

Printed-circuit board connector - FK-MC 0,5/ 2-ST-2,5 - 1881325

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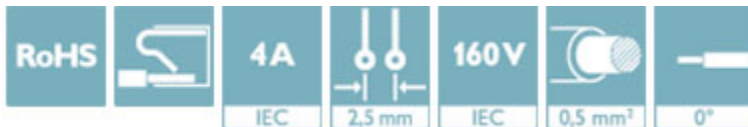
Plug component, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin



The figure shows a 10-position version of the product

Why buy this product

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Intuitive use through colour coded actuation lever
- ✓ Operation and conductor connection from one direction enable integration into front of device
- ✓ Quick and convenient testing using integrated test option



Key Commercial Data

Packing unit	1 STK
Minimum order quantity	50 STK
GTIN	 4 017918 156572
GTIN	4017918156572
Weight per Piece (excluding packing)	1.500 g
Custom tariff number	85366990
Country of origin	Germany

Technical data

Item properties

Brief article description	Printed-circuit board connector
Range of articles	FK-MC 0,5/...-ST
Pitch	2.5 mm

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Technical data

Item properties

Type of contact	Female connector
Plug-in system	MICRO COMBICON - FK-MC 0,5
Number of positions	2
Connection method	Push-in spring connection
Locking	without
Number of levels	1

Electrical parameters

Rated current	4 A
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Connection capacity

Conductor cross section solid	0.14 mm ² ... 0.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 0.5 mm ²
Conductor cross section AWG / kcmil	26 ... 20
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.5 mm ²
Cylindrical gauge a x b / diameter	- / 1.4 mm
Stripping length	8 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
Material	Sn
Metal surface contact area (top layer)	Tin (4 -8 µm Sn)

Material data - housing

Housing color	green (6021)
Insulating material	PA
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

Color of the actuating lever	orange (2003)
Insulating material	POM

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Material data – actuating element

CTI according to IEC 60112	600
Flammability rating according to UL 94	HB

Dimensions for the product

Caption	Schematic representation – for additional information, see product range drawing in the Download Center
Length [l]	19.05 mm
Width [w]	5.6 mm
Height [h]	11.75 mm
Pitch	2.5 mm
Dimension a	2.5 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
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C

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	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	Test passed IEC 60999-1:1999-11
	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm² solid > 10 N
	0.2 mm² stranded > 10 N

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Pull-out test

	0.5 mm² solid > 20 N
	0.5 mm² stranded > 20 N

Mechanical tests according to standard

Test specification	IEC 61984
Visual test	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	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	Test passed IEC 60512-13-5:2006-02 20 N
Test force	20 N
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	24 N

Air clearances and creepage distances

Specification	IEC 60664-1:1992-10 + A1:2000-02 + A2:2002-05
Insulating material group	I
Comparative tracking index (IEC 60112:2003-01)	CTI 600
Voltage	100 V
Rated insulation voltage (III/3)	100 V
Rated insulation voltage (III/2)	160 V
Rated insulation voltage (II/2)	320 V
Rated surge voltage (III/3)	1.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV
Minimum clearance - inhomogeneous field (III/3)	0.8 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	1.8 mm
Minimum creepage distance value (III/2)	0.8 mm
Minimum creepage distance value (II/2)	1.6 mm

Electrical tests - Function

Specification	IEC 61984
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Technical data

Temperature cycles

Specification	IEC 61984
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Current carrying capacity / derating curves

Specification	IEC 61984
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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	2 mΩ
Insertion/withdrawal cycles	25
Contact resistance R_2	2.2 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	80 GΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	12
Conductor cross section	0.5 mm ²
Test current	4 A DC
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	2.95 kV
Power-frequency withstand voltage	1.39 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

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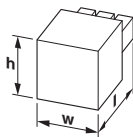
Technical data

Environmental Product Compliance

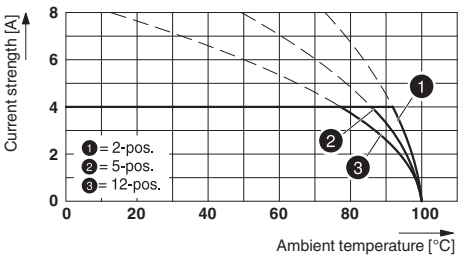
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Dimensional drawing

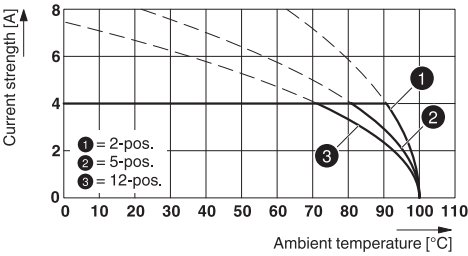


Diagram



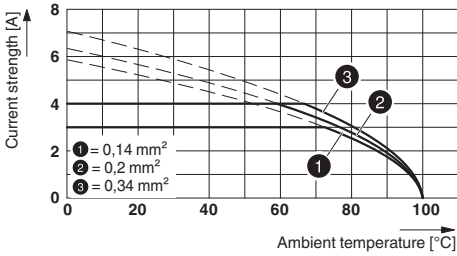
Type: FK-MC 0,5/...-ST-2,5 with MC 0,5/...-G-2,5

Diagram



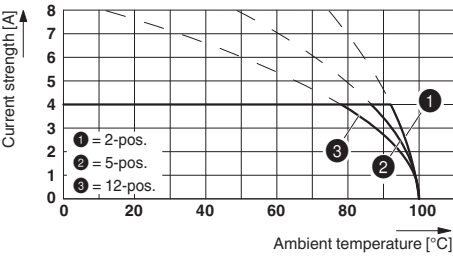
Type: FK-MC 0,5/...-ST-2,5 with MCD 0,5/...-G1-2,5 HT BK

Diagram



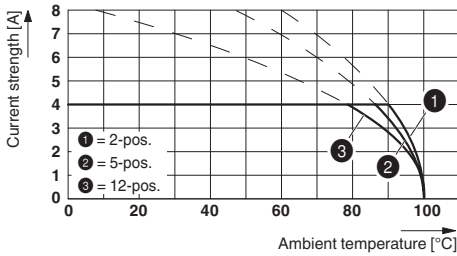
Type: FK-MC 0,5/...-ST-2,5 with MC 0,5/...-G-2,5

Diagram



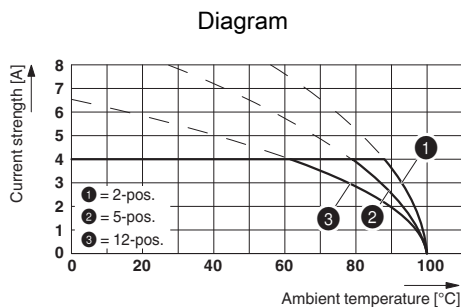
Type: FK-MC 0,5/...-ST-2,5 with MCV 0,5/...-G-2,5 THT

Diagram

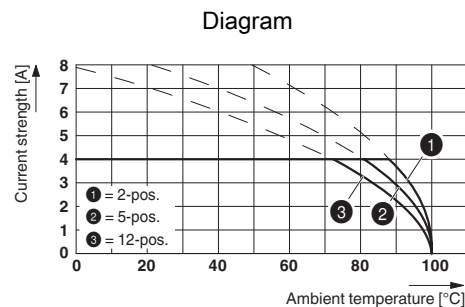


Type: FK-MC 0,5/...-ST-2,5 with MC 0,5/...-G-2,5 THT

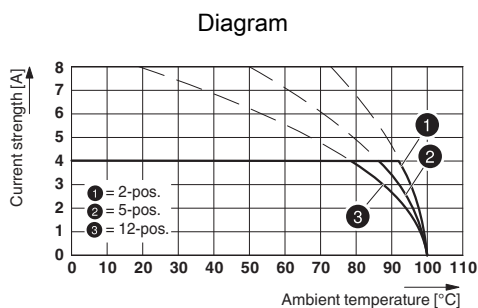
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Type: FK-MC 0,5/...-ST-2,5 with MCD 0,5/...-G1-2,5



Type: FK-MC 0,5/...-ST-2,5 with MCDV 0,5/...-G1-2,5



Type: FK-MC 0,5/...-ST-2,5 with MCV 0,5/...-G-2,5

Classifications

eCl@ss

eCl@ss 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
eCl@ss 5.1	27260701
eCl@ss 6.0	27260704
eCl@ss 7.0	27440402
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638

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Classifications

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409

Approvals

Approvals

Approvals

UL Recognized / VDE Gutachten mit Fertigungsüberwachung / cUL Recognized / IECCE CB Scheme / CCA / EAC / cULus Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
		B	
mm²/AWG/kcmil		28-20	
Nominal current I _N		4 A	
Nominal voltage U _N		125 V	

VDE Gutachten mit Fertigungsüberwachung		http://www.vde.com/en/Institute/OnlineService/ VDE-approved-products/Pages/Online-Search.aspx	40013394
mm²/AWG/kcmil		0.2-0.5	
Nominal current I _N		4 A	
Nominal voltage U _N		100 V	

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Approvals

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
		B	
mm²/AWG/kcmil		28-20	
Nominal current I _N		4 A	
Nominal voltage U _N		125 V	

IECEE CB Scheme		http://www.iecee.org/	DE1-56068-B1B2
mm²/AWG/kcmil		0.2-0.5	
Nominal current I _N		4 A	
Nominal voltage U _N		100 V	

CCA			CCA/ DE1 34250
mm²/AWG/kcmil		0.2-0.5	
Nominal current I _N		4 A	
Nominal voltage U _N		100 V	

EAC			B.01742
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
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Accessories

Accessories

Crimping tool

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Accessories

Crimping pliers - CRIMPFOX 6 - 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

Labeled terminal marker

Marker card - SK 2,54/2,8:FORTL.ZAHLEN - 0804853



Marker card, 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

Screwdriver tools

Screwdriver - SZS 0,4X2,0 - 1205202



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

Additional products

Base strip - MC 0,5/ 2-G-2,5 - 1881448



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: green, contact surface: Tin, mounting: Wave soldering

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Accessories

Printed-circuit board connector - MCV 0,5/ 2-G-2,5 - 1881558



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Base strip - MCD 0,5/ 2-G1-2,5 - 1894804



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Base strip - MCDV 0,5/ 2-G1-2,5 - 1894914



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: green, contact surface: Tin, mounting: Wave soldering

Base strip - MCD 0,5/ 2-G1-2,5 HT BK - 1961148



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: black, contact surface: Tin, mounting: THR soldering, Standard component made of highly temperature resistant plastic; suitable for reflow process. User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads".

Base strip - MCDV 0,5/ 2-G1-2,5 HT BK - 1961245



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: black, contact surface: Tin, mounting: THR soldering, Standard component made of highly temperature resistant plastic; suitable for reflow process. User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads".

Printed-circuit board connector - FK-MC 0,5/ 2-ST-2,5 - 1881325

Accessories

Base strip - MC 0,5/ 2-G-2,5 THT - 1963421



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Base strip - MCV 0,5/ 2-G-2,5 THT - 1963531



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Base strip - MC 0,5/ 2-G-2,5 THT R44 - 1963641



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

Base strip - MCV 0,5/ 2-G-2,5 THT R44 - 1963751



Header, nominal current: 4 A, rated voltage (III/2): 160 V, number of positions: 2, pitch: 2.5 mm, color: black, contact surface: Tin, mounting: THR soldering, User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads"