PCB terminal block - FKDSO 2,5/ 2-R1 - 1857840

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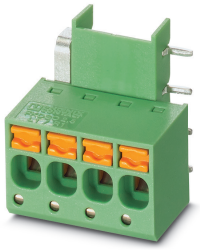
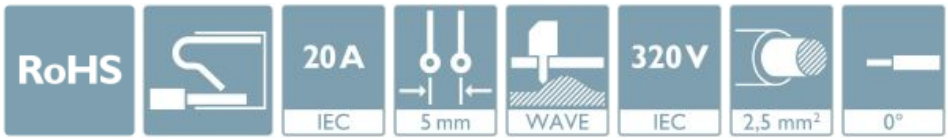


The figure shows the 4-pos. version of the product

PCB terminal block, nominal current: 20 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², Number of potentials: 2, Number of rows: 1, Number of positions per row: 2, product range: FKDSO 2,5/ ..R1, pitch: 5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, type of packaging: packed in cardboard

Your advantages

- Orthogonal alignment of the terminal block with the PCB for optimum accessibility in DIN-rail-mounted devices
- Time saving push-in connection, tools not required
- Intuitive use through colour coded actuation lever



Key Commercial Data

Packing unit	1
GTIN	4 055626 268361
GTIN	4055626268361
Custom tariff number	85369010

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	FKDSO 2,5/ ..R1
Pitch	5 mm
Number of positions	2
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1

PCB terminal block - FKDSO 2,5/ 2-R1 - 1857840

Technical data

Item properties

Number of connections	2
Number of potentials	2

Electrical parameters

Nominal current	20 A
Nom. voltage	320 V
Contact resistance	Test passed IEC 60512-2-1:2002-02
Rated voltage (III/3)	200 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	320 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

Connection capacity

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 4 mm²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1 mm²
Stripping length	10 mm

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 (5 - 7 µm Sn)
Metal surface soldering area (top layer)	Tin (5 - 7 µm Sn)

Material data - housing

Housing color	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

PCB terminal block - FKDSO 2,5/ 2-R1 - 1857840

Technical data

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	18.8 mm
Width [w]	10.6 mm
Height [h]	19.4 mm
Pitch	5 mm
Height (without solder pin)	15.9 mm
Solder pin [P]	3.5 mm
Pin spacing	5 mm
Pin dimensions	0.8 x 1 mm

Dimensions for PCB design

Hole diameter	1.4 mm
Pin spacing	5 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

Processing notes

Process	Wave soldering
Specification	Following IEC 61760-1:2006-04
	Following IEC 60068-2-54:2006-04

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-25 °C ... 105 °C
Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	2.5 mm² / solid / > 50 N
	0.2 mm² / flexible / > 10 N
	4 mm² / flexible / > 60 N

PCB terminal block - FKDSO 2,5/ 2-R1 - 1857840

Technical data

Mechanical tests according to standard

Test specification	IEC 60947-7-4

Electrical tests

Rated current	20 A
Conductor cross section	4 mm²
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	3.2 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	3.2 mm

Temperature-rise test

Specification	IEC 60947-7-4:2013-08
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

Current carrying capacity / derating curves

Caption	Type: FKDSO 2,5/...-R(L)1 Tested according to DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 4

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 5 MΩ

Glow-wire test

PCB terminal block - FKDSO 2,5/ 2-R1 - 1857840

Technical data

Glow-wire test

Specification	IEC 60695-2-10:2000-10
Temperature	850 °C
Time of exposure	5 s

Alternating climate test

Result	Test passed
Specification	ISO 6988:1985-02

Standards and Regulations

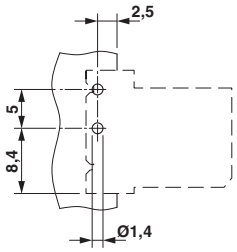
Connection in acc. with standard	EN-VDE
Flammability rating according to UL 94	V0

Environmental Product Compliance

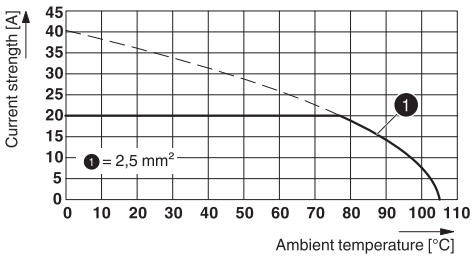
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Drilling diagram

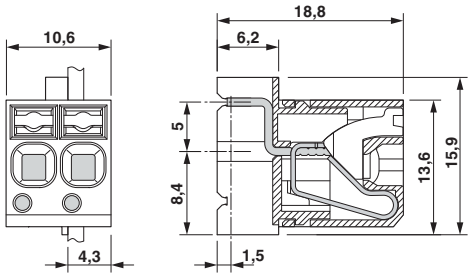


Diagram



Type: FKDSO 2,5/...-R(L)1
Tested according to DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 4

Dimensional drawing



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Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
eCl@ss 4.0	27180400
eCl@ss 4.1	27180400
eCl@ss 5.0	27180500
eCl@ss 5.1	27261100
eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 2.0	EC001031
ETIM 3.0	EC001031
ETIM 4.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

Approvals

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VDE Zeichengenehmigung / IECEE CB Scheme / EAC / cULus Recognized

Ex Approvals

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Approvals

Approval details

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40043675

Nominal voltage UN	320 V
Nominal current IN	20 A
mm²/AWG/kcmil	0.2-4

IECEE CB Scheme		http://www.iecee.org/	DE1-56776

Nominal voltage UN	320 V
Nominal current IN	20 A
mm²/AWG/kcmil	0.2-4

EAC		B.01687

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20110930

	B	D
Nominal voltage UN	300 V	150 V
Nominal current IN	20 A	15 A
mm²/AWG/kcmil	24-12	24-12