

# MSTBO 2,5/ 3-GL-5,08 - PCB header

1850440

<https://www.phoenixcontact.com/ca/products/1850440>



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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 8 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBO 2,5/..-GL, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- Well-known mounting principle allows worldwide use
- Can be combined with the MSTB 2,5 range
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies

## Commercial data

Item number	1850440
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACSKA
Catalog page	Page 320 (C-1-2013)
GTIN	4017918102876
Weight per piece (including packing)	1.945 g
Weight per piece (excluding packing)	1.925 g
Customs tariff number	85366930
Country of origin	PL

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## Technical data

### Product properties

Product type	PCB headers
Product family	MSTBO 2,5/..-GL
Product line	COMBICON Connectors M
Type	Header perpendicular to the PCB
Number of positions	3
Pitch	5.08 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting flange	without
Pin layout	Linear pinning
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	8 A
Nominal voltage $U_N$	320 V
Degree of pollution	3
Rated voltage (III/3)	250 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)	630 V
Rated surge voltage (II/2)	4 kV

### Mounting

Mounting type	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	hot-dip tin-plated
Metal surface contact area (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)
Metal surface soldering area (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)

Material data - housing	
Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	I

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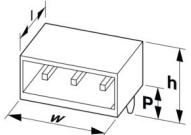


CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

## 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	5.08 mm
Width [w]	15.24 mm
Height [h]	23.62 mm
Length [l]	33.9 mm
Installed height	20.42 mm
Solder pin length [P]	3.2 mm
Pin dimensions	0.32 x 1.2 mm
PCB design	
Hole diameter	1.3 mm

## Electrical tests

Air clearances and creepage distances	
Insulating material group	I
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

## Environmental and real-life conditions

Ambient conditions	
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
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

## Packaging specifications

Type of packaging	packed in cardboard
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# MSTBO 2,5/ 3-GL-5,08 - PCB header

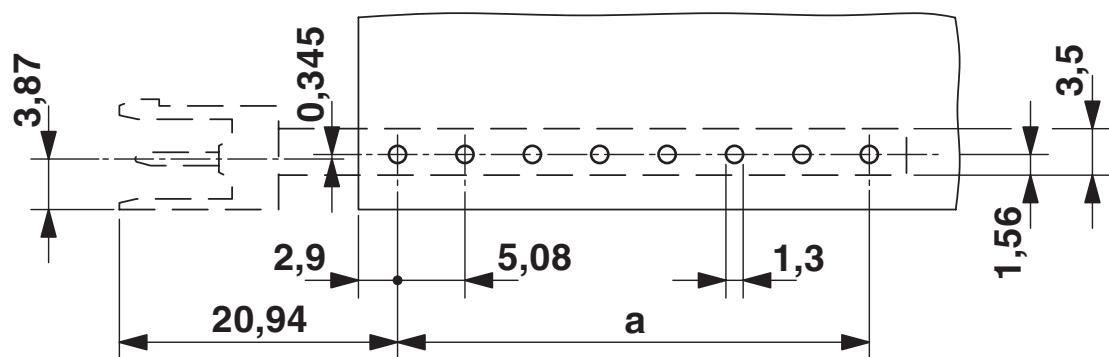


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## Drawings

Drilling plan/solder pad geometry



# MSTBO 2,5/ 3-GL-5,08 - PCB header

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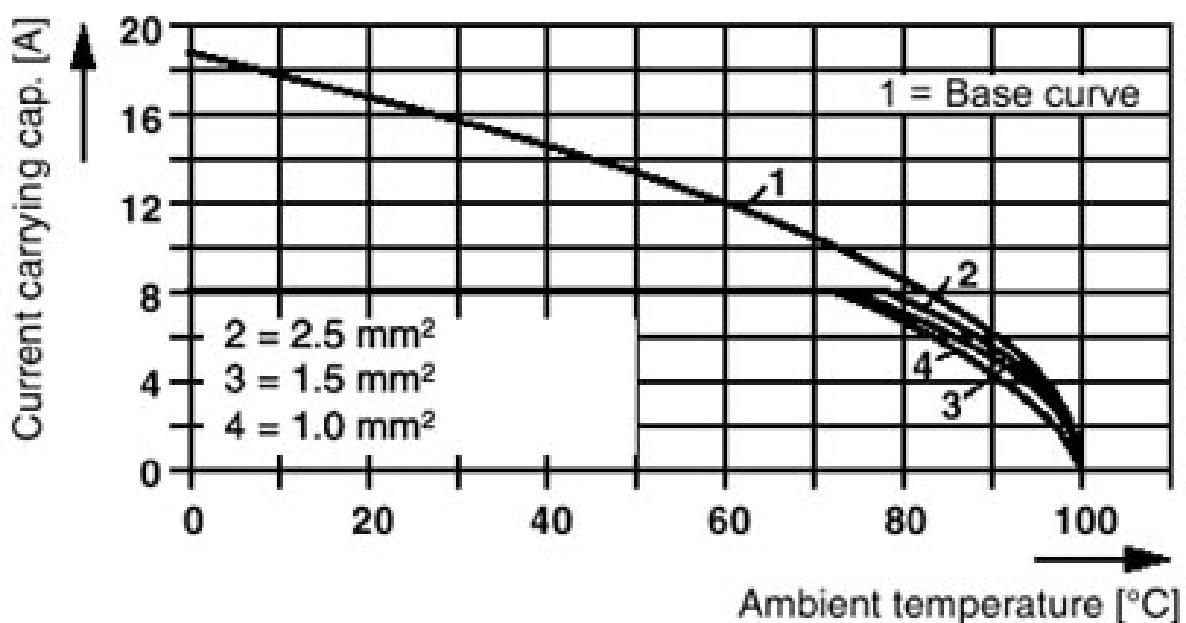
<https://www.phoenixcontact.com/ca/products/1850440>



Diagram

Plug:  
Header:

MSTB 2,5/5-ST(F)(-5,08)  
MSTBO 2,5/5-GR(L)(-5,08)



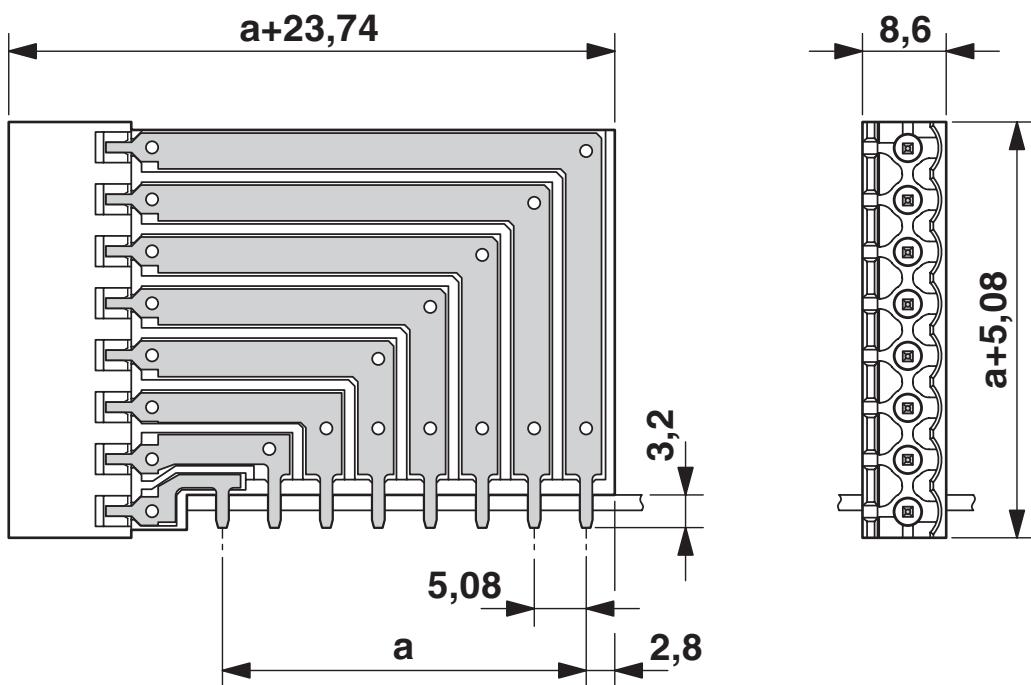
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Dimensional drawing



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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ca/products/1850440>

		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Use group B		300 V	6.5 A	-	-
Use group D		300 V	6.5 A	-	-

		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Use group B		250 V	8 A	-	-
Use group D		300 V	8 A	-	-

		Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
VDE Zeichengenehmigung	Approval ID: 40050648	250 V	8 A	-	-

# MSTBO 2,5/ 3-GL-5,08 - PCB header

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## Classifications

### ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

### ETIM

ETIM 9.0	EC002637
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### UNSPSC

UNSPSC 21.0	39121400
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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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# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## Accessories

### CR-MSTB - Coding section

1734401

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

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



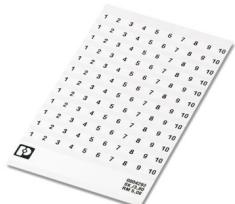
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### SK 5,08/3,8:FORTL.ZAHLEN - Marker card

0804293

<https://www.phoenixcontact.com/ca/products/0804293>

Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm



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## MSTB-BF - Accessories

1759981

<https://www.phoenixcontact.com/ca/products/1759981>



Mounting flange, for fixing both ends of the header onto the PCB, green insulating material, with M 2 x 14 screws and nuts.

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## MSTB-BL - Accessories

1755477

<https://www.phoenixcontact.com/ca/products/1755477>



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

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# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## TVMSTB 2,5/ 3-ST-5,08 - PCB connector

1719011

<https://www.phoenixcontact.com/ca/products/1719011>



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 400 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 6, product range: TVMSTB 2,5/..-ST, pitch: 5.08 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

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## FKCN 2,5/ 3-ST-5,08 - PCB connector

1754571

<https://www.phoenixcontact.com/ca/products/1754571>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKCN 2,5/..-ST, pitch: 5.08 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

# MSTB 2,5/ 3-ST-5,08 - PCB header



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## MSTB 2,5/ 3-ST-5,08 - PCB connector

1757022

<https://www.phoenixcontact.com/ca/products/1757022>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTB 2,5/..-ST, pitch: 5.08 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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## FRONT-MSTB 2,5/ 3-ST-5,08 - PCB connector

1777293

<https://www.phoenixcontact.com/ca/products/1777293>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FRONT-MSTB 2,5/..-ST, pitch: 5.08 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: without, mounting: without, type of packaging: packed in cardboard

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# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## MSTBT 2,5/ 3-ST-5,08 - PCB connector

1779990

<https://www.phoenixcontact.com/ca/products/1779990>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBT 2,5/..-ST, pitch: 5.08 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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## MVSTBR 2,5/ 3-ST-5,08 - PCB connector

1792252

<https://www.phoenixcontact.com/ca/products/1792252>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MVSTBR 2,5/..-ST, pitch: 5.08 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

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# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## MVSTBW 2,5/ 3-ST-5,08 - PCB connector

1792760

<https://www.phoenixcontact.com/ca/products/1792760>



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MVSTBW 2,5/..-ST, pitch: 5.08 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

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## MSTBC 2,5/ 3-ST-5,08 - PCB connector

1808829

<https://www.phoenixcontact.com/ca/products/1808829>



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBC 2,5/..-ST, pitch: 5.08 mm, connection method: Crimp 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm<sup>2</sup>] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

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## MSTBO 2,5/ 3-GL-5,08 - PCB header

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### MSTBC 2,5/ 3-STZ-5,08 - PCB connector

1809514

<https://www.phoenixcontact.com/ca/products/1809514>



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBC 2,5/..-STZ, pitch: 5.08 mm, connection method: Crimp 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, Corresponding female crimp contacts with current [A] and conductor cross section range [mm<sup>2</sup>] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

### MSTBU 2,5/ 3-STD-5,08 - PCB connectors

1824133

<https://www.phoenixcontact.com/ca/products/1824133>



Direct plug-in block, 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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MSTBU 2,5/..-STD, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Direct mounting, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## TMSTBP 2,5/ 3-ST-5,08 - PCB connector

1853023

<https://www.phoenixcontact.com/ca/products/1853023>



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: 3, number of rows: 1, number of positions: 3, number of connections: 6, product range: TMSTBP 2,5/..-ST, pitch: 5.08 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, The plug allows conductors to be looped through from module to module.

## FKC 2,5/ 3-ST-5,08 - PCB connector

1873061

<https://www.phoenixcontact.com/ca/products/1873061>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKC 2,5/..-ST, pitch: 5.08 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

# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## FKCVW 2,5/ 3-ST-5,08 - PCB connector

1873663

<https://www.phoenixcontact.com/ca/products/1873663>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKCVW 2,5/..-ST, pitch: 5.08 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

## FKCVR 2,5/ 3-ST-5,08 - PCB connector

1873964

<https://www.phoenixcontact.com/ca/products/1873964>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKCVR 2,5/..-ST, pitch: 5.08 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

# MSTBO 2,5/ 3-GL-5,08 - PCB header



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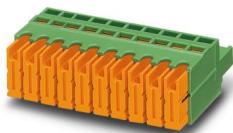
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## QC 1/ 3-ST-5,08 - PCB connector

1883268

<https://www.phoenixcontact.com/ca/products/1883268>

PCB connector, nominal cross section: 1 mm<sup>2</sup>, color: green, nominal current: 10 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: QC 1/..-ST, pitch: 5.08 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



## FKCT 2,5/ 3-ST-5,08 - PCB connector

1902123

<https://www.phoenixcontact.com/ca/products/1902123>

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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKCT 2,5/..-ST, pitch: 5.08 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



# MSTBO 2,5/ 3-GL-5,08 - PCB header



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## TFKC 2,5/ 3-ST-5,08 - PCB connector

1962613

<https://www.phoenixcontact.com/ca/products/1962613>



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: 3, number of rows: 1, number of positions: 3, number of connections: 6, product range: TFKC 2,5/..-ST, pitch: 5.08 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

## FKCS 2,5/ 3-ST-5,08 - PCB connector

1975082

<https://www.phoenixcontact.com/ca/products/1975082>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKCS 2,5/..-ST, pitch: 5.08 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