

PT 2,5/ 2-7,5-H BK PA1 - PCB terminal block



1711429

<https://www.phoenixcontact.com/us/products/1711429>

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The figure shows a 10-position version of the product

Printed circuit board terminal, nominal current: 32 A, rated voltage (III/2): 800 V, nominal cross section: 2.5 mm², number of potentials: 1, number of rows: 1, number of positions per row: 2, product range: PT 2,5/...-H, pitch: 7.5 mm, connection method: Screw connection with wire protector, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 4.1 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- High terminal block capacity thanks to rectangular terminal block space
- Allows connection of two conductors
- The latching on the side enables various numbers of positions to be combined

Commercial data

Item number	1711429
Packing unit	250 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	AAMFNB
GTIN	4055626240596
Weight per piece (including packing)	1.778 g
Weight per piece (excluding packing)	1.68 g
Country of origin	PL

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Technical data

Product properties

Product type	Printed circuit board terminal
Product family	PT 2,5/...-H
Product line	COMBICON Terminals M
Number of positions	2
Pitch	7.5 mm
Number of connections	1
Number of rows	1
Number of potentials	1
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Properties

Nominal current I_N	32 A
Nominal voltage U_N	800 V
Rated voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	800 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Connection data

Connection technology

Type	PC termination block
Nominal cross section	2.5 mm ²

Conductor connection

Connection method	Screw connection with wire protector
Conductor cross-section rigid	0.5 mm ² ... 4 mm ²
Conductor cross-section flexible	0.5 mm ² ... 4 mm ²
Conductor cross-section AWG	20 ... 10
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.5 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.5 mm ² ... 2.5 mm ²
2 conductors with same cross section, rigid	0.5 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible	0.5 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm ² ... 0.75 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²

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Stripping length	6.5 mm
Tightening torque	0.45 Nm ... 0.5 Nm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

Material specifications

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (3 µm - 12 µm Sn)
Metal surface terminal point (middle layer)	Nickel (1.5 µm - 4 µm Ni)
Metal surface soldering area (top layer)	Tin (3 µm - 12 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.5 µm - 4 µm Ni)

Material data - housing

Color (Housing)	black (9005)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
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

Dimensions

Dimensional drawing	
Pitch	7.5 mm
Width [w]	10 mm
Height [h]	17.6 mm
Length [l]	9 mm
Installed height	13.5 mm
Solder pin length [P]	4.1 mm
Pin dimensions	ø 1 mm

PCB design

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1711429

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Pin spacing	7.5 mm
Hole diameter	1.3 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross-section/conductor type/tractive force setpoint/actual value	0.5 mm ² / solid / > 20 N
	0.5 mm ² / flexible / > 20 N
	4 mm ² / solid / > 60 N
	4 mm ² / flexible / > 60 N

Electrical tests

Temperature-rise test

Specification	IEC 60947-7-4:2019-01
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

Short-time withstand current

Specification	IEC 60947-7-4:2019-01
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Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	6.3 mm
Note on connection cross section	With connected conductor 4 mm ² (stranded).
Rated insulation voltage (III/2)	800 V
Rated surge voltage (III/2)	6 kV
minimum clearance value - non-homogenous field (III/2)	5.5 mm
minimum creepage distance (III/2)	5.5 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

1711429

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Environmental and real-life conditions

Vibration test

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

Glow-wire test

Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2019-01
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Ambient conditions

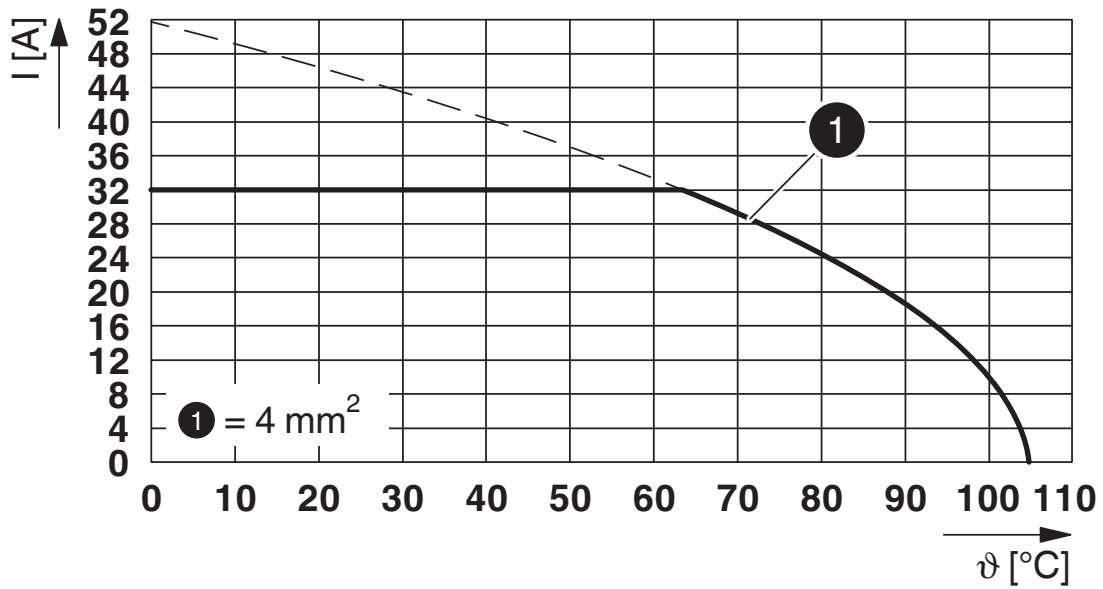
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

Packaging specifications

Type of packaging	packed in cardboard
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Drawings

Diagram



Type: PT 2,5/...-7,5-H

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Approvals

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 cULus Recognized Approval ID: E60425-20030211				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	300 V	20 A	20 - 12	-
D	300 V	10 A	20 - 12	-

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Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 10.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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EF3.1 Climate Change

CO2e kg	0.016 kg CO2e
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