Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

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PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, connection method: Front screw connection, color: green, contact surface: Tin

The figure shows a 10-position version of the product

Your advantages

- Well-known connection principle allows worldwide use
- Optimized for tight installation situations: operation and conductor connection from one direction
- Screwable flange for superior mechanical stability
- 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 039660
GTIN	4017918039660
Weight per Piece (excluding packing)	25.310 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

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Technical data

Item properties

Range of articles	FRONT-MSTB 2,5/..-STF
Pitch	5.08 mm
Number of positions	8
Connection method	Front screw connection
Screw thread	M2,5
Locking	Screw flange
Number of levels	1
Number of connections	8
Number of potentials	8

Electrical parameters

Nom. voltage	320 V

Connection capacity

Connection method	Front screw connection
pluggable	Yes
Conductor cross section solid	0.34 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with same cross section, solid	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, stranded, ferrules without plastic sleeve	0.25 mm² ... 1 mm²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm² ... 1 mm²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	10 mm
Torque	0.5 Nm ... 0.6 Nm

Specifications for ferrules

Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.5 mm²; Length: 8 mm ... 10 mm
	Cross section: 0.75 mm²; Length: 8 mm ... 10 mm
	Cross section: 1 mm²; Length: 8 mm ... 10 mm
	Cross section: 1.5 mm²; Length: 8 mm ... 10 mm
	Cross section: 2.5 mm²; Length: 10 mm
Recommended crimping pliers	1212034 CRIMPFOX 6
Ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.5 mm²; Length: 8 mm ... 10 mm

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Technical data

Specifications for ferrules

	Cross section: 0.75 mm²; Length: 8 mm ... 10 mm
	Cross section: 1 mm²; Length: 8 mm ... 10 mm
	Cross section: 1.5 mm²; Length: 8 mm ... 10 mm
	Cross section: 2.5 mm²; Length: 10 mm

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

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]	27.2 mm
Width [w]	50.44 mm
Height [h]	15 mm
Pitch	5.08 mm
Height (without solder pin)	15 mm
Dimension a	35.56 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

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Technical data

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

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
No. of cycles	25
Insertion strength per pos. approx.	12 N
Withdraw strength per pos. approx.	9 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.	44 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)	3.2 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

Mechanical tests (A)

Insertion strength per pos. approx.	12 N

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Technical data

Mechanical tests (A)

Withdraw strength per pos. approx.	9 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	1.9 mΩ
Insertion/withdrawal cycles	25
Contact resistance R_2	1.9 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	> 0.2 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^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

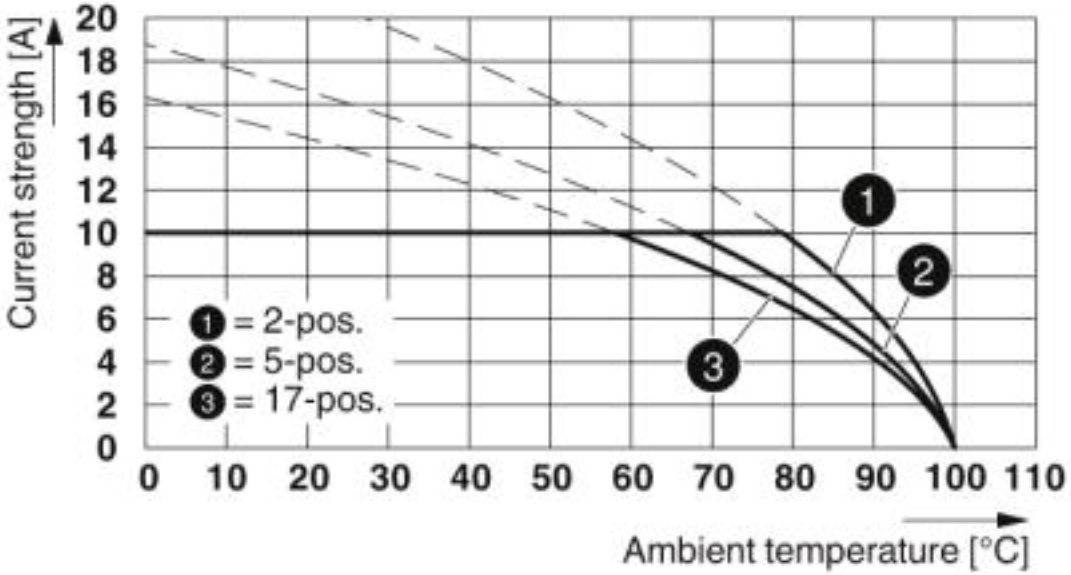
Environmental Product Compliance

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

Drawings

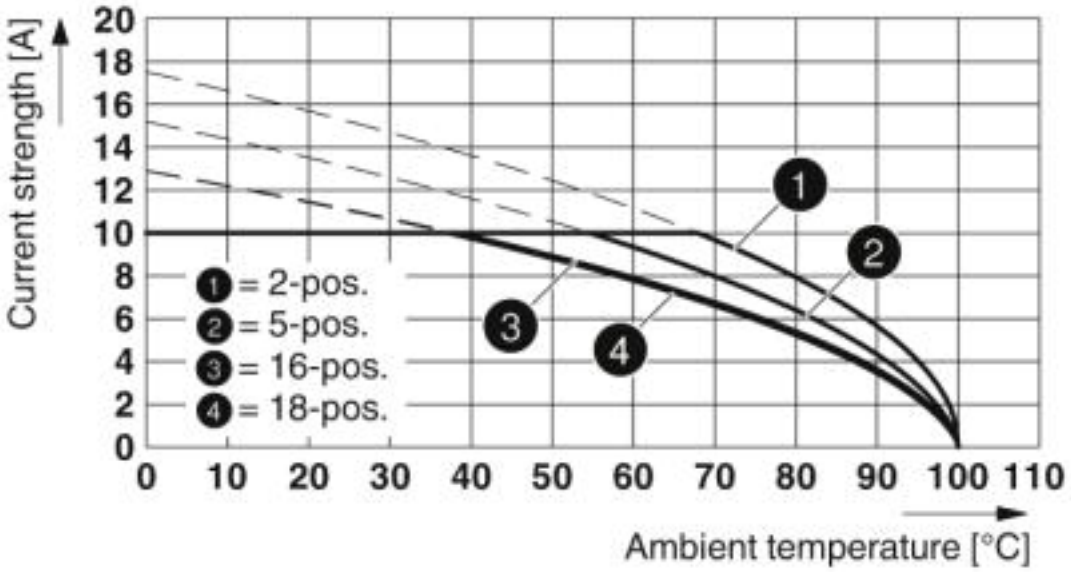
Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Diagram



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

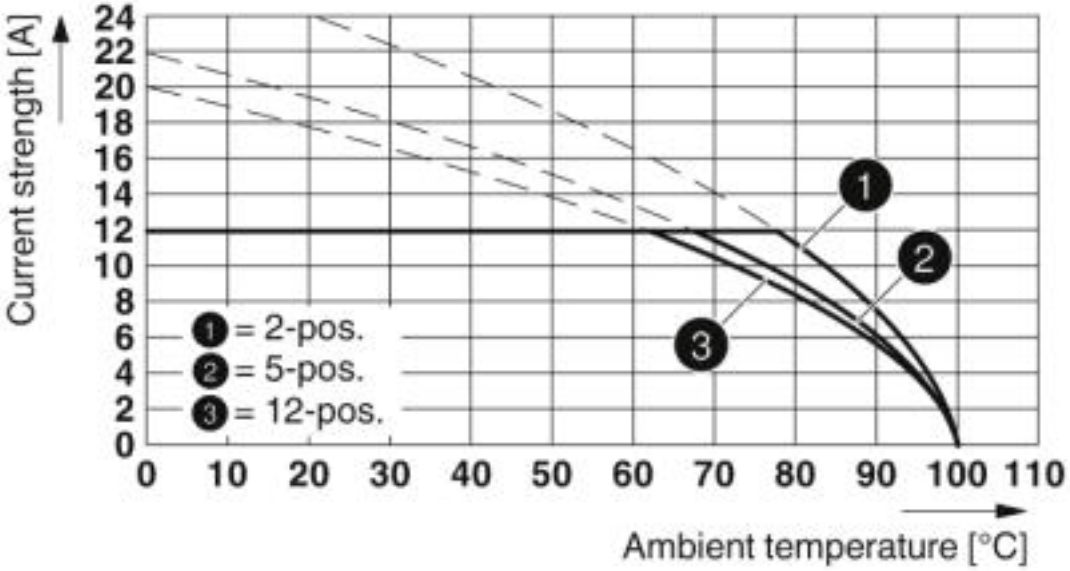
Diagram



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

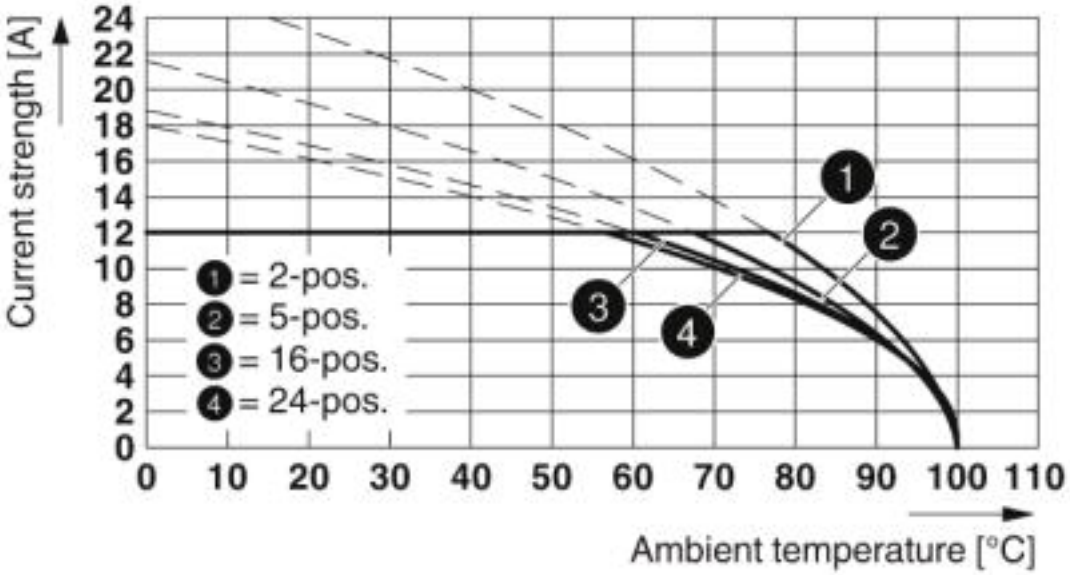
Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Diagram



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

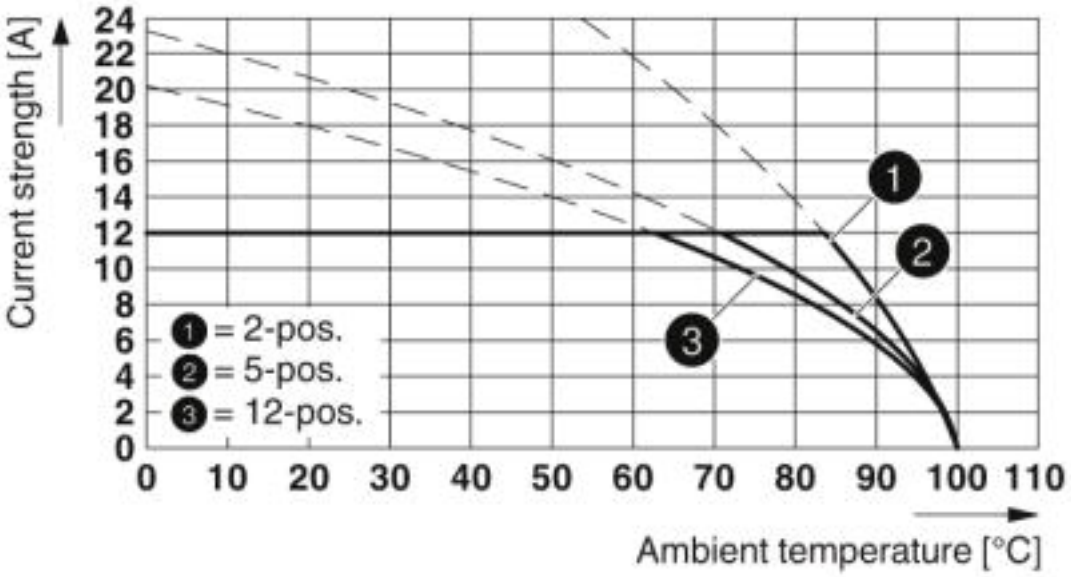
Diagram



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

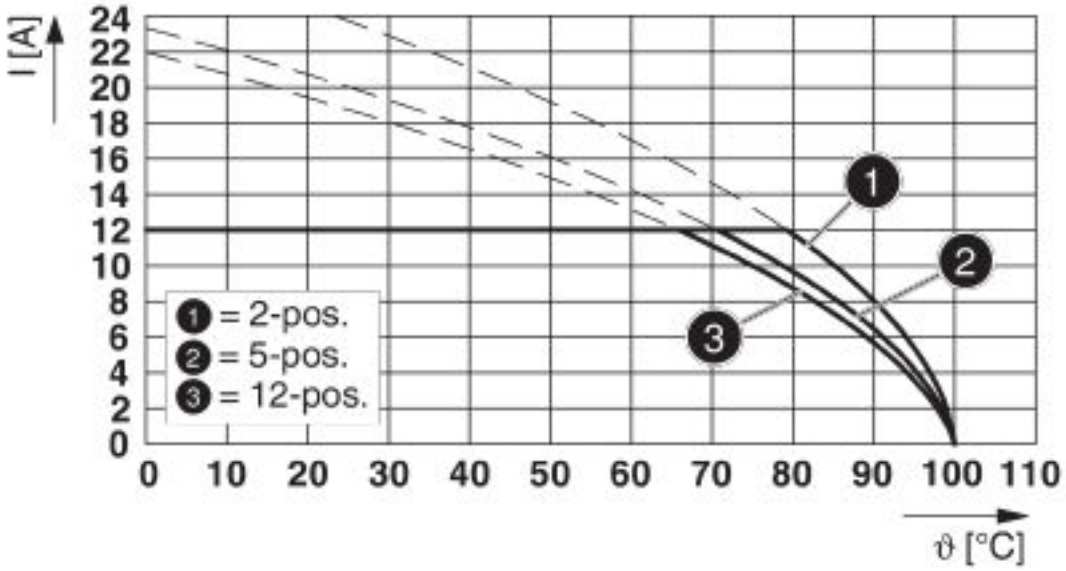
Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Diagram



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

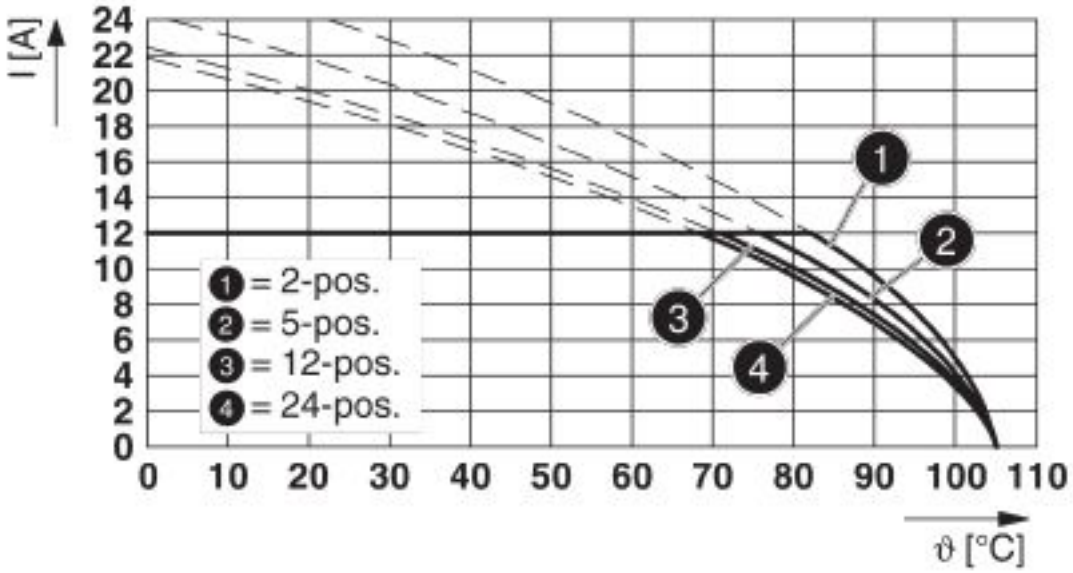
Diagram



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

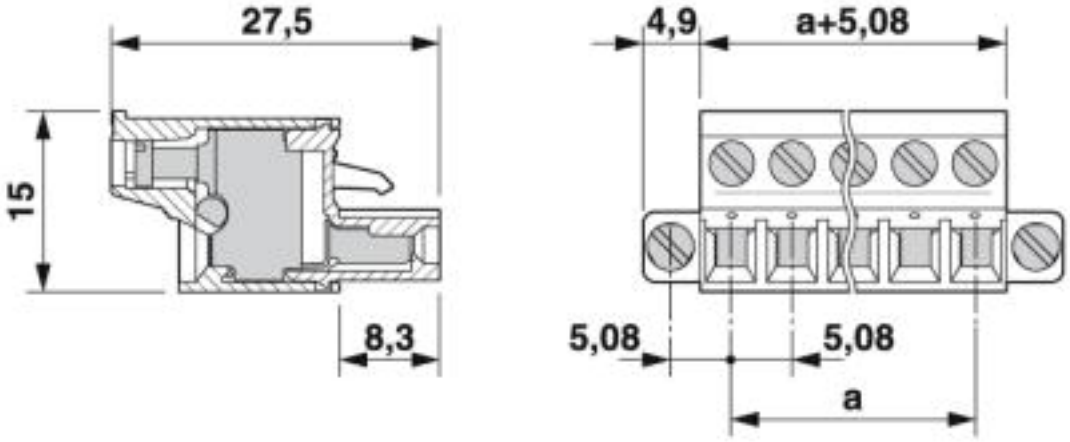
Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Diagram



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

Dimensional drawing



Classifications

eCl@ss

eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700

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Classifications

eCl@ss

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
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

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

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001EY

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	13631

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	15 A	10 A
mm²/AWG/kcmil	22-12	22-12

IECEE CB Scheme		http://www.iecee.org/	DE1-60988-B1B2

Nominal voltage UN	250 V
Nominal current IN	12 A
mm²/AWG/kcmil	0.34-2.5

EAC		B.01742

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931011

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	15 A	10 A
mm²/AWG/kcmil	30-12	30-12

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/ VDE-geprueftеProdukte/Seiten/Online-Suche.aspx	40050694

Nominal voltage UN	250 V
Nominal current IN	12 A
mm²/AWG/kcmil	0.34-2.5

Accessories

Accessories

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Accessories

Assembly tool

Accessories - FRONT-MSTB-EW - 1763058

Removal aid, for FRONT-MSTB, facilitates extraction of several plugs mounted behind each other

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Coding element

Coding profile - CP-MSTB - 1734634

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

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Insertion bridge

Insertion bridge - EBL 2- 5 - 2303145

Insertion bridge, pitch: 5.2 mm, number of positions: 2, color: gray

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Insertion bridge - EBL 3- 5 - 2303158

Insertion bridge, pitch: 5.2 mm, number of positions: 3, color: gray

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Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Accessories

Insertion bridge - EBL 4- 5 - 2303161

Insertion bridge, pitch: 5.2 mm, number of positions: 4, color: gray

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Insertion bridge - EBL 5- 5 - 2303174

Insertion bridge, pitch: 5.2 mm, number of positions: 5, color: gray

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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

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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

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Screwdriver tools

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Accessories

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

Terminal marking

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883

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 2.8 mm, Number of individual labels: 3600

Additional products

Feed-through header - MSTB 2,5/ 8-GF-5,08 - 1776566

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

Printed-circuit board connector - MSTBV 2,5/ 8-GF-5,08 - 1777138

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm

Feed-through header - MDSTB 2,5/ 8-GF-5,08 - 1842429

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 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!

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Accessories

Feed-through header - MDSTBV 2,5/ 8-GF-5,08 - 1845691

PCB headers, nominal current: 10 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 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 - DFK-MSTBA 2,5/ 8-GF-5,08 - 1899045

Feed-through header, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.2 mm

Printed-circuit board connector - DFK-MSTBVA 2,5/ 8-GF-5,08 - 1899346

Feed-through header, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.9 mm

Feed-through header - MSTB 2,5/ 8-GF-5,08 THT - 1927629

PCB headers, number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, pin layout: Linear pinning, solder pin [P]: 3.5 mm, User information and design recommendations for through hole reflow technology can be found under “Downloads”

Feed-through header - MSTBV 2,5/ 8-GF-5,08 THT - 1940952

PCB headers, number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, pin layout: Linear pinning, solder pin [P]: 3.9 mm, User information and design recommendations for through hole reflow technology can be found under “Downloads”

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Accessories

Printed-circuit board connector - CC 2,5/ 8-GF-5,08 P26THR - 1954757

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, User information and design recommendations for through hole reflow technology can be found under “Downloads”

Printed-circuit board connector - CC 2,5/ 8-GF-5,08 P26THRR88 - 1954867

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, User information and design recommendations for through hole reflow technology can be found under “Downloads”

Printed-circuit board connector - CCV 2,5/ 8-GF-5,08 P26THR - 1955691

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, User information and design recommendations for through hole reflow technology can be found under “Downloads”

Printed-circuit board connector - CCV 2,5/ 8-GF-5,08 P26THRR88 - 1955808

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, User information and design recommendations for through hole reflow technology can be found under “Downloads”

Printed-circuit board connector - CCV 2,5/ 8-GFL-5,08P26THRR88 - 1959752

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Two-in-one – Pin strips must always be made up of a left (L) and a right (R) segment. Please allow for the corresponding counterpart from the accessories to complete the THR pin strip.

Printed-circuit board connector - FRONT-MSTB 2,5/ 8-STF-5,08 - 1777798

Accessories

Printed-circuit board connector - CCV 2,5/ 8-GFR-5,08P26THRR88 - 1959891

PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5.08 mm, color: black, contact surface: Tin, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Two-in-one – Pin strips must always be made up of a left (L) and a right (R) segment. Please allow for the corresponding counterpart from the accessories to complete the THR pin strip.

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