

## PCB terminal block - FFKDSA1/H-2,54- 4 - 1789139

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PCB terminal block, nominal current: 6 A, rated voltage (III/2): 160 V, nominal cross section: 0.5 mm<sup>2</sup>, pitch: 2.54 mm, number of positions: 4, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 3.6 mm

The figure shows a 10-position version

### Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Operation and conductor connection from one direction enable integration into front of device
- Two solder pins reduce the mechanical strain on the soldering spots
- The latching on the side enables various numbers of positions to be combined



### Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4017918260606

### Technical data

#### Item properties

Brief article description	PCB terminal block
Range of articles	FFKDS(A) 0,5/..-H
Pitch	2.54 mm
Number of positions	4
Connection method	Push-in spring connection
Mounting type	Wave soldering
Pin layout	Linear double pinning
Number of levels	1
Number of connections	4

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## Technical data

### Item properties

Number of potentials	4
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### Electrical parameters

Nominal current	6 A
Nom. voltage	160 V
Rated voltage	63 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

### Connection capacity

Connection method	Push-in spring connection
pluggable	Yes
Conductor cross section solid	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	26 ... 20
Stripping length	11 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 terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (5 - 7 µm Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)

### 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
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

### Dimensions for the product

Length [ l ]	13.6 mm
Width [ w ]	12.66 mm
Height [ h ]	16.2 mm

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## Technical data

### Dimensions for the product

Pitch	2.54 mm
Height (without solder pin)	12.6 mm
Solder pin [P]	3.6 mm
Pin spacing	5.08 mm
Pin dimensions	0.5 x 0.8 mm

### Dimensions for PCB design

Hole diameter	1.1 mm
Pin spacing	5.08 mm

### Packaging information

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

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °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 60999-1:1990-05
	Test passed

### Pull-out test

Pull-out test	IEC 60999-1:1990-05
	Test passed
Conductor cross section / conductor type / tensile force	0.14 mm <sup>2</sup> / solid / > 7 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	0.5 mm <sup>2</sup> / solid / > 30 N
	0.5 mm <sup>2</sup> / flexible / > 30 N

### Mechanical tests according to standard

Test specification	IEC 60999-1 (in parts)
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### Electrical tests

Rated current	6 A
Conductor cross section	0.5 mm <sup>2</sup>
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 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)	1.5 mm

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## Technical data

### Air clearances and creepage distances

Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	1.6 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm

### Temperature-rise test

Specification	IEC 60998-1:1990-04
Result	Test passed
Requirement temperature-rise test	Increase in temperature $\leq 45$ K

### Current carrying capacity / derating curves

Caption	Type: FFKDS/H-2,54 Test following DIN EN 60512-5-2:2003-01 Reduction factor = 1 No. of positions: 5
Specification	Following IEC 60512-5-2:2002-02
Number of positions	5
Reduction factor	1

### Vibration test

Specification	IEC 60068-2-6:1982 + AMD 2:1985
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 60512-2:1985-00
Result	Test passed
Insulation resistance, neighboring positions	$10^{12} \Omega$

### Standards and Regulations

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

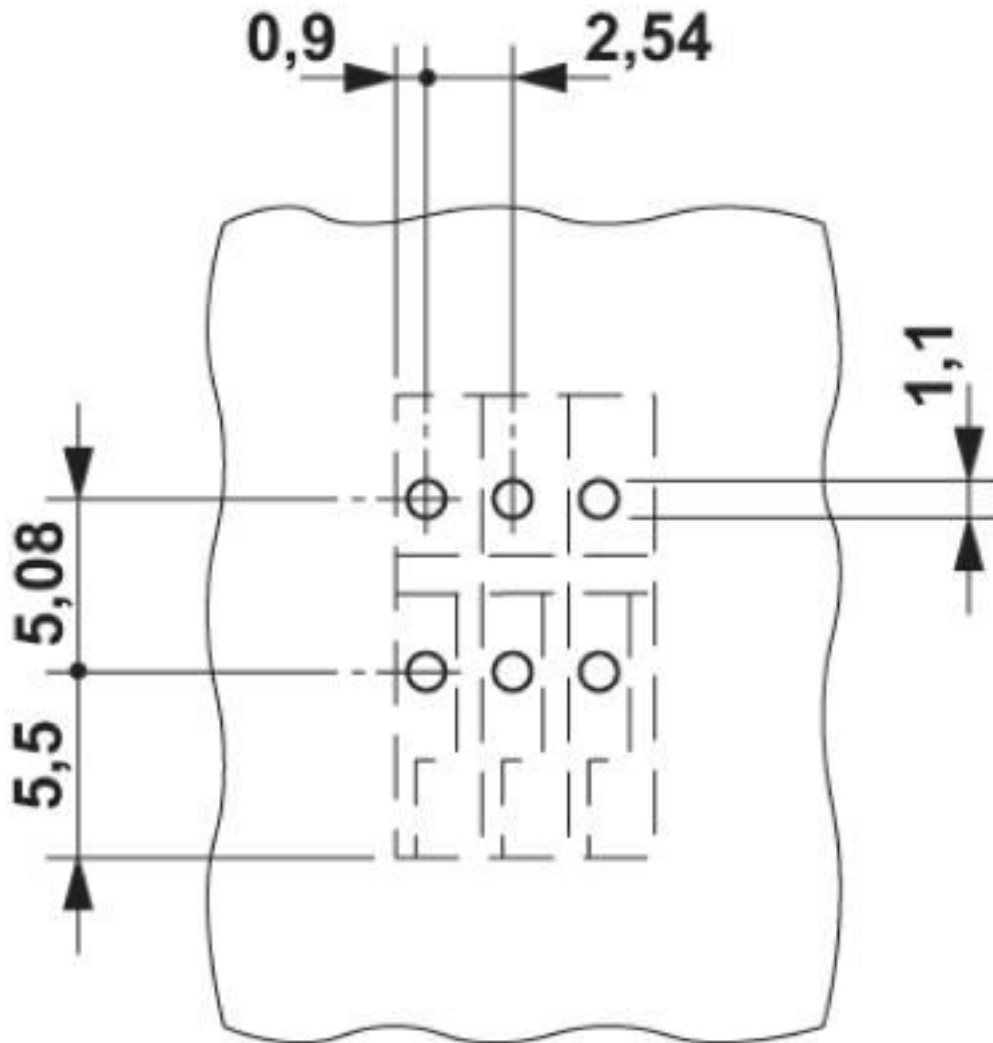
### Environmental Product Compliance

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

## Drawings

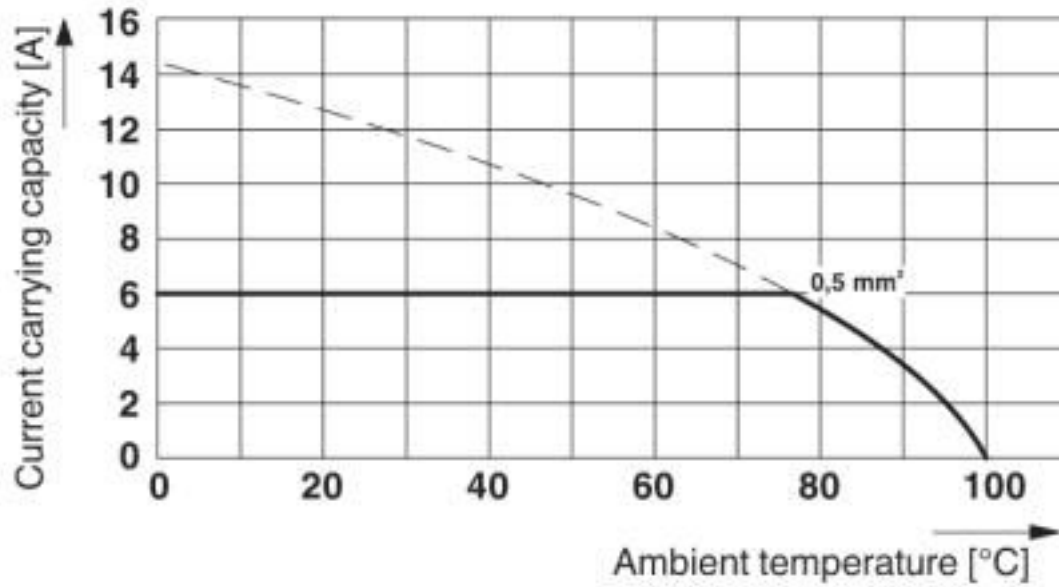
# PCB terminal block - FFKDSA1/H-2,54- 4 - 1789139

Drilling diagram



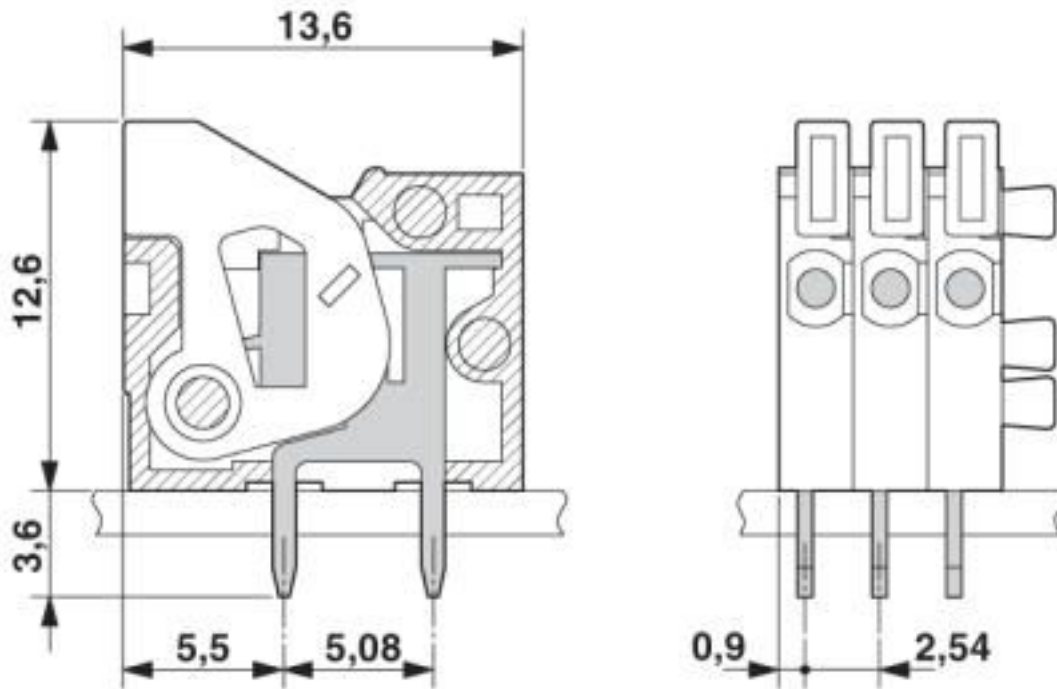
# PCB terminal block - FFKDSA1/H-2,54- 4 - 1789139

Diagram



Type: FFKDS/H-2,54  
Test following DIN EN 60512-5-2:2003-01  
Reduction factor = 1  
No. of positions: 5

Dimensional drawing



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## Classifications

### eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
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 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

### UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	39121432
UNSPSC 12.01	39121432
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

## Approvals

### Approvals

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Approvals

CSA / EAC / cULus Recognized

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Ex Approvals

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### Approval details

# PCB terminal block - FFKDSA1/H-2,54- 4 - 1789139

## Approvals

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
		B	
Nominal voltage UN	150 V		
Nominal current IN	6 A		
mm <sup>2</sup> /AWG/kcmil	20		

EAC			B.01687
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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>	E60425-19870330
		B	
Nominal voltage UN	150 V		
Nominal current IN	6 A		
mm <sup>2</sup> /AWG/kcmil	26-20		

## Accessories

### Accessories

#### Cable end sleeve

Ferrule - AI 0,25-10 YE - 3241128



Ferrule, sleeve length: 10 mm, length: 14.5 mm, color: yellow

#### Labeled terminal marker

Marker card - SK 2,54/2,8:FORTL.ZAHLEN - 0804853



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 2.54 mm, lettering field size: 2.54 x 2.8 mm



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