

https://www.phoenixcontact.com/us/products/1755532



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PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTBVA 2,5/..-G, pitch: 5 mm, 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: without, mounting: without, type of packaging: packed in cardboard

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
- · Vertical connection enables multi-row arrangement on the PCB
- · Closed contour for optimum stability of the plug-in connection
- · Easy PCB replacement thanks to plug-in modules

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Commercial Data

Item number	1755532
Packing unit	1 pc
Minimum order quantity	250 pc
Sales Key	A01
Product Key	AACSLE
Catalog Page	Page 315 (C-1-2013)
GTIN	4017918029111
Weight per Piece (including packing)	1.568 g
Weight per Piece (excluding packing)	1.568 g
Customs tariff number	85366930
Country of origin	DE



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Technical Data

Product properties

Туре	Standard
Product line	COMBICON Connectors M
Product type	PCB headers
Number of positions	4
Pitch	5 mm
Number of connections	4
Number of rows	1
Mounting flange	without
Number of potentials	4
Pin layout	Linear pinning

Electrical properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Pollution degree	3
Contact resistance	2.5 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	1
CTI according to IEC 60112	600

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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

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.

Dimensions

Dimensional drawing

	h h pt
Pitch	5 mm
Width [w]	22 mm
Height [h]	15.9 mm
Length [I]	8.6 mm
Installed height	12 mm
Solder pin length [P]	3.9 mm

Mechanical tests

Test for conductor damage and slackening

root for conductor damage and clackoning	
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	0.14 mm² / solid / > 10 N
setpoint/actual value	0.14 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / 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

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	1
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



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Environmental and real-life conditions

Specification	IEC 60068-2-6:2007-12
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
rability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R ₁	2.5 mΩ
Contact resistance R ₂	2.5 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ
natic test	
natic test	
Specification	ISO 6988:1985-02
	ISO 6988:1985-02 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Specification	
Specification Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Specification Corrosive stress Thermal stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle 100 °C/168 h
Specification Corrosive stress Thermal stress Power-frequency withstand voltage	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle 100 °C/168 h
Specification Corrosive stress Thermal stress Power-frequency withstand voltage	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle 100 °C/168 h 2.21 kV
Specification Corrosive stress Thermal stress Power-frequency withstand voltage Ibient conditions Ambient temperature (operation)	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle 100 °C/168 h 2.21 kV -40 °C 100 °C (dependent on the derating curve)

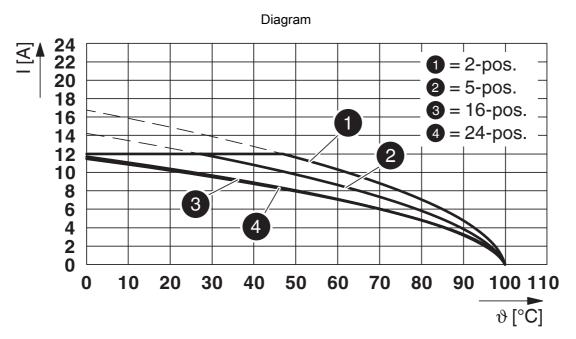
Type of packaging packed in cardboard



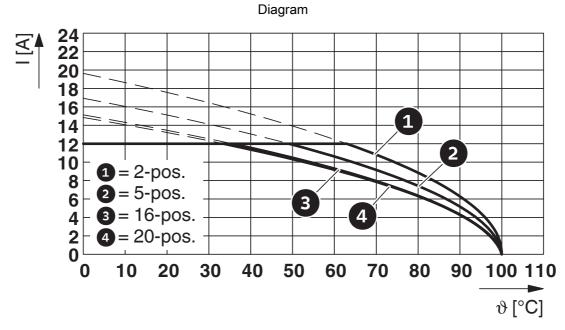
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Drawings



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

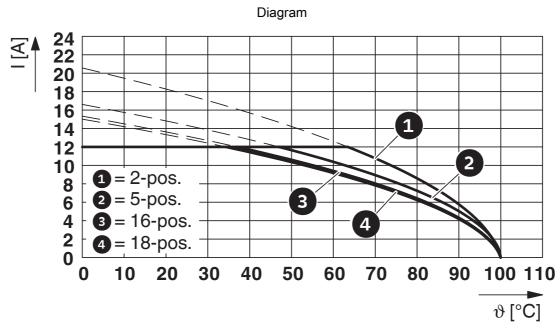


Type: FKCT 2,5/...-ST with MSTBVA 2,5/...-G

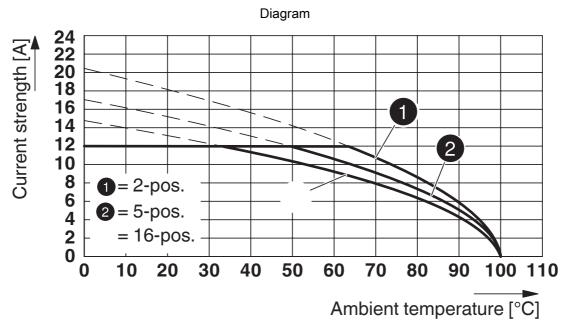


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Type: FKCN 2,5/...-ST with MSTBVA 2,5/...-G

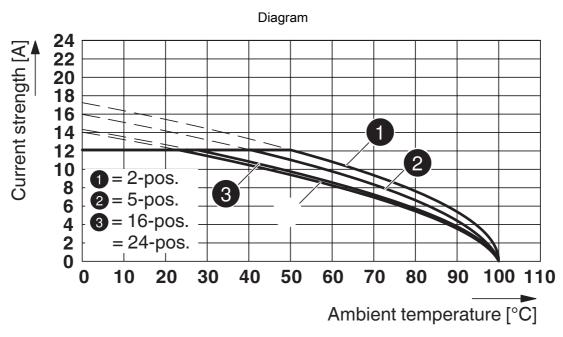


Type: MSTBT 2,5/...-ST with MSTBVA 2,5/...-G

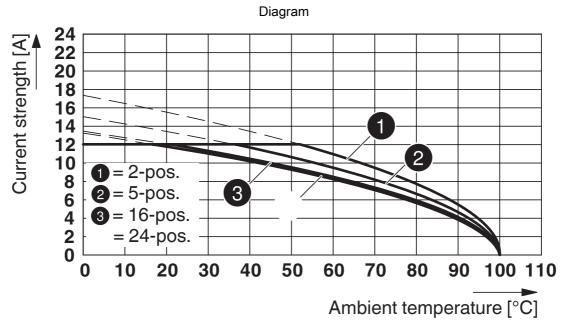


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Type: MSTBP 2,5/...-ST with MSTBVA 2,5/...-G

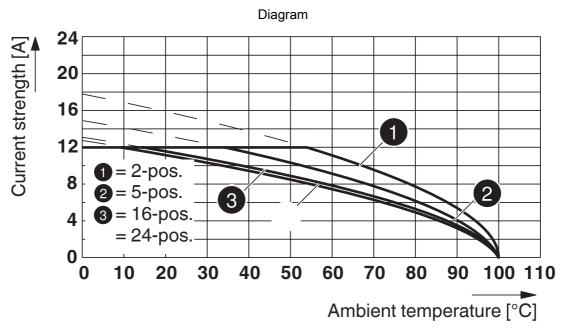


Type: MSTB 2,5/...-ST with MSTBVA 2,5/...-G



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Type: SMSTB 2,5/...-ST with MSTBVA 2,5/...-G



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Approvals

CSA Approval ID: 13631				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
Use group B				
	300 V	12 A	-	-
Use group D				
	300 V	10 A	-	-

Approval ID: DE1-60988-B1B2				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	250 V	12 A	-	-



EAC Approval ID: B.01687

CULus Recognized Approval ID: E60425-19931011				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
Use group B				
	300 V	12 A	-	-
Use group D				
	300 V	10 A	-	-

VDE Zeichengenehmigung Approval ID: 40050648				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	250 V	12 A	-	-



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Classifications

ECLASS

ECLASS-9.0	27440402
ECLASS-10.0.1	27440402
ECLASS-11.0	27460201
T1N4	

ETIM

	ETIM 8.0	EC002637
١U	NSPSC	
	UNSPSC 21.0	39121400





Environmental Product Compliance

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





Accessories

Coding section

Coding section - CR-MSTB - 1734401 https://www.phoenixcontact.com/us/products/1734401

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



Marker card

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183 https://www.phoenixcontact.com/us/products/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: 5×3.8 mm



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Accessories

Accessories - MSTB-BL - 1755477 https://www.phoenixcontact.com/us/products/1755477



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

PCB connector

PCB connector - TVFKC 1,5/ 4-ST - 1713855 https://www.phoenixcontact.com/us/products/1713855



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 8, product range: TVFKC 1,5/..-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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PCB connector

PCB connector - TVFKCL 1,5/ 4-ST - 1715947 https://www.phoenixcontact.com/us/products/1715947



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 8, product range: TVFKCL 1,5/..-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 - QC 1,5/ 4-ST - 1717987 https://www.phoenixcontact.com/us/products/1717987



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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



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PCB connector

PCB connector - FKCN 2,5/ 4-ST - 1732768 https://www.phoenixcontact.com/us/products/1732768



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: FKCN 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 - MSTB 2,5/ 4-ST - 1754481 https://www.phoenixcontact.com/us/products/1754481



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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



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PCB connector

PCB connector - MSTBP 2,5/ 4-ST - 1765797 https://www.phoenixcontact.com/us/products/1765797



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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 connector

PCB connector - SMSTB 2,5/ 4-ST - 1768781 https://www.phoenixcontact.com/us/products/1768781



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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



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PCB connector

PCB connector - FRONT-MSTB 2,5/ 4-ST - 1779437 https://www.phoenixcontact.com/us/products/1779437



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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 connector

PCB connector - MSTBT 2,5/ 4-ST - 1779851 https://www.phoenixcontact.com/us/products/1779851



PCB connector, nominal cross section: 2.5 mm², nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MSTBT 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, 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 - MVSTBW 2,5/ 4-STEH - 1784299 https://www.phoenixcontact.com/us/products/1784299



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MVSTBW 2,5/..-STEH, 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 - MVSTBR 2,5/ 4-ST - 1792032 https://www.phoenixcontact.com/us/products/1792032



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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



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PCB connector

PCB connector - MVSTBW 2,5/ 4-ST - 1792540 https://www.phoenixcontact.com/us/products/1792540



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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/ 4-ST - 1909236 https://www.phoenixcontact.com/us/products/1909236



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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



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PCB connector

PCB connector - FKCVR 2,5/ 4-ST - 1909731 https://www.phoenixcontact.com/us/products/1909731



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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

PCB connector

PCB connector - FKCVW 2,5/ 4-ST - 1910050 https://www.phoenixcontact.com/us/products/1910050



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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 connector

PCB connector - FKC 2,5/ 4-ST - 1910377 https://www.phoenixcontact.com/us/products/1910377



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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 - QC 1/ 4-ST-BUS - 1921696 https://www.phoenixcontact.com/us/products/1921696



PCB connector, nominal cross section: 1 mm², color: green, nominal current: 10 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: QC 1/..-ST-BUS, pitch: 5 mm, connection method: Displacement 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, The plug allows conductors to be looped through from module to module, without interruption



PCB connector

PCB connector - FKCS 2,5/ 4-ST - 1974753 https://www.phoenixcontact.com/us/products/1974753



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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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