

# MCDV 0,5/ 7-G1-2,5 HT BK - PCB header



1961290

<https://www.phoenixcontact.com/us/products/1961290>

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The figure shows a 10-position version of the product

PCB headers, nominal cross section: 0.5 mm<sup>2</sup>, nominal current: 4 A, rated voltage (III/2): 160 V, contact surface: Sn, contact connection type: Pin, number of potentials: 14, number of rows: 2, number of positions: 7, number of connections: 14, 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	1961290
Packing unit	50 pc
Note	Made to order (non-returnable)
Sales key	AA01
Product key	AAA1FB
GTIN	4017918912611
Weight per piece (including packing)	7.84 g
Weight per piece (excluding packing)	3.319 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	7
Pitch	2.5 mm
Number of connections	14
Number of rows	2
Number of potentials	14
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 $\mu\text{m}$ - 7 $\mu\text{m}$ Sn)
Metal surface contact area (middle layer)	Nickel (2 $\mu\text{m}$ - 3 $\mu\text{m}$ Ni)
Metal surface soldering area (top layer)	Tin (5 $\mu\text{m}$ - 7 $\mu\text{m}$ Sn)
Metal surface soldering area (middle layer)	Nickel (2 $\mu\text{m}$ - 3 $\mu\text{m}$ Ni)

#### Material data - housing

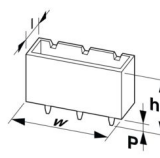
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Insulating material	PA
Insulating material group	IIIa
CTI according to IEC 60112	325
Flammability rating according to UL 94	V0

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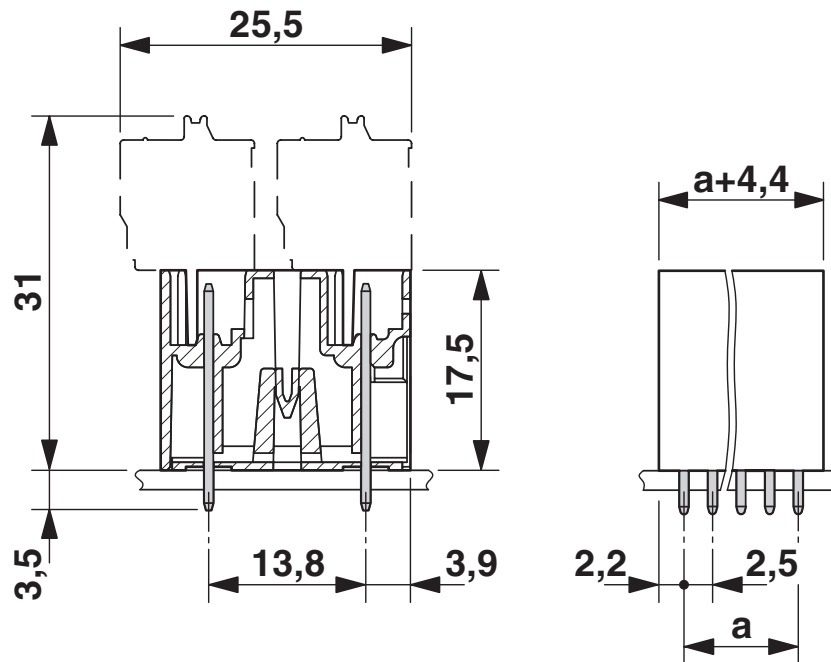
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

## Packaging specifications

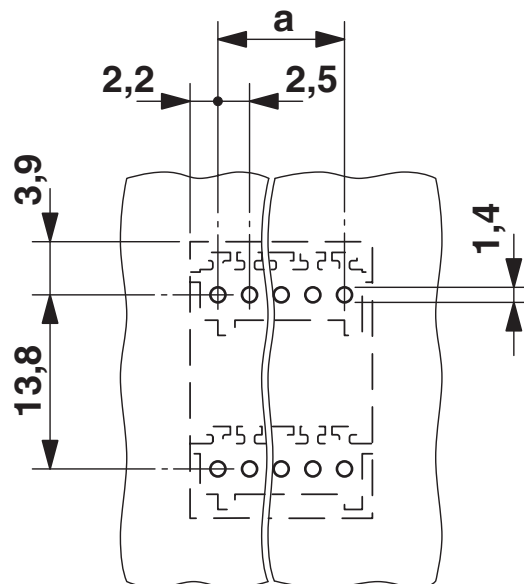
Type of packaging	packed in cardboard
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Drawings

Dimensional drawing



Drilling plan/solder pad geometry



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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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