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Feed-through 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: Male connector, number of potentials: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: DFK-MSTB 2,5/..-STF-LR, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: Snap-in locking, mounting: Lock & release threaded flange, type of packaging: packed in cardboard

The figure shows a 10-position version of the product

#### Your advantages

- ☐ Cable connection on the inside of the device enables flexible positioning of the panel feed-through
- ☑ Can be combined with the MSTB 2,5 range



## **Key Commercial Data**

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	4 055626 925363
GTIN	4055626925363
Weight per Piece (excluding packing)	19.300 g
Custom tariff number	85366990
Country of origin	China
Sales Key	AAAFJA

#### Technical data

#### Item properties

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Brief article description	Feed-through plug
Connector system	CLASSIC COMBICON
Type of contact	Male connector
Range of articles	DFK-MSTB 2,5/STF-LR
Pitch	5.08 mm
Number of positions	10
Locking	Lock & release threaded flange

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## Technical data

## Item properties

Number of rows	1
Number of connections	10
Number of potentials	10
Pin connector pattern alignment	Standard

#### Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage (III/3)	250 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

## Connection capacity

Connection method	Screw connection with tension sleeve
Conductor cross section solid	0.2 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 mm²
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
Torque	0.5 Nm 0.6 Nm

## Flange specifications

Type of locking	Snap-in locking
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#### 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 (5 - 7 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni)



## Technical data

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

## Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [1]	19.3 mm
Width [w]	75.77 mm
Height [ h ]	16.5 mm
Pitch	5.08 mm
Height (without solder pin)	16.5 mm

## 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
Relative humidity (storage/transport)	30 % 70 %
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
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / flexible / > 50 N



## Technical data

## Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	26 N

## 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)	3.2 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

## Current carrying capacity / derating curves

Caption	Type: FKC 2,5/STF-5,08 with DFK-MSTB 2,5/STF-5,08-LR
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## Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 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>	1.5 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	1.6 mΩ
Impulse withstand voltage at sea level	4.8 kV

## Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	16
Upper limiting temperature requirements <100 °C	Test passed



## Technical data

## Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm³ SO₂ on 300 dm³/40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV

## Environmental and durability tests (E)

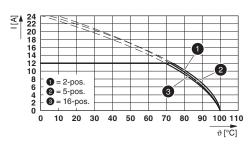
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

## **Environmental Product Compliance**

	REACh SVHC	Lead 7439-92-1
- 1	1 1011 0 1110	

## **Drawings**

## Diagram



Type: FKC 2,5/...-STF-5,08 with DFK-MSTB 2,5/...-STF-5,08-LR

## Classifications

## eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 11.0	27460202
eCl@ss 9.0	27440309

#### **ETIM**

ETIM 7.0	EC002638

#### **UNSPSC**

UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409



B.01687

## Feed-through plug - DFK-MSTB 2,5/10-STF-5,08-LR - 1096144

## Approvals

Approvals

Approvals

EAC / cULus Recognized

Ex Approvals

#### Approval details

EAC EHL

cULus Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-20200326	
	В	D
Nominal voltage UN	300 V	300 V
Nominal current IN	12 A	10 A
mm²/AWG/kcmil	24-12	24-12

#### Accessories

Accessories

Bridge

Insertion bridge - EBP 2- 5 - 1733169



Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

#### Coding element

Coding section - CR-MSTB - 1734401



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



## Accessories

Filler plug

Accessories - MSTB-BL - 1755477



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

#### 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

#### 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

#### Screw contact

Screw set - SCREW M3X7 H1L - 1209788





Screws

Screw set - SCREW M3X10 H1L - 1209790





Screws



#### Accessories

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

#### 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

Printed-circuit board connector - FKC 2,5/10-ST-5,08 - 1873139



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

#### Printed-circuit board connector - FKC 2,5/10-STF-5,08 - 1873281



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: FKC 2,5/..-STF, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### Printed-circuit board connector - FKC 2,5/10-ST-5,08-LR - 1792591



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: FKC 2,5/..-ST-LR, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: Snap-in locking, mounting: Lock & Release ejector lever, type of packaging: packed in cardboard



#### Accessories

Printed-circuit board connector - MSTB 2,5/10-ST-5,08 - 1757093



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

#### Printed-circuit board connector - MSTB 2,5/10-STF-5,08 - 1778069



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### Printed-circuit board connector - MSTB 2,5/10-ST-5,08-LR - 1808967



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: MSTB 2,5/..-ST-LR, 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: CLASSIC COMBICON, Locking: Snap-in locking, mounting: Lock & Release ejector lever, type of packaging: packed in cardboard

#### Printed-circuit board connector - MSTB 2,5/10-STZ-5,08 - 1764303



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: MSTB 2,5/..-STZ, 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

#### PCB header - IC 2,5/10-G-5,08 - 1786488



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: Female connector, number of potentials: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: IC 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without, type of packaging: packed in cardboard



#### Accessories

PCB header - ICV 2.5/10-G-5.08 - 1786022



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: Female connector, number of potentials: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: ICV 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, plug-in system: CLASSIC COMBICON, Pin connector pattern alignment: Standard, Locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBR 2,5/10-ST-5,08 - 1792320



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBW 2,5/10-ST-5,08 - 1792838



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector - SMSTB 2,5/10-ST-5,08 - 1826364



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector - FKCVW 2,5/10-ST-5,08 - 1873731



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: FKCVW 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard



#### Accessories

Printed-circuit board connector - FKCVR 2.5/10-ST-5.08 - 1874031



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, 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: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBW 2,5/10-STF-5,08 - 1834987



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: MVSTBW 2,5/..-STF, 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: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Printed-circuit board connector - MVSTBR 2,5/10-STF-5,08 - 1835177



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: MVSTBR 2,5/..-STF, 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: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Printed-circuit board connector - SMSTB 2,5/10-STF-5,08 - 1971141



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: SMSTB 2,5/..-STF, 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: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Printed-circuit board connector - FKCVW 2,5/10-STF-5,08 - 1873883



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: FKCVW 2,5/..-STF, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: -90 °, Locking clip: - Locking clip, plugin system: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



#### Accessories

Printed-circuit board connector - FKCVR 2,5/10-STF-5,08 - 1874183



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: 10, Number of rows: 1, Number of positions per row: 10, number of connections: 10, product range: FKCVR 2,5/..-STF, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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