

# ZFKDSA 4-10- 4 - PCB terminal block



1743744

<https://www.phoenixcontact.com/pc/products/1743744>

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PCB terminal block, nominal current: 32 A, rated voltage (III/2): 630 V, nominal cross section: 4 mm<sup>2</sup>, number of potentials: 4, number of rows: 1, number of positions per row: 4, product range: ZFKDS(A) 4, 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]: 4.6 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard

## 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	1743744
Packing unit	50 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	AANMAB
GTIN	4046356302951
Weight per piece (including packing)	21.5 g
Weight per piece (excluding packing)	21.5 g
Customs tariff number	85369010
Country of origin	PL

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## Technical data

### Product properties

Type	PC terminal block can be aligned
Product line	COMBICON Terminals L
Product type	Printed circuit board terminal
Product family	ZFKDS(A) 4
Number of positions	4
Pitch	10 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

Nominal current $I_N$	32 A
Nominal voltage $U_N$	630 V
Degree of pollution	3
Rated voltage (III/3)	630 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

### Connection data

#### Connection technology

Type	PC terminal block can be aligned
Nominal cross section	4 mm <sup>2</sup>

#### Conductor connection

Connection method	Spring-cage connection
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 10
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Stripping length	10 mm

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

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Connection method	Spring-cage connection
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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
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (10 - 16 µm Sn)
Metal surface soldering area (top layer)	Tin (10 - 16 µm Sn)

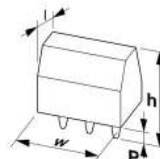
### Material data - housing

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)
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## Dimensions

Dimensional drawing	
Pitch	10 mm
Width [w]	41.5 mm
Height [h]	27.6 mm
Length [l]	29 mm
Installed height	23 mm
Solder pin length [P]	4.6 mm
Pin dimensions	1 x 1.4 mm

## Mechanical tests

### Connection test

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

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## 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
	6 mm <sup>2</sup> / solid / > 80 N
	4 mm <sup>2</sup> / flexible / > 60 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)	630 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	8 mm
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
minimum clearance value - non-homogenous field (III/2)	5.5 mm
minimum creepage distance (III/2)	5.5 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 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
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Sweep speed	5g (60.1 Hz ... 150 Hz)

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Test duration per axis	2.5 h
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## 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 ... 100 °C

## Packaging specifications

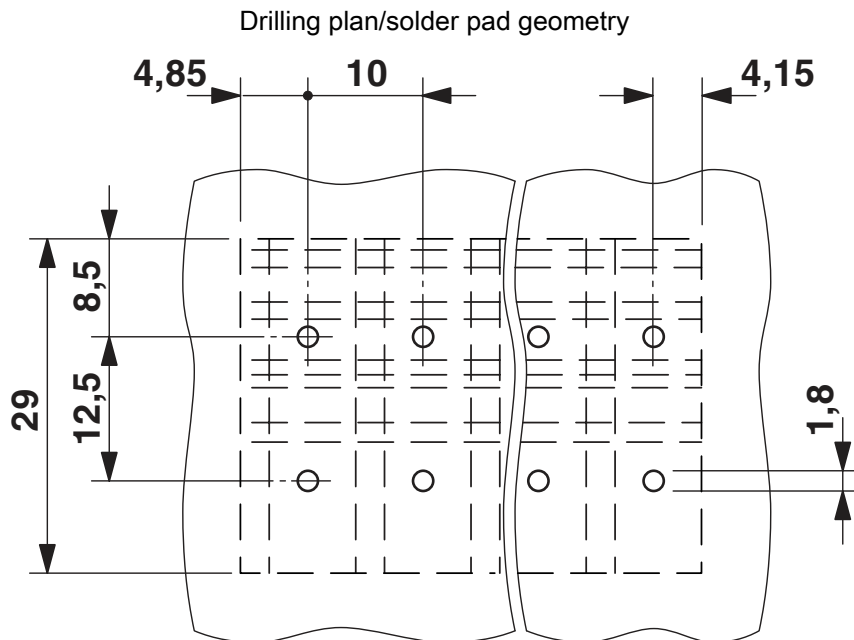
Type of packaging	packed in cardboard
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# ZFKDSA 4-10- 4 - PCB terminal block

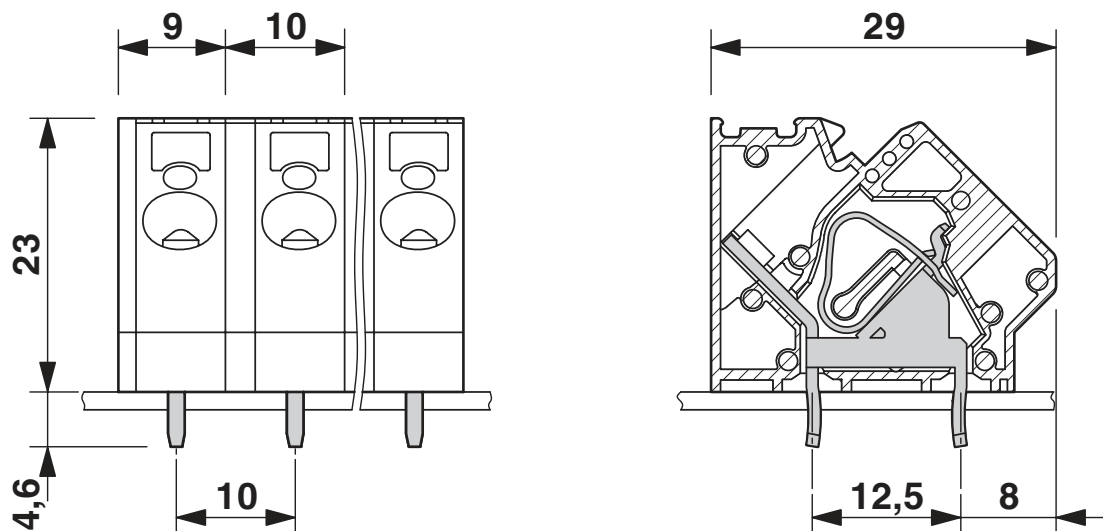
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## Drawings



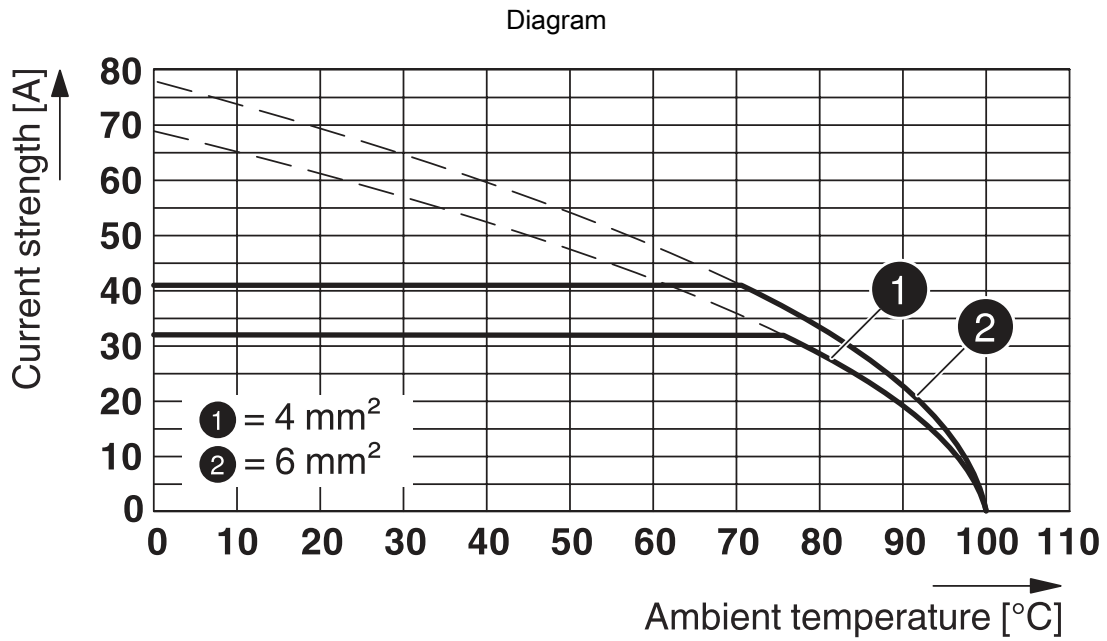
Dimensional drawing



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Type: ZFKDS 4-10

Test according to DIN EN 60947-7-4 (VDE 0611-7-4):2014-08

Illustration according to DIN EN 60512-5-2:2003-01

Reduction factor = 1

Number of positions: 4

# ZFKDSA 4-10- 4 - PCB terminal block





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1743744>

 **EAC**  
Approval ID: B.01687

 **cULus Recognized**  
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	30 A	24 - 10	-
Use group C	300 V	30 A	24 - 10	-
Use group D	600 V	5 A	24 - 10	-



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## Classifications

### ECLASS

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

### ETIM

ETIM 8.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

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

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## Accessories

### CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/pc/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

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### RZ-ZFKDS 4 - Pitch spacer

1928521

<https://www.phoenixcontact.com/pc/products/1928521>



Pitch spacer, 2.5 mm wide

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## FL-ZFKDS 4 - PCB terminal block

1928495

<https://www.phoenixcontact.com/pc/products/1928495>



Pair of flanges, can be snapped onto a row of single terminal blocks

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## MPS-MT - Test plugs

0201744

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



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

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## SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/pc/products/1204517>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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## ZBF10:UNBEDRUCKT - Zack Marker strip, flat

0809997

<https://www.phoenixcontact.com/pc/products/0809997>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

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## SK U/5,0 WH:UNBEDRUCKT - Marker card

0803922

<https://www.phoenixcontact.com/pc/products/0803922>



Marker card, Din A4, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 5 mm, Number of individual labels: 630

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## ZBF10 CUS - Zack Marker strip, flat

0825031

<https://www.phoenixcontact.com/pc/products/0825031>



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

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## B-STIFT - Marker pen

1051993

<https://www.phoenixcontact.com/pc/products/1051993>



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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## FBSK 2-10 - Plug-in bridge

1928398

<https://www.phoenixcontact.com/pc/products/1928398>



Bridge, fully insulated, pitch 10 mm, 2-pos.

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<https://www.phoenixcontact.com/pc/products/1743744>



## FBSK 3-10 - Plug-in bridge

1928408

<https://www.phoenixcontact.com/pc/products/1928408>



Bridge, fully insulated, pitch 10 mm, 3-pos.

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## FBSK 4-10 - Plug-in bridge

1928411

<https://www.phoenixcontact.com/pc/products/1928411>



Bridge, fully insulated, pitch 10 mm, 4-pos.



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## ZFKDSA 4- 9 - PCB terminal block

1907542

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End terminal block, 9 mm wide, necessary at the end of a row of terminal blocks

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