1776168

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PCB connector, nominal cross section: 2.5 mm², 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/..-STZ, 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

Your advantages

- · Well-known connection principle allows worldwide use
- · Pull-out aid facilitates handling and allows the tensile force to be reduced at the contact point
- Allows connection of two conductors

Commercial data

Item number	1776168
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA03
Product key	AACAGC
Catalog page	Page 263 (C-1-2013)
GTIN	4017918038540
Weight per piece (including packing)	6.53 g
Weight per piece (excluding packing)	5.84 g
Customs tariff number	85366990
Country of origin	DE



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Technical data

Product properties

Product type	PCB connector
Product family	MSTB 2,5/STZ
Product line	COMBICON Connectors M
Туре	Standard
Number of positions	3
Pitch	5.08 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Mounting flange	without

Electrical properties

Nominal current I _N	12 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

Connection data

Connection technology

Connection technology	
Туре	Standard
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm²
Contact connection type	Socket
Interlock	
Locking type	without
Mounting flange	without
Conductor connection	
Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.2 mm² 2.5 mm²
Conductor cross section flexible	0.2 mm² 2.5 mm²
Conductor cross section AWG	24 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² 2.5 mm ²

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	0.25 mm² 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	
2 conductors with same cross section, solid	0.2 mm² 1 mm²
2 conductors with same cross section, flexible	0.2 mm² 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² 1 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 1.5 mm²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	7 mm
Tightening torque	0.5 Nm 0.6 Nm
pecifications for ferrules without insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
pecifications for ferrules with insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
erial specifications aterial data - contact Note	
aterial data - contact Note	60068-2-82/JEDEC JESD 201
aterial data - contact Note Contact material	Cu alloy
aterial data - contact Note Contact material Surface characteristics	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer)	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn)
aterial data - contact Note Contact material Surface characteristics	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer)	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn)
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer)	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn)
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer) aterial data - housing	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn)
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer) aterial data - housing Color (Housing)	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn) green (6021)
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer) aterial data - housing Color (Housing) Insulating material	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn) green (6021)
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer) Aterial data - housing Color (Housing) Insulating material Insulating material group	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn) green (6021) PA I
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer) Aterial data - housing Color (Housing) Insulating material Insulating material group CTI according to IEC 60112	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn) green (6021) PA I 600
aterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer) Metal surface contact area (top layer) Metal surface contact area (top layer) Aterial data - housing Color (Housing) Insulating material Insulating material group CTI according to IEC 60112 Flammability rating according to UL 94	60068-2-82/JEDEC JESD 201 Cu alloy hot-dip tin-plated Tin (5 - 7 μm Sn) Tin (5 - 7 μm Sn) green (6021) PA I 600 V0

Dimensions

Dimensional drawing	h v v
Pitch	5.08 mm
Width [w]	15.24 mm

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Height [h]	15.5 mm
Length [I]	54.3 mm

Slotted (L)

Mounting

Drive form screw head

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.

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
Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly)	-5 °C 100 °C

Electrical tests

I

Specification	IEC 60664-1:2007-04
Insulating material group	1
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 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 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

Packaging specifications

Type of packaging	packed in cardboard
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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1776168

CSA Approval ID: 13631				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	300 V	15 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

Approval ID: E60425-19931011				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	250 V	12 A	30 - 12	-
Use group D				
	300 V	10 A	30 - 12	-

VDE Zeichengene Approval ID: 40050694	hmigung			
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
	250 V	12 A	-	0.2 - 2.5



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Classifications

ECLASS

ECLASS-12.0 27460202	
ECLASS-13.0 27460202	

ETIM

	ETIM 9.0	EC002638
UN	NSPSC	
	UNSPSC 21.0	39121400

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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%
EF3.0 Climate Change	
CO2e kg	0.054 kg CO2e

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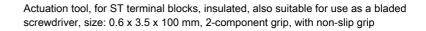
https://www.phoenixcontact.com/us/products/1776168



Accessories

SZS 0,6X3,5 - Screwdriver

1205053 https://www.phoenixcontact.com/us/products/1205053



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

0804293

https://www.phoenixcontact.com/us/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: 5.08×3.8 mm

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CP-MSTB - Coding profile

1734634

https://www.phoenixcontact.com/us/products/1734634

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



EBP 2-5 - Insertion bridge

1733169 https://www.phoenixcontact.com/us/products/1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



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MSTBW 2,5/ 3-G-5,08 - PCB header

1735879

https://www.phoenixcontact.com/us/products/1735879



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 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: MSTBW 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, 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, type of packaging: packed in cardboard

MDSTBV 2,5/ 3-G1-5,08 - PCB header

1736742 https://www.phoenixcontact.com/us/products/1736742



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBV 2,5/..-G1, pitch: 5.08 mm, mounting: Wave soldering, 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, In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

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

1850440

https://www.phoenixcontact.com/us/products/1850440



PCB headers, nominal cross section: 2.5 mm², 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

MDSTBA 2,5/ 3-GR-5,08 - PCB header

1874727 https://www.phoenixcontact.com/us/products/1874727



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.23 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, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

1776168

https://www.phoenixcontact.com/us/products/1776168



MDSTBVA 2,5/ 3-GL-5,08 - PCB header

1874756

https://www.phoenixcontact.com/us/products/1874756



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBVA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, 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, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

MDSTBVA 2,5/ 3-GR-5,08 - PCB header

1874769

https://www.phoenixcontact.com/us/products/1874769



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 6, number of rows: 2, number of positions: 3, number of connections: 6, product range: MDSTBVA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, 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, The article can be aligned to create different nos. of positions! In combination with MVSTB or FKCV plug components, both an MVSTBW (or FKCVW) and an MVSTBR plug (or FKCVR) must be used. Combination with TMSTBP plug components is not possible!

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DFK-MSTBVA 2,5/ 3-G-5,08 - Feed-through header

1899142

https://www.phoenixcontact.com/us/products/1899142



Feed-through header, nominal cross section: 2.5 mm², color: green, nominal current: 12 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: DFK-MSTBVA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, 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

CC 2,5/ 3-G-5,08 P26THR - PCB header

1954391 https://www.phoenixcontact.com/us/products/1954391



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CC 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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https://www.phoenixcontact.com/us/products/1776168



CC 2,5/ 3-G-5,08 P26THRR32 - PCB header

1954595

https://www.phoenixcontact.com/us/products/1954595



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CC 2,5/..-G, pitch: 5.08 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: 32 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

CCA 2,5/ 3-G-5,08 P26THR - PCB header

1954922 https://www.phoenixcontact.com/us/products/1954922



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CCA 2,5/..-G, pitch: 5.08 mm, connection method: Plug-in connection, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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CCA 2,5/ 3-G-5,08 P26THRR32 - PCB header

1955044

https://www.phoenixcontact.com/us/products/1955044



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CCA 2,5/..-G, pitch: 5.08 mm, connection method: Plug-in connection, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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: 32 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

CCV 2,5/ 3-G-5,08 P26THR - PCB header

1955390 https://www.phoenixcontact.com/us/products/1955390



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CCV 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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CCV 2,5/ 3-G-5,08 P26THRR32 - PCB header

1955536

https://www.phoenixcontact.com/us/products/1955536



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CCV 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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: 32 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

CCVA 2,5/ 3-G-5,08 P26THR - PCB header

1955866 https://www.phoenixcontact.com/us/products/1955866



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 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: CCVA 2,5/..-G, pitch: 5.08 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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