

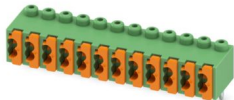
FK-MPT 0,5/12-3,5-H - PCB terminal block



1928864

<https://www.phoenixcontact.com/us/products/1928864>

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Printed circuit board terminal, nominal current: 4 A, rated voltage (III/2): 250 V, nominal cross section: 0.5 mm², number of potentials: 12, number of rows: 1, number of positions per row: 12, product range: FK-MPT 0,5/..-H, pitch: 3.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 4 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 operation due to color-coded actuating push button
- Potentials can be easily looped through – ideal for BUS applications
- Small component size for applications where space is at a premium

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1928864 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA11 |
| Product key | AAKBCA |
| GTIN | 4017918591311 |
| Weight per piece (including packing) | 5.66 g |
| Weight per piece (excluding packing) | 5.16 g |
| Customs tariff number | 85369010 |
| Country of origin | IN |

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Technical data

Product properties

| | |
|---------------------------|--------------------------------|
| Product type | Printed circuit board terminal |
| Product family | FK-MPT 0,5/..-H |
| Product line | COMBICON Terminals XS |
| Type | PC termination block |
| Number of positions | 12 |
| Pitch | 3.5 mm |
| Number of connections | 24 |
| Number of rows | 1 |
| Number of potentials | 12 |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

Properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 4 A |
| Nominal voltage U_N | 250 V |
| 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 |
| Rated voltage (II/2) | 250 V |
| Rated surge voltage (II/2) | 2.5 kV |

Connection data

Conductor connection

| | |
|-------------------------------|----------------------------------------------|
| Connection method | Push-in spring connection |
| Conductor cross-section rigid | 0.12 mm ² ... 0.5 mm ² |
| Conductor cross-section AWG | 26 ... 20 |
| Stripping length | 6.5 mm |

Mounting

| | |
|---------------|----------------|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

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 |

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| | |
|---------------------------------------------|-------------------------|
| Surface characteristics | Tin-plated |
| Metal surface terminal point (top layer) | Tin (5 µm - 7 µm Sn) |
| Metal surface terminal point (middle layer) | Copper (2 µm - 3 µm Cu) |
| Metal surface soldering area (top layer) | Tin (5 µm - 7 µm Sn) |
| Metal surface soldering area (middle layer) | Copper (2 µm - 3 µm Cu) |

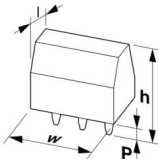
Material data - housing

| | |
|----------------------------------------|--------------|
| Color (Housing) | 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

| | |
|---------------------------|---------------|
| Color (Actuating element) | orange (2003) |
|---------------------------|---------------|

Dimensions

| | |
|-----------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Pitch | 3.5 mm |
| Width [w] | 42.5 mm |
| Height [h] | 12.5 mm |
| Length [l] | 9.5 mm |
| Installed height | 8.5 mm |
| Solder pin length [P] | 4 mm |
| Pin dimensions | 1 mm |

PCB design

| | |
|---------------|--------|
| Pin spacing | 3.5 mm |
| Hole diameter | 1.2 mm |

Electrical tests

Air clearances and creepage distances |

| | |
|----------------------------------|--------|
| Insulating material group | IIIa |
| Rated insulation voltage (III/3) | 160 V |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated insulation voltage (III/2) | 250 V |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated insulation voltage (II/2) | 250 V |
| Rated surge voltage (II/2) | 2.5 kV |

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Environmental and real-life conditions

Ambient conditions

| | |
|-----------------------------------------|-------------------------------------------------------------------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (Depending on the current carrying capacity/derating curve) |

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|-----------------------------------------|-------------------------------------------------------------------------------|
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| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |

Packaging specifications

| | |
|-------------------|---------------------|
| Type of packaging | packed in cardboard |
|-------------------|---------------------|

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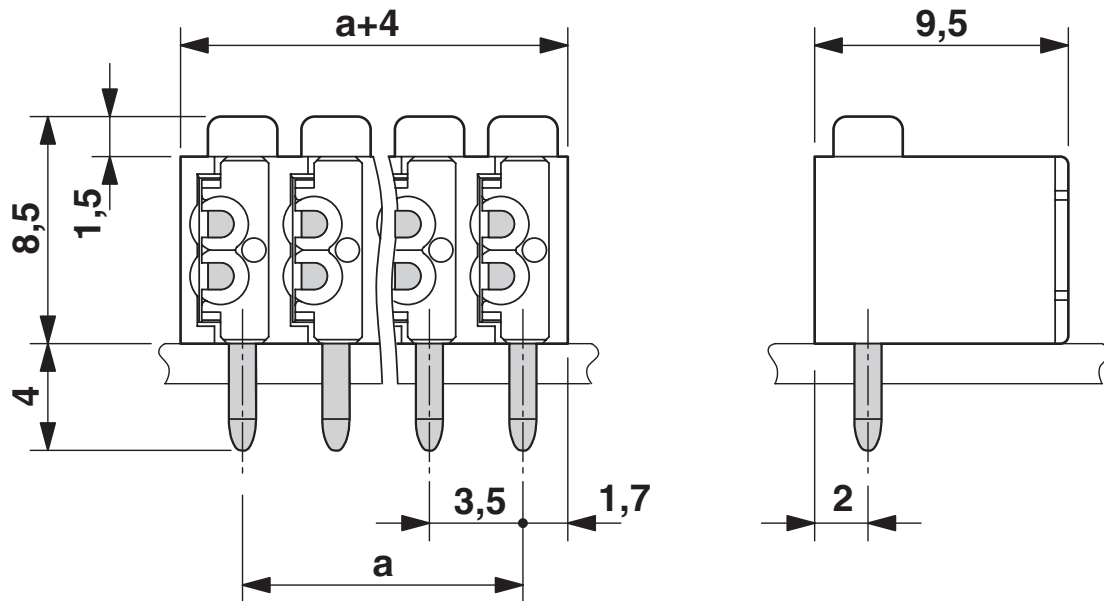


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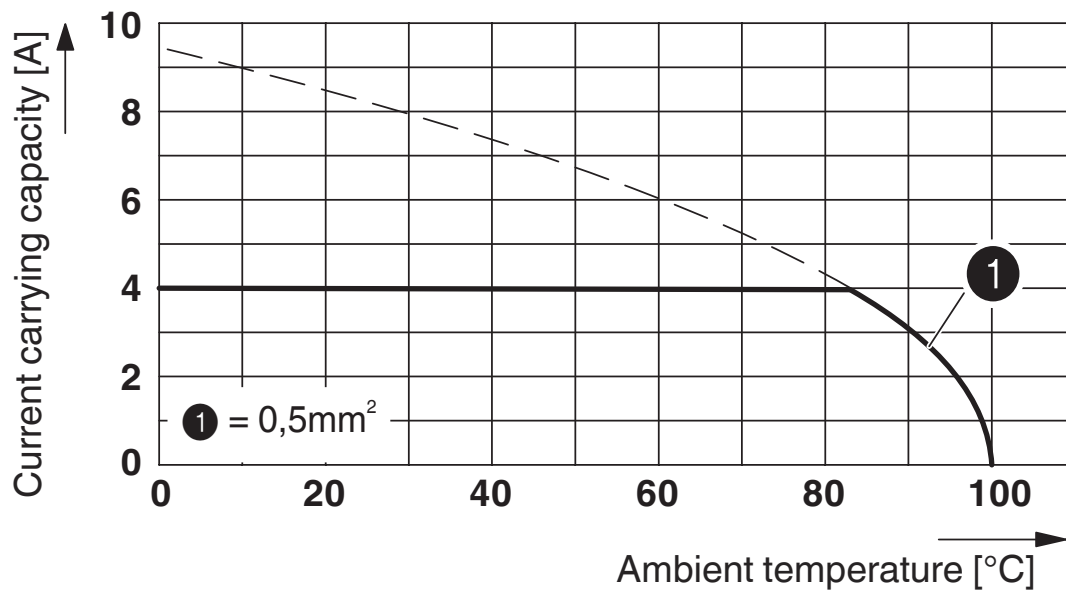
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Drawings

Dimensional drawing



Diagram



Derating diagram for 5 positions; reduction factor=0.8

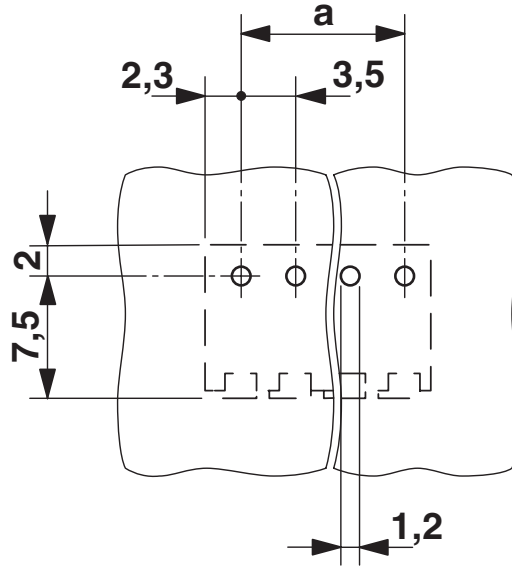
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Drilling plan/solder pad geometry



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1928864>

|  cULus Recognized Approval ID: E60425-19991118 | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| B | 300 V | 4 A | 28 - 20 | - |
| D | 300 V | 4 A | 28 - 20 | - |

|  VDE approval of drawings Approval ID: 40055523 | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | 250 V | 4 A | - | 0.2 - 0.5 |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27460101 |
| ECLASS-15.0 | 27460101 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002643 |
|-----------|----------|

UNSPSC

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

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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% |
|-------------------------------------|----------------------------|

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com