

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



The figure shows a 10-position version of the product

PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², number of rows: 1, number of positions per row: 4, product range: PTDA 2,5/, pitch: 5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: multicolored, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Potentials can be easily looped through – ideal for BUS applications
- Quick and convenient testing using integrated test option
- Rounded type for individual device design
- Two solder pins reduce the mechanical strain on the soldering spots

Commercial data

Item number	1704077
Packing unit	50 pc
Minimum order quantity	1 pc
Product key	AAMBEA
GTIN	4046356672733
Weight per piece (including packing)	6.706 g
Weight per piece (excluding packing)	5.7 g
Country of origin	PL

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

Technical data

Product properties

Product type	PCB terminal block
Product family	PTDA 2,5/
Product line	COMBICON Terminals M
Number of positions	4
Pitch	5 mm
Number of rows	1
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Properties

Nominal current I_N	24 A
Nominal voltage U_N	400 V
Rated voltage (III/3)	320 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

Nominal cross section	2.5 mm ²
-----------------------	---------------------

Conductor connection

Connection method	Push-in spring connection
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1 mm ²
Stripping length	10 mm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

Material specifications

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 µm - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 µm - 8 µm Sn)

Material data - housing

Color (Housing)	multicolored (-)
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	Maximum permissible outside diameter of the wire insulation ≤3.5 mm
---------------------	---

Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	21.4 mm
Height [h]	19.5 mm
Length [l]	16 mm
Installed height	16 mm
Solder pin length [P]	3.5 mm
Pin dimensions	1 x 0.4 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
---------------	---------------------

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

Result	Test passed
Pull-out test	
Specification	IEC 60999-1:1999-11
Conductor cross-section/conductor type/tractive force setpoint/actual value	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	2.5 mm ² / solid / > 50 N
	2.5 mm ² / flexible / > 50 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
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 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)	2 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)

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

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
---------------	-----------------------

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
-------------------	---------------------

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block

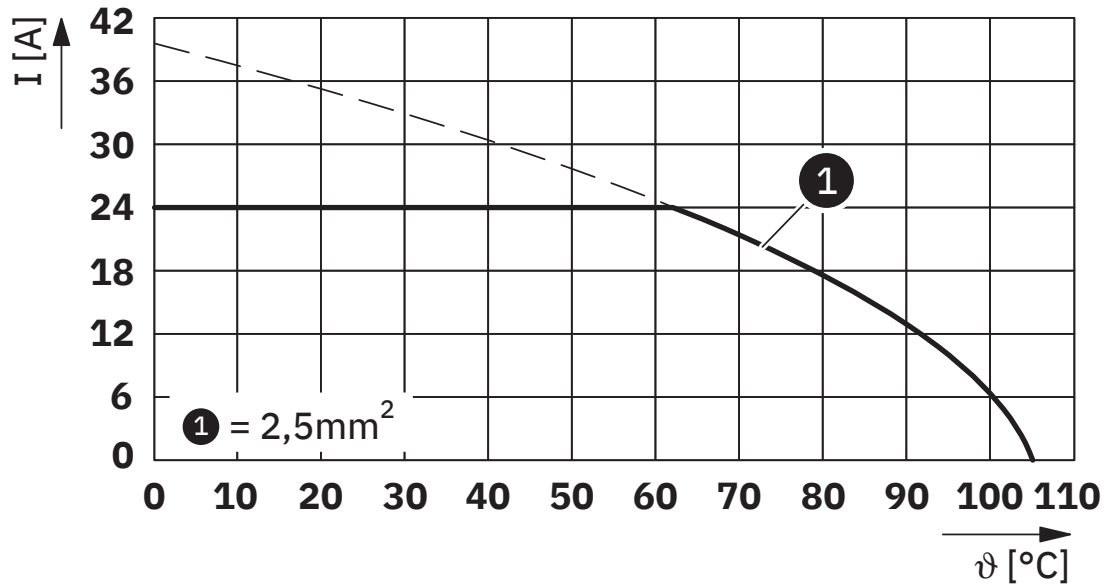


1704077

<https://www.phoenixcontact.com/us/products/1704077>

Drawings

Diagram



Type: PTDA 2,5/...-5,0

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block





1704077

<https://www.phoenixcontact.com/us/products/1704077>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1704077>

 cULus Recognized Approval ID: E60425-20030211				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	300 V	15 A	24 - 14	-
D	300 V	10 A	24 - 14	-

 VDE report with production monitoring Approval ID: 40030462				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine	250 V	24 A	-	0.2 - 2.5

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 10.0	EC002643
-----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

PTDA 2,5/ 4-5,0 BN/BK/BU/GNYE - PCB terminal block



1704077

<https://www.phoenixcontact.com/us/products/1704077>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

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%
-------------------------------------	----------------------------

EF3.1 Climate Change

CO2e kg	0.053 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com