

MCDV 0,5/ 9-G1-2,5 HT BK - PCB header



1961313

<https://www.phoenixcontact.com/us/products/1961313>

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The figure shows a 10-position version of the product

PCB headers, nominal cross section: 0.5 mm², nominal current: 4 A, rated voltage (III/2): 160 V, contact surface: Sn, contact connection type: Pin, number of potentials: 18, number of rows: 2, number of positions: 9, number of connections: 18, product range: MCDV 0,5/...-G1-HT, pitch: 2.5 mm, mounting: THR soldering / wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, plug-in system: COMBICON FK-MC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting method: without, type of packaging: packed in cardboard, Standard component made of highly temperature resistant plastic; suitable for reflow process. User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads".

Your advantages

- Designed for integration into the SMT soldering process
- Vertical connection enables multi-row arrangement on the PCB

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 1961313 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | AA01 |
| Product key | AAA1FB |
| GTIN | 4017918912635 |
| Weight per piece (including packing) | 9.29 g |
| Weight per piece (excluding packing) | 9.217 g |
| Customs tariff number | 85366930 |
| Country of origin | DE |

Technical data

Product properties

| | |
|---------------------------|--|
| Product type | PCB headers |
| Product family | MCDV 0,5/..-G1-HT |
| Product line | COMBICON Connectors XS |
| Type | Component suitable for through hole reflow |
| Number of positions | 9 |
| Pitch | 2.5 mm |
| Number of connections | 18 |
| Number of rows | 2 |
| Number of potentials | 18 |
| Mounting type | without |
| Pin layout | Linear pinning |
| Solder pins per potential | 1 |

Electrical properties

Properties

| | |
|-----------------------------|--------|
| Nominal current I_N | 4 A |
| Nominal voltage U_N | 160 V |
| Rated voltage (III/3) | 32 V |
| Rated surge voltage (III/3) | 1.5 kV |
| Rated voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated voltage (II/2) | 160 V |
| Rated surge voltage (II/2) | 2.5 kV |

Mounting

| | |
|---------------|--------------------------------|
| Mounting type | THR soldering / 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 | Cu alloy |
| Surface characteristics | Tin-plated |
| Metal surface contact area (top layer) | Tin (5 μm - 7 μm Sn) |
| Metal surface contact area (middle layer) | Nickel (2 μm - 3 μm Ni) |
| Metal surface soldering area (top layer) | Tin (5 μm - 7 μm Sn) |
| Metal surface soldering area (middle layer) | Nickel (2 μm - 3 μm Ni) |

Material data - housing

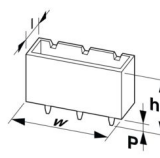
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| | |
|--|------|
| Insulating material | PA |
| Insulating material group | IIIa |
| CTI according to IEC 60112 | 325 |
| Flammability rating according to UL 94 | V0 |

Dimensions

| | |
|-----------------------|--|
| Dimensional drawing |  |
| Pitch | 2.5 mm |
| Height [h] | 17.5 mm |
| Length [l] | 21.9 mm |
| Installed height | 18 mm |
| Solder pin length [P] | 3.5 mm |
| Pin dimensions | 0.8 x 0.8 mm |

PCB design

| | |
|---------------|---------|
| Pin spacing | 2.50 mm |
| Hole diameter | 1.4 mm |

Electrical tests

Air clearances and creepage distances |

| | |
|--|---------------------|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | IIIa |
| Comparative tracking index (IEC 60112) | CTI 325 |
| Rated insulation voltage (III/3) | 32 V |
| Rated surge voltage (III/3) | 1.5 kV |
| minimum clearance value - non-homogenous field (III/3) | 0.8 mm |
| minimum creepage distance (III/3) | 1.3 mm |
| Rated insulation voltage (III/2) | 160 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) | 1.6 mm |
| Rated insulation voltage (II/2) | 160 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) | 1.6 mm |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
|---|------------------|

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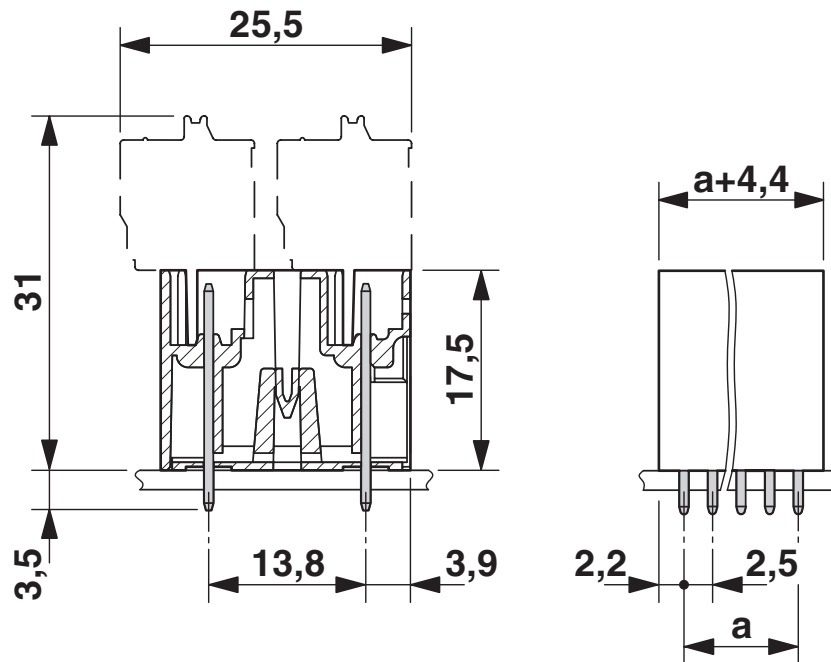
| | |
|---------------------------------------|---|
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

Packaging specifications

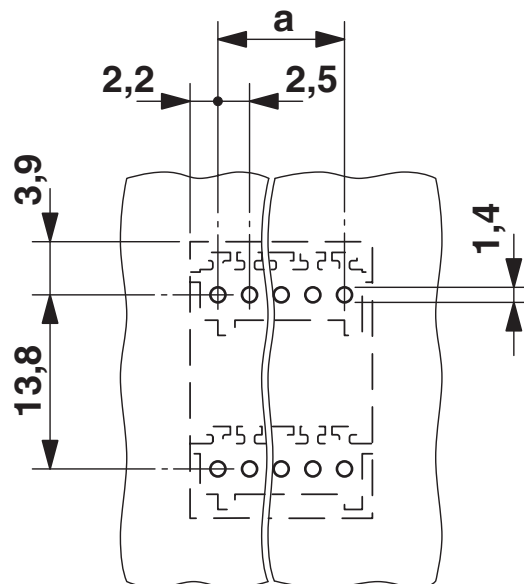
| | |
|----------------------|---------------------|
| Type of packaging | packed in cardboard |
| Outer packaging type | Dry bag |

Drawings

Dimensional drawing



Drilling plan/solder pad geometry



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1961313>

|  VDE report with production monitoring Approval ID: 40013394 | | | | |
|---|-----------------------|-----------------------|-------------------|-----------------------------|
| | Nominal voltage U_N | Nominal current I_N | Cross section AWG | Cross section mm^2 |
| keine | | | | |
| | 32 V | 4 A | - | - |

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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121409 |
|-------------|----------|

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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