

# EMSTBV 2,5/18-GF - PCB header



1915819

<https://www.phoenixcontact.com/us/products/1915819>

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: EMSTBV 2,5/...-GF, pitch: 5 mm, mounting: Press-in technology, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking mechanism, mounting: Threaded flange, type of packaging: packed in cardboard

## Your advantages

- Long-term stable press-in connection ensures high holding force without thermal load
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Screwable flange for superior mechanical stability

## Commercial data

Item number	1915819
Packing unit	50 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	AAC1EE
Catalog page	Page 165 (CC-2005)
GTIN	4017918181925
Weight per piece (including packing)	9.18 g
Weight per piece (excluding packing)	8.363 g
Country of origin	DE

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## Technical data

### Product properties

Type	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Product family	EMSTBV 2,5/..-GF
Number of positions	18
Pitch	5 mm
Number of connections	18
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	18
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	320 V
Degree of pollution	3
Rated voltage (III/3)	200 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	4 kV

### Mounting

Mounting type	Press-in technology
Pin layout	Linear pinning

### Flange

Tightening torque	0.3 Nm
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### 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 (1 - 2 $\mu\text{m}$ Sn)
Metal surface contact area (middle layer)	Nickel (2 - 3 $\mu\text{m}$ Ni)
Metal surface soldering area (top layer)	Tin (1 - 2 $\mu\text{m}$ Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 $\mu\text{m}$ Ni)

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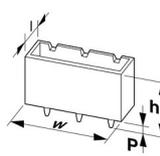
## Material data - housing

Color ()	()
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

## Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
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## Dimensions

Dimensional drawing	
Pitch	5 mm
Length [L]	8.6 mm
Installed height	12 mm
Solder pin length [P]	3.9 mm
Pin dimensions	1.7 mm

## Electrical tests

### 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)	200 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3.2 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

## Environmental and real-life conditions

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## Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the 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
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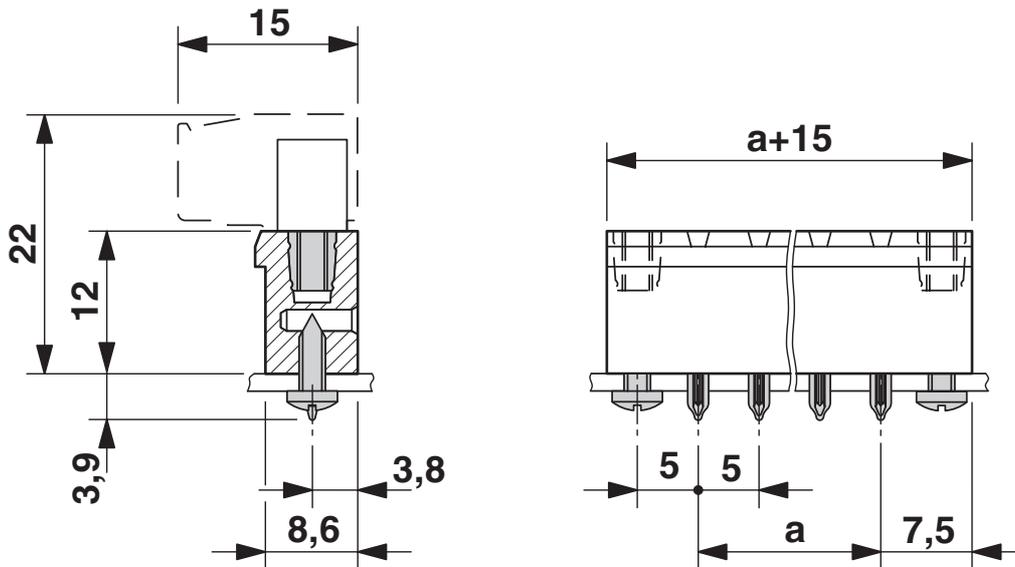
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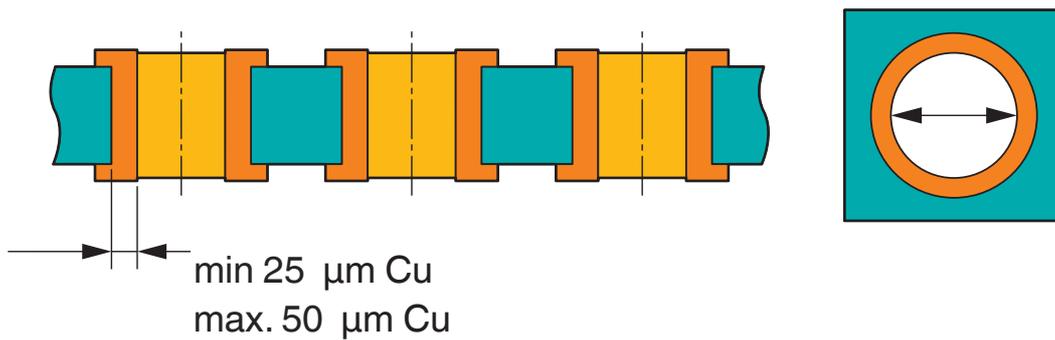
## Drawings

Dimensional drawing



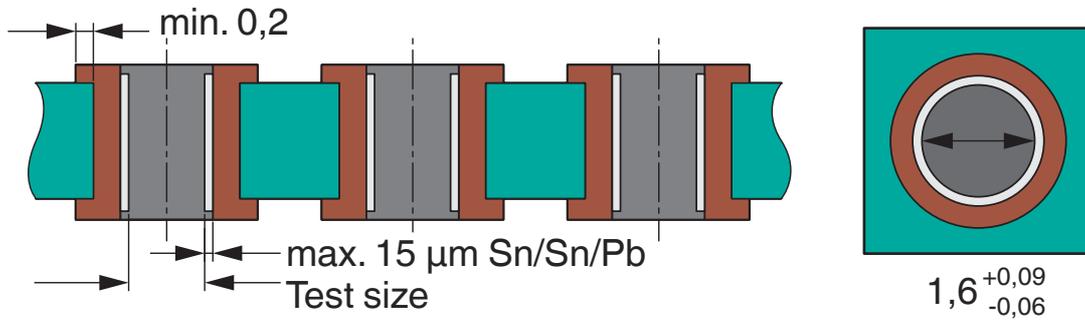
Schematic diagram

### Bore hole with Cu ferrule



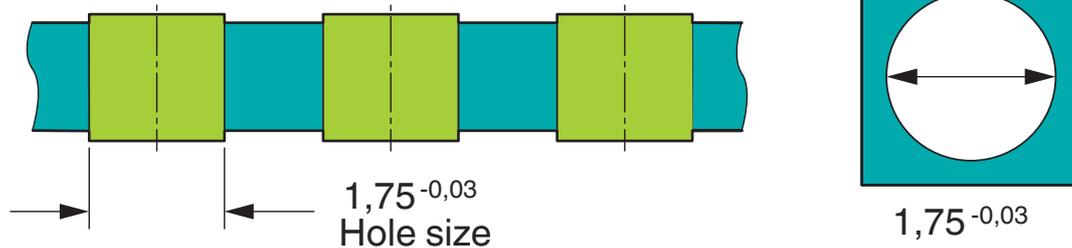
Schematic diagram

**Plated-through bore hole with Sn/SnPb**



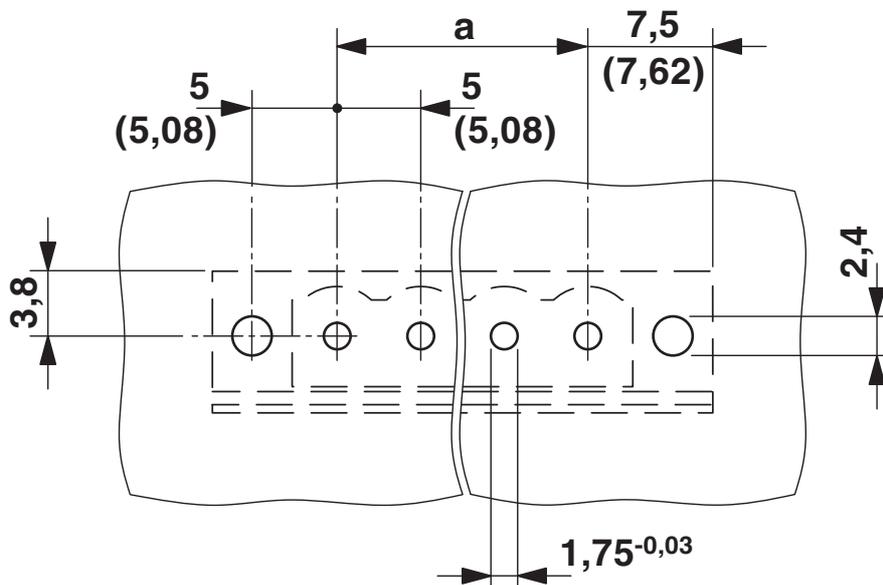
Schematic diagram

**Bore hole in basic material,  
mostly epoxy glass fabric FR4 or EP-GC**



**Bore hole with CU ferrule**

Drilling plan/solder pad geometry



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## Classifications

### ETIM

ETIM 7.0

EC002637

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## Environmental product compliance

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

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## Accessories

### CR-MSTB - Coding section

1734401

<https://www.phoenixcontact.com/us/products/1734401>

Coding section, inserted into the recess in the header or the inverted plug, red insulating material

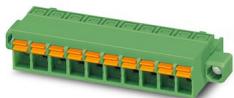


### FKCN 2,5/18-STF - PCB connector

1733110

<https://www.phoenixcontact.com/us/products/1733110>

PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: FKCN 2,5/...-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard



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## FRONT-MSTB 2,5/18-STF - PCB connector

1779806

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: FRONT-MSTB 2,5/..-STF, pitch: 5 mm, connection method: Front screw connection, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

## MSTB 2,5/18-STF - PCB connector

1786996

<https://www.phoenixcontact.com/us/products/1786996>



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: MSTB 2,5/..-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

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## MVSTBW 2,5/18-STF - PCB connector

1835449

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: MVSTBW 2,5/...-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

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## MVSTBR 2,5/18-STF - PCB connector

1835630

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: MVSTBR 2,5/...-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

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## FKCT 2,5/18-STF - PCB connector

1909566

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: FKCT 2,5/..-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

## SMSTB 2,5/18-STF - PCB connector

1971031

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PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 18, number of rows: 1, number of positions: 18, number of connections: 18, product range: SMSTB 2,5/..-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -45 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking mechanism, mounting: Screw flange, type of packaging: packed in cardboard

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