

# PCB terminal block - KDS 3-SI



1780112

<https://www.phoenixcontact.com/pc/products/1780112>

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PCB terminal block, nominal current: 6.3 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm<sup>2</sup>, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: KDS 3-SI, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions! The current is determined by the fuse used.

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Quick and convenient testing using integrated test option
- Two solder pins reduce the mechanical strain on the soldering spots
- The latching on the side enables various numbers of positions to be combined

## Commercial Data

Item number	1780112
Packing unit	50 pc
Minimum order quantity	1 pc
Product Key	AAMFFD
GTIN	4017918040734
Weight per Piece (including packing)	12.155 g
Weight per Piece (excluding packing)	11.877 g
Customs tariff number	85369010
Country of origin	PL

## Technical Data

### Product properties

Type	PCB terminal block can be aligned in rows + fuse terminal block
Product line	COMBICON Terminals M
Product type	Printed circuit board terminal
Number of positions	1
Pitch	5.08 mm
Number of connections	1
Number of rows	1
Number of potentials	1
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

Nominal current $I_N$	6.3 A
Nominal voltage $U_N$	320 V
Degree of pollution	3
Rated voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

### Connection data

#### Connection technology

Type	PCB terminal block can be aligned in rows + fuse terminal block
Nominal cross section	2.5 mm <sup>2</sup>

#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup>
Stripping length	8 mm
Tightening torque	0.5 Nm ... 0.6 Nm

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## Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning
Drive form screw head	Slotted (L)
Drive form screw head	Slotted (L)

### Processing notes

Process	Wave soldering
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## 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
Metal surface terminal point (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)
Metal surface soldering area (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)

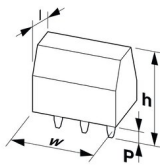
### Material data - housing

Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V2

### Material data – actuating element

Color ()	()
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## Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	5.08 mm
Height [h]	40.5 mm
Length [l]	27 mm
Installed height	37 mm
Solder pin length [P]	3.5 mm

## Electrical tests

### Air clearances and creepage distances |

Insulating material group	I
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Rated insulation voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °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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## Approvals

 <b>CSA</b> Approval ID: 13631				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	300 V	10 A	24 - 12	-

 <b>UL Recognized</b> Approval ID: FILE E 60425				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B				
	250 V	15 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

 <b>EAC</b> Approval ID: B.01687				
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## Classifications

### ECLASS

ECLASS-10.0.1	27440401
ECLASS-9.0	27440401
ECLASS-11.0	27460101

### ETIM

ETIM 8.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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## Accessories

### Pitch spacer

Pitch spacer - RZ 2,54 - 1780044

<https://www.phoenixcontact.com/pc/products/1780044>



Pitch spacer, raises the pitch by 2.54 mm, interlocks with terminal block of the same shape, color: green

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### Reducing plug

Reducing plug - RPS - 0201647

<https://www.phoenixcontact.com/pc/products/0201647>



Reducing plug, color: gray



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## Screwdriver

Screwdriver - SZG 0,6X3,5 VDE - 1205121

<https://www.phoenixcontact.com/pc/products/1205121>



Screwdriver, slot-headed, graded, for test socket screws, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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## Test plugs

Test plugs - MPS-MT - 0201744

<https://www.phoenixcontact.com/pc/products/0201744>



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: gray

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## Marker pin Zack strip

Marker pin Zack strip - BNB-ZB 5,LGS:FORTL.ZAHLEN - 1400201

<https://www.phoenixcontact.com/pc/products/1400201>



Marker pin Zack strip, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: plug in, for terminal block width: 5 mm, lettering field size: 4 x 4 mm, Number of individual labels: 10

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## Insertion bridge

Insertion bridge - EB 8- KDS 3-SI - 1780125

<https://www.phoenixcontact.com/pc/products/1780125>



Insertion bridge, color: gray

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