC 2,5/ 2-GF-5,08-LR P26THR
Pieces per package	50
Net weight	2.34 g
GTIN	4046356615631
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 Accessories

Description	Order No.	Type
Coding section, inserted into the recess in the header or the inverted plug, red insulating material	1734401	CR-MSTB
HT coding section, prior to the reflow soldering process it is inserted into the recess on the header, made from high-temperature-resistant beige insulation material	1954362	CR-MSTB NAT HT

1792627 CC 2,5/ 2-GF-5,08-LR P26THR

18 Combination tests

**CC 2,5/..-GF-LR****MVSTBR 2,5/..-STF****SMSTB 2,5/..-STF****MSTBT 2,5/..-STF****FRONT-MSTB 2,5/..-STF**

IEC 61984

IEC 61984

IEC 61984

IEC 61984

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

approx. 8 N / 6 N

approx. 8 N / 6 N

approx. 8 N / 6 N

approx. 8 N / 6 N

Polarization when inserted
Requirement >20 N

Test passed

Test passed

Test passed

Test passed

Contact holder in insert
Requirements >20 N

Test passed

Test passed

Test passed

Test passed

Durability tests (B)Contact resistance R_1 2.1 m Ω 2.2 m Ω 1.2 m Ω 1.4 m Ω

Insertion/withdrawal cycles

25

25

25

25

Contact resistance R_2 2.2 m Ω 2.1 m Ω 1.2 m Ω 1.4 m Ω Rated impulse voltage at sea level
Voltage waveform $\geq$ (1.2/50 μ s)

4.8 kV

4.8 kV

4.8 kV

4.8 kV

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

2.21 kV

2.21 kV

2.21 kV

2.21 kV

Thermal tests (C)

Tested number of positions

12

12

12

12

Tested conductor cross section

2.5 mm²2.5 mm²2.5 mm²2.5 mm²

Test current

12 A

12 A

12 A

12 A

Upper limiting temperature
Requirements < 100°C

Test passed

Test passed

Test passed

Test passed

Climatic tests (D)

Test sequence 1: low temperature storage

-40 °C/2 h

-40 °C/2 h

-40 °C/2 h

-40 °C/2 h

Test sequence 2: heat storage

100 °C/168 h

100 °C/168 h

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 cycle0.2 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 μ s)

4.8 kV

4.8 kV

4.8 kV

4.8 kV

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

2.21 kV

2.21 kV

2.21 kV

2.21 kV

Environmental and endurance tests (E)

Specification

IEC 61984:2008-10

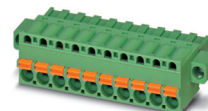
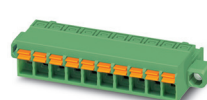
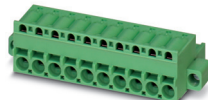
IEC 61984:2008-10

IEC 61984:2008-10

IEC 61984:2008-10

Degree of protection

Finger safety with IP20
test fingerFinger safety with IP20
test fingerFinger safety with IP20
test fingerFinger safety with IP20
test finger

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**CC 2,5/..-GF-LR**

IEC 61984

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 $\geq (50/60 \text{ Hz})$ **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

MSTB 2,5/..-STF

IEC 61984

approx. 11 N / 7 N

Test passed

Test passed

1.2 mΩ

25

1.3 mΩ

4.8 kV

2.21 kV

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

105 °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**FKCS 2,5/..-STF**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1 mΩ

25

1 mΩ

4.8 kV

2.21 kV

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

105 °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**FKCN 2,5/..-STF**

IEC 61984

approx. 12 N / 9 N

Test passed

Test passed

1.1 mΩ

25

1.2 mΩ

4.8 kV

2.21 kV

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

105 °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**FKCT 2,5/..-STF**

IEC 61984

approx. 10 N / 7 N

Test passed

Test passed

1.1 mΩ

25

1.2 mΩ

4.8 kV

2.21 kV

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

105 °C/168 h

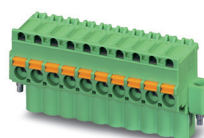
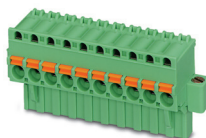
0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger

1792627 CC 2,5/ 2-GF-5,08-LR P26THR**CC 2,5/..-GF-LR**

IEC 61984

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 $\geq (50/60 \text{ Hz})$ **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

FKCVR 2,5/..-STF

IEC 61984

approx. 9 N / 7 N

Test passed

Test passed

1.1 mΩ

25

1.2 mΩ

4.8 kV

2.21 kV

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

105 °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**FKCVW 2,5/..-STF**

IEC 61984

approx. 9 N / 7 N

Test passed

Test passed

1.1 mΩ

25

1.2 mΩ

4.8 kV

2.21 kV

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

105 °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