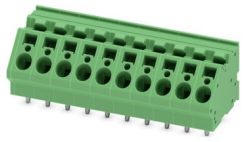
ZFKDSA 4-7,5-10 - PCB terminal block

1805504

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

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Printed circuit board terminal, nominal current: 32 A, rated voltage (III/2): 630 V, nominal cross section: 4 mm^2, 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

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

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 mm²

Conductor connection

Connection method	Spring-cage connection
Conductor cross section rigid	0.2 mm² ... 6 mm²
Conductor cross section flexible	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 10
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 4 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 4 mm²
Stripping length	10 mm

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
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)

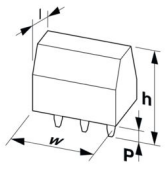
Material data - housing

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)

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
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 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	6 mm² / solid / > 80 N
	4 mm² / 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	10^9 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

Ambient conditions

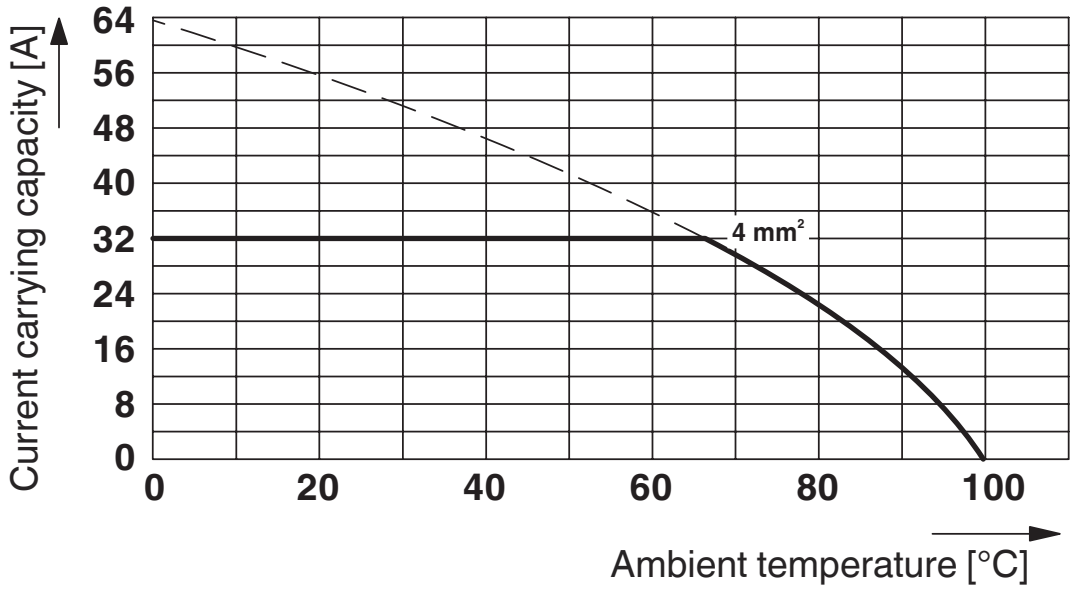
Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard

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

Approvals

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

cULus Recognized
Approval ID: E60425-19941110

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	30 A	24 - 10	-
Use group C				
	150 V	30 A	24 - 10	-
Use group D				
	300 V	10 A	24 - 10	-

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002643

UNSPSC

UNSPSC 21.0	39121400

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%

EF3.0 Climate Change

CO2e kg	0.349 kg CO2e

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