

# KDS 3-SI - PCB terminal block



1780112

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

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.



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	50 pc
Sales key	AA13
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

# KDS 3-SI - PCB terminal block



1780112

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

## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	KDS 3-SI
Product line	COMBICON Terminals M
Type	PCB terminal block can be aligned in rows + fuse terminal block
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
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
Rated voltage (II/2)	630 V
Rated surge voltage (II/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 rigid	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>

# KDS 3-SI - PCB terminal block



1780112

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

Stripping length	8 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm ... 0.6 Nm

## Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

## Material specifications

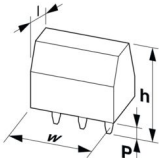
### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Metal surface terminal point (top layer)	Tin (5 - 7 $\mu$ m Sn)
Metal surface soldering area (top layer)	Tin (5 - 7 $\mu$ 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

## 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
Pin dimensions	1.1 x 0.8 mm

### PCB design

Hole diameter	1.4 mm
---------------	--------

## Electrical tests

### Air clearances and creepage distances |

Insulating material group	I
Rated insulation voltage (III/3)	320 V

# KDS 3-SI - PCB terminal block



1780112

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

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

# KDS 3-SI - PCB terminal block





1780112

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

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1780112>

 <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	-

# KDS 3-SI - PCB terminal block



1780112

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

## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002643
----------	----------

### UNSPSC

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

# KDS 3-SI - PCB terminal block



1780112

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

## 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	c52a2d35-ca8f-456f-a351-b8fcf2dec3e6

# KDS 3-SI - PCB terminal block

1780112

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



## Accessories

### RZ 2,54 - Pitch spacer

1780044

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



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

---

### RPS - Reducing plug

0201647

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



Reducing plug, number of positions: 1, color: gray

# KDS 3-SI - PCB terminal block

1780112

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



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

1205121

<https://www.phoenixcontact.com/us/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

---

## MPS-MT - Test plug

0201744

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



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

# KDS 3-SI - PCB terminal block

1780112

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



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

1400201

<https://www.phoenixcontact.com/us/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

---

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

1780125

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



Insertion bridge, number of positions: 8, color: gray

---

Phoenix Contact 2024 © - 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](mailto:info@phoenixcon.com)