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PCB headers, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MCV 1,5/..-G, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.4 mm, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

Your advantages

- · Well-known mounting principle allows worldwide use
- · Vertical connection enables multi-row arrangement on the PCB
- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies

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Commercial Data

Item number	1843677	
Packing unit	1 pc	
Minimum order quantity	100 pc	
Sales Key	A01	
Product Key	AABSAE	
Catalog Page	Page 226 (C-1-2013)	
GTIN	4017918112820	
Weight per Piece (including packing)	2.34 g	
Weight per Piece (excluding packing)	2.14 g	
Customs tariff number	85366930	
Country of origin	DE	



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Technical Data

Product properties

Туре	Standard
Product line	COMBICON Connectors S
Product type	PCB headers
Number of positions	9
Pitch	3.5 mm
Number of connections	9
Number of rows	1
Mounting flange	without
Number of potentials	9
Pin layout	Linear pinning

Electrical properties

Nominal current I _N	8 A	
Nominal voltage U _N	160 V	
Pollution degree	3	
Contact resistance	1.8 mΩ	
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	

Mounting

Mounting type Wave soldering	Wave soldering	
Mounting type	Wave soldering	

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	Tin-plated
Metal surface contact area (top layer)	Tin (3 - 5 μm Sn)
Metal surface contact area (middle layer)	Nickel (1 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 μm Sn)
Metal surface soldering area (middle layer)	Nickel (1 - 3 µm Ni)
Material data - housing	
Housing color	green (6021)
Insulating material	PBT
Insulating material group	Illa
CTI according to IEC 60112	225



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Flammability rating according to UL 94	V0	
Dimensions		
Dimensional drawing	h h ph	
Pitch	3.5 mm	
Width [w]	32.9 mm	
Height [h]	12.6 mm	
Length [I]	7.25 mm	
Installed height	9.2 mm	
Solder pin length [P]	3.4 mm	

Mechanical tests

Test for conductor damage and slackening

rest for conductor damage and slackering			
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	0.2 mm² / solid / > 10 N		
setpoint/actual value	0.2 mm² / flexible / > 10 N		
	1.5 mm² / solid / > 40 N		
	1.5 mm² / flexible / > 40 N		
Insertion and withdrawal forces			
Result	Test passed		
No. of cycles	25		
Insertion strength per pos. approx.	6 N		
Withdraw strength per pos. approx.	4 N		
Torque test			
Specification	IEC 60999-1:1999-11		
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			

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SpecificationIEC 60512-1-1:2002-02ResultTest passedDimension checkIEC 60512-1-2:2002-02SpecificationIEC 60512-1-2:2002-02ResultTest passedActrical testsIEC 60512-5-1:2002-02SpecificationIEC 60512-5-1:2002-02Tested number of positions20Insulation resistanceIEC 60512-3-1:2002-02SpecificationIEC 60512-3-1:2002-02Insulation resistanceIEC 60512-3-1:2002-02SpecificationIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MΩ		
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Rated surge voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmminimum creepage distance (III/2)1.6 mmRated insulation voltage (II/2)250 VRated surge voltage (II/2)2.5 kVminimum clearance value - non-homogenous field (II/2)1.5 mm	minimum creepage distance (III/3)	2.5 mm
minimum clearance value - non-homogenous field (III/2)1.5 mmminimum creepage distance (III/2)1.6 mmRated insulation voltage (II/2)250 VRated surge voltage (II/2)2.5 kVminimum clearance value - non-homogenous field (II/2)1.5 mm	Rated insulation voltage (III/2)	160 V
minimum creepage distance (III/2)1.6 mmRated insulation voltage (II/2)250 VRated surge voltage (II/2)2.5 kVminimum clearance value - non-homogenous field (II/2)1.5 mm	Rated surge voltage (III/2)	2.5 kV
Rated insulation voltage (II/2) 250 V Rated surge voltage (II/2) 2.5 kV minimum clearance value - non-homogenous field (II/2) 1.5 mm	minimum clearance value - non-homogenous field (III/2)	1.5 mm
Rated surge voltage (II/2) 2.5 kV minimum clearance value - non-homogenous field (II/2) 1.5 mm	minimum creepage distance (III/2)	1.6 mm
minimum clearance value - non-homogenous field (II/2) 1.5 mm	Rated insulation voltage (II/2)	250 V
	Rated surge voltage (II/2)	2.5 kV
minimum creepage distance (II/2) 2.5 mm	minimum clearance value - non-homogenous field (II/2)	1.5 mm
	minimum creepage distance (II/2)	2.5 mm

Environmental and real-life conditions

Vibration test				
Specification	IEC 60068-2-6:2007-12			
Frequency	10 - 150 - 10 Hz			
Sweep speed	1 octave/min			
Amplitude	0.35 mm (10 - 60.1 Hz)			
Sweep speed	5g (60.1 - 150 Hz)			
Test duration per axis	2.5 h			

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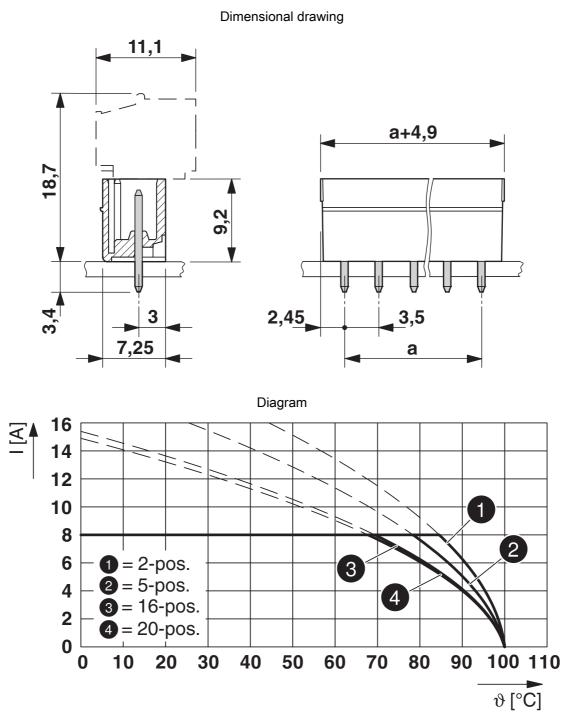
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antact resistance R1 1.8 mΩ antact resistance R2 2.2 mΩ sertion/withdrawal cycles 25 atic test ISO 6988:1985-02 becification ISO 6988:1985-02 berrosive stress 0.2 dm³ SO2 on 300 dm³/40 °C/1 cycle berrosive stress 100 °C/168 h berrosive stress 1.39 kV ent conditions -40 °C 100 °C (dependent on the derating current on the derating	pecification	IEC 60512-5:1992-08
Contact resistance R2 2.2 mΩ Insertion/withdrawal cycles 25 matic test ISO 6988:1985-02 Specification ISO 6988:1985-02 Corrosive stress 0.2 dm³ SO2 on 300 dm³/40 °C/1 cycle Thermal stress 100 °C/168 h Power-frequency withstand voltage 1.39 kV mbient conditions -40 °C 100 °C (dependent on the derating curred on the de	Impulse withstand voltage at sea level	2.95 kV
Insertion/withdrawal cycles 25 matic test Specification ISO 6988:1985-02 Corrosive stress 0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle 100 °C/168 h Power-frequency withstand voltage 1.39 kV bient conditions Ambient temperature (operation) -40 °C 100 °C (dependent on the derating curr Ambient temperature (storage/transport) -40 °C 70 °C	Contact resistance R ₁	1.8 mΩ
matic test ISO 6988:1985-02 Specification ISO 6988:1985-02 Corrosive stress 0.2 dm³ SO ₂ on 300 dm³/40 °C/1 cycle Thermal stress 100 °C/168 h Power-frequency withstand voltage 1.39 kV mbient conditions -40 °C 100 °C (dependent on the derating curred or curred	Contact resistance R ₂	2.2 mΩ
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 1.39 kV mbient conditions -40 °C 100 °C (dependent on the derating curred or	Insertion/withdrawal cycles	25
Corrosive stress 0.2 dm³ SO ₂ on 300 dm³/40 °C/1 cycle Thermal stress 100 °C/168 h Power-frequency withstand voltage 1.39 kV Thermal stress -40 °C 100 °C (dependent on the derating current on	matic test	
Thermal stress 100 °C/168 h Power-frequency withstand voltage 1.39 kV mbient conditions -40 °C 100 °C (dependent on the derating curred on the deratin	Specification	ISO 6988:1985-02
Power-frequency withstand voltage 1.39 kV abient conditions -40 °C 100 °C (dependent on the derating current of the strengent of	Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
abient conditions Ambient temperature (operation) -40 °C 100 °C (dependent on the derating current of the derat of	Thermal stress	100 °C/168 h
Ambient temperature (operation) -40 °C 100 °C (dependent on the derating current of the derat of the derat of the derat of the derat of the derating	Power-frequency withstand voltage	1.39 kV
Ambient temperature (storage/transport) -40 °C 70 °C	bient conditions	
	Ambient temperature (operation)	-40 °C 100 °C (dependent on the derating curve)
Relative humidity (storage/transport) 30 % 70 %	Ambient temperature (storage/transport)	-40 °C 70 °C
	Relative humidity (storage/transport)	30 % 70 %
Ambient temperature (assembly) -5 °C 100 °C	Ambient temperature (assembly)	-5 °C 100 °C
	aging specifications	
kaging specifications		

PCB header - MCV 1,5/ 9-G-3,5

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Drawings

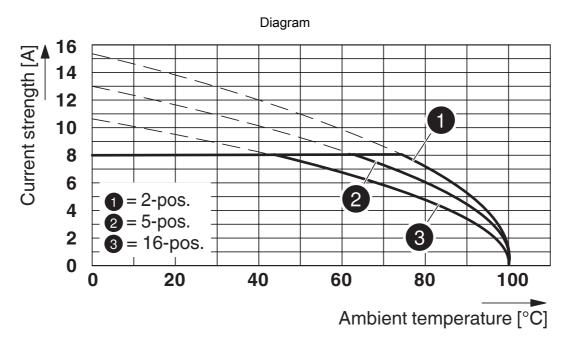


Type: FMC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5

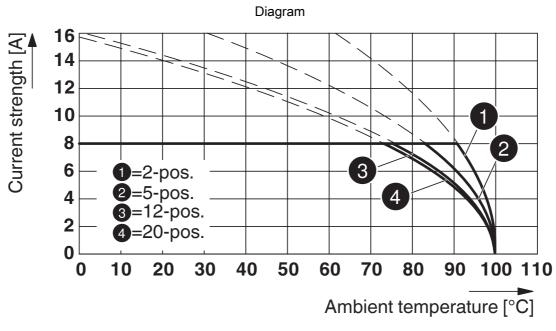




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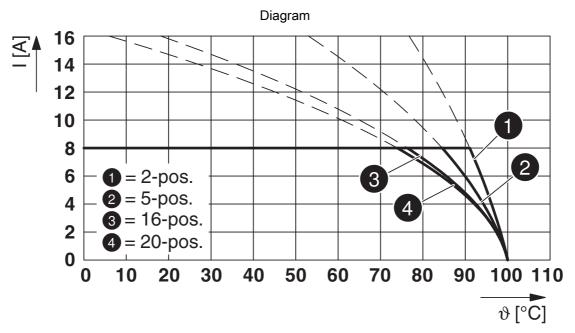
Type: MCVW 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5



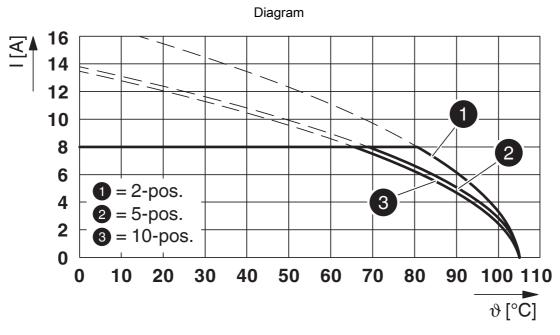
Type: MC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5



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Type: FK-MCP 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5

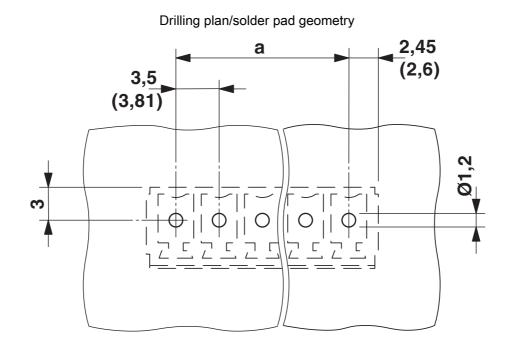


Type: TFMC 1,5/...-ST-3,5 with MCV 1,5/....-G-3,5





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Approvals

Nominal Voltage U _N Nominal Current I _N Cross Section AWG Cross Section mm ² Use group B 300 V 8 A - - Use group D - - -	()	CSA Approval ID: 13631				
300 V 8 A			Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	Use g	group B				
Use group D			300 V	8 A	-	-
	Use g	group D				
300 V 8 A			300 V	8 A	-	-

IECEE CB Scheme Approval ID: DE1-60987-B1B2				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
	160 V	8 A	-	-



EAC Approval ID: B.01687

Approval ID: E60425-20110128				
	Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
Use group B				
	300 V	8 A	-	-
Use group D				
	300 V	8 A	-	-





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Classifications

ECLASS

ECLASS-9.0	27440402
ECLASS-10.0.1	27440402
ECLASS-11.0	27460201

ETIM

	ETIM 8.0	EC002637
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

Marker card

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883 https://www.phoenixcontact.com/us/products/0803883

Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 2.8 mm, Number of individual labels: 3600



Marker card

Marker card - SK 3,5/2,8:FORTL.ZAHLEN - 0804073 https://www.phoenixcontact.com/us/products/0804073



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 3.5 mm, lettering field size: 3.5×2.8 mm



https://www.phoenixcontact.com/us/products/1843677



Coding profile

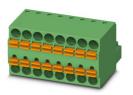
Coding profile - CP-MSTB - 1734634 https://www.phoenixcontact.com/us/products/1734634

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



Printed-circuit board connector

Printed-circuit board connector - TFMC 1,5/ 9-ST-3,5 - 1772689 https://www.phoenixcontact.com/us/products/1772689



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 18, product range: TFMC 1,5/..-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard



https://www.phoenixcontact.com/us/products/1843677



PCB connector

PCB connector - MC 1,5/ 9-ST-3,5 - 1840434 https://www.phoenixcontact.com/us/products/1840434



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MC 1,5/..-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector

PCB connector - MCVW 1,5/ 9-ST-3,5 - 1862920 https://www.phoenixcontact.com/us/products/1862920



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MCVW 1,5/..-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard



https://www.phoenixcontact.com/us/products/1843677



PCB connector

PCB connector - MCVR 1,5/ 9-ST-3,5 - 1863220 https://www.phoenixcontact.com/us/products/1863220



PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: MCVR 1,5/..-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

PCB connector

PCB connector - FK-MCP 1,5/ 9-ST-3,5 - 1939976 https://www.phoenixcontact.com/us/products/1939976



PCB connector, nominal cross section: 1.5 mm^2 , color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: FK-MCP 1,5/..-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard



https://www.phoenixcontact.com/us/products/1843677



Printed-circuit board connector

Printed-circuit board connector - FMC 1,5/ 9-ST-3,5 - 1952335 https://www.phoenixcontact.com/us/products/1952335



PCB connector, nominal cross section: 1.5 mm^2 , color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, number of potentials: 9, number of rows: 1, number of positions: 9, number of connections: 9, product range: FMC 1,5/..-ST, pitch: 3.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0°, number of solder pins per potential: 1, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

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