1786242

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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: Pin, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: IC 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: - without 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
- · Easy PCB replacement thanks to plug-in modules
- · Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- · Can be combined with the MSTB 2,5 range
- · Low temperature rise, thanks to maximum contact force

Commercial data

Item number	1786242	
Packing unit	50 pc	
Minimum order quantity	50 pc	
Sales key	AA03	
Product key	AACADA	
Catalog page	Page 272 (C-1-2013)	
GTIN	4017918042394	
Weight per piece (including packing)	15.5 g	
Weight per piece (excluding packing)	14.834 g	
Customs tariff number	85366990	
Country of origin	DE	

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Technical data

Product properties

Product type	PCB connector	
Product family	IC 2,5/ST	
Product line	COMBICON Connectors M	
Туре	Inverted	
Number of positions	9	
Pitch	5.08 mm	
Number of connections	9	
Number of rows	1	
Number of potentials	9	
Mounting flange	without	

Electrical properties

Nominal current I _N	12 A
Nominal voltage U _N	320 V
Contact resistance	2.9 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
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Connection technology		
Туре	Inverted	
Connector system	COMBICON MSTB 2,5	
Nominal cross section	2.5 mm²	
Contact connection type	Pin	
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 mm² 2.5 mm²	

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Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² 2.5 mm²	
2 conductors with same cross section, solid	0.2 mm ² 1 mm ²	
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	
Specifications for ferrules without insulating collar		
recommended crimping tool	1212034 CRIMPFOX 6	
Specifications for ferrules with insulating collar		
recommended crimping tool	1212034 CRIMPFOX 6	
terial specifications		
Aaterial data - contact		
	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201	
Naterial data - contact		
Aaterial data - contact Note	60068-2-82/JEDEC JESD 201	
Naterial data - contact Note Contact material	60068-2-82/JEDEC JESD 201 Cu alloy	
Material data - contact Note Contact material Surface characteristics	60068-2-82/JEDEC JESD 201 Cu alloy Tin-plated	
Aaterial data - contact Note Contact material Surface characteristics Metal surface terminal point (top layer)	60068-2-82/JEDEC JESD 201 Cu alloy Tin-plated Tin (5 - 7 μm Sn)	

Material data - housing

Color (Housing)	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



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Pitch	5.08 mm
Width [w]	47.22 mm
Height [h]	15 mm
Length [I]	19.2 mm

Mounting

Drive form screw head	Slotted (L)

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.

Mechanical tests

Specification

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 mm² / solid / > 10 N	
	0.2 mm² / flexible / > 10 N	
	2.5 mm² / solid / > 50 N	

2.5 mm² / flexible / > 50 N

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	7 N
Torque test	
Specification	IEC 60999-1:1999-11
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
√isual inspection	
Specification	IEC 60512-1-1:2002-02
Result	Test passed

IEC 60512-1-2:2002-02

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Test passed
IEC 60068-2-6:2007-12
10 - 150 - 10 Hz
1 octave/min
0.35 mm (10 Hz 60.1 Hz)
5g (60.1 Hz 150 Hz)
2.5 h
IEC 60512-9-1:2010-03
4.8 kV
2.9 mΩ
3 mΩ
25
> 5 MΩ
ISO 6988:1985-02
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)
-40 °C 70 °C
30 % 70 %
-5 °C 100 °C
IEC 60512-5-1:2002-02
IEC 00312-3-1.2002-02
16
16
16 IEC 60512-3-1:2002-02
16 IEC 60512-3-1:2002-02 > 5 MΩ
16 IEC 60512-3-1:2002-02
16 IEC 60512-3-1:2002-02 > 5 MΩ IEC 60664-1:2007-04

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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

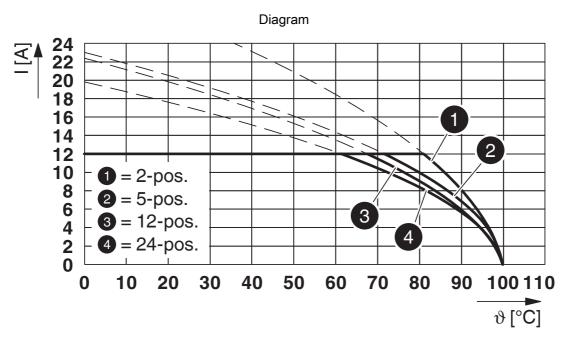




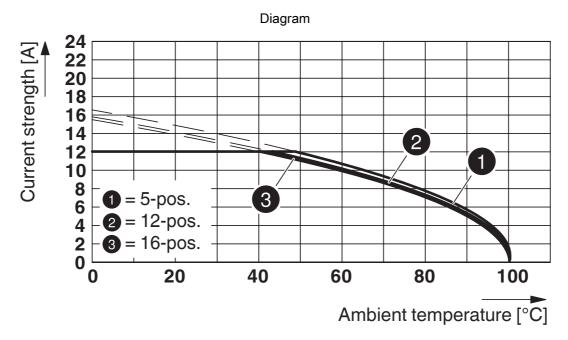
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Drawings



Type: IC 2,5/...-ST-5,08 with ICV 2,5/...-G-5,08



Type: (U)MSTBVK 2,5/...-ST-5,08 with IC 2,5/...-ST-5,08



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Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1786242

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

CULus Recognized Approval ID: E60425-19931014				
	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 Zeichengenehmigung Approval ID: 40050694				
	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-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

	ETIM 9.0	EC002638			
UN	UNSPSC				
	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%			

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Accessories

MSTB-BL - Accessories

1755477 https://www.phoenixcontact.com/us/products/1755477



Keying cap, for forming sections, plugs onto header pin, green 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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SZS 0,6X3,5 - Screwdriver

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

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

insulating material

CR-MSTB - Coding section

1734401 https://www.phoenixcontact.com/us/products/1734401



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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

KGS-MSTB 2,5/ 9 - Cable housing

1783782 https://www.phoenixcontact.com/us/products/1783782



Cable housing, color: green, product range: KGS-MSTB 2,5

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MSTBT 2,5/ 9-ST-5,08 - PCB connector

1734207

https://www.phoenixcontact.com/us/products/1734207



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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

TMSTBP 2,5/ 9-ST-5,08 - PCB connector

1853081 https://www.phoenixcontact.com/us/products/1853081



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: 9, number of rows: 1, number of positions: 9, number of connections: 18, 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.

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MSTBC 2,5/ 9-STZ-5,08 - PCB connector

1809572

https://www.phoenixcontact.com/us/products/1809572



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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 [mm²] 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

MSTBC 2,5/ 9-ST-5,08 - PCB connector

1808887

https://www.phoenixcontact.com/us/products/1808887



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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 [mm²] 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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MVSTBR 2,5/ 9-ST-5,08 - PCB connector

1792317

https://www.phoenixcontact.com/us/products/1792317



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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

IC 2,5/ 9-G-5,08 - PCB header

1786475 https://www.phoenixcontact.com/us/products/1786475



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: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: IC 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: 2, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

1786242 https://www.phoenixcontact.com/us/products/1786242



ICV 2,5/ 9-G-5,08 - PCB header

1786019

https://www.phoenixcontact.com/us/products/1786019



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: Socket, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: ICV 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.6 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

FRONT-MSTB 2,5/ 9-ST-5,08 - PCB connector

1777358 https://www.phoenixcontact.com/us/products/1777358



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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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MSTBP 2,5/ 9-ST-5,08 - PCB connector

1769081

https://www.phoenixcontact.com/us/products/1769081



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MSTBP 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

MSTB 2,5/ 9-STZ-5,08 - PCB connector

1764316 https://www.phoenixcontact.com/us/products/1764316



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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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MSTB 2,5/ 9-ST-5,08 - PCB connector

1757080

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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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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

FKCVR 2,5/ 9-ST-5,08 - PCB connector

1874028 https://www.phoenixcontact.com/us/products/1874028



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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

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FKC 2,5/ 9-ST-5,08 - PCB connector

1873126

https://www.phoenixcontact.com/us/products/1873126



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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

SMSTB 2,5/ 9-ST-5,08 - PCB connector

1826351 https://www.phoenixcontact.com/us/products/1826351



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: SMSTB 2,5/..-ST, pitch: 5.08 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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MSTBU 2,5/ 9-STD-5,08 - PCB connectors

1824191

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Direct plug-in block, 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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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

MVSTBW 2,5/ 9-ST-5,08 - PCB connector

1792825 https://www.phoenixcontact.com/us/products/1792825



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: 9, number of rows: 1, number of positions: 9, number of connections: 9, 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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