

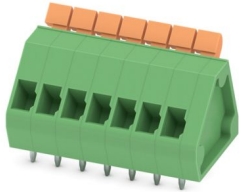
ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

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: 12 A, rated voltage (III/2): 200 V, nominal cross section: 1 mm², number of potentials: 7, number of rows: 1, number of positions per row: 7, product range: ZFKDS(A) 1-W, pitch: 3.81 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
- Can be operated without tools by means of color-coded actuating lever
- Angled connection enables multi-row arrangement on the PCB
- The latching on the side enables various numbers of positions to be combined
- Two solder pins reduce the mechanical strain on the soldering spots

Commercial data

Item number	1747931
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA12
Product key	AALMAF
GTIN	4046356299916
Weight per piece (including packing)	7.194 g
Weight per piece (excluding packing)	7.027 g
Customs tariff number	85369010
Country of origin	PL

ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

Technical data

Product properties

Product type	Printed circuit board terminal
Product family	ZFKDS(A) 1-W
Product line	COMBICON Terminals S
Type	PC terminal block can be aligned
Number of positions	7
Pitch	3.81 mm
Number of connections	7
Number of rows	1
Number of potentials	7
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	200 V
Degree of pollution	3
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	400 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	PC terminal block can be aligned
Nominal cross section	1 mm ²

Conductor connection

Connection method	Spring-cage connection
Conductor cross section rigid	0.14 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 1 mm ²
Conductor cross section AWG	26 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.5 mm ²
Stripping length	7.5 mm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

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	3.81 mm
Width [w]	29.71 mm
Height [h]	19.48 mm
Length [l]	17.46 mm
Installed height	15.98 mm
Solder pin length [P]	3.5 mm
Pin dimensions	0.7 x 1 mm

PCB design

Hole diameter	1.2 mm
---------------	--------

Electrical tests

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
---------------	---------------------

ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.5 mm
Rated insulation voltage (II/2)	400 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	2 mm

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

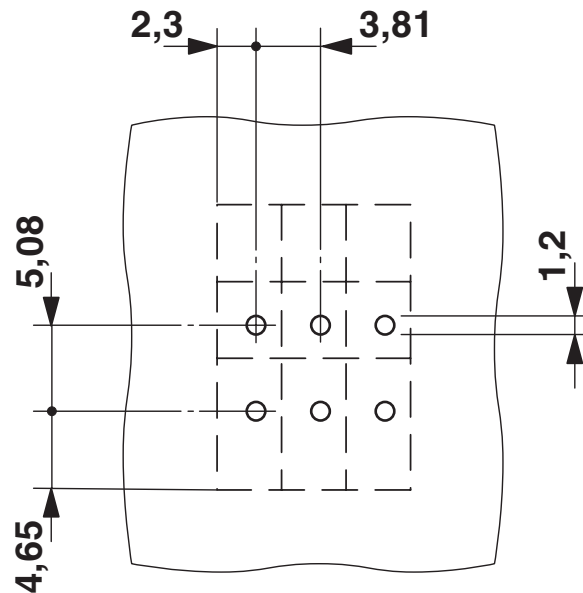
ZFKDSA 1-W-3,81- 7 - PCB terminal block

1747931

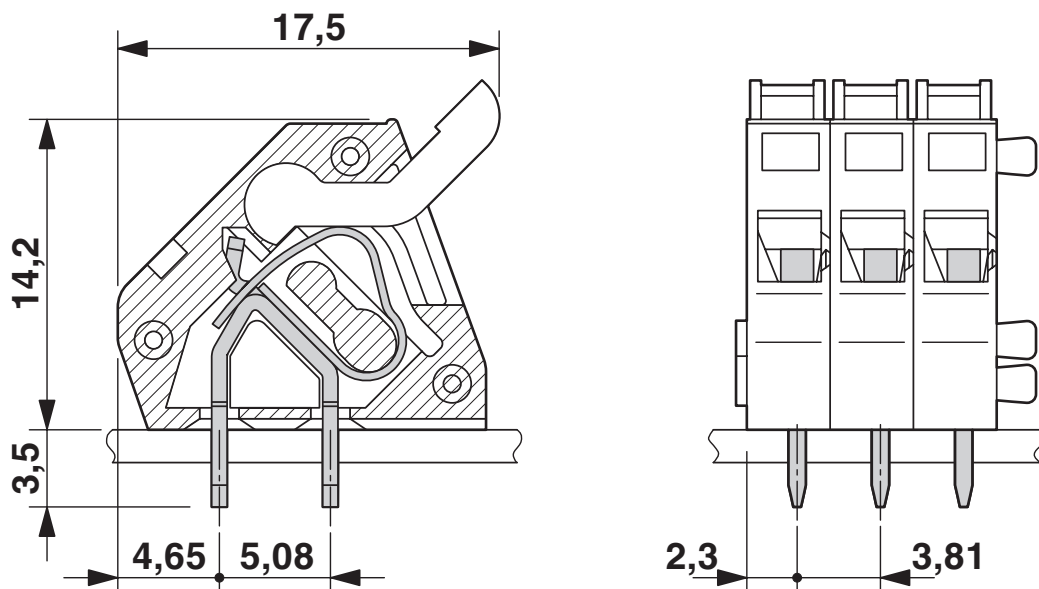
<https://www.phoenixcontact.com/us/products/1747931>

Drawings

Drilling plan/solder pad geometry



Dimensional drawing



ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1747931>

 cULus Recognized Approval ID: E60425-19941110				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	250 V	10 A	26 - 12	-
Use group D	300 V	10 A	26 - 12	-

ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

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%

ZFKDSA 1-W-3,81- 7 - PCB terminal block



1747931

<https://www.phoenixcontact.com/us/products/1747931>

Accessories

SZF 0-0,4X2,5 - Screwdriver

1204504

<https://www.phoenixcontact.com/us/products/1204504>

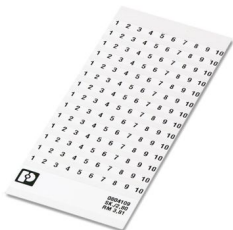


Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

SK 3,81/2,8:FORTL.ZAHLEN - Marker card

0804109

<https://www.phoenixcontact.com/us/products/0804109>



Marker card, Sheet, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 3.81 mm, lettering field size: 3.81 x 2.8 mm, Number of individual labels: 14

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