

## PCB terminal block - PTSA 0,5/ 4-2,5-Z - 1990025

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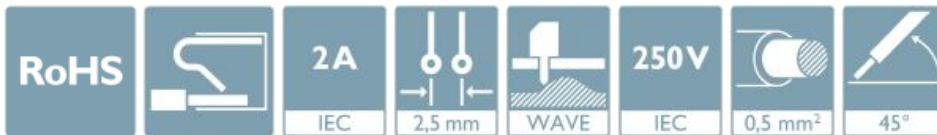


PCB terminal block, nominal current: 2 A, rated voltage (III/2): 250 V, nominal cross section: 0.5 mm<sup>2</sup>, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, product range: PTSA 0,5, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 3.6 mm, type of packaging: packed in cardboard. Offset soldering legs, two-rowed


The figure shows a 10-position version of the product

### Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Angled connection enables multi-row arrangement on the PCB



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	250 pc
GTIN	 4 017918 973599
GTIN	4017918973599
Weight per Piece (excluding packing)	1.690 g
Custom tariff number	85369010
Country of origin	Poland

### Technical data

#### Item properties

Brief article description	PCB terminal block
Range of articles	PTSA 0,5
Pitch	2.5 mm
Number of positions	4

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### Technical data

#### Item properties

Mounting type	Wave soldering
Pin layout	Zigzag pinning W
Number of levels	1
Number of connections	4
Number of potentials	4

#### Electrical parameters

Nominal current	2 A
Nom. voltage	250 V
Rated voltage (III/3)	160 V
Rated voltage (III/2)	250 V
Rated voltage (II/2)	400 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

#### Connection capacity

Connection method	Push-in spring connection
pluggable	no
Conductor cross section solid	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	24 ... 20
Stripping length	9 mm

#### 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 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

#### Material data - housing

Housing color	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

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## Technical data

### Material data - housing

Temperature for the ball pressure test according to EN 60695-10-2	125 °C
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### Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	12 mm
Width [ w ]	11.5 mm
Height [ h ]	16.7 mm
Pitch	2.5 mm
Height (without solder pin)	13.1 mm
Solder pin [P]	3.6 mm
Pin spacing	2.5 mm
Pin dimensions	0.4 x 0.75 mm

### Dimensions for PCB design

Hole diameter	1 mm
Pin spacing	2.5 mm

### Packaging information

Type of packaging	packed in cardboard
Pieces per package	250
Denomination packing units	Pcs.

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 55 °C
Ambient temperature (operation)	-40 °C ... 85 °C

### Termination and connection method

Connection test	IEC 60998-2-2:1991-10
Test result	Test passed
Test for conductor damage and slackening	IEC 60998-2-2:1991-10
	Test passed

### Pull-out test

Pull-out test	IEC 60998-2-2:1991-10
Conductor cross section / conductor type / tensile force	0.14 mm <sup>2</sup> / solid / > 7 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	0.5 mm <sup>2</sup> / solid / > 30 N
	0.5 mm <sup>2</sup> / flexible / > 30 N

### Mechanical tests according to standard

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## Technical data

### Mechanical tests according to standard

Test specification	IEC 60998-2-2 (in parts)
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### Electrical tests

Rated current	2 A
Conductor cross section	0.5 mm <sup>2</sup>
Rated voltage (III/2)	250 V
Rated surge voltage (III/2)	4 kV

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	3 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3 mm

### Temperature-rise test

Specification	IEC 60998-2-1:1990-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

### Current carrying capacity / derating curves

Caption	Derating diagram for 5 pins;reduction factor=1
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### Vibration test

Specification	IEC 60068-2-6:1995-03
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

### Insulation resistance

Specification	IEC 60998-2-2:1991-10
Result	Test passed
Insulation resistance, neighboring positions	10 <sup>9</sup> Ω

### Glow-wire test

Specification	IEC 60998-2-2:1991-10
Temperature	850 °C

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## Technical data

### Glow-wire test

Time of exposure	5 s
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### Mechanical strength/tumbling barrel test

Specification	IEC 60998-1:1990-04
Number of drop cycles	50

### Standards and Regulations

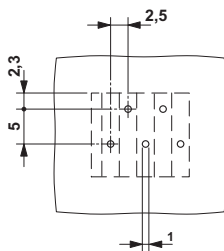
Connection in acc. with standard	EN-VDE
	CUL
Flammability rating according to UL 94	V0

### Environmental Product Compliance

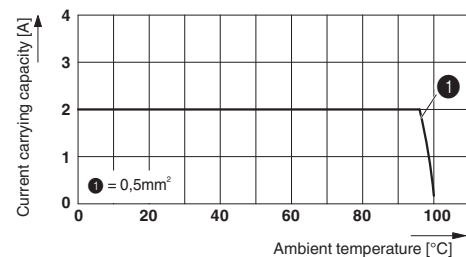
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Drilling diagram



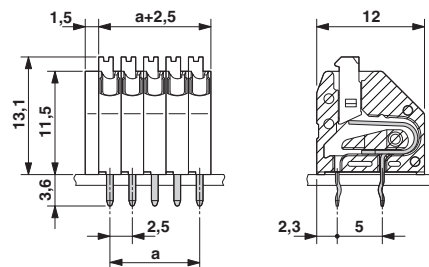
Diagram



The figure shows the 5-pos. version – Zig-zag pinning starts at the right-hand position. Other pinning available on request.

Derating diagram for 5 pins; reduction factor=1

Dimensional drawing



The figure shows the 5-pos. version

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## Classifications

### eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27141100
eCl@ss 5.1	27261100
eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 8.0	27440401
eCl@ss 9.0	27440401

### ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

### UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	34131203
UNSPSC 12.01	39121432
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

## Approvals

### Approvals

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Approvals

CCA / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

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Ex Approvals


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## Approvals

### Approval details

CCA		CCA/DE1 34204
Nominal current I <sub>N</sub>	2 A	
mm <sup>2</sup> /AWG/kcmil	0.5	

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40013932
Nominal voltage U <sub>N</sub>	250 V		
Nominal current I <sub>N</sub>	2 A		
mm <sup>2</sup> /AWG/kcmil	0.5		

EAC		B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20030527
	B	D	
Nominal voltage U <sub>N</sub>	300 V	300 V	
Nominal current I <sub>N</sub>	2 A	2 A	
mm <sup>2</sup> /AWG/kcmil	26-20	26-20	

## Accessories

### Accessories

#### Screwdriver tools

Screwdriver - SZF 0-0,4X2,5 - 1204504



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

