

# PCB terminal block - FKDSO 2,5/ 4-L KMGY - 2200319

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PCB terminal block, nominal current: 22 A, rated voltage (III/2): 250 V, nominal cross section: 2.5 mm<sup>2</sup>, pitch: 5 mm, number of positions: 4, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: light gray, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm. Article with lateral pin exit

## Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Intuitive use through colour coded actuation lever
- ✓ Defined contact force ensures that contact remains stable over the long term

RoHS



## Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356563840

## Technical data

### Item properties

Brief article description	PCB terminal block
Range of articles	FKDSO 2,5/..-L
Pitch	5 mm
Number of positions	4
Connection method	Push-in spring connection
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1
Number of connections	4
Number of potentials	4

### Electrical parameters

Nominal current	22 A
Nom. voltage	250 V

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## Technical data

### Electrical parameters

Rated voltage	250 V
Rated voltage (III/2)	250 V
Rated voltage (II/2)	630 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 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	24 ... 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
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	light gray (7035)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

### Dimensions for the product

Length [ l ]	18.8 mm
Width [ w ]	20 mm
Height [ h ]	14.85 mm
Pitch	5 mm
Solder pin [P]	3.5 mm
Pin spacing	5.08 mm
Pin dimensions	0.8 x 1 mm

### Dimensions for PCB design

Hole diameter	1.4 mm
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## Technical data

### Dimensions for PCB design

Pin spacing	5.08 mm
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### Packaging information

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 ... 55 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °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
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm <sup>2</sup> / solid / > 10 N
	2.5 mm <sup>2</sup> / solid / > 50 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	4 mm <sup>2</sup> / flexible / > 60 N

### Mechanical tests according to standard

Test specification	IEC 60947-7-4
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### Electrical tests

Rated current	22 A
Conductor cross section	2.5 mm <sup>2</sup>
Rated voltage (III/2)	250 V
Rated surge voltage (III/2)	4 kV

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60947-1:2007-06 + A1:2010-12
Specification	IEC 60947-1:2007-06 + A1:2010-12
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)	1.25 mm

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## Technical data

### Air clearances and creepage distances

Minimum creepage distance value (II/2)	3.2 mm
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### Temperature-rise test

Specification	IEC 60947-7-4:2013-08
Result	Test passed
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/...-L(R) Tested according to DIN EN 60512-5-2:2003-01 Reduction factor = 1 Number of positions: 4
Specification	IEC 60947-7-4:2013-08
Number of positions	4
Reduction factor	1
Note	Representation based on IEC 60512-5-2:2002-02

### Vibration test

Specification	IEC 60068-2-6:2007-12
Result	Test passed
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	> 1 TΩ

### Glow-wire test

Specification	IEC 60695-2-10:2013-04
Result	Test passed
Temperature	850 °C
Time of exposure	5 s

### Alternating climate test

Result	Test passed
Specification	ISO 6988:1985-02
Corrosive stress	KFW 0.2 S/1 cycle

### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
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# PCB terminal block - FKDSO 2,5/ 4-L KMGY - 2200319

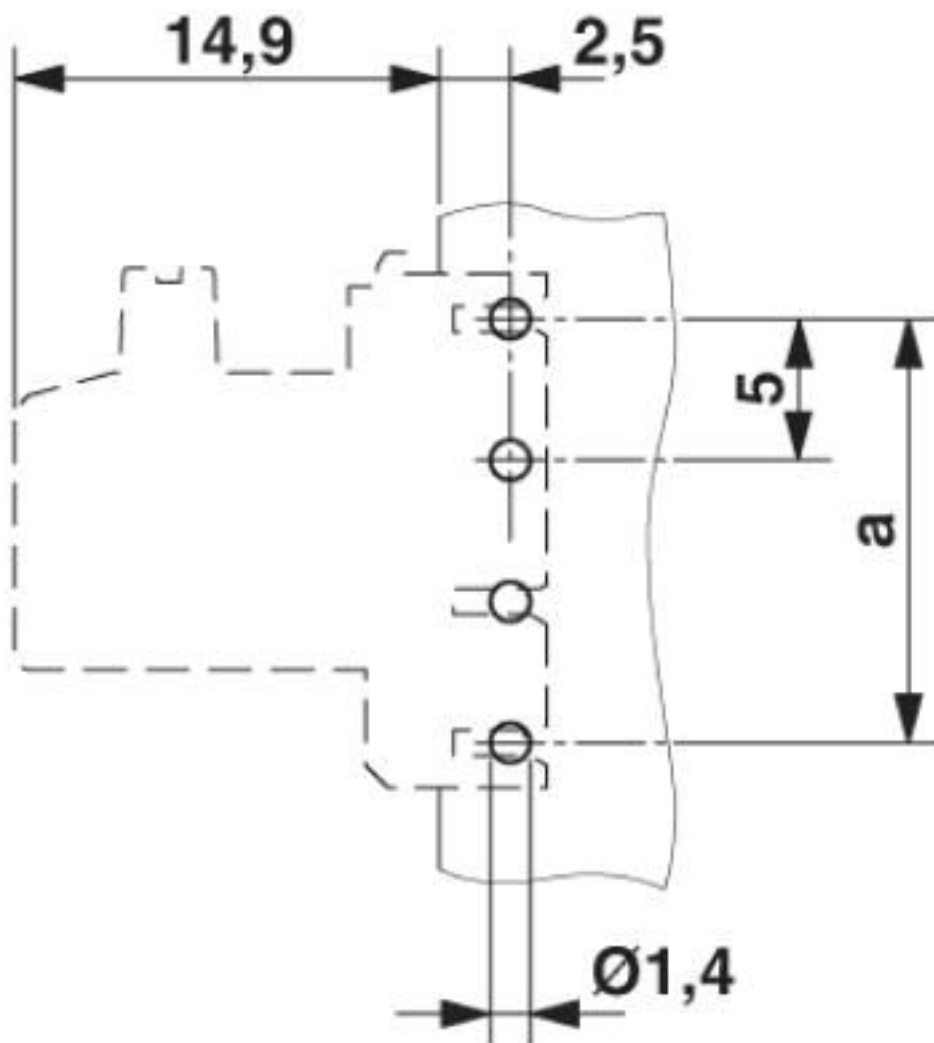
## Technical data

### Environmental Product Compliance

	No hazardous substances above threshold values
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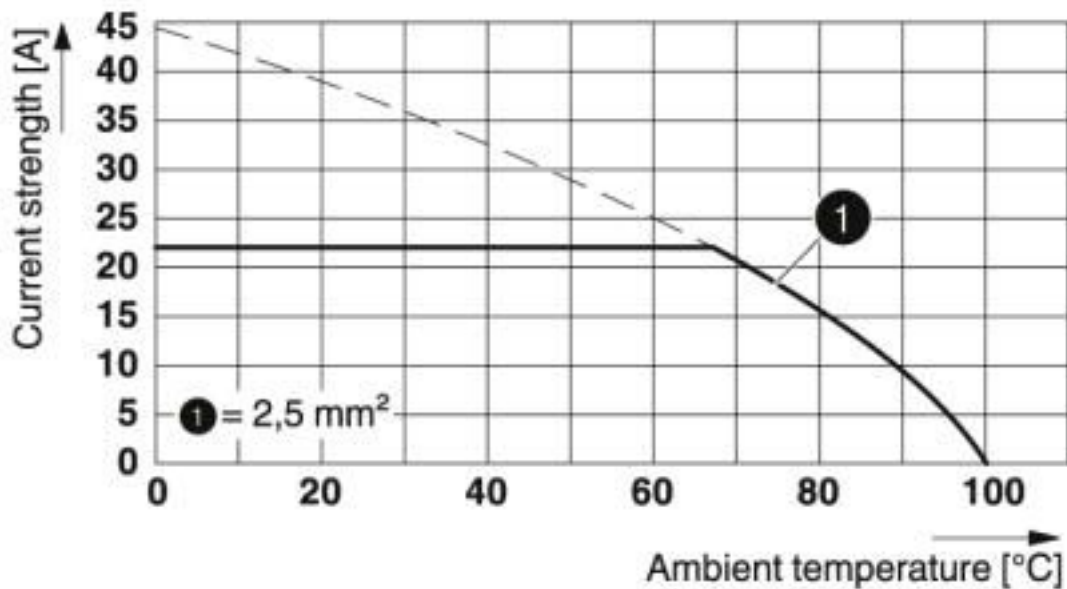
## Drawings

Drilling diagram



# PCB terminal block - FKDSO 2,5/ 4-L KMGY - 2200319

Diagram



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

## Classifications

eCl@ss

eCl@ss 10.0.1	27440401
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 8.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 2.0	EC001031
ETIM 3.0	EC001031
ETIM 4.0	EC002643
ETIM 5.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

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## Classifications

### 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


### Approvals


#### Approvals


IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

#### Ex Approvals

### Approval details


IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-59403
Nominal voltage UN	250 V		
Nominal current IN	22 A		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40033478
Nominal voltage UN	250 V		
Nominal current IN	22 A		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

EAC		B.01687
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### Approvals

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> E60425-20110930
	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	5 A
mm <sup>2</sup> /AWG/kcmil	24-14	24-14

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