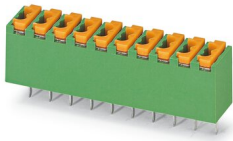


# PCB terminal block - FK-MPT 0,5/ 4-3,5

1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

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: 4 A, rated voltage (III/2): 250 V, nominal cross section: 0.5 mm<sup>2</sup>, number of potentials: 4, number of rows: 1, number of positions per row: 4, product range: FK-MPT 0,5/..-V, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

## 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
- Potentials can be easily looped through – ideal for BUS applications
- Small component size for applications where space is at a premium
- Vertical connection enables multi-row arrangement on the PCB

# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Commercial Data

Item number	1891085
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to Order (non-returnable)
Sales Key	E1 - Leiterplattenanschl.
Product Key	AAKBCB
Catalog Page	Page 403 (C-1-2013)
GTIN	4017918169602
Weight per Piece (including packing)	1,598 g
Weight per Piece (excluding packing)	1,38 g
Customs tariff number	85369010
Country of origin	IN

# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Technical Data

### Product properties

Type	PC termination block
Product line	COMBICON Terminals XS
Product type	Printed circuit board terminal
Number of positions	4
Pitch	3.5 mm
Number of connections	8
Number of rows	1
Mounting flange	without
Number of potentials	4
Pin layout	Linear pinning

### Electrical properties

Nominal current $I_N$	4 A
Nominal voltage $U_N$	250 V
Pollution degree	3
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	250 V
Rated surge voltage (III/2)	2.5 kV

### Connection data

#### Conductor connection

Connection method	Push-in spring connection
Conductor cross section solid	0.12 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section AWG	26 ... 20
Stripping length	6.5 mm

### Mounting

Mounting type Wave soldering	Wave soldering
Mounting type	Wave soldering

### Material specifications

#### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Steel/copper
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (5 - 7 μm Sn)
Metal surface terminal point (middle layer)	Copper (2 - 3 μm Cu)
Metal surface soldering area (top layer)	Tin (5 - 7 μm Sn)

# PCB terminal block - FK-MPT 0,5/ 4-3,5

1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

Metal surface soldering area (middle layer)	Copper (2 - 3 $\mu\text{m}$ Cu)
---	---------------------------------

## Material data - housing

Housing color	green (6021)
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

## Material data – actuating element

Insulating material	POM
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	HB

## Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	14.5 mm
Height [h]	13 mm
Length [l]	7 mm
Installed height	9.5 mm
Solder pin length [P]	3.5 mm

## Mechanical tests

### Test for conductor damage and slackening

Specification	IEC 60999-1:1990-05
Result	Test passed

### Pull-out test

Specification	IEC 60999-1:1990-05
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm <sup>2</sup> / solid / > 10 N
	0.5 mm <sup>2</sup> / solid / > 30 N

## Electrical tests

### Temperature-rise test

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

### Insulation resistance

# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

Specification	IEC 60512-2:1985-00
Insulation resistance, neighboring positions	$10^{12} \Omega$

## Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 225
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)	2.5 mm
Rated insulation voltage (III/2)	250 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)	2.5 mm
Rated insulation voltage (II/2)	250 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)	2.5 mm

## 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 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

### 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
-------------------	---------------------

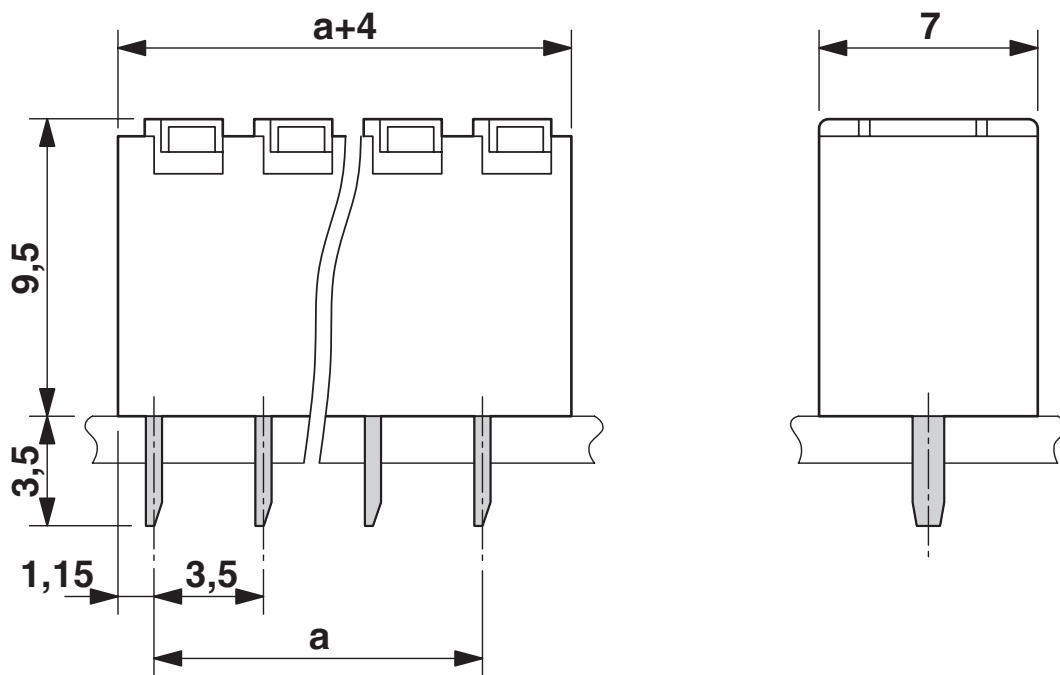
# PCB terminal block - FK-MPT 0,5/ 4-3,5

1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Drawings

Dimensional drawing



Diagram



Type: FK-MPT 0,5/...-3,5

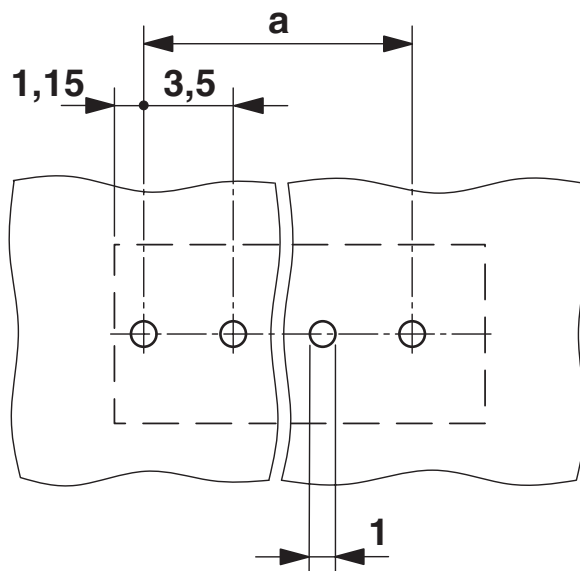
# PCB terminal block - FK-MPT 0,5/ 4-3,5

1891085

<https://www.phoenixcontact.com/de/produkte/1891085>



Drilling plan/solder pad geometry



# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Approvals



**EAC**

Approval ID: B.01687



**cULus Recognized**

Approval ID: E60425-19991118

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B	300 V	4 A	28 - 20	-
Use group D	300 V	4 A	28 - 20	-



# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Classifications

### ECLASS

ECLASS-9.0	27440401
ECLASS-10.0.1	27440401
ECLASS-11.0	27460101

### ETIM

ETIM 8.0	EC002643
----------	----------

### UNSPSC

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

# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Environmental Product Compliance

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

# PCB terminal block - FK-MPT 0,5/ 4-3,5



1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## Accessories

### Screwdriver

Screwdriver - SZF 0-0,4X2,5 - 1204504

<https://www.phoenixcontact.com/de/produkte/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

### PCB header

PCB header - FK-MPT 0,5/ 4-ICA-3,5 - 1930344

<https://www.phoenixcontact.com/de/produkte/1930344>



PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 3 A, rated voltage (III/2): 250 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: FK-MPT 0,5/..-ICA, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.4 mm, number of solder pins per potential: 1, plug-in system: COMBICON FK-MPT - IC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, The touch-protected basic strip, serves to accommodate the FK-MPT 0,5 PCB terminal block.

# PCB terminal block - FK-MPT 0,5/ 4-3,5

1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## PCB header

PCB header - FK-MPT 0,5/ 2-ICA-3,5 - 1930328

<https://www.phoenixcontact.com/de/produkte/1930328>

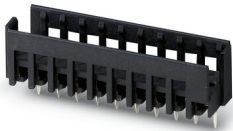


PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 3 A, rated voltage (III/2): 250 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FK-MPT 0,5/..-ICA, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.4 mm, number of solder pins per potential: 1, plug-in system: COMBICON FK-MPT - IC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, The touch-protected basic strip, serves to accommodate the FK-MPT 0,5 PCB terminal block.

## PCB header

PCB header - FK-MPT 0,5/ 4-ICVA-3,5 - 1930496

<https://www.phoenixcontact.com/de/produkte/1930496>



PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 3 A, rated voltage (III/2): 250 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: FK-MPT 0,5/..-ICVA, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON FK-MPT - IC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, The touch-protected basic strip, serves to accommodate the FK-MPT 0,5 PCB terminal block.

# PCB terminal block - FK-MPT 0,5/ 4-3,5



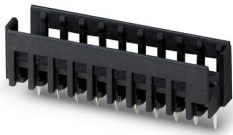
1891085

<https://www.phoenixcontact.com/de/produkte/1891085>

## PCB header

PCB header - FK-MPT 0,5/ 2-ICVA-3,5 - 1930470

<https://www.phoenixcontact.com/de/produkte/1930470>



PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, color: black, nominal current: 3 A, rated voltage (III/2): 250 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FK-MPT 0,5/...-ICVA, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON FK-MPT - IC, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, The touch-protected basic strip, serves to accommodate the FK-MPT 0,5 PCB terminal block.

---

Phoenix Contact 2022 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Deutschland GmbH

Flachsmarktstraße 8

D-32825 Blomberg

+49 52 35/3-1 20 00

[info@phoenixcontact.de](mailto:info@phoenixcontact.de)