

MCC 0,5/ 6-ST-2,54 - PCB connector



1012270

<https://www.phoenixcontact.com/de/produkte/1012270>

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PCB connector, nominal cross section: 0.75 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact connection type: Socket, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: MCC 0,5/..-ST, pitch: 2.54 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON FMC 0,5, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- Cost-effective connection of crimped conductors in large quantities
- Gold-plated contacts ensure transfer quality remains stable over the long term
- Small component size for applications where space is at a premium
- Tools for manual and automatic crimping available as an option

Commercial data

Item number	1012270
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	E1 - Leiterplattenanschl.
Product key	AAACAA
GTIN	4055626489322
Weight per piece (including packing)	0,814 g
Weight per piece (excluding packing)	0,814 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Product properties

Product line	COMBICON Connectors XS
Product type	PCB connector
Product family	MCC 0,5/..-ST
Number of positions	6
Pitch	2.54 mm
Number of connections	6
Number of rows	1
Number of potentials	6

Electrical properties

Nominal current I_N	6 A
Nominal voltage U_N	160 V
Degree of pollution	3
Contact resistance	2.1 m Ω
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON FMC 0,5
Nominal cross section	0.75 mm ²
Contact connection type	Socket

Interlock

Locking type	without
Mounting flange	without

Conductor connection

Connection method	Crimp connection
Conductor/PCB connection direction	0 °
Conductor cross section flexible	0.14 mm ² ... 0.75 mm ² (Maximum external diameter of the insulation 1.9 mm)
Conductor cross section AWG	26 ... 18 (Maximum external diameter of the insulation 1.9 mm)
Stripping length	4.1 mm ... 4.5 mm

Material specifications

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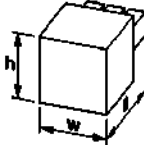
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Material data - housing

Color (Housing)	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

Dimensions

Dimensional drawing	
Pitch	2.54 mm
Width [w]	15.74 mm
Height [h]	3.95 mm
Length [l]	16 mm

Mounting

Connection method	Crimp connection
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Notes

Note on the contact	The information on the basic material and the finish properties of the crimp contacts is to be found in the E-Shop in the technical data for the respective crimp contact.
Note on application	All laboratory tests are performed in combination with the crimp contacts specified as accessories.
Note on application	The current depends on the crimp contact and conductor cross section used.
Note on application	The corresponding crimp contacts are to be found in the "Accessories" tab.
Note on application	The crimp contacts may only be processed with approved crimping tools.

Mechanical tests

Tensile strength of crimp connections

Result	Test passed
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm ² / flexible / > 18 N

Insertion and withdrawal forces

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Result	Test passed
No. of cycles	100
Insertion strength per pos. approx.	2 N
Withdraw strength per pos. approx.	3 N

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 - 500 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Sweep speed	5g (60.1 Hz ... 500 Hz)
Test duration per axis	2 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R_1	2.1 m Ω
Contact resistance R_2	2.1 m Ω
Insertion/withdrawal cycles	100
Insulation resistance, neighboring positions	> 5 M Ω

Climatic test

Specification	DIN 50018:2013-05
Corrosive stress	1.0 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	1.39 kV

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C

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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	16

Insulation resistance

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

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)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	0.8 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.6 mm

Packaging specifications

Type of packaging	packed in cardboard
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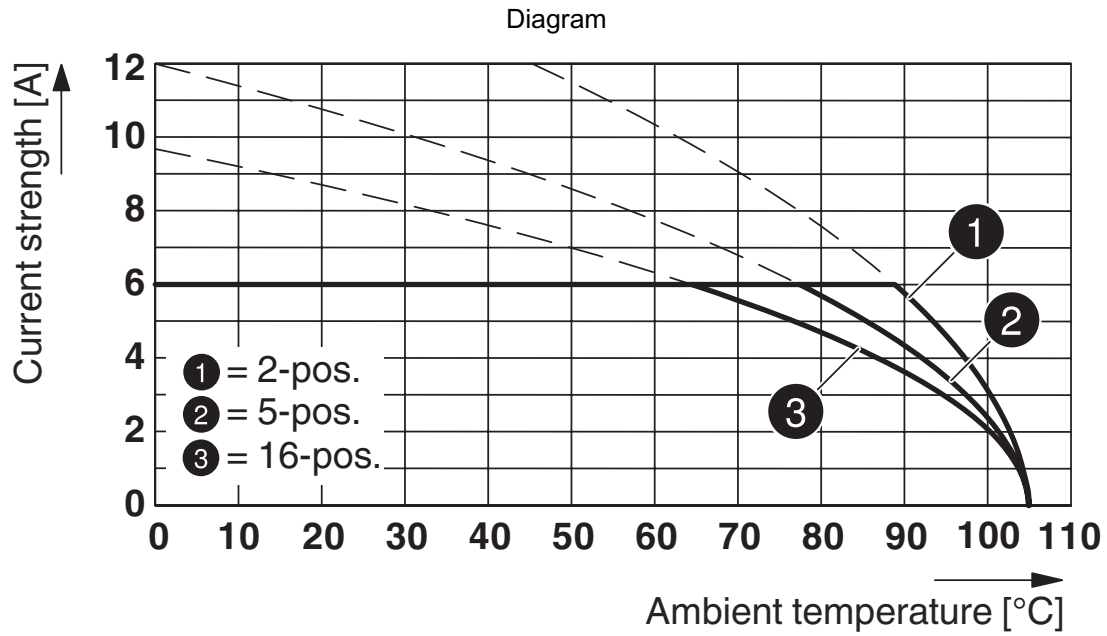
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Drawings



Type: MCC 0,5/...-ST-2,54 with MC 0,5/...-G-2,54 P20 THR R...

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/de/produkte/1012270>



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20110128

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	150 V	6 A	26 - 18	-
Use group D	150 V	6 A	26 - 18	-



VDE Gutachten mit Fertigungsüberwachung

Approval ID: 40042258

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	160 V	6 A	-	0.14 - 0.75

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Classifications

ECLASS

ECLASS-11.0	27460202
ECLASS-12.0	27460202
ECLASS-13.0	27460202

ETIM

ETIM 8.0	EC002638
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UNSPSC

UNSPSC 21.0	39121400
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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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Accessories

MCC 0,5-MP AU 0,14-0,5 - Crimp contact

1013425

<https://www.phoenixcontact.com/de/produkte/1013425>



Crimp contact, nominal current: 6 A, contact connection type: Socket, connection method: Crimp connection, contact surface: Gold, type of packaging: Bulk goods

MCC 0,5-MP AU 0,14-0,5 R - Crimp contact

1013420

<https://www.phoenixcontact.com/de/produkte/1013420>



Crimp contact, nominal current: 6 A, contact connection type: Socket, connection method: Crimp connection, contact surface: Gold, type of packaging: Belt

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MCC 0,5-MP AU 0,34-0,75 - Crimp contact

1013419

<https://www.phoenixcontact.com/de/produkte/1013419>



Crimp contact, nominal current: 6 A, contact connection type: Socket, connection method: Crimp connection, contact surface: Gold, type of packaging: Bulk goods

MCC 0,5-MP AU 0,34-0,75 R - Crimp contact

1013418

<https://www.phoenixcontact.com/de/produkte/1013418>



Crimp contact, nominal current: 6 A, contact connection type: Socket, connection method: Crimp connection, contact surface: Gold, type of packaging: Belt

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CRIMPFOX-P CC 0.75 L - Crimping pliers

1064998

<https://www.phoenixcontact.com/de/produkte/1064998>



Crimping pliers, for COMBICON crimp connectors with cross section: 0.14 ... 0.75 mm². Unlockable pressure lock, precise parallel crimping, front entry, B crimp, incl. 2 positioning aids

MC 0,5/ 6-G-2,54 P20 THR R44 - PCB header

1821287

<https://www.phoenixcontact.com/de/produkte/1821287>



PCB headers, nominal cross section: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: MC 0,5/..-G-THR, pitch: 2.54 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON FMC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: 44 mm wide tape, Sample values available under SAMPLE MC...

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MCV 0,5/ 6-G-2,54 P20 THR R44 - PCB header

1821436

<https://www.phoenixcontact.com/de/produkte/1821436>



PCB headers, nominal cross section: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: MCV 0,5/..-G-THR, pitch: 2.54 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, number of solder pins per potential: 1, plug-in system: COMBICON FMC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: 44 mm wide tape, Sample values available under SAMPLE MC...

MC 0,5/ 6-G-2,54 SMD R44 - PCB header

1821737

<https://www.phoenixcontact.com/de/produkte/1821737>



PCB headers, nominal cross section: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: MC 0,5/..-G-SMD, pitch: 2.54 mm, mounting: SMD soldering, pin layout: Linear pinning, number of solder pins per potential: 1, plug-in system: COMBICON FMC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: 44 mm wide tape, Sample values available under SAMPLE MC...

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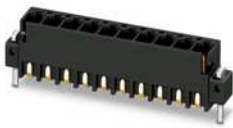
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MCV 0,5/ 6-G-2,54 SMD R44 - PCB header

1821588

<https://www.phoenixcontact.com/de/produkte/1821588>



PCB headers, nominal cross section: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: MCV 0,5/..-G-SMD, pitch: 2.54 mm, mounting: SMD soldering, pin layout: Linear pinning, number of solder pins per potential: 1, plug-in system: COMBICON FMC 0,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: 44 mm wide tape, Sample values available under SAMPLE MC...

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