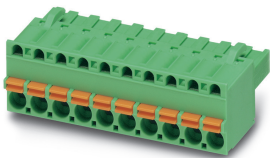


Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

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The figure shows a 10-position version of the product


PCB connector, nominal cross section: 2.5 mm², color: black, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: FKCT 2,5/..-ST, pitch: 5 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

Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Intuitive use through colour coded actuation lever
- ✓ Quick and convenient testing using integrated test option
- ✓ Optimized for tight installation situations: operation and conductor connection from one direction
- ✓ Can be combined with the MSTB 2,5 range



Key Commercial Data

Packing unit	100 pc
Minimum order quantity	100 pc
GTIN	 4 017918 910679
GTIN	4017918910679

Technical data

Item properties

Brief article description	PCB connector
Connector system	CLASSIC COMBICON
Type of contact	Female connector
Range of articles	FKCT 2,5/..-ST
Pitch	5 mm
Number of positions	4
Locking	no
Number of rows	1
Number of connections	4

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Technical data

Item properties

Number of potentials	4
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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

Connection capacity

Connection method	Push-in spring connection
pluggable	Yes
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.3 mm
Stripping 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

Housing color	black (9005)
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

Material data – actuating element

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Technical data

Material data – actuating element

Color of the actuating lever	orange (2003)
Insulating material	PBT
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	25.6 mm
Width [w]	20.1 mm
Height [h]	15 mm
Pitch	5 mm
Height (without solder pin)	15 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	100
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

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
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	0.14 mm ² / solid / > 10 N
	0.14 mm ² / flexible / > 10 N
	2.5 mm ² / solid / > 50 N

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Technical data

Pull-out test

	2.5 mm ² / flexible / > 50 N
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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.	8 N
Withdraw strength per pos. approx.	6 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	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
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)	1.6 mm
Minimum creepage distance value (II/2)	3.2 mm

Current carrying capacity / derating curves

Caption	Type: FKCT 2,5/...-ST with MSTB 2,5/...-G
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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 ₁	1.1 mΩ
Insertion/withdrawal cycles	25
Contact resistance R ₂	1.2 mΩ
Impulse withstand voltage at sea level	4.8 kV

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
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Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Technical data

Thermal tests (C)

Number of positions	20
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)

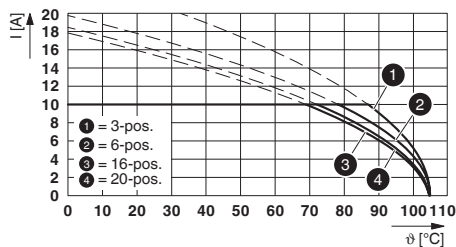
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

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

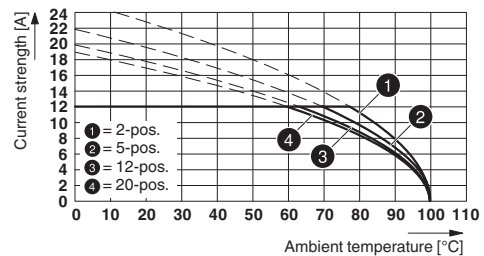
Drawings

Diagram



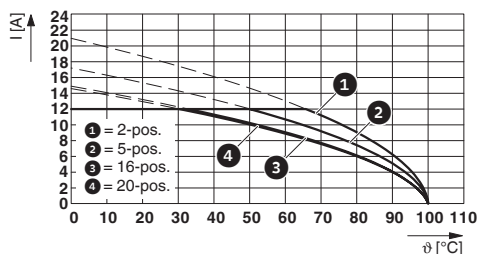
Type: FKCT 2,5/...-ST with MDSTBV 2,5/...-G1

Diagram



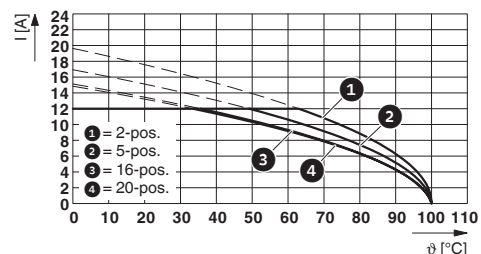
Type: FKCT 2,5/...-ST with MSTBA 2,5/...-G

Diagram



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

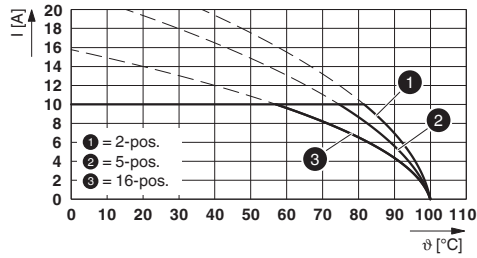
Diagram



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

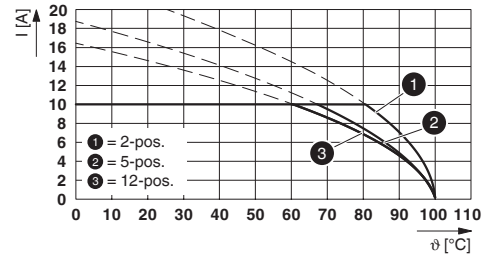
Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Diagram



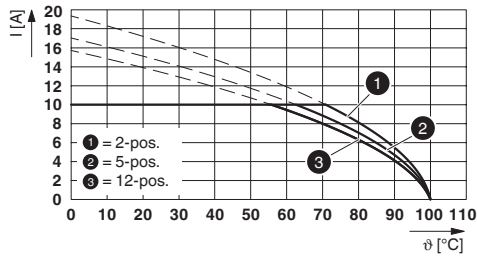
Type: FKCT 2,5/...-ST with MDSTB 2,5/...-G

Diagram



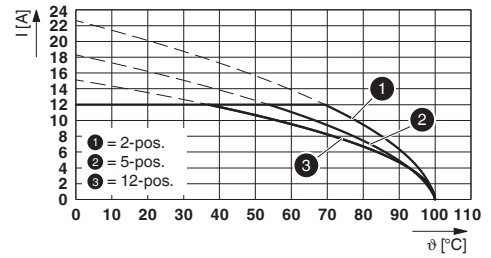
Type: FKCT 2,5/...-ST with MDSTBA 2,5/...-G

Diagram



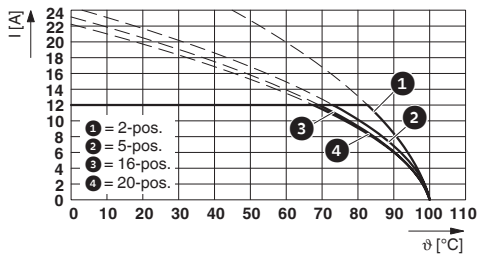
Type: FKCT 2,5/...-ST with MDSTBV 2,5/...-G

Diagram



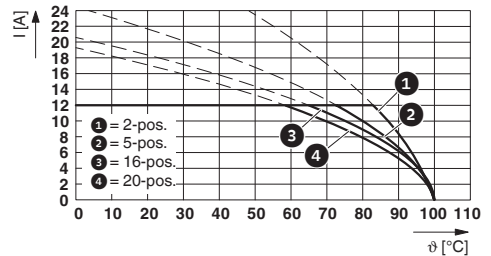
Type: FKCT 2,5/...-ST with MDSTBW 2,5/...-G

Diagram



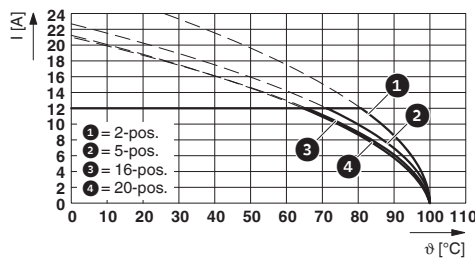
Type: FKCT 2,5/...-ST with SMSTB 2,5/...-G

Diagram



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

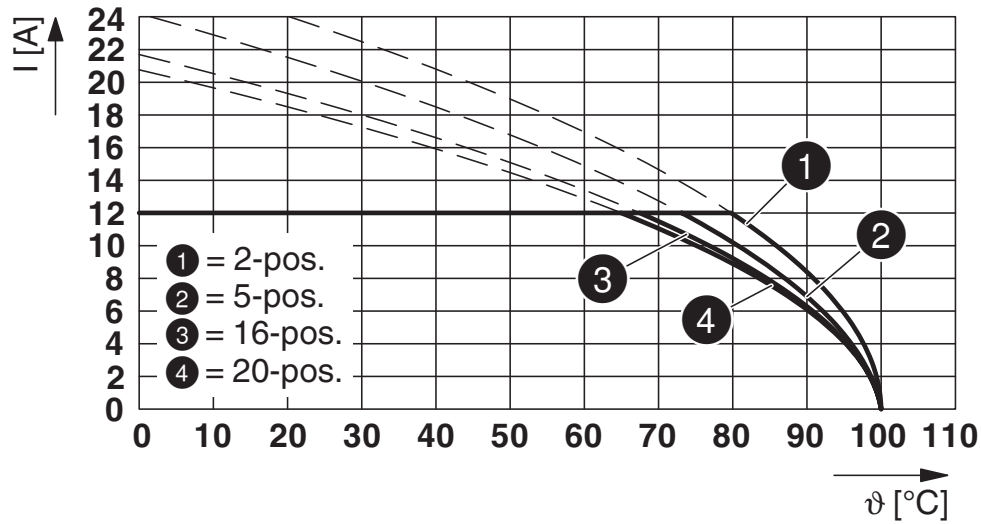
Diagram



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

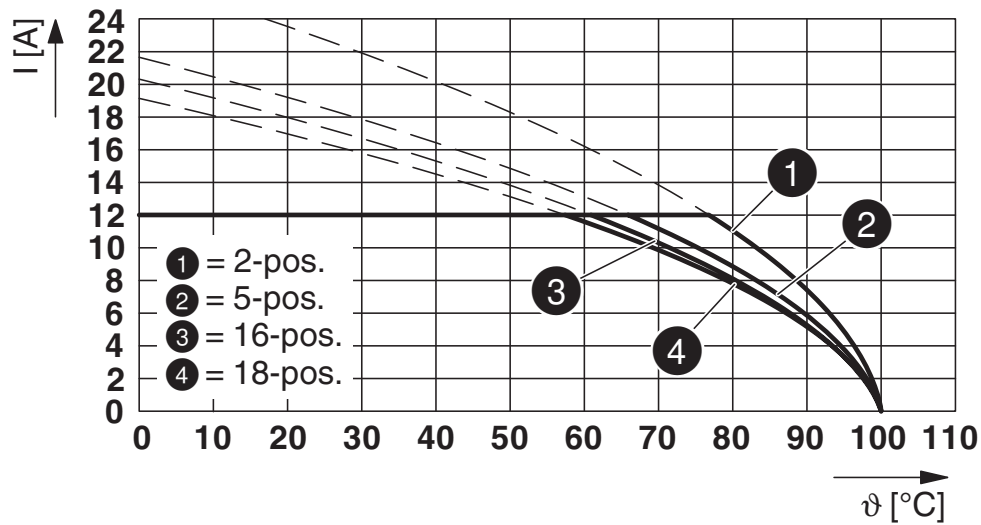
Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Diagram



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

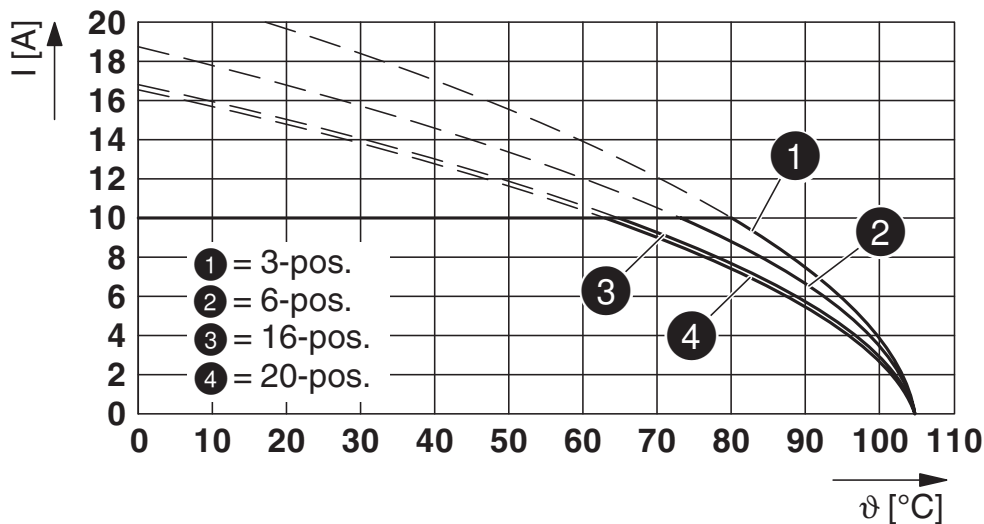
Diagram



Type: FKCT 2,5/...-ST with FKIC 2,5/...-ST

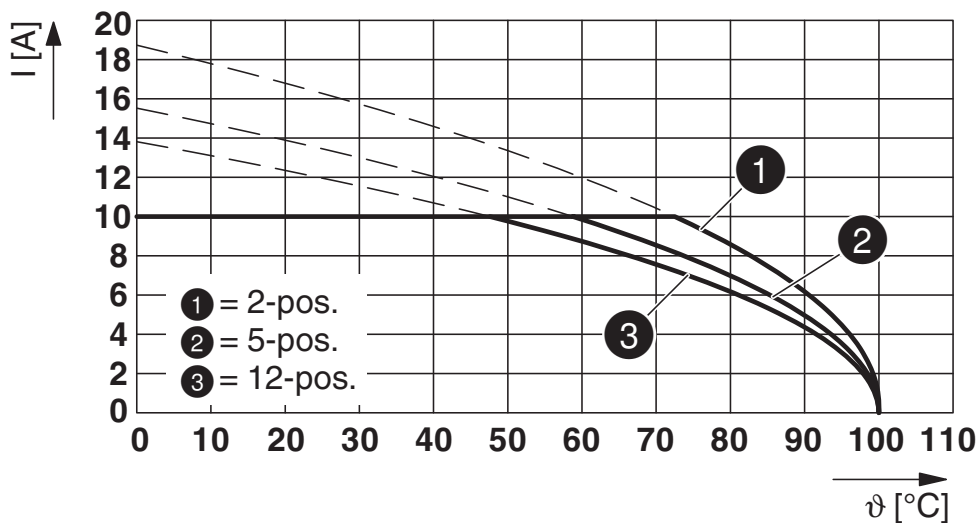
Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Diagram



Type: FKCT 2,5/...-ST with MDSTB 2,5/...-G1

Diagram



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

Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 11.0	27460202
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Classifications

eCl@ss

eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	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

VDE Zeichengenehmigung / CSA / IECCEB Scheme / EAC / cULus Recognized

Ex Approvals

Approval details

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40004701
Nominal voltage UN	250 V		
Nominal current IN	12 A		
mm ² /AWG/kcmil	0.2-2.5		

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	12 A	10 A	
mm ² /AWG/kcmil	24-12	24-12	

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

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931012
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm ² /AWG/kcmil	26-12	26-12	

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



Insulating sleeve

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

Accessories

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Labeled terminal marker

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183

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 mm, lettering field size: 5 x 3.8 mm



Screwdriver tools

Printed-circuit board connector - FKCT 2,5/ 4-ST BK - 1965830

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

Strain relief

Strain relief - STZ 4-FKC-5,08 - 1876877



Strain relief for snapping into the latching chambers of the plugs, 4-pos.

Strain relief - STZ 8-FKC-5,08 - 1876880



Strain relief for snapping into the latching chambers of the plug components, 8-pos.

Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

Reducing plug - RPS - 0201647



Reducing plug, color: gray

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