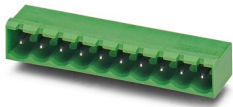


# PCB header - MSTBA 2,5/11-G

1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

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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, type of contact: Male connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MSTBA 2,5/..-G, pitch: 5 mm, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without

## Your advantages

- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- Well-known mounting principle allows worldwide use
- Plug-in direction parallel to the PCB
- Closed contour for optimum stability of the plug-in connection
- Easy PCB replacement thanks to plug-in modules

# PCB header - MSTBA 2,5/11-G



1757556

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## Commercial Data

Item number	1757556
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	E1 - Leiterplattenanschl.
Product Key	AACSGG
Catalog Page	Page 313 (C-1-2013)
GTIN	4017918030087
Weight per Piece (including packing)	4,282 g
Weight per Piece (excluding packing)	3,7 g
Customs tariff number	85366930
Country of origin	DE

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## Technical Data

### Product properties

Type	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Number of positions	11
Pitch	5 mm
Number of connections	11
Number of rows	1
Mounting flange	without
Number of potentials	11
Pin layout	Linear pinning

### Electrical properties

Nominal current $I_N$	12 A
Nominal voltage $U_N$	320 V
Pollution degree	3
Contact resistance	1.4 mΩ
Rated voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

### Mounting

Mounting type Wave soldering	Wave soldering
Mounting type	Wave soldering

### 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 (3 - 5 μm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 μm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 μm Ni)

#### Material data - housing

Housing color	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600

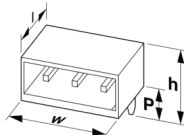
# PCB header - MSTBA 2,5/11-G

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Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

## Dimensions

Dimensional drawing	
Pitch	5 mm
Width [w]	57 mm
Height [h]	12.1 mm
Length [l]	12 mm
Installed height	8.6 mm
Solder pin length [P]	3.5 mm

## Mechanical tests

### Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

### Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	2.5 mm <sup>2</sup> / solid / > 50 N
	2.5 mm <sup>2</sup> / flexible / > 50 N

### Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

### Torque test

Specification	IEC 60999-1:1999-11
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### Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

## Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

## Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

## Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

## Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

## Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	24

### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 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 mm
Rated insulation voltage (II/2)	630 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

### Vibration test

Specification	IEC 60068-2-6:2007-12
---------------	-----------------------

# PCB header - MSTBA 2,5/11-G



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Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

## Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R <sub>1</sub>	1.4 mΩ
Contact resistance R <sub>2</sub>	1.5 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

## Climatic test

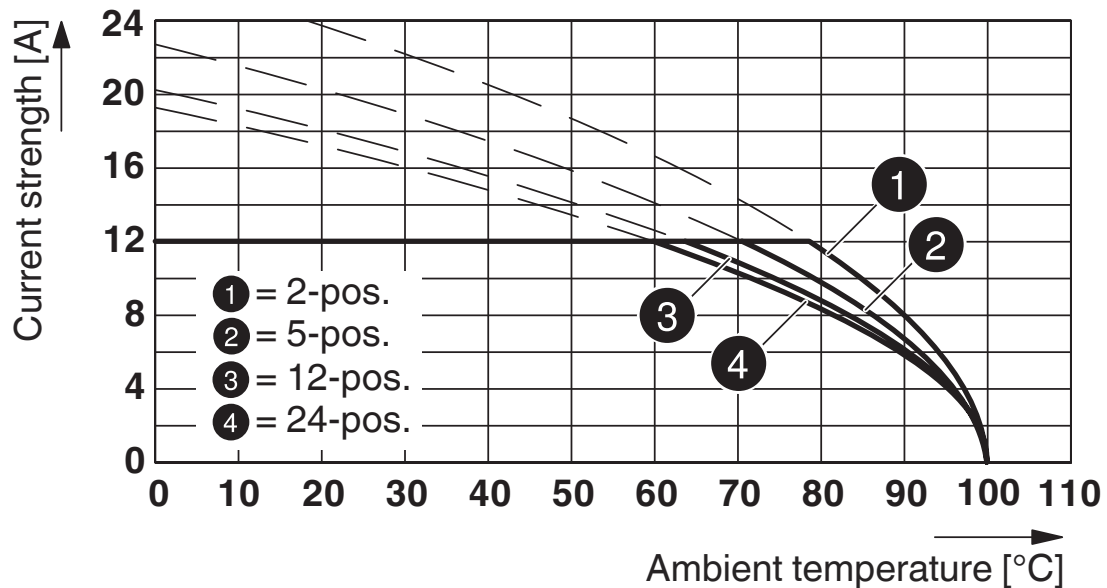
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

## 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

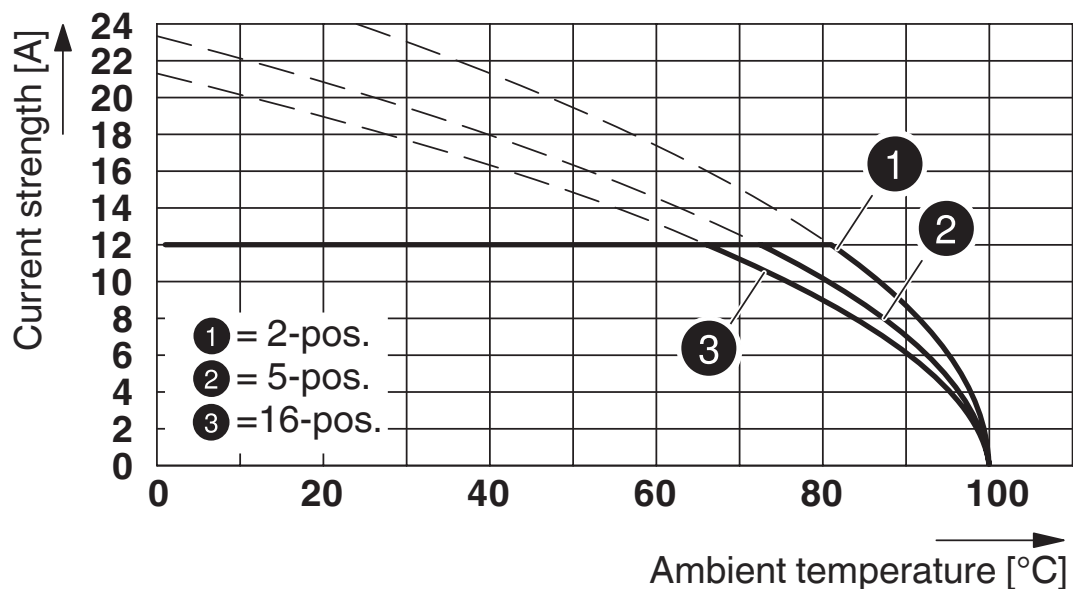
## Drawings

Diagram

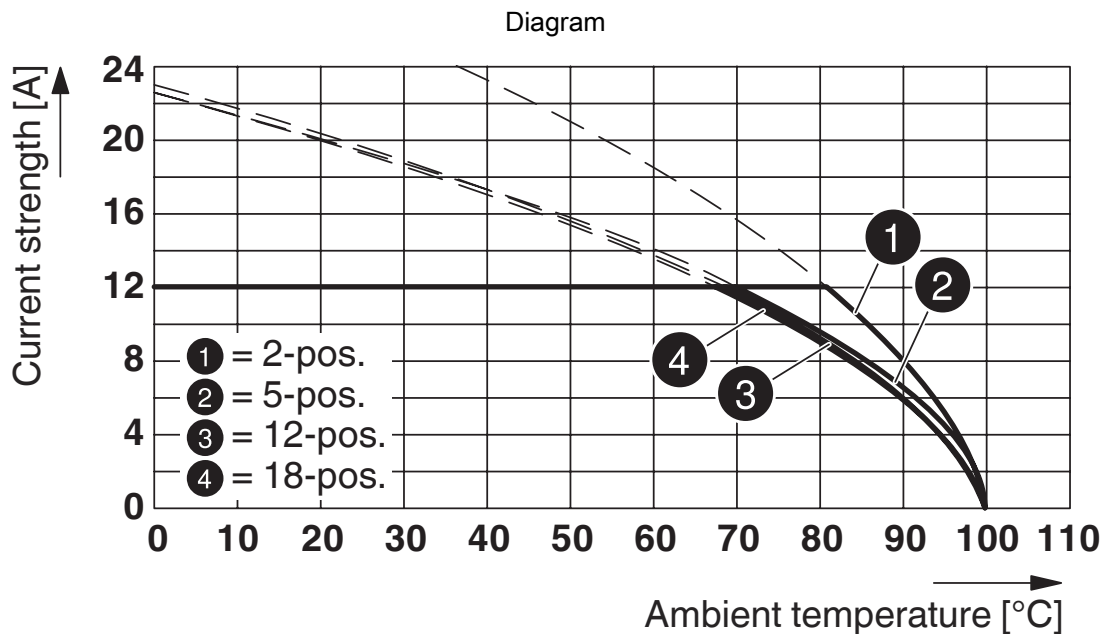


Type: MSTBP 2,5/...-ST with MSTBA 2,5/...-G

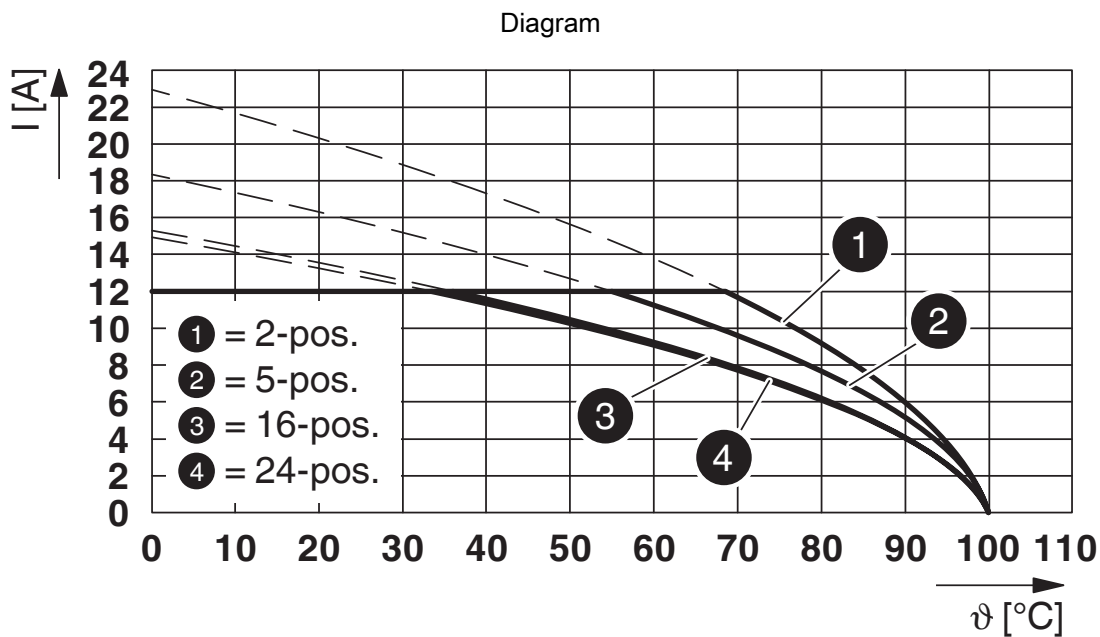
Diagram



Type: FKCVW 2,5/...-ST with MSTBA 2,5/...-G

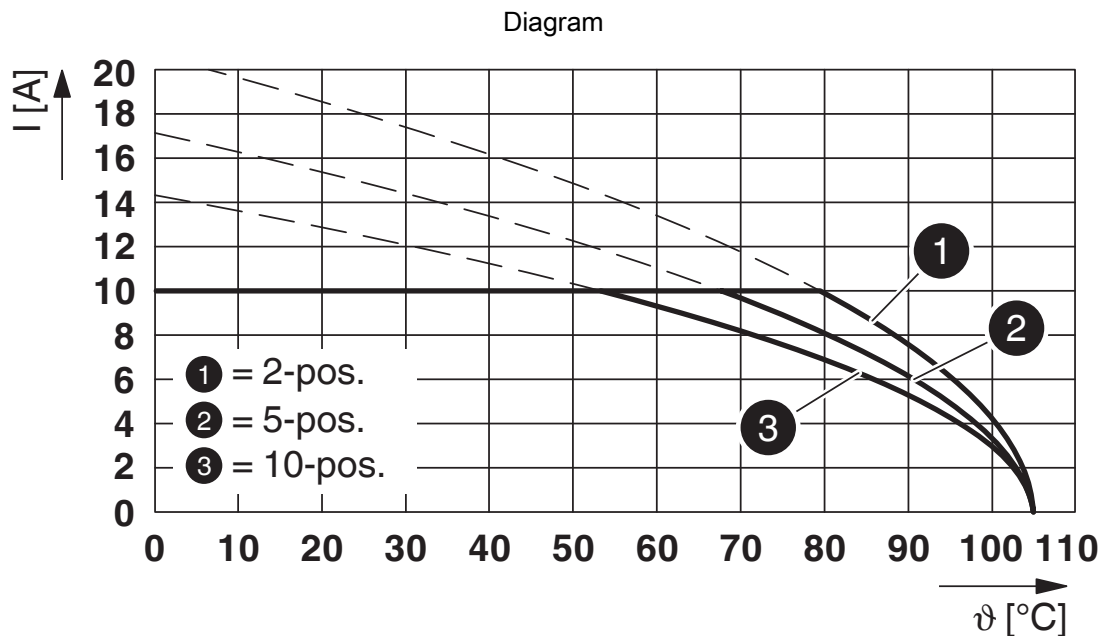


Type: MSTBT 2,5/...-ST with MSTBA 2,5/...-G

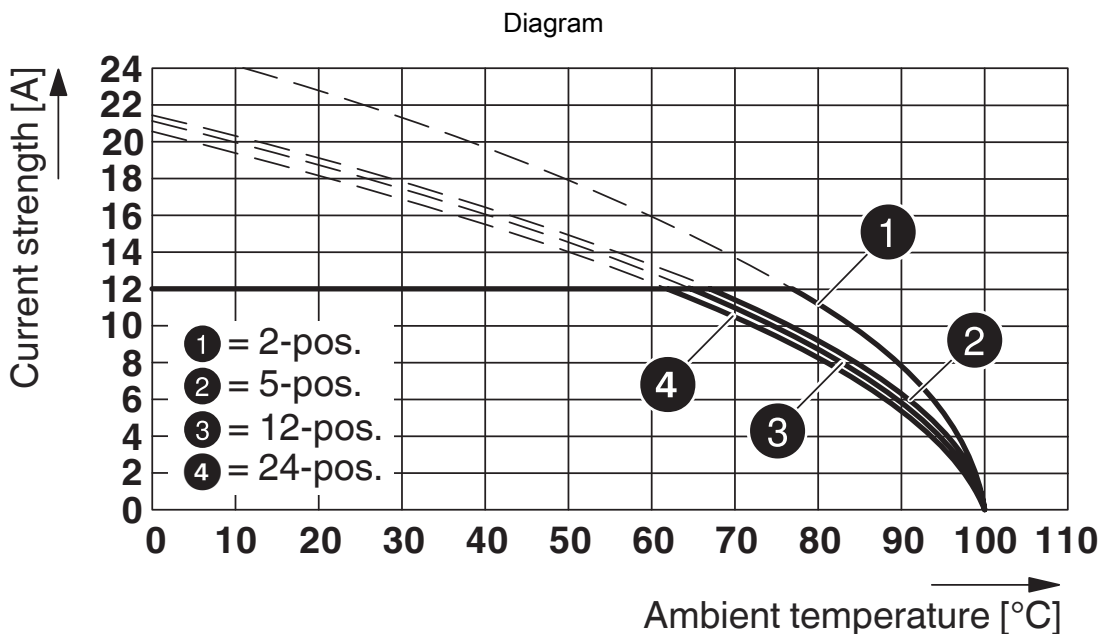


Type: MVSTBR 2,5/...-ST with MSTBA 2,5/...-G

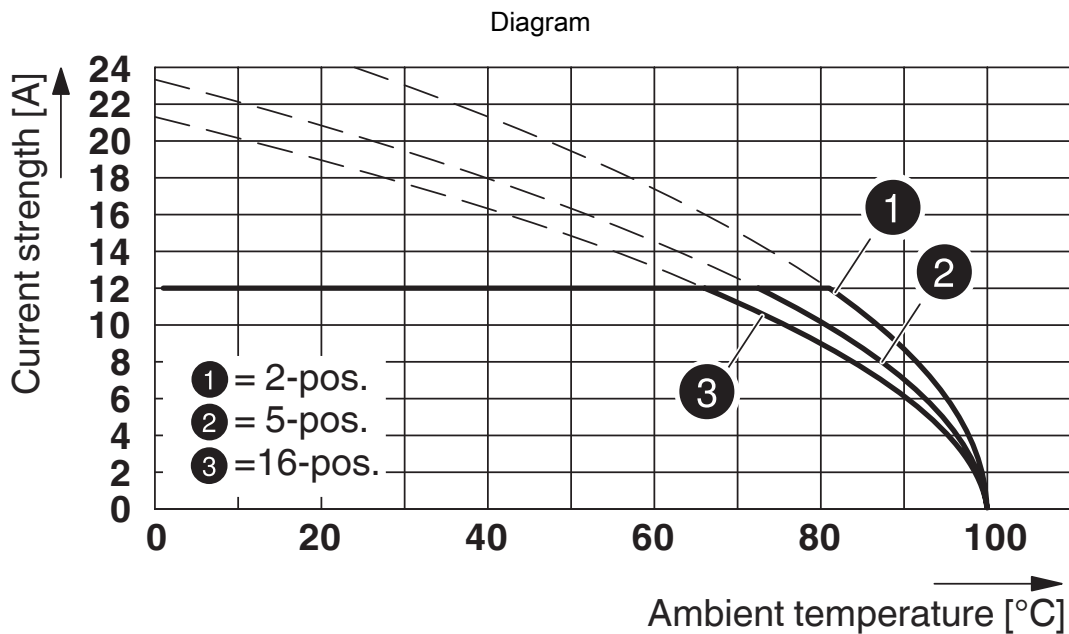




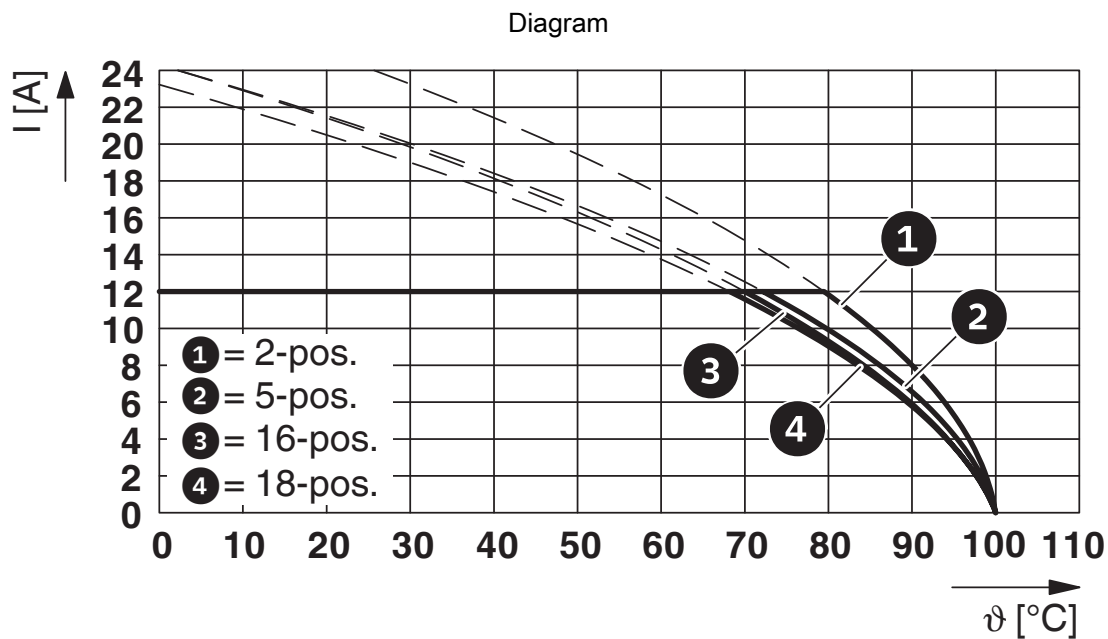
Type: TVFKC 1,5/...-ST with MSTBA 2,5/...-G



Type: MSTB 2,5/...-ST with MSTBA 2,5/...-G



Type: FKCVR 2,5/...-ST with MSTBA 2,5/...-G



Type: FKCN 2,5/...-ST with MSTBA 2,5/...-G


# PCB header - MSTBA 2,5/11-G



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## Approvals

 <b>CSA</b> Approval ID: LR13631-2585950				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B	300 V	10 A	-	-
Use group D	300 V	10 A	-	-

 <b>IECEE CB Scheme</b> Approval ID: DE1-60988-B1B2				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	250 V	12 A	-	-

 <b>EAC</b> Approval ID: B.01687				
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 <b>cULus Recognized</b> Approval ID: E60425-19931011				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
Use group B	300 V	15 A	-	-
Use group D	300 V	10 A	-	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40050648				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	250 V	12 A	-	-

# PCB header - MSTBA 2,5/11-G



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## Classifications

### ECLASS

ECLASS-9.0	27440402
ECLASS-10.0.1	27440402
ECLASS-11.0	27460201

### ETIM

ETIM 8.0	EC002637
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### UNSPSC

UNSPSC 21.0	39121400
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# PCB header - MSTBA 2,5/11-G

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## Environmental Product Compliance

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

# PCB header - MSTBA 2,5/11-G

1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## Accessories

### Accessories

Accessories - MSTB-BL - 1755477

<https://www.phoenixcontact.com/de/produkte/1755477>



Keying cap, for forming sections, plugs onto header pin, green insulating material

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## Marker card

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183

<https://www.phoenixcontact.com/de/produkte/0804183>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

# PCB header - MSTBA 2,5/11-G

1757556

<https://www.phoenixcontact.com/de/produkte/1757556>



## Coding section

Coding section - CR-MSTB - 1734401

<https://www.phoenixcontact.com/de/produkte/1734401>

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



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## Marker card

Marker card - SK 5/3,8:UNBEDRUCKT - 0805409

<https://www.phoenixcontact.com/de/produkte/0805409>

Marker card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm



# PCB header - MSTBA 2,5/11-G

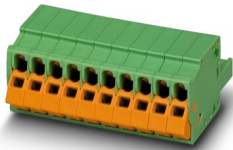
1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - QC 1,5/11-ST - 1718054

<https://www.phoenixcontact.com/de/produkte/1718054>



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: QC 1,5/..-ST, pitch: 5 mm, connection method: Displacement connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

## PCB connector

PCB connector - MSTB 2,5/11-ST - 1754627

<https://www.phoenixcontact.com/de/produkte/1754627>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MSTB 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



# PCB header - MSTBA 2,5/11-G

1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - MSTB 2,5/11-STZ - 1759347

<https://www.phoenixcontact.com/de/produkte/1759347>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MSTB 2,5/...-STZ, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

## PCB connector

PCB connector - MSTBP 2,5/11-ST - 1765865

<https://www.phoenixcontact.com/de/produkte/1765865>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MSTBP 2,5/...-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

# PCB header - MSTBA 2,5/11-G

1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - SMSTB 2,5/11-ST - 1768846

<https://www.phoenixcontact.com/de/produkte/1768846>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: SMSTB 2,5/...-ST, 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: without, mounting: without, type of packaging: packed in cardboard

## PCB connector

PCB connector - FRONT-MSTB 2,5/11-ST - 1779505

<https://www.phoenixcontact.com/de/produkte/1779505>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: FRONT-MSTB 2,5/...-ST, pitch: 5 mm, connection method: Front screw connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

# PCB header - MSTBA 2,5/11-G

1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - MSTBT 2,5/11-ST - 1779929

<https://www.phoenixcontact.com/de/produkte/1779929>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MSTBT 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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## PCB connector

PCB connector - MVSTBR 2,5/11-ST - 1792100

<https://www.phoenixcontact.com/de/produkte/1792100>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MVSTBR 2,5/..-ST, 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: without, mounting: without, type of packaging: packed in cardboard

# PCB header - MSTBA 2,5/11-G

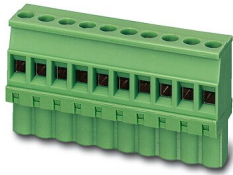
1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - MVSTBW 2,5/11-ST - 1792618

<https://www.phoenixcontact.com/de/produkte/1792618>

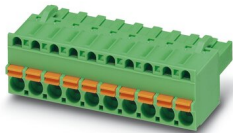


PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MVSTBW 2,5/..-ST, 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: without, mounting: without, type of packaging: packed in cardboard

## PCB connector

PCB connector - FKCT 2,5/11-ST - 1909304

<https://www.phoenixcontact.com/de/produkte/1909304>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: FKCT 2,5/..-ST, 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: without, mounting: without, type of packaging: packed in cardboard

# PCB header - MSTBA 2,5/11-G

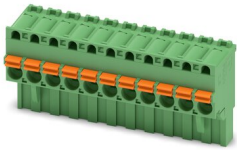
1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - FKCVR 2,5/11-ST - 1909809

<https://www.phoenixcontact.com/de/produkte/1909809>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: FKCVR 2,5/...-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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## PCB connector

PCB connector - FKCVW 2,5/11-ST - 1910128

<https://www.phoenixcontact.com/de/produkte/1910128>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: FKCVW 2,5/...-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

# PCB header - MSTBA 2,5/11-G

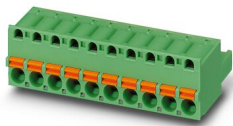
1757556

<https://www.phoenixcontact.com/de/produkte/1757556>

## PCB connector

PCB connector - FKC 2,5/11-ST - 1910445

<https://www.phoenixcontact.com/de/produkte/1910445>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: FKC 2,5/...-ST, 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: without, mounting: without, type of packaging: packed in cardboard

## PCB connector

PCB connector - FKCS 2,5/11-ST - 1974821

<https://www.phoenixcontact.com/de/produkte/1974821>



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, type of contact: Female connector, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: FKCS 2,5/...-ST, 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: without, mounting: without, type of packaging: packed in cardboard

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