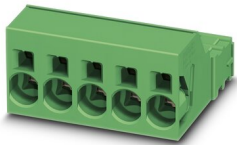


PCB connector - ISPC 16/ 2-ST-10,16

1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

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PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: ISPC 16/..-ST, pitch: 10.16 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections

PCB connector - ISPC 16/ 2-ST-10,16



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Commercial Data

Item number	1748545
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	E1 - Leiterplattenanschl.
Product Key	AAEFBB
Catalog Page	Page 564 (C-1-2013)
GTIN	4046356310604
Weight per Piece (including packing)	17,462 g
Weight per Piece (excluding packing)	17,462 g
Customs tariff number	85366990
Country of origin	IN

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Technical Data

Product properties

Type	Standard
Product line	COMBICON Connectors XL
Product type	PCB plug
Number of positions	2
Pitch	10.16 mm
Number of connections	2
Number of rows	1
Mounting flange	without
Number of potentials	2

Electrical properties

Nominal current I_N	76 A
Nominal voltage U_N	1000 V
Pollution degree	3
Contact resistance	0.35 mΩ
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON PC 16
Nominal cross section	16 mm ²
Type of contact	Male connector

Interlock

Locking type	without
Mounting flange	without

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section solid	0.75 mm ² ... 16 mm ²
Conductor cross section flexible	0.75 mm ² ... 16 mm ²
Conductor cross section AWG	18 ... 4
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm ² ... 16 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm ² ... 10 mm ²
2 conductors with same cross section, solid	0.75 mm ² ... 6 mm ²

PCB connector - ISPC 16/ 2-ST-10,16

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2 conductors with same cross section, flexible	0.75 mm ² ... 6 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.75 mm ² ... 4 mm ²
Cylindrical gauge a x b / diameter	- / 5.4 mm
Stripping length	18 mm

Material specifications

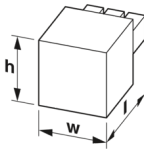
Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Electroplated silver
Metal surface terminal point (top layer)	Silver (4 - 8 µm Ag)
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)

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

Dimensional drawing	
Width	23.36 mm
Height	25.1 mm
Installed height	25.1 mm
Length	45.1 mm
Pitch	10.16 mm

Notes

Notes on operation	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.
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Mechanical tests

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Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Repeated connection and disconnection

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.75 mm ² / solid / > 30 N
	0.75 mm ² / flexible / > 30 N
	16 mm ² / solid / > 100 N
	16 mm ² / flexible / > 100 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	10 N
Withdraw strength per pos. approx.	8 N

Contact holder in insert

Specification	IEC 60512-15-1:2008-05
Contact holder in insert Requirements >20 N	Test passed

Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min

PCB connector - ISPC 16/ 2-ST-10,16



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Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	9.8 kV
Contact resistance R ₁	0.35 mΩ
Contact resistance R ₂	0.34 mΩ
Insertion/withdrawal cycles	50
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	4.26 kV

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	9

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Temperature cycles

Specification	IEC 60999-1:1999-11
Result	Test passed

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V

PCB connector - ISPC 16/ 2-ST-10,16



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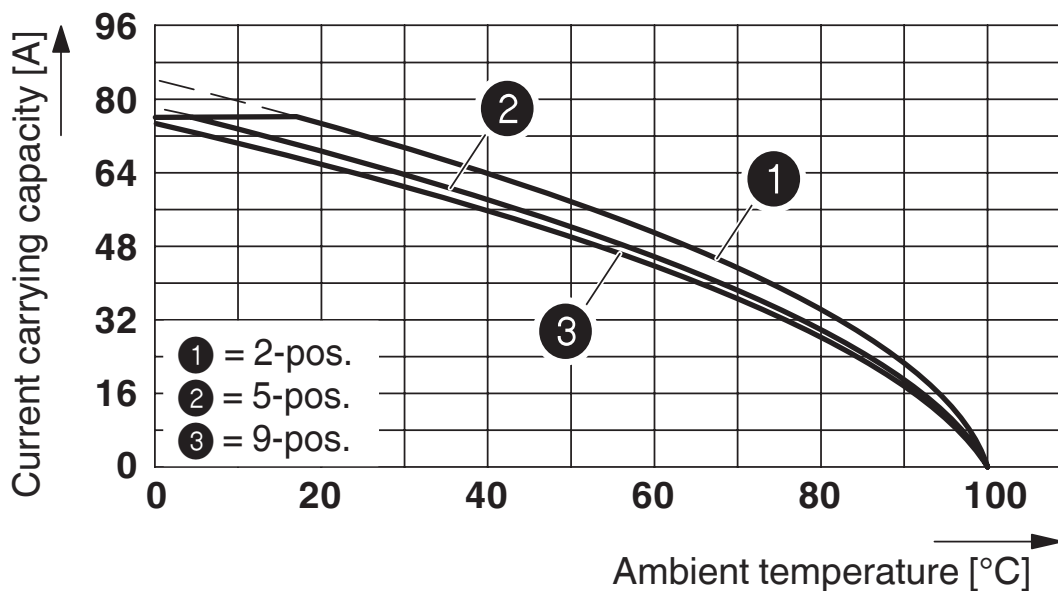
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

Packaging specifications

Type of packaging	packed in cardboard
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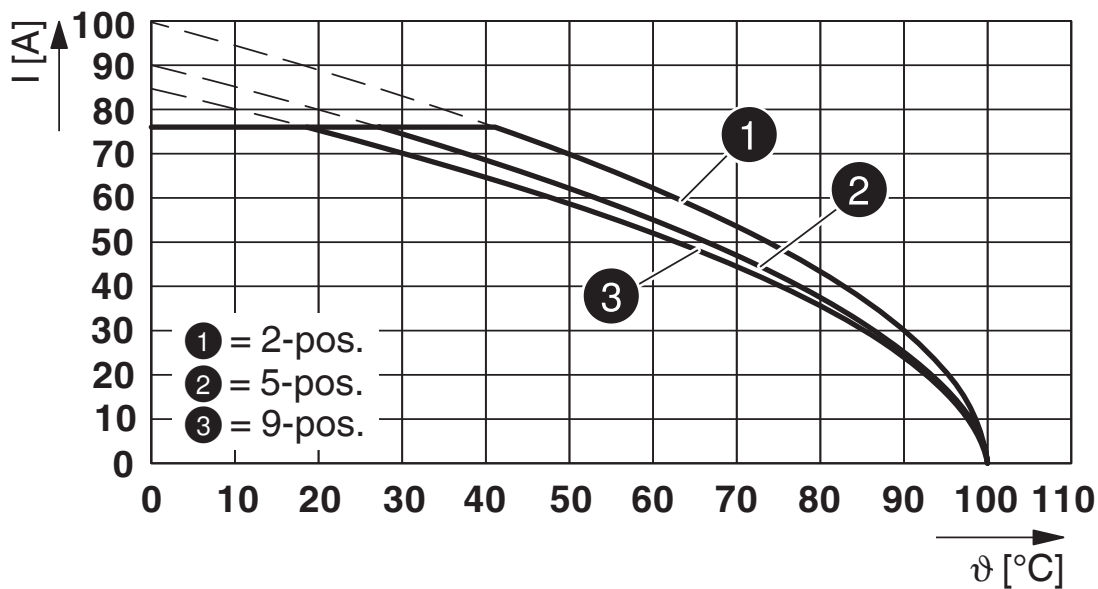
Drawings

Diagram



Derating curve for: ISPC 16/...-ST-10,16 with IPCV 16/...-G-10,16

Diagram



Type: ISPC 16/...-ST-10,16 with DFK-IPC 16/...-ST-10,16

PCB connector - ISPC 16/ 2-ST-10,16



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Approvals



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20040202

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	600 V	66 A	20 - 4	-
Use group C				
	600 V	66 A	20 - 4	-

PCB connector - ISPC 16/ 2-ST-10,16



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Classifications

ECLASS

ECLASS-9.0	27440309
ECLASS-10.0.1	27440309
ECLASS-11.0	27460202

ETIM

ETIM 8.0	EC002638
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UNSPSC

UNSPSC 21.0	
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PCB connector - ISPC 16/ 2-ST-10,16



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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e No hazardous substances above threshold values
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PCB connector - ISPC 16/ 2-ST-10,16

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Accessories

PCB connector

PCB connector - PC 16/ 2-ST-10,16 - 1967375

<https://www.phoenixcontact.com/de/produkte/1967375>



PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PC 16/..-ST, pitch: 10.16 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: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector

PCB connector - TPC 16/ 2-ST-10,16 - 1715170

<https://www.phoenixcontact.com/de/produkte/1715170>



PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 4, product range: TPC 16/..-ST, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 50 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector - ISPC 16/ 2-ST-10,16

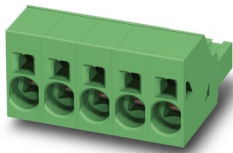
1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

PCB connector

PCB connector - SPC 16/ 2-ST-10,16 - 1711268

<https://www.phoenixcontact.com/de/produkte/1711268>



PCB connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: SPC 16/...-ST, pitch: 10.16 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

Screwdriver

Screwdriver - SZF 2-0,8X4,0 - 1204520

<https://www.phoenixcontact.com/de/produkte/1204520>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.8 x 4.0 x 100 mm, 2-component grip, with non-slip grip

PCB connector - ISPC 16/ 2-ST-10,16

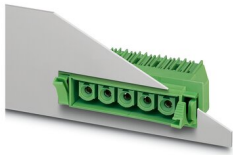
1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

Feed-through header

Feed-through header - DFK-IPC 16/ 2-G-10,16 - 1702413

<https://www.phoenixcontact.com/de/produkte/1702413>

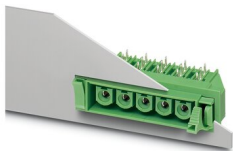


Feed-through header, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-IPC 16/..-G, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4.1 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Feed-through header

Feed-through header - DFK-IPC 16/ 2-GU-10,16 - 1702497

<https://www.phoenixcontact.com/de/produkte/1702497>



Feed-through header, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-IPC 16/..-GU, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4.1 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: reversed, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector - ISPC 16/ 2-ST-10,16

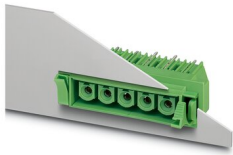
1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

Feed-through header

Feed-through header - DFK-IPCV 16/ 2-G-10,16 - 1703056

<https://www.phoenixcontact.com/de/produkte/1703056>

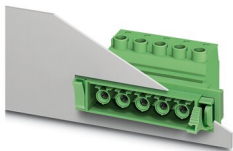


Feed-through header, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-IPCV 16/..-G, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4.1 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Feed-through plug

Feed-through plug - DFK-IPC 16/ 2-ST-10,16 - 1703690

<https://www.phoenixcontact.com/de/produkte/1703690>



Feed-through connector, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-IPC 16/..-ST, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector - ISPC 16/ 2-ST-10,16

1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

PCB header

PCB header - IPC 16/ 2-G-10,16 - 1969535

<https://www.phoenixcontact.com/de/produkte/1969535>

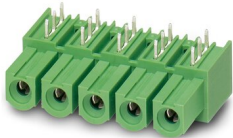


PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPC 16/..-G, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

PCB header

PCB header - IPC 16/ 2-GU-10,16 - 1969852

<https://www.phoenixcontact.com/de/produkte/1969852>



PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPC 16/..-GU, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: reversed, locking: without, mounting: without, type of packaging: packed in cardboard, Plug direction parallel to the PCB: connector part rotated by 180° with respect to the plug axis.

PCB connector - ISPC 16/ 2-ST-10,16

1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

PCB header

PCB header - IPCV 16/ 2-G-10,16 - 1969690

<https://www.phoenixcontact.com/de/produkte/1969690>



PCB headers, nominal cross section: 16 mm², color: green, nominal current: 76 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPCV 16/..-G, pitch: 10.16 mm, pin layout: Linear pinning, solder pin [P]: 4 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 16, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Printed-circuit board connector

Printed-circuit board connector - PCU 6/ 2-STD-10,16 - 1922637

<https://www.phoenixcontact.com/de/produkte/1922637>



Direct plug-in block, nominal cross section: 6 mm², color: green, nominal current: 41 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: PCU 6/..-STD, pitch: 10.16 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, plug-in system: COMBICON PC 16, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector - ISPC 16/ 2-ST-10,16

1748545

<https://www.phoenixcontact.com/de/produkte/1748545>

Marker strip

Marker strip - SK 5,0 WH:REEL - 0805221

<https://www.phoenixcontact.com/de/produkte/0805221>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: continuous x 5 mm, Number of individual labels: 90000

Coding profile

Coding profile - CP-PC RD - 1701967

<https://www.phoenixcontact.com/de/produkte/1701967>

Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red



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