

## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

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PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin


The figure shows a 10-position version of the product

### Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 017918 044565
GTIN	4017918044565
Weight per Piece (excluding packing)	19.910 g
Custom tariff number	85366990
Country of origin	Germany

### Technical data

#### Item properties

Brief article description	Printed-circuit board connector
Plug-in system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	MVSTBR 2,5/..-ST

## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Technical data

#### Item properties

Pitch	5 mm
Number of positions	9
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M3
Locking	without
Number of levels	1
Number of connections	9
Number of potentials	9

#### Electrical parameters

Nom. voltage	320 V
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#### Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve	0.25 mm <sup>2</sup> ... 1 mm <sup>2</sup>
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	7 mm
Torque	0.5 Nm ... 0.6 Nm

#### 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 terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

#### Material data - housing

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## Technical data

### Material data - housing

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

### Dimensions for the product

Length [ l ]	12.5 mm
Width [ w ]	45 mm
Height [ h ]	26 mm
Pitch	5 mm
Height (without solder pin)	26 mm
Dimension a	40 mm

### Packaging information

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

### 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)

### Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

### Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed

### Mechanical tests according to standard

Test specification	IEC 61984
Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	IEC 60512-13-2:2006-02

## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Technical data

#### Mechanical tests according to standard

No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	32 N

#### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Rated insulation voltage (III/3)	250 V
Rated insulation voltage (III/2)	320 V
Rated insulation 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
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

#### Current carrying capacity / derating curves

Specification	IEC 61984
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#### 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 <sub>1</sub>	2.5 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	2.5 mΩ

## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Technical data

#### Durability tests (B)

Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 0.3 TΩ

#### 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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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

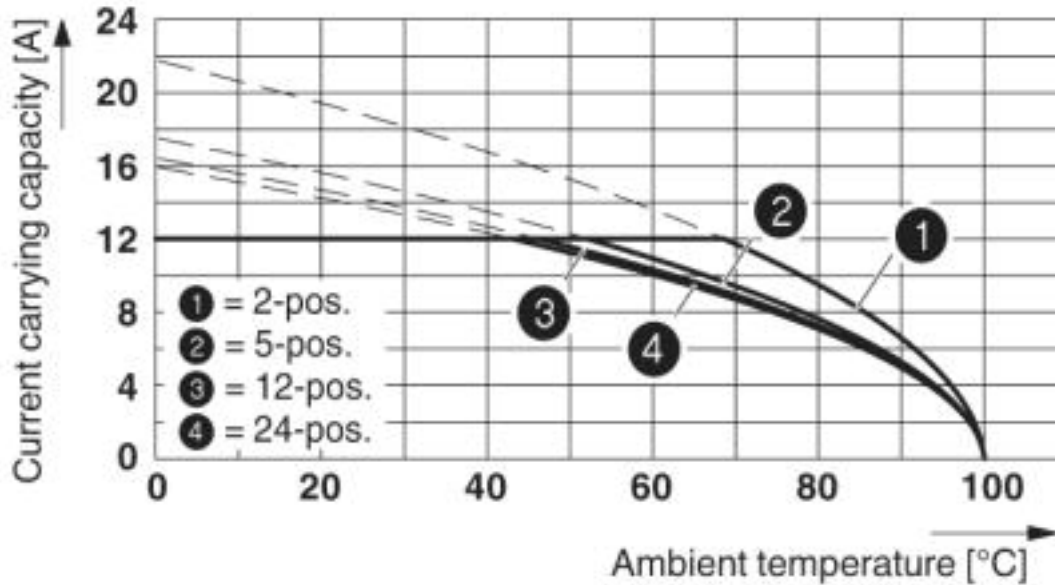
#### Environmental Product Compliance

	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

# Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

Diagram



Type: MVSTBR 2,5/...-ST(5,08) with MSTBA 2,5/...-G(-5,08)

## Classifications

eCl@ss

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	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211810
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# Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

## Classifications

### UNSPSC

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 / IECCE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

#### Ex Approvals

### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	LR13631-2585950
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-60988-B1B2
Nominal voltage UN	250 V		
Nominal current IN	12 A		
mm <sup>2</sup> /AWG/kcmil	0.2-2.5		

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## Approvals

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40004701
Nominal voltage UN		250 V	
Nominal current IN		12 A	
mm <sup>2</sup> /AWG/kcmil		0.2-2.5	

EAC		B.01742
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-19931011
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	15 A	10 A	
mm <sup>2</sup> /AWG/kcmil	30-12	30-12	

## Accessories

### Accessories

#### Coding element

Coding profile - CP-MSTB - 1734634

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



#### Marker pen

Marker pen - B-STIFT - 1051993

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



## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Accessories

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#### Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



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

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#### Terminal marking

Marker card - SK 5/3,8:UNBEDRUCKT - 0805409



Marker card, Card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

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#### Additional products

Feed-through header - MSTBW 2,5/ 9-G - 1736043



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm

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Feed-through header - MSTBV 2,5/ 9-G - 1753576



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.9 mm

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## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Accessories

#### Feed-through header - MSTB 2,5/ 9-G - 1754575

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm



#### Printed-circuit board connector - MSTBVA 2,5/ 9-G - 1755587

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.9 mm



#### Printed-circuit board connector - MSTBA 2,5/ 9-G - 1757530

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm



#### Feed-through header - MDSTB 2,5/ 9-G1 - 1762761

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm, 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!



#### Feed-through header - MDSTBV 2,5/ 9-G1 - 1762910

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.9 mm, 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!



## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Accessories

#### Feed-through header - MSTB 2,5/ 9-G-LA - 1768257



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.2 mm

#### Printed-circuit board connector - SMSTB 2,5/ 9-G - 1769308



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm

#### Feed-through header - SMSTBA 2,5/ 9-G - 1769874



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm

#### Feed-through header - MSTBA 2,5/ 9-G-LA - 1770559



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.2 mm

#### Feed-through header - MDSTBVA 2,5/ 9-G - 1845853



PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.9 mm, 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!

## Printed-circuit board connector - MVSTBR 2,5/ 9-ST - 1792087

### Accessories

#### Feed-through header - MDSTBV 2,5/ 9-G - 1846001



PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.5 mm, Can be aligned! Mounting flange: Order No. 1836477, 1836480. 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!

#### Feed-through header - MDSTB 2,5/ 9-G - 1846438



PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.2 mm, Can be aligned! Mounting flange: Order No. 1736771, 1736768. 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!

#### Feed-through header - MDSTBA 2,5/ 9-G - 1846580



PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.2 mm, 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!

#### Feed-through header - MDSTBW 2,5/ 9-G - 1846881



PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, Nominal cross section: 2.5 mm<sup>2</sup>, number of positions: 9, pitch: 5 mm, color: green, contact surface: Tin, mounting: Wave soldering, Pin layout: Linear pinning, solder pin [P]: 3.8 mm, 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!