

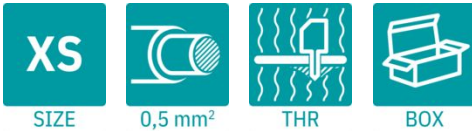
MCDV 0,5/12-G1-2,5 HT BK - PCB header



1961342

<https://www.phoenixcontact.com/us/products/1961342>

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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: 24, number of rows: 2, number of positions: 12, number of connections: 24, 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	1961342
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	AA01
Product key	AAA1FB
GTIN	4017918912666
Weight per piece (including packing)	9.2 g
Weight per piece (excluding packing)	7.134 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	12
Pitch	2.5 mm
Number of connections	24
Number of rows	2
Number of potentials	24
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

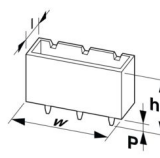
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Insulating material	PA
Insulating material group	IIIa
CTI according to IEC 60112	325
Flammability rating according to UL 94	V0

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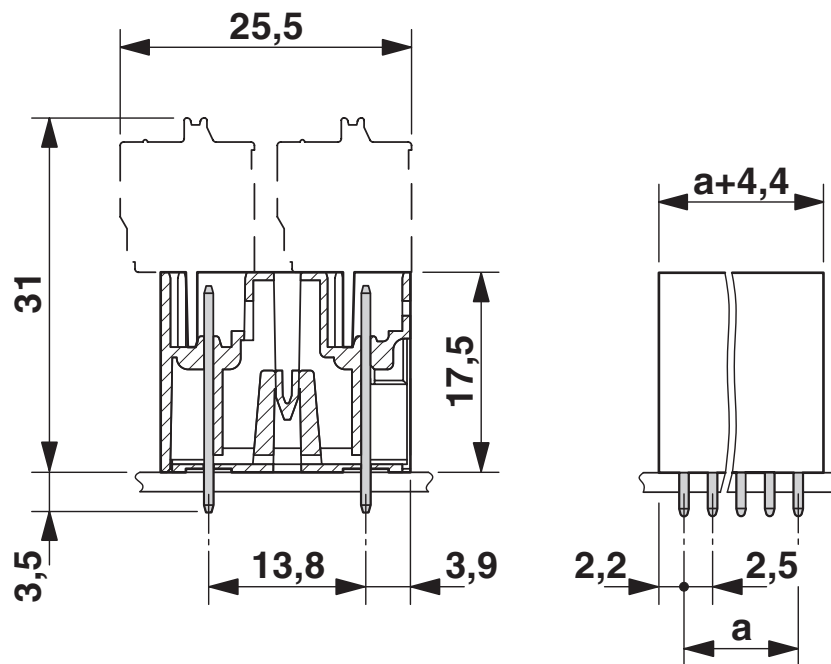
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

Packaging specifications

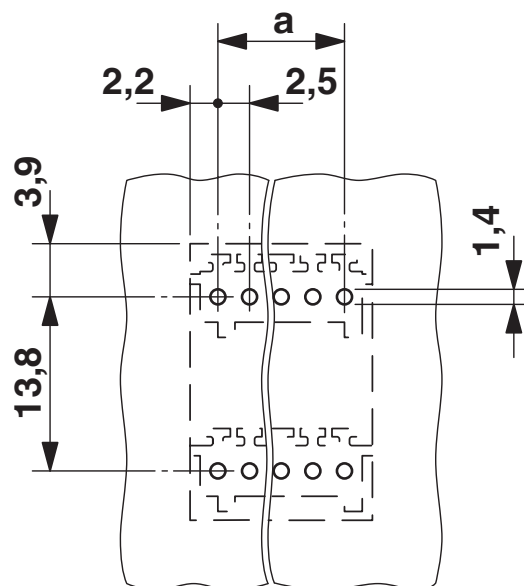
Type of packaging	packed in cardboard
Outer packaging type	Dry bag

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/1961342>

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