1778043

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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, type of contact: Female connector, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTB 2,5/..-STF, pitch: 5.08 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, mounting: Screw flange, type of packaging: packed in cardboard

Your advantages

- · Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- · Screwable flange for superior mechanical stability
- · Allows connection of two conductors

Commercial Data

Item number	1778043
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	A01
Product Key	AACAGD
Catalog Page	Page 263 (C-1-2013)
GTIN	4017918039912
Weight per Piece (including packing)	14.83 g
Weight per Piece (excluding packing)	14.164 g
Customs tariff number	85366990
Country of origin	US

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Technical Data

Product properties

Туре	Standard
Product line	COMBICON Connectors M
Product type	PCB plug
Number of positions	8
Pitch	5.08 mm
Number of connections	8
Number of rows	1
Mounting flange	Screw flange
Number of potentials	8

Electrical properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Degree of pollution	3
Contact resistance	1.3 mΩ
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

Connection data

Connection technology

Туре	Standard
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm ²
Type of contact	Female connector
iterlock	
Locking type	Screw locking
Mounting flange	Screw flange
Tightening torque	0.3 Nm
	0.0 1411
	Screw connection with tension sleeve
onductor connection	
onductor connection Connection method	Screw connection with tension sleeve
onductor connection Connection method Conductor/PCB connection direction	Screw connection with tension sleeve 0 $^{\circ}$
onductor connection Connection method Conductor/PCB connection direction Conductor cross section solid	Screw connection with tension sleeve 0 ° 0.2 mm ² 2.5 mm ²
onductor connection Connection method Conductor/PCB connection direction Conductor cross section solid Conductor cross section flexible	Screw connection with tension sleeve 0 ° 0.2 mm ² 2.5 mm ² 0.2 mm ² 2.5 mm ²

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2 conductors with same cross section, solid	0.2 mm ² 1 mm ²
2 conductors with same cross section, flexible	0.2 mm ² 1.5 mm ²
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 mm ² 1.5 mm ²
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

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 terminal point (top layer)	Tin (5 - 7 μm Sn)
Metal surface contact area (top layer)	Tin (5 - 7 μm Sn)

Material data - housing

Housing color	green (6021)
Insulating material	PA
Insulating material group	1
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

Dimensions

Dimensional drawing	h
Pitch	5.08 mm
Width [w]	50.65 mm
Height [h]	15 mm
Length [I]	18.3 mm
Installed height	15 mm

Mounting

Drive form screw head	Slotted (L)
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Tightening torque	0.3 Nm
	0.0 Nill
otes	
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.
echanical 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	0.2 mm² / solid / > 10 N
setpoint/actual value	0.2 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
Contact holder in insert	
Specification	IEC 60512-15-1:2008-05
Contact holder in insert	Test passed
Requirements >20 N	
Resistance of inscriptions	
Specification	IEC 60068-2-70:1995-12
Result	Test passed
Delevization and coding	
Polarization and coding	IEC 60512-13-5:2006-02
Specification Result	
Nesult	Test passed
Visual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed
Dimension check	
Specification	IEC 60512-1-2:2002-02

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Result	Test passed
onmental and real-life conditions	
section toot	
Specification	IEC 60068-2-6:2007-12
Specification	10 - 150 - 10 Hz
Frequency	
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	1.3 mΩ
Contact resistance R ₂	1.4 mΩ
Insertion/withdrawal cycles	25
matic test	
Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV
ocks	
Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)
nbient 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
trical tests	
ermal test Test group C	
Specification	IEC 60512-5-1:2002-02
Tested number of positions	12

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

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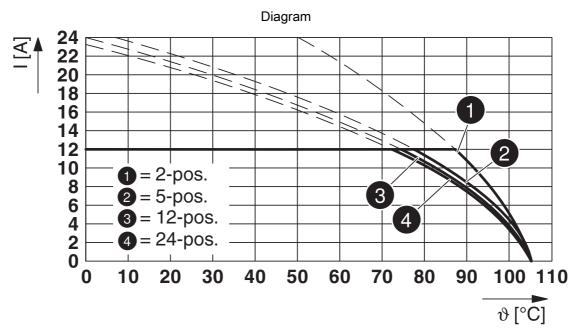
Specification	IEC 60664-1:2007-04
Insulating material group	1
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (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

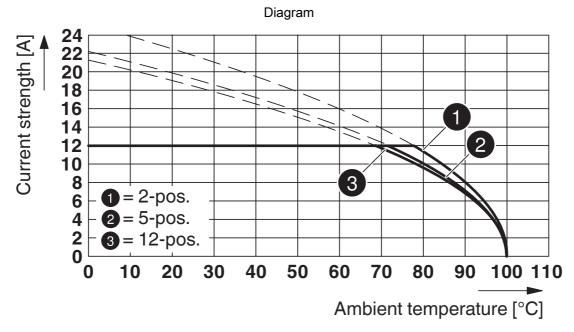


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Drawings



Type: MSTB 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08-LR P...THR

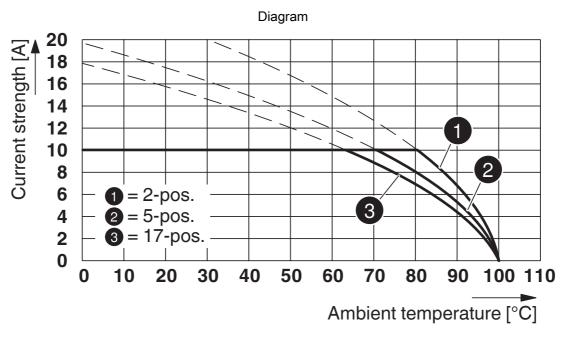


Type: MSTB 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08 P26THR

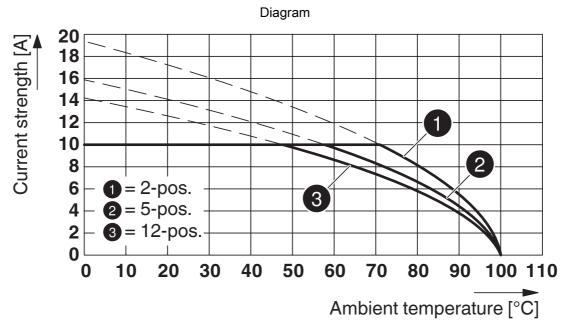
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https://www.phoenixcontact.com/us/products/1778043



Type: MSTB 2,5/...-STF-5,08 with MDSTB 2,5/...-GF-5,08



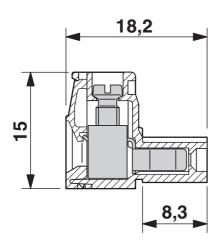
Type: MSTB 2,5/...-STF-5,08 with MDSTBV 2,5/...-GF-5,08

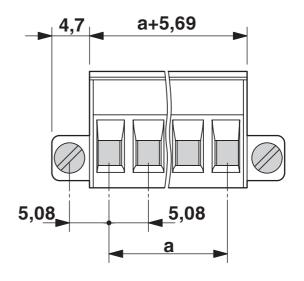


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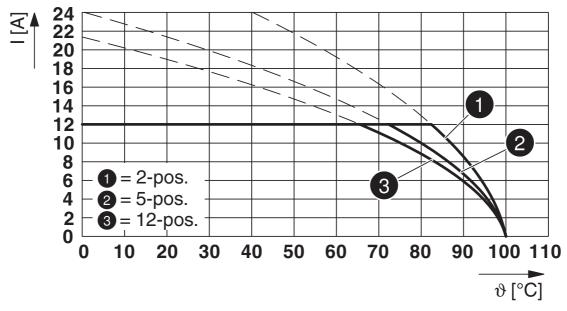
https://www.phoenixcontact.com/us/products/1778043

Dimensional drawing





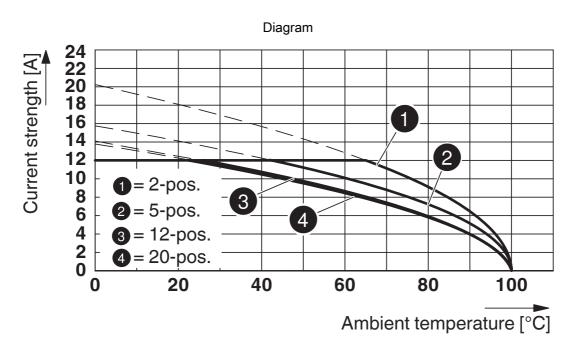
Diagram



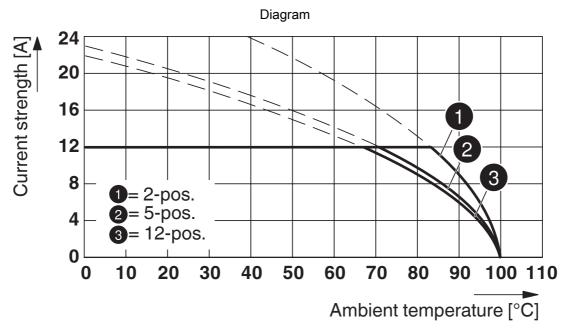
Type: MSTB 2,5/...-STF-5,08 with CCV 2,5/...-GF-5,08-LR P...THR



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Type: MSTB 2,5/...-STF-5,08 with MSTBV 2,5/...-GF-5,08



Type: MSTB 2,5/...-STF-5,08 with CC 2,5/...-GF-5,08 P26THR



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Approvals

CSA Approval ID: LR13631-258	35950			
	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: DE1-60988-B1B2				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	250 V	12 A	-	0.2 - 2.5

rnr	EAC
EHC	Approval ID: B.01687

CULus Recogniz Approval ID: E60425	zed -19931011			
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
Use group B				
	300 V	15 A	30 - 12	-
Use group D				
	300 V	10 A	30 - 12	-



DNV GL Approval ID: TAE00001EY



RS Approval ID: 17.00014.272

VDE Zeichengeneł Approval ID: 40050694	nmigung			
	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-10.0.1 27440309 ECLASS-11.0 27460202	ECLASS-9.0	27440309
ECLASS-11.0 27460202	ECLASS-10.0.1	27440309
	ECLASS-11.0	27460202

ETIM

	ETIM 8.0	EC002638
UN	NSPSC	
	UNSPSC 21.0	39121400



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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

8

Note: Applying some accessories below might limit this product.

Insertion bridge

Insertion bridge - EBP 2-5 - 1733169 https://www.phoenixcontact.com/us/products/1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



Max. current carrying capacity: 12 A

Insertion bridge

Insertion bridge - EBP 4-5 - 1733185 https://www.phoenixcontact.com/us/products/1733185

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Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

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Insertion bridge

Insertion bridge - EBP 5-5 - 1733198 https://www.phoenixcontact.com/us/products/1733198

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

Insertion bridge

Insertion bridge - EBP 3-5 - 1733172 https://www.phoenixcontact.com/us/products/1733172

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



Max. current carrying capacity: 12 A

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Insertion bridge

Insertion bridge - EBP 6-5 - 1733208 https://www.phoenixcontact.com/us/products/1733208

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch



6 Max. current carrying capacity: 12 A

Screwdriver

Screwdriver - SZS 0,6X3,5 - 1205053 https://www.phoenixcontact.com/us/products/1205053

Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: $0.6 \times 3.5 \times 100$ mm, 2-component grip, with non-slip grip

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Marker card

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 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: $5.08 \times 3.8 \text{ mm}$

Marker card

Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906 https://www.phoenixcontact.com/us/products/0803906



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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Marker pen

Marker pen - B-STIFT - 1051993 https://www.phoenixcontact.com/us/products/1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 $\rm mm$

Marker pen

Marker pen - X-PEN 0,35 - 0811228 https://www.phoenixcontact.com/us/products/0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

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Cable housing

Cable housing - KGG-MSTB 2,5/ 8 - 1803921 https://www.phoenixcontact.com/us/products/1803921



Cable housing, pitch: 0 mm, number of positions: 8, color: green

Cable housing

Cable housing - KGS-MSTB 2,5/ 8 - 1783779 https://www.phoenixcontact.com/us/products/1783779



Cable housing, pitch: 0 mm, number of positions: 8, dimension a: 40 mm, color: green

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PCB header

PCB header - MSTB 2,5/ 8-GF-5,08 - 1776566 https://www.phoenixcontact.com/us/products/1776566



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: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTB 2,5/..-GF, 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: Screw locking, type of packaging: packed in cardboard

PCB header

PCB header - MSTBV 2,5/ 8-GF-5,08 - 1777138 https://www.phoenixcontact.com/us/products/1777138



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: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: MSTBV 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

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PCB header

PCB header - MDSTB 2,5/ 8-GF-5,08 - 1842429 https://www.phoenixcontact.com/us/products/1842429



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 16, number of rows: 2, number of positions: 8, number of connections: 16, product range: MDSTB 2,5/..-GF, 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, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, 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!

PCB header

PCB header - MDSTBV 2,5/ 8-GF-5,08 - 1845691 https://www.phoenixcontact.com/us/products/1845691



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 10 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 16, number of rows: 2, number of positions: 8, number of connections: 16, product range: MDSTBV 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, 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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Feed-through header

Feed-through header - DFK-MSTBA 2,5/ 8-GF-5,08 - 1899045 https://www.phoenixcontact.com/us/products/1899045



Feed-through header, 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: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: DFK-MSTBA 2,5/..-GF, 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, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

Feed-through header

Feed-through header - DFK-MSTBVA 2,5/ 8-GF-5,08 - 1899346 https://www.phoenixcontact.com/us/products/1899346



Feed-through header, 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: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: DFK-MSTBVA 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

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PCB header

PCB header - CC 2,5/ 8-GF-5,08 P26THR - 1954757 https://www.phoenixcontact.com/us/products/1954757



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: CC 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, For user information and design recommendations for through-hole reflow technology, go to: Downloads

PCB header

PCB header - CC 2,5/ 8-GF-5,08 P26THRR88 - 1954867 https://www.phoenixcontact.com/us/products/1954867



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: CC 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, type of packaging: 88 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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PCB header

PCB header - CCV 2,5/ 8-GF-5,08 P26THR - 1955691 https://www.phoenixcontact.com/us/products/1955691



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: CCV 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard, For user information and design recommendations for through-hole reflow technology, go to: Downloads

PCB header

PCB header - CCV 2,5/ 8-GF-5,08 P26THRR88 - 1955808 https://www.phoenixcontact.com/us/products/1955808



PCB headers, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 8, number of rows: 1, number of positions: 8, number of connections: 8, product range: CCV 2,5/..-GF, 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: Screw locking, mounting: Threaded flange, type of packaging: 88 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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