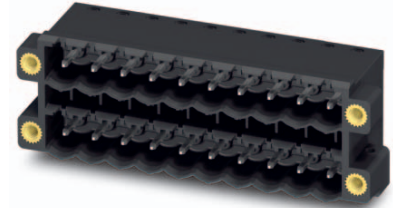


Order No.: 1734478

Type: CCDN 2,5/ 5-G1F P26 THR

Header



The figure shows a 10-pos. version with 20 contacts

1 Main features



- | | | | |
|-------------------------|---------------------|------------------------|---------------------|
| • No. of pos. | 5 | • Nominal current | 12 A |
| • Nominal cross section | 2.5 mm ² | • Nominal voltage | 320 V |
| • Color | black | • Connection direction | 0 ° |
| • Pitch | 5 mm | • Type of packaging | packed in cardboard |
| • Mounting type | THR soldering | | |

2 Your advantages

- ✓ Designed for integration into the SMT soldering process
- ✓ Conductor connection on several levels enables higher contact density
- ✓ Screwable flange for superior mechanical stability



Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1734478

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1734478 CCDN 2,5/ 5-G1F P26 THR

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



1734478 CCDN 2,5/ 5-G1F P26 THR**5 item properties**

Order No.	1734478
Type	CCDN 2,5/ 5-G1F P26 THR
Type of contact	Male connector
Range of articles	CCDN 2,5/..-G1F-THR
Pitch	5 mm
Number of positions	5
Locking	Threaded flange
Mounting type	THR soldering
Pin layout	Linear pinning

5.1 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
Surface contact area	Ni 1 µm ... 3 µm , Sn 4 µm ... 8 µm
Soldering area surface	Ni 1 µm ... 3 µm , Sn 4 µm ... 8 µm
Surface characteristics	Tin-plated
Insulating material data	
Insulating material	Housing LCP
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0
Color	black (9005)

6 Dimensions**6.1 Dimensions for the product**

Length	17.6 mm
Width	34.96 mm
Height (without solder pin)	20.1 mm
Total height	22.7 mm
Solder pin [P]	2.6 mm
Dimension a	20 mm

6.2 Dimensions for PCB design

Hole diameter	1.6 mm
Pin dimensions	1,0 x 1,0
Pin spacing	5.00 mm

1734478 CCDN 2,5/ 5-G1F P26 THR**7 Series drawing****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)

1734478 CCDN 2,5/ 5-G1F P26 THR**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.	11 N
Withdraw strength per pos. approx.	10 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.	38 N

1734478 CCDN 2,5/ 5-G1F P26 THR**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	1.1 mΩ
Degree of pollution	2

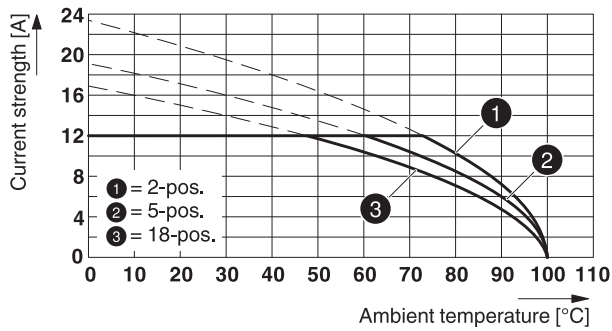
11.2 Air and creepage distances

Component	Header		
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	4 mm	4 mm

1734478 CCDN 2,5/ 5-G1F P26 THR

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
Note	

Type: FKCN 2,5/...-ST with CCDN 2,5/...-G1F P26 THR


1734478 CCDN 2,5/ 5-G1F P26 THR**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
Protection against electric shock	Not encapsulated - touch-proof when inserted
Protection class	
Protective conductor	without PE
Lock	no

15 Approvals

UL Recognized 				
Use group	B	D		
mm ² /AWG/kcmil				
Voltage	300 V	300 V		
Current	10 A	10 A		

cUL Recognized 				
Use group	B	D		
mm ² /AWG/kcmil				
Voltage	300 V	300 V		
Current	10 A	10 A		

EAC 				
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cULus Recognized 				
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1734478 CCDN 2,5/ 5-G1F P26 THR**16 Commercial Data**

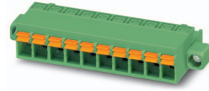
Order No.	1734478
Type	CCDN 2,5/ 5-G1F P26 THR
Pieces per package	50
Net weight	8.69 g
GTIN	4046356177344
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

17 corresponding plugs

Order No.	Type
1732991	FKCN 2,5/ 5-STF

1734478 CCDN 2,5/ 5-G1F P26 THR

18 Combination tests

**CCDN 2,5/..-G1F-THR****FKCN 2,5/..-STF**

Specification	IEC 61984			
Mechanical tests (A)				
Insertion/withdrawal force per position	approx. 11 N / 10 N			
Polarization when inserted Requirement >20 N	Test passed			
Contact holder in insert Requirements >20 N	Test passed			
Durability tests (B)				
Contact resistance R ₁	1.1 mΩ			
Insertion/withdrawal cycles	25			
Contact resistance R ₂	1.1 mΩ			
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV			
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV			
Insulation resistance Requirements > 5 MΩ	> 50 TΩ			
Thermal tests (C)				
Tested number of positions	18			
Tested conductor cross section	2.5 mm ²			
Test current	12 A			
Upper limiting temperature Requirements < 100°C	Test passed			
Climatic tests (D)				
Test sequence 1: low temperature storage	-40 °C/2 h			
Test sequence 2: heat storage	100 °C/168 h			
Test sequence 3: noxious gas storage (ISO 6988)	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle			
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV			
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV			
Environmental and endurance tests (E)				
Specification	IEC 61984:2008-10			
Degree of protection	Finger safety with IP20 test finger			