

# ZFKDSA 4-7,5-10 - PCB terminal block

1805504

<https://www.phoenixcontact.com/us/products/1805504>

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.



Printed circuit board terminal, nominal current: 32 A, rated voltage (III/2): 630 V, nominal cross section: 4 mm<sup>2</sup>, number of potentials: 10, number of rows: 1, number of positions per row: 10, product range: ZFKDS(A) 4, pitch: 7.5 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, 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

## 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	1805504
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA14
Product key	AANMAA
GTIN	4046356681735
Weight per piece (including packing)	44.07 g
Weight per piece (excluding packing)	42.8 g
Customs tariff number	85369010
Country of origin	PL

# ZFKDSA 4-7,5-10 - PCB terminal block



1805504

<https://www.phoenixcontact.com/us/products/1805504>

## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	ZFKDS(A) 4
Product line	COMBICON Terminals L
Number of positions	10
Pitch	7.5 mm
Number of connections	10
Number of rows	1
Number of potentials	10
Pin layout	Linear pinning
Solder pins per potential	2

### Electrical properties

#### Properties

Nominal current $I_N$	32 A
Nominal voltage $U_N$	630 V
Rated voltage (III/3)	500 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

# ZFKDSA 4-7,5-10 - PCB terminal block

1805504

<https://www.phoenixcontact.com/us/products/1805504>

## 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 µm - 16 µm Sn)
Metal surface soldering area (top layer)	Tin (10 µm - 16 µm Sn)

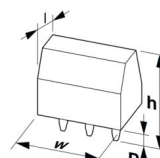
### Material data - housing

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	7.5 mm
Width [w]	76.5 mm
Height [h]	27.6 mm
Length [l]	29 mm
Installed height	23 mm
Solder pin length [P]	3.5 mm
Pin dimensions	1 x 1.4 mm

### PCB design

Hole diameter	1.8 mm
---------------	--------

## Mechanical tests

### Connection test

Specification	IEC 60998-2-2:1991-10
---------------	-----------------------

# ZFKDSA 4-7,5-10 - PCB terminal block



1805504

<https://www.phoenixcontact.com/us/products/1805504>

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
	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 |

Insulating material group	I
Rated insulation voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV
Rated insulation voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

## 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)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

### Glow-wire test

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

# ZFKDSA 4-7,5-10 - PCB terminal block



1805504

<https://www.phoenixcontact.com/us/products/1805504>

## Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)

## Packaging specifications

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

1805504

<https://www.phoenixcontact.com/us/products/1805504>

## Drawings

Diagram



Type: ZFKDS 4-7,5 and ZFKDSA 4-9

Test following DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5

# ZFKDSA 4-7,5-10 - PCB terminal block



1805504

<https://www.phoenixcontact.com/us/products/1805504>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1805504>

 <b>cULus Recognized</b> Approval ID: E60425-19941111				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	300 V	30 A	24 - 10	-
C	150 V	30 A	24 - 10	-
D	300 V	10 A	24 - 10	-

# ZFKDSA 4-7,5-10 - PCB terminal block



1805504

<https://www.phoenixcontact.com/us/products/1805504>

## Classifications

### ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

### ETIM

ETIM 10.0	EC002643
-----------	----------

### UNSPSC

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

# ZFKDSA 4-7,5-10 - PCB terminal block



1805504

<https://www.phoenixcontact.com/us/products/1805504>

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

### EF3.1 Climate Change

CO2e kg	0.349 kg CO2e
---------	---------------

Phoenix Contact 2026 © - 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)