

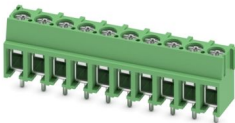
PT 2,5/10-5,0-H - PCB terminal block



1935857

<https://www.phoenixcontact.com/us/products/1935857>

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Printed circuit board terminal, nominal current: 32 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², number of potentials: 10, number of rows: 1, number of positions per row: 10, product range: PT 2,5/...-H, pitch: 5 mm, connection method: Screw connection with wire protector, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 4.1 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. When using ferrules, 250 V are only achieved in combination with overvoltage category/degree of pollution II/2.

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	1935857
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	AA13
Product key	AAMFNA
Catalog page	Page 427 (C-1-2013)
GTIN	4017918948474
Weight per piece (including packing)	11.78 g
Weight per piece (excluding packing)	11.77 g
Customs tariff number	85369010
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
Type	PC termination block
Number of positions	10
Pitch	5 mm
Number of connections	10
Number of rows	1
Number of potentials	10
Pin layout	Linear pinning
Solder pins per potential	1

Data management status

Article revision	08
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Electrical properties

Nominal current I_N	32 A
Nominal voltage U_N	400 V
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 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, solid	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	0.5 mm ² ... 0.75 mm ²

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without plastic sleeve	
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1.5 mm²
Stripping length	6.5 mm
Drive form screw head	Slotted Phillips recess
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 - 12 µm Sn)
Metal surface terminal point (middle layer)	Nickel (1.5 - 4 µm Ni)
Metal surface soldering area (top layer)	Tin (3 - 12 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.5 - 4 µm Ni)

Material data - housing

Color (Housing)	green (6021)
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

Notes

Note on application	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).
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Dimensions

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Dimensional drawing	
Pitch	5 mm
Width [w]	50 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	
Pin spacing	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

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

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Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

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

Packaging specifications

Type of packaging	packed in cardboard
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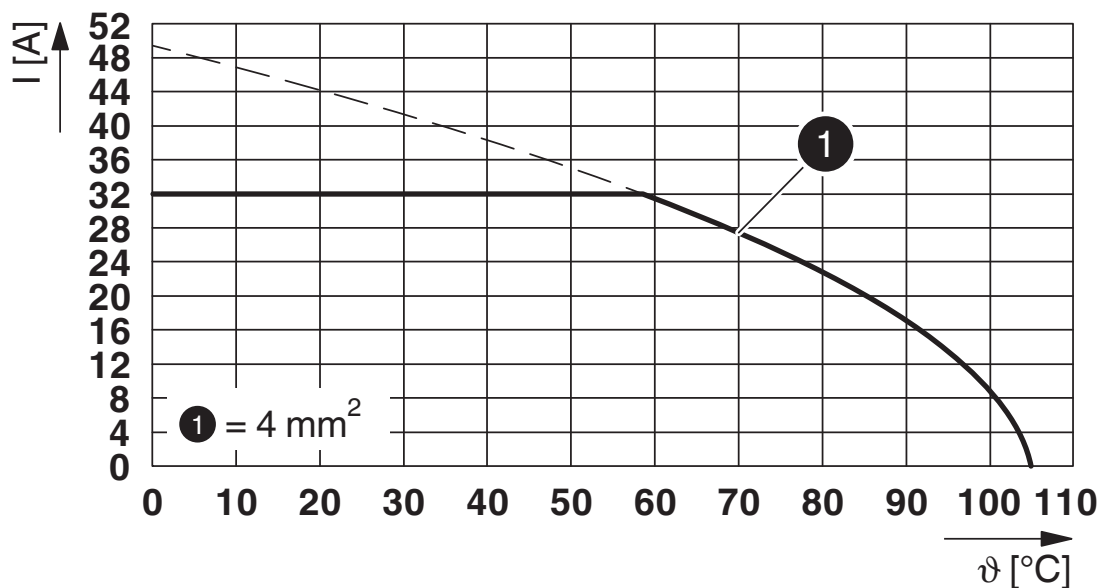


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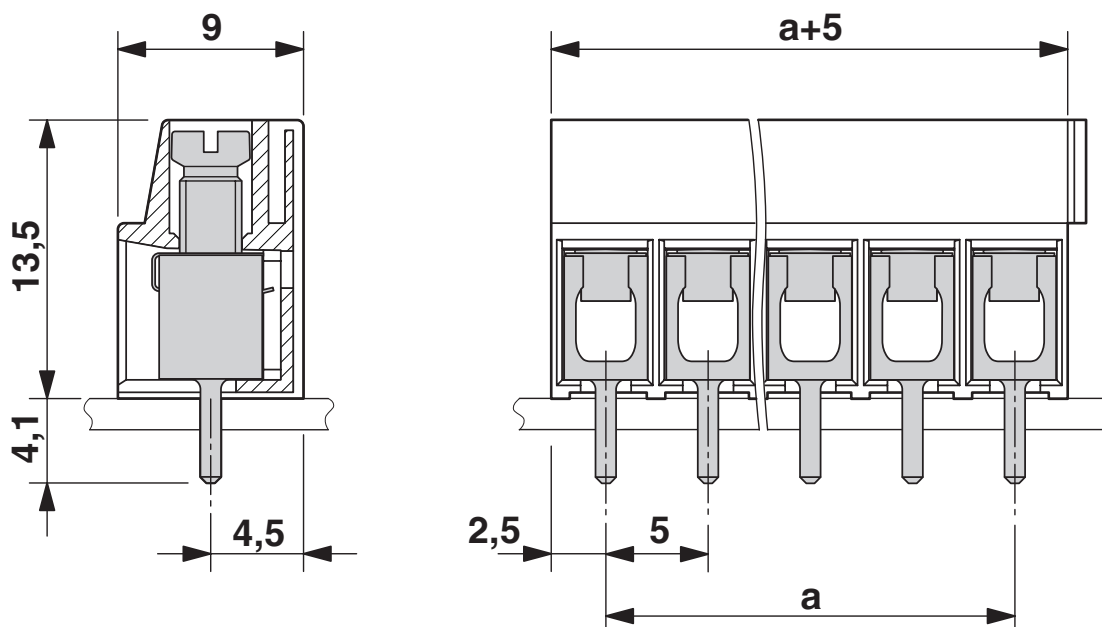
Drawings

Diagram



Type: PT 2,5/...-5,0-H

Dimensional drawing



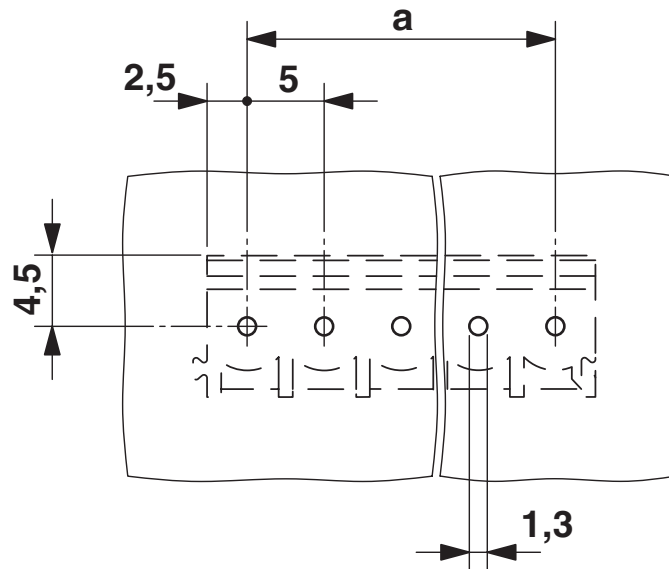
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Drilling plan/solder pad geometry



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1935857>

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

 VDE Gutachten mit Fertigungsüberwachung Approval ID: 40029839				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	250 V	32 A	-	0.5 - 4

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Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

ETIM

ETIM 9.0	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
Exemption		6(c)
China RoHS		
Environment friendly use period (EFUP)		EFUP-50
		An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC		
REACH candidate substance (CAS No.)		Lead(CAS: 7439-92-1)
SCIP		968fa47a-4e12-4fe1-bf54-85f23abe8768
EF3.0 Climate Change		
CO2e kg		0.213 kg CO2e

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