

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

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: 76 A, rated voltage (III/2): 400 V, nominal cross section: 10 mm<sup>2</sup>, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: ZFKDS(A) 10, pitch: 10 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 6.5 mm, number of solder pins per potential: 4, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions!

## Your advantages

- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Separate bridge shaft for easily connecting multiple positions to jumpers
- Quick and convenient testing using integrated test option

## Commercial data

Item number	1986628
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA14
Product key	AANMBA
Catalog page	Page 479 (C-1-2013)
GTIN	4017918973087
Weight per piece (including packing)	10.739 g
Weight per piece (excluding packing)	9.7 g
Customs tariff number	85369010
Country of origin	PL

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	ZFKDS(A) 10
Product line	COMBICON Terminals L
Type	PC terminal block can be aligned
Number of positions	1
Pitch	10 mm
Number of connections	1
Number of rows	1
Number of potentials	1
Pin layout	Linear pinning
Solder pins per potential	4

### Electrical properties

Nominal current $I_N$	76 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)	800 V
Rated surge voltage (II/2)	4 kV

### Connection data

#### Connection technology

Type	PC terminal block can be aligned
Nominal cross section	10 mm <sup>2</sup>

#### Conductor connection

Connection method	Spring-cage connection
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Conductor cross section AWG	24 ... 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Stripping length	12 mm

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

## 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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (10 - 16 µm Sn)
Metal surface soldering area (top layer)	Tin (10 - 16 µm 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	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

### Material data – actuating element

Color (Actuating element)	green (6021)
---------------------------	--------------

## Dimensions

Dimensional drawing	
Pitch	10 mm
Width [w]	15 mm
Height [h]	33.5 mm
Length [l]	33.4 mm
Installed height	27 mm
Solder pin length [P]	6.5 mm
Pin dimensions	1.2 x 1.4 mm

### PCB design

Pin spacing	10 mm
Hole diameter	2.2 mm

## Mechanical tests

### Connection test

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

Specification	IEC 60998-2-2:1991-10
Result	Test passed

## Test for conductor damage and slackening

Specification	IEC 60998-2-2:1991-10
Result	Test passed

## Pull-out test

Specification	IEC 60998-2-2:1991-10
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	16 mm <sup>2</sup> / solid / > 100 N
	10 mm <sup>2</sup> / flexible / > 90 N

## Electrical tests

### Temperature-rise test

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

### Insulation resistance

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

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
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)	3 mm
Rated insulation voltage (II/2)	800 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	4 mm

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:1995-03
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

## Glow-wire test

Specification	IEC 60998-2-2:1991-10
Temperature	850 °C
Time of exposure	5 s

## 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 ... 55 °C

## Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

# ZFKDS 10-10,00 - PCB terminal block

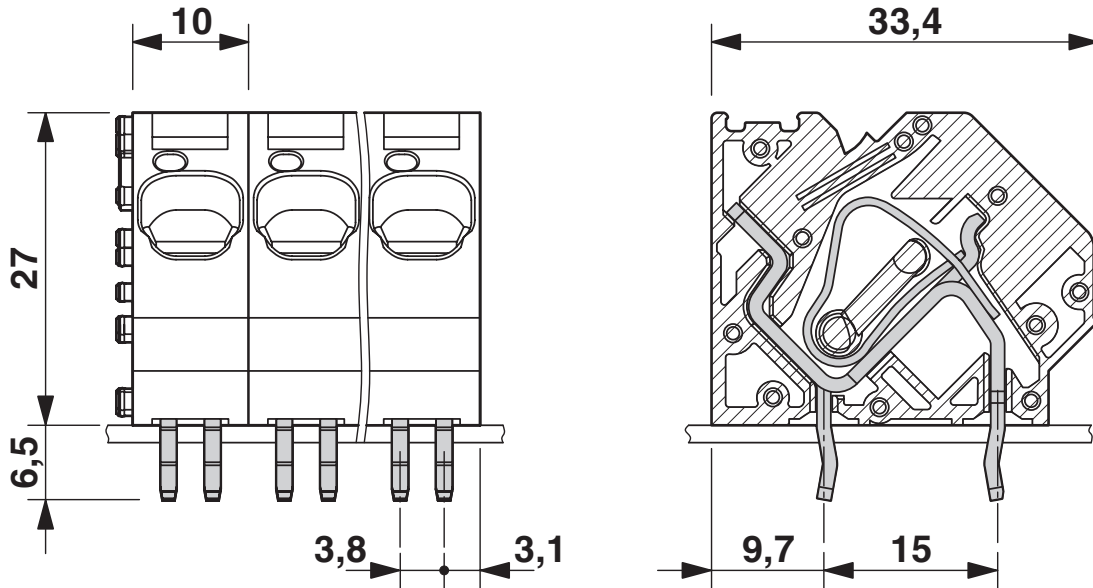


1986628

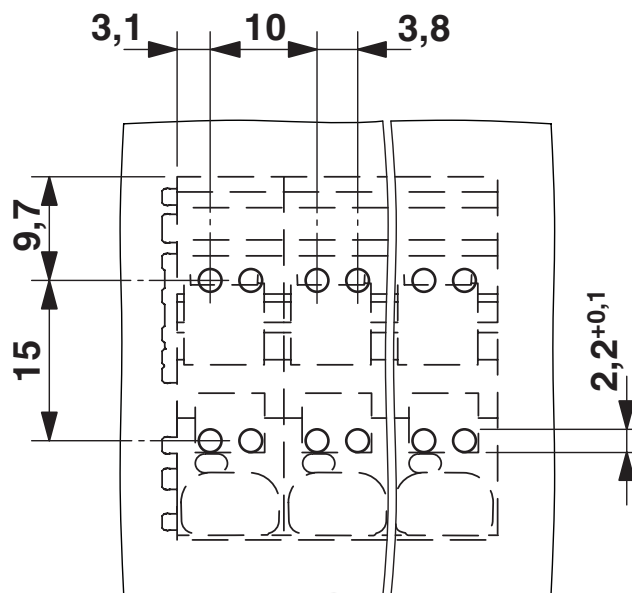
<https://www.phoenixcontact.com/us/products/1986628>

## Drawings

Dimensional drawing



Drilling plan/solder pad geometry

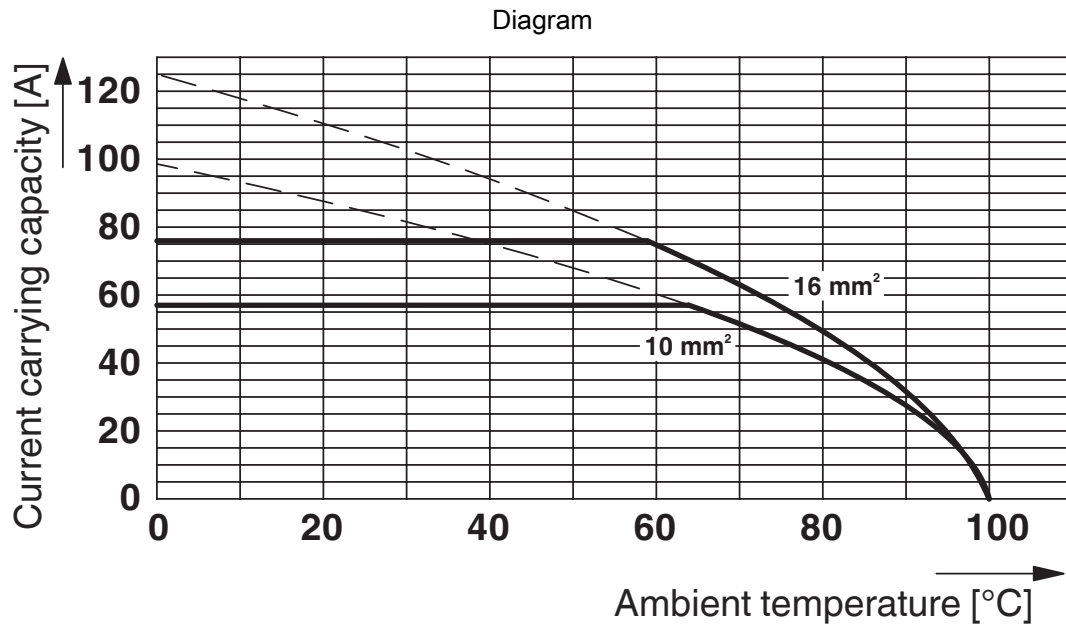


# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>



Type: ZFKDS 10-10,00

# ZFKDS 10-10,00 - PCB terminal block





1986628

<https://www.phoenixcontact.com/us/products/1986628>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1986628>

 <b>cULus Recognized</b> Approval ID: E60425-19941110				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B	300 V	65 A	24 - 6	-
Use group C	150 V	65 A	24 - 6	-
Use group D	300 V	10 A	24 - 6	-

 <b>VDE Gutachten mit Fertigungsüberwachung</b> Approval ID: 40036082				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	320 V	76 A	-	0.2 - 16

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

# ZFKDS 10-10,00 - PCB terminal block



1986628

<https://www.phoenixcontact.com/us/products/1986628>

## 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%
-------------------------------------	----------------------------

# ZFKDS 10-10,00 - PCB terminal block

1986628

<https://www.phoenixcontact.com/us/products/1986628>



## Mandatory accessories

### ZFKDSA 10-11,7 - PCB terminal block

1987054

<https://www.phoenixcontact.com/us/products/1987054>



PCB terminal block, nominal current: 76 A, rated voltage (III/2): 400 V, nominal cross section: 10 mm<sup>2</sup>, number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: ZFKDS(A) 10, pitch: 10 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 6.5 mm, number of solder pins per potential: 4, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions!

---

## Accessories

### SZF 3-1,0X5,5 - Screwdriver

1206612

<https://www.phoenixcontact.com/us/products/1206612>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 1.0 x 5.5 x 150 mm, 2-component grip, with non-slip grip

# ZFKDS 10-10,00 - PCB terminal block

1986628

<https://www.phoenixcontact.com/us/products/1986628>



## FBSK 2-10/ZFKDS 10 - Plug-in bridge

1986644

<https://www.phoenixcontact.com/us/products/1986644>



Fixed bridge, fully insulated, pitch: 10 mm, no. of positions: 2

---

## FBSK 3-10/ZFKDS 10 - Plug-in bridge

1986657

<https://www.phoenixcontact.com/us/products/1986657>



Fixed bridge, fully insulated, pitch: 10 mm, no. of positions: 3

# ZFKDS 10-10,00 - PCB terminal block

1986628

<https://www.phoenixcontact.com/us/products/1986628>



## FBSK 4-10/ZFKDS 10 - Plug-in bridge

1986660

<https://www.phoenixcontact.com/us/products/1986660>

Fixed bridge, fully insulated, pitch: 10 mm, no. of positions: 4



---

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)