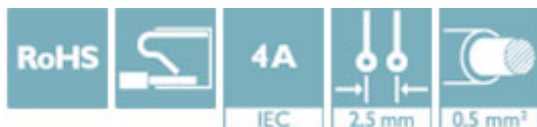


Printed-circuit board connector - FK-MC 0,5/12-STZ3-2,5 - 1786390

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Plug component, nominal current: 4 A, number of positions: 12, pitch: 2.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin



Key Commercial Data

Packing unit	50 STK
GTIN	
GTIN	4046356609432

Technical data

Item properties

Brief article description	Printed-circuit board connector
Range of articles	FK-MC 0,5/-ST
Pitch	2.5 mm
Type of contact	Female connector
Plug-in system	MICRO COMBICON - FK-MC 0,5
Number of positions	12
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 mm² ... 0.5 mm²
Conductor cross section flexible	0.14 mm² ... 0.5 mm²
Conductor cross section AWG / kcmil	26 ... 20
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 0.5 mm²
Cylindrical gauge a x b / diameter	- / 1.4 mm
Stripping length	8 mm

Material data - contact

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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 data - housing

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

Insulating material	POM
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
Height [h]	11.75 mm
Pitch	2.5 mm
Height (without solder pin)	12 mm
Dimension a	27.5 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

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

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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 mm ² solid > 10 N
	0.2 mm ² stranded > 10 N
	0.5 mm ² solid > 20 N
	0.5 mm ² 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

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Electrical tests - Function

Specification	IEC 61984
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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

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
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Environmental Product Compliance

	No hazardous substances above threshold values
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Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC		B.01742
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