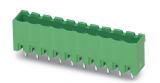


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The figure shows a 10-position version of the product

PCB 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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBVA 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm, Stecksystem: CLASSIC COMBICON, Locking: 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













Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 029418
GTIN	4017918029418
Weight per Piece (excluding packing)	4.800 g
Custom tariff number	85366930
Country of origin	China

Technical data

Item properties

Brief article description	Feed-through header
Plug-in system	CLASSIC COMBICON
Type of contact	Male connector



Technical data

Item properties

Range of articles	MSTBVA 2,5/G
Pitch	5.08 mm
Number of positions	12
Mounting type	Wave soldering
Pin layout	Linear pinning
Locking	without
Number of levels	1
Number of connections	12
Number of potentials	12
Pin connector pattern alignment	Standard

Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage (III/3)	320 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

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	I
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



Technical data

Material data - housing

Temperature for the ball pressure test according to EN 60695-10-2	125 °C
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Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [1]	8.6 mm
Width [w]	62.96 mm
Height [h]	15.9 mm
Pitch	5.08 mm
Height (without solder pin)	12 mm
Solder pin [P]	3.9 mm
Pin dimensions	1 x 1 mm

Dimensions for PCB design

Hole diameter	1.4 mm
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Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

General product information

Type of note	Notes on operation
Note	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.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C 70 °C
Ambient temperature (assembly)	-5 °C 100 °C
Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	4 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm



Technical data

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2.4 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	2.5 mΩ
Impulse withstand voltage at sea level	4.8 kV

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	24
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Standards and Regulations

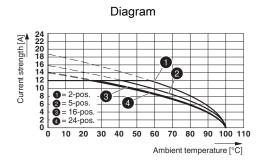
Connection in acc. with standard	EN-VDE
	CSA
Flammability rating according to UL 94	V0

Environmental Product Compliance

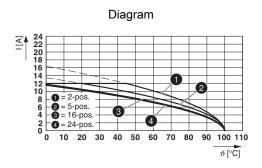
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

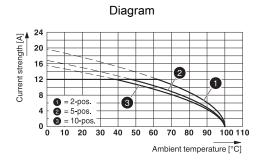




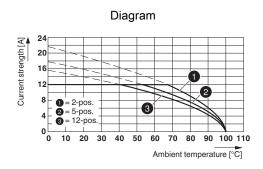
Type: MSTB 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



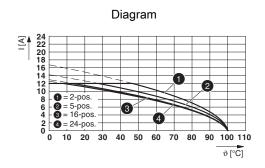
Type: MVSTB(R/W) 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



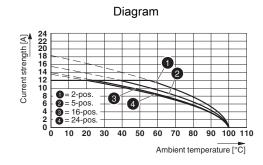
Type: TVMSTB 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



Type: FKCN 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08

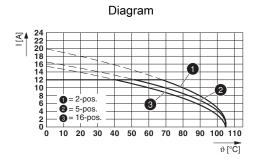


Type: SMSTB 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08

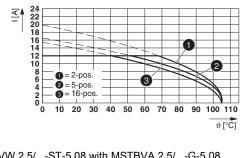


Type: MSTBP 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08





Type: FKCVR 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



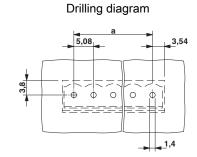
Diagram

40

Ambient temperature [°C]

Diagram

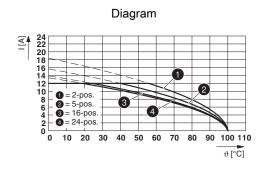
Type: FKCVW 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



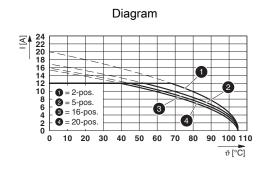
Type: TFKC 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08

2 = 5-pos. = 10-pos 20

Current strength [A]

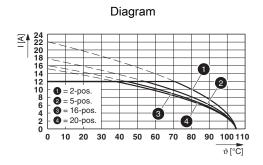


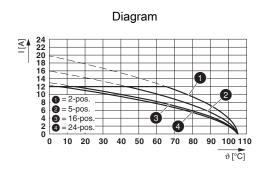
Type: FRONT-MSTB 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



Type: FKCT 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08



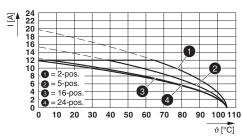




Type: FKCS 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08

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





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

Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 11.0	27460201
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 8.0	27440402
eCl@ss 9.0	27440402

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002637
ETIM 5.0	EC002637
ETIM 6.0	EC002637



Classifications

ETIM 7.0	EC002637	
UNSPSC		
UNSPSC 6.01	30211810	
UNSPSC 7.0901	39121409	
UNSPSC 11	39121409	
UNSPSC 12.01	39121409	
UNSPSC 13.2	39121409	
UNSPSC 18.0	39121409	
UNSPSC 19.0	39121409	
UNSPSC 20.0	39121409	
UNSPSC 21.0	39121409	

Approvals

Approvals

Approvals

CSA / IECEE CB Scheme / EAC / cULus Recognized / VDE Zeichengenehmigung

Ex Approvals

Approval details

CSA (3)	http://www.csagroup.org/services-indus	stries/product-listing/ 13631
	В	D
Nominal voltage UN	300 V	300 V
Nominal current IN	12 A	10 A

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-60988-B1B2
Nominal voltage UN		250 V	
Nominal current IN		12 A	



Approvals

EAC EHL	B.01687
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cULus Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-1993101		E60425-19931011
	В	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	12 A	10 A	

VDE Zeichengenehmigung	DYE	http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx		40050648
Nominal voltage UN			250 V	
Nominal current IN			12 A	

Accessories

Accessories

Coding element

Coding section - CR-MSTB - 1734401



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

Filler plug

Accessories - MSTB-BL - 1755477



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



Accessories

Labeled terminal marker

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



Marker card, 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

Additional products

Printed-circuit board connector - FKCN 2,5/12-ST-5,08 - 1754665



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, 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, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTB 2,5/12-ST-5,08 - 1757116



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTB 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0°, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTB 2,5/12-STZ-5,08 - 1764280



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTB 2,5/..-STZ, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBP 2,5/12-ST-5,08 - 1769117



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBP 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard



Accessories

Printed-circuit board connector - FRONT-MSTB 2,5/12-ST-5,08 - 1777387



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FRONT-MSTB 2,5/..-ST, pitch: 5.08 mm, connection method: Front screw connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBT 2,5/12-ST-5,08 - 1781085



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBT 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBR 2,5/12-ST-5,08 - 1792346



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MVSTBR 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 90 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBW 2,5/12-ST-5,08 - 1792854



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MVSTBW 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: -90 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBC 2,5/12-ST-5,08 - 1808913



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBC 2,5/..-ST, pitch: 5.08 mm, connection method: Crimp connection, conductor/ PCB connection direction: 0°, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: 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



Accessories

Printed-circuit board connector - MSTBC 2,5/12-STZ-5,08 - 1809608



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBC 2,5/..-STZ, pitch: 5.08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0°, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: 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

Printed-circuit board connector - MSTBU 2,5/12-STD-5,08 - 1824227



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, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBU 2,5/..-STD, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, mounting: Direct mounting, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBU 2,5/12-ST-5,08-FL - 1824450



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, type of contact: Male connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBU 2,5/..-ST -FL, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, mounting: Direct mounting, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - SMSTB 2,5/12-ST-5,08 - 1826380



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: SMSTB 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: -45 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MSTBVK 2,5/12-ST-5,08 - 1831414



DIN rail 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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTBVK 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, mounting: DIN rail, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard



Accessories

Printed-circuit board connector - UMSTBVK 2,5/12-ST-5,08 - 1833917



DIN rail 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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: UMSTBVK 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, mounting: DIN rail, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKC 2,5/12-ST-5,08 - 1873155



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, 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, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCVW 2,5/12-ST-5,08 - 1873757



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FKCVW 2,5/..-ST, pitch: 5.08 mm, connection method: Pushin spring connection, conductor/PCB connection direction: -90 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCVR 2,5/12-ST-5,08 - 1874057



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, 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, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - QC 1/12-ST-5,08 - 1883705



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: QC 1/..-ST, pitch: 5.08 mm, connection method: Displacement connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard



Accessories

Printed-circuit board connector - FKCT 2,5/12-ST-5,08 - 1902217



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, 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, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCS 2,5/12-ST-5,08 - 1975176



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: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, 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, Stecksystem: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

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