

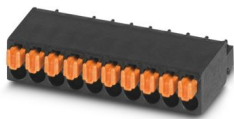
FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB connector, nominal cross section: 0.5 mm², color: black, nominal current: 6 A, rated voltage (III/2): 160 V, contact surface: Gold, contact connection type: Socket, number of potentials: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: FMC 0,5/...-ST, pitch: 2.54 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON FMC 0,5, locking: without, mounting: without, type of packaging: packed in cardboard, Fixed coding of last position; can be combined with MC(V) 0,5/...-G-2,54...C2 headers

Your advantages

- Gold-plated contacts ensure transfer quality remains stable over the long term
- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive operation due to color-coded actuating push button
- Optimized for tight installation situations: operation and conductor connection from one direction

Commercial data

Item number	1706241
Packing unit	200 pc
Minimum order quantity	200 pc
Note	Made to order (non-returnable)
Sales key	AA01
Product key	AAFAA
Catalog page	Page 175 (C-1-2013)
GTIN	4046356841276
Weight per piece (including packing)	1.06 g
Weight per piece (excluding packing)	1.06 g
Customs tariff number	85366990
Country of origin	PL

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Technical data

Product properties

Product type	PCB connector
Product family	FMC 0,5/..-ST
Product line	COMBICON Connectors XS
Type	Standard
Number of positions	4
Pitch	2.54 mm
Number of connections	4
Number of rows	1
Number of potentials	4
Mounting flange	without

Electrical properties

Nominal current I_N	6 A
Nominal voltage U_N	160 V
Degree of pollution	3
Contact resistance	2.7 m Ω
Rated voltage (III/3)	32 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)	160 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON FMC 0,5
Nominal cross section	0.5 mm ²
Contact connection type	Socket

Interlock

Locking type	without
Mounting flange	without

Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.14 mm ² ... 0.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 0.5 mm ²
Conductor cross section AWG	26 ... 20
Conductor cross section flexible, with ferrule without plastic	0.25 mm ² ... 0.34 mm ²

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

sleeve	
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.14 mm ² ... 0.25 mm ²
Cylindrical gauge a x b / diameter	- / 1.0 mm
Stripping length	7 mm

Specifications for ferrules without insulating collar

recommended crimping tool	1212034 CRIMPFOX 6
---------------------------	--------------------

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	partially gold-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)	Gold (0.25 Au)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni)

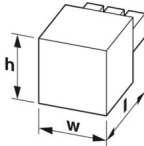
Material data - housing

Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Material data – actuating element

Color (Actuating element)	orange (2003)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

Dimensions

Dimensional drawing	
Pitch	2.54 mm
Width [w]	10.66 mm
Height [h]	5.35 mm
Length [l]	14 mm

Mechanical tests

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Conductor connection

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

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	0.14 mm ² / solid / > 10 N
	0.14 mm ² / flexible / > 10 N
	0.5 mm ² / solid / > 20 N
	0.5 mm ² / flexible / > 20 N

Insertion and withdrawal forces

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

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Acceleration	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	2.7 mΩ
Contact resistance R ₂	2.6 mΩ
Insertion/withdrawal cycles	100
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	DIN 50018:2013-05
Corrosive stress	1.0 dm ³ SO ₂ on 300 dm ³ /40 °C/3 cycles
Thermal stress	100 °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
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

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	IIIa
Comparative tracking index (IEC 60112)	CTI 175
Rated insulation voltage (III/3)	32 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	0.8 mm
minimum creepage distance (III/3)	1.3 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.6 mm
Rated insulation voltage (II/2)	160 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	0.5 mm
minimum creepage distance (II/2)	1.6 mm

Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector

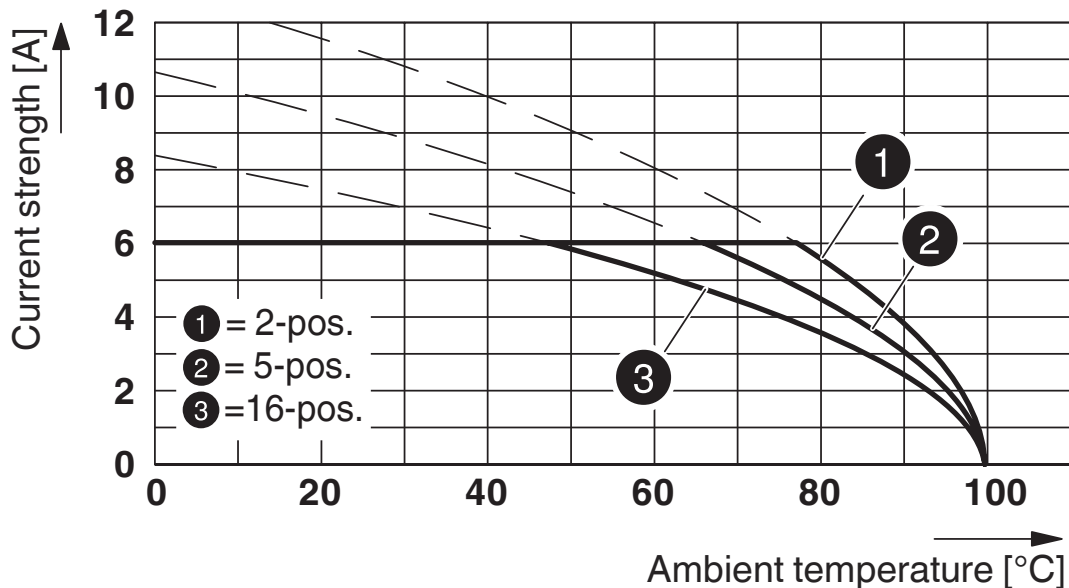


1706241

<https://www.phoenixcontact.com/us/products/1706241>

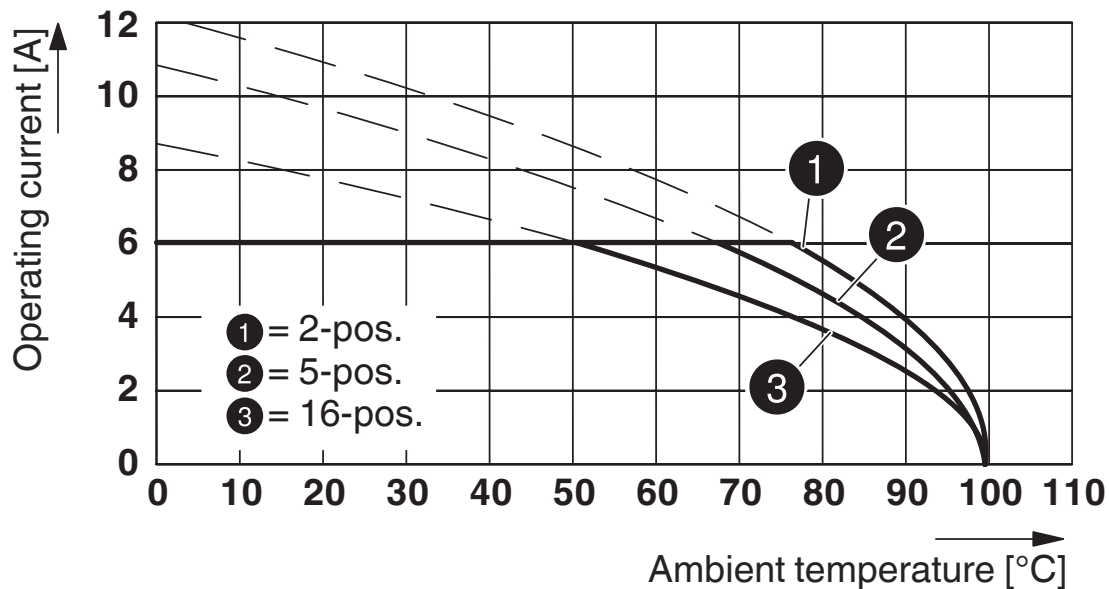
Drawings

Diagram



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

Diagram



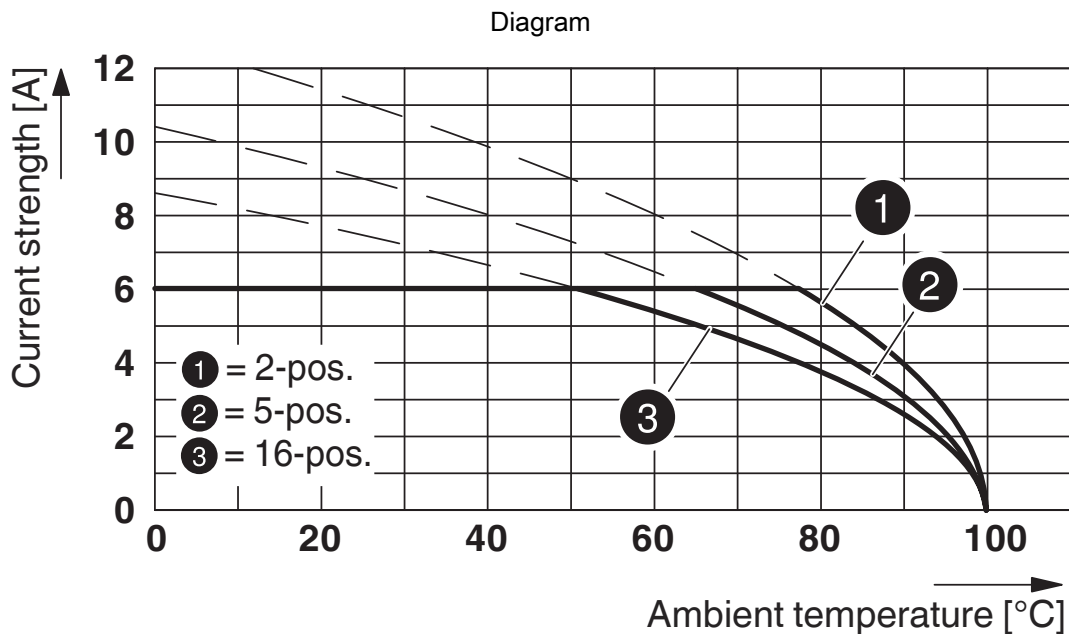
Type: FMC 0,5/...-ST-2,54 with MC 0,5/...-G-2,54 SMD R..

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector

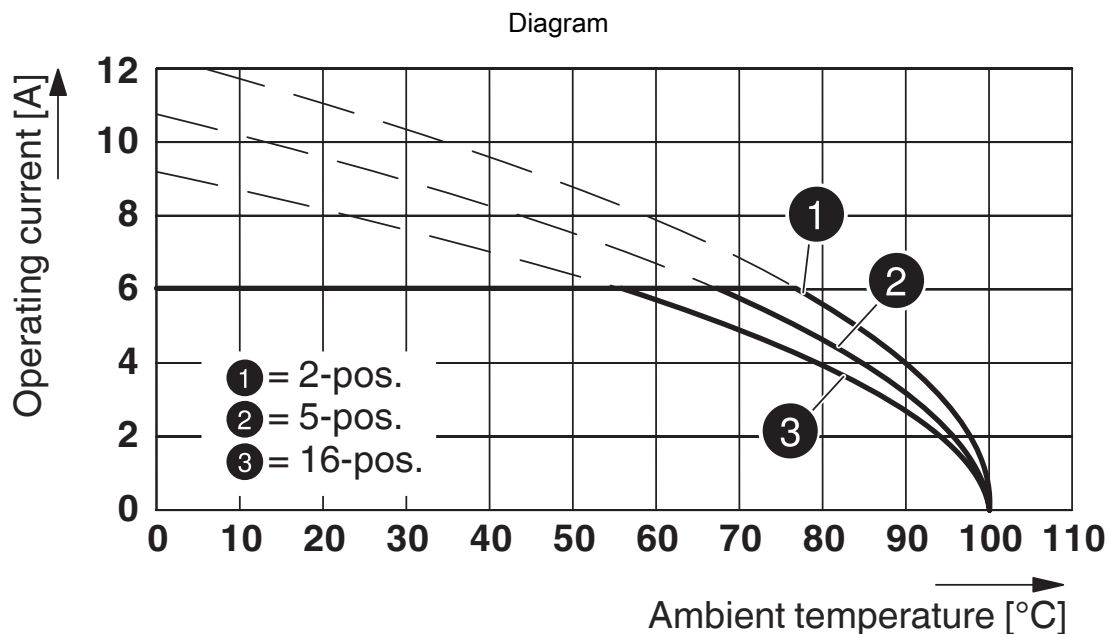


1706241

<https://www.phoenixcontact.com/us/products/1706241>



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



Type FMC 0,5/...-ST-2,54 with MCV 0,5/...-G-2,54 SMD R..

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector




1706241

<https://www.phoenixcontact.com/us/products/1706241>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1706241>

 cULus Recognized Approval ID: E60425-19920306				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
Field wiring	150 V	5 A	26 - 20	-
Factory wiring	150 V	6 A	26 - 20	-
Use group C				
Factory wiring	50 V	6 A	26 - 20	-
Use group F				
Field wiring	160 V	5 A	26 - 20	-

 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 - 0.5

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002638
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

Accessories

SZS 0,4X2,0 - Screwdriver

1205202

<https://www.phoenixcontact.com/us/products/1205202>

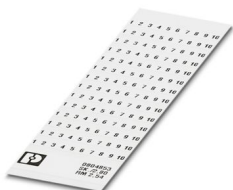


Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

SK 2,54/2,8:FORTL.ZAHLEN - Marker card

0804853

<https://www.phoenixcontact.com/us/products/0804853>



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 2.54 mm, lettering field size: 2.54 x 2.8 mm

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

A 0,25- 7 - Ferrule

3202478

<https://www.phoenixcontact.com/us/products/3202478>



Ferrule, color: silver

A 0,34- 7 - Ferrule

3009202

<https://www.phoenixcontact.com/us/products/3009202>



Ferrule, color: silver

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



1706241

<https://www.phoenixcontact.com/us/products/1706241>

CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

MC 0,5/ 4-G-2,54 P20THRR24C2 - PCB header

1706204

<https://www.phoenixcontact.com/us/products/1706204>



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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: 24 mm wide tape, Fixed coding of the last position, can be combined with the FMC 0,5/...-ST-2,54 C2 connector

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



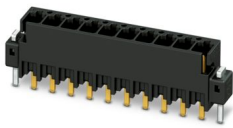
1706241

<https://www.phoenixcontact.com/us/products/1706241>

MCV 0,5/ 4-G-2,54 P20THRR24C2 - PCB header

1706166

<https://www.phoenixcontact.com/us/products/1706166>



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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: 24 mm wide tape, Fixed coding of the last position, can be combined with the FMC 0,5/...-ST-2,54 C2 connector

MC 0,5/ 4-G-2,54 SMDR24C2 - PCB header

1706129

<https://www.phoenixcontact.com/us/products/1706129>



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MC 0,5/..-G-SMD, pitch: 2.54 mm, mounting: SMD soldering, pin layout: Linear pad geometry, 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: 24 mm wide tape, Fixed coding of the last position, can be combined with the FMC 0,5/...-ST-2,54 C2 connector

FMC 0,5/ 4-ST-2,54 C2 - Printed-circuit board connector



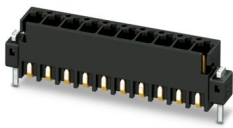
1706241

<https://www.phoenixcontact.com/us/products/1706241>

MCV 0,5/ 4-G-2,54 SMDR24C2 - PCB header

1706091

<https://www.phoenixcontact.com/us/products/1706091>



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, product range: MCV 0,5/...-G-SMD, pitch: 2.54 mm, mounting: SMD soldering, pin layout: Linear pad geometry, 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: 24 mm wide tape, Fixed coding of the last position, can be combined with the FMC 0,5/...-ST-2,54 C2 connector

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com