

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



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 headers, nominal cross section: 1.5 mm<sup>2</sup>, 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

1843677

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



## **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	



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



## **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 <sub>N</sub>	8 A	
Nominal voltage U <sub>N</sub>	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



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



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			

## 1843677

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



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		
Specification         EC 60512-1-12002-02           Result         Test passed           Specification         EC 60512-1-22002-02           Result         EC 60512-1-22002-02           Result         Test passed           Specification         EC 60512-1-22002-02           Result         Test passed           Specification         EC 60512-5-12002-02           Specification         EC 60512-5-12002-02           Tested number of positions         20           specification         EC 60512-5-12002-02           resultion resistance         50           Specification         EC 60512-3-12002-02           Insulation resistance, neighboring positions         > 5 MQ           vicearaces and creepage distance           Specification           Insulation resistance, neighboring positions         > 5 MQ           Vicearaces and creepage distance           EC 60664-12007-04           Insulation voltage (II/3)         160 V           Rated insulation voltage (II/3)         2.5 kV           minimum clearance value - non-homogenous field (III/3)         1.5 mm           Rated insulation voltage (II/2)         1.6 V           Rated insulation voltage (II/2)         1.6 mm           Rated insulation voltage (II/2)         2.5 kV	Specification	IEC 60512-13-5:2006-02
SpecificationIEC 60512-1-1:2020-202ResultTest passedSpecificationIEC 60512-1-2:202-02ResultTest passedArrical testsTest passedSpecificationIEC 60512-5-1:202-02ResultTest passedSpecificationIEC 60512-5-1:202-02Tested number of positions20neulation resistance20specificationIEC 60512-3-1:2002-02Insulation resistanceSpecificationSpecificationIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MQNaviality material groupIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MQArricearances and creepage distances  IEC 60564-1:2007-04Insulation metrial groupIIIaComparative tracking index (IEC 60112)CTI 1225Rated insulation voltage (III/3)1.5 mmminimum creepage distance (III/3)1.5 mmminimum creepage distance (III/3)1.5 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated surge voltage (III/2)25 kVminimum creepage distance (III/2)1.5 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulatio	Result	Test passed
SpecificationIEC 60512-1-1:2020-202ResultTest passedSpecificationIEC 60512-1-2:202-02ResultTest passedArrical testsTest passedSpecificationIEC 60512-5-1:202-02ResultTest passedSpecificationIEC 60512-5-1:202-02Tested number of positions20neulation resistance20specificationIEC 60512-3-1:2002-02Insulation resistanceSpecificationSpecificationIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MQNaviality material groupIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MQArricearances and creepage distances  IEC 60564-1:2007-04Insulation metrial groupIIIaComparative tracking index (IEC 60112)CTI 1225Rated insulation voltage (III/3)1.5 mmminimum creepage distance (III/3)1.5 mmminimum creepage distance (III/3)1.5 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated surge voltage (III/2)25 kVminimum creepage distance (III/2)1.5 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulatio	Visual inspection	
Result         Test pased           Specification         IEC 60512-1.2:2002-02           Result         Test pased           Result         Test pased           Areult         Test pased           Specification         IEC 60512-5.1:2002-02           Specification         IEC 60512-5.1:2002-02           Tested number of positions         20           Insulation resistance         IEC 60512-5.1:2002-02           Specification         IEC 60512-3.1:2002-02           Insulation resistance         >5 MQ           Insulation resistance.         IEC 60512-3.1:2002-02           Insulation resistance.         >5 MQ           Arr clearances and creepage distances           IEC 60564-1:2007-04           Insulation material group         IIIa           Comparative tracking index (IEC 60112)         CTI 225 cm           Rated insulation voltage (III/3)         2.5 kV           Inimium clearance value - non-homogenous field (III/3)         1.5 mm           Inimium clearance value - non-homogenous field (III/2)         1.5 mm           Inimium clearance value - non-homogenous field (III/2)         1.5 mm           Inimium clearance value - non-homogenous field (III/2)         1.5 mm           Inimium clearance value - non-homogenous field (III/2)         1.5 mm		IEC 60512-1-1:2002-02
Dimension check Specification Result Specification Result  Test passed  Test passed  Test passed  Test passed  Test group C  Specification Test group C  Specification Test group C  Specification Sp	•	
SpecificationIEC 60512-1-2:2002-02ResultTest passedactrical testsThermal test   Test group CSpecificationIEC 60512-5-1:2002-02Tested number of positions20number of positions20specificationIEC 60512-3-1:2002-02specificationIEC 60512-3-1:2002-02number of positions> 5 MΩspecificationIEC 60664-1:2007-04Insulation resistance, neighboring positions> 5 MΩArc clearances and creepage distances  CTI 225SpecificationIIIaInsulating material groupIIIaInsulation voltage (III/3)2.5 kVRated surge voltage (III/3)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmMatericance value - non-homogenous fiel		
Result         Test passed           perficial tests         Filtermal test J Test group C           Specification         IEC 60512-5.1:2002-02           Tested number of positions         20           nsulation resistance         Specification           Specification         IEC 60512-3.1:2002-02           Insulation resistance, neighboring positions         > 5 MQ           Arcelearances and creepage distances J         Specification           Specification         IEC 60664-1:2007-04           Insulating material group         IIIa           Comparative tracking index (IEC 60112)         CTI 225           Rated insulation voltage (III/3)         1.5 mm           minimum cleanance value - non-homogenous field (III/3)         1.5 mm           minimum cleanance value - non-homogenous field (III/2)         5.5 kV           rinimum cleanance value - non-homogenous field (III/2)         1.5 mm           minimum cleanance value - non-homogenous field (III/2)         1.5 mm           minimum cleanance value - non-homogenous field (III/2)         1.5 mm           minimum cleanance value - non-homogenous field (III/2)         1.5 mm           minimum cleanance value - non-homogenous field (III/2)         1.5 mm           minimum cleanance value - non-homogenous field (III/2)         1.5 mm		
Arrical tests  Thermal test   Test group C  Specification Tested number of positions  Specification sulation resistance  Specification Specification IEC 60512-3-1:2002-02  Specification IEC 60512-3-1:2002-02 IEC 60512-3-1:2002-02 IEC 60512-3-1:2002-02 IEC 60512-3-1:2002-02 IEC 60564-1:2007-04 IEC 60664-1:2007-04 IEC 60664-1:2007-04 IEC 60664-1:2007-04 IEC 600564-1:2007-04 IEC 600564-		
Specification         IEC 60512-5-1:2002-02           Tested number of positions         20           restad number of positions         20           subation resistance         EC 60512-3-1:2002-02           specification         IEC 60512-3-1:2002-02           Insulation resistance, neighboring positions         >5 MQ           Arclearances and creepage distances           EC 60664-1:2007-04           Specification         IEC 60664-1:2007-04           Insulating material group         IIIa           Comparative tracking index (IEC 60112)         CTI 225           Rated insulation voltage (III/3)         160 V           Rated insulation voltage (III/3)         1.5 mm           minimum creepage distance (III/3)         1.5 mm           Rated surge voltage (III/2)         2.5 kV           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm	Result	Test passed
Specification         IEC 60512-5-1:2002-02           Tested number of positions         20           restad number of positions         20           subation resistance         EC 60512-3-1:2002-02           specification         IEC 60512-3-1:2002-02           Insulation resistance, neighboring positions         >5 MQ           Arclearances and creepage distances           EC 60664-1:2007-04           Specification         IEC 60664-1:2007-04           Insulating material group         IIIa           Comparative tracking index (IEC 60112)         CTI 225           Rated insulation voltage (III/3)         160 V           Rated insulation voltage (III/3)         1.5 mm           minimum creepage distance (III/3)         1.5 mm           Rated surge voltage (III/2)         2.5 kV           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm	actrical tests	
SpecificationIEC 60512-5-1:2002-02Tested number of positions20nulation resistanceIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MΩAuriclearances and creepage distances  IEC 60664-1:2007-04SpecificationIEC 60664-1:2007-04Insulating material groupIIIaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)1.5 mmminimum clearance value - non-homogenous field (III/3)1.5 mmRated surge voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)2.5 kVRated insulation voltage (III/2)1.5 mmInimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmRated surge voltage (III/2) <th< td=""><td></td><td></td></th<>		
Tested number of positions20nsulation resistanceIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MΩAuriclearances and creepage distances  IEC 60664-1:2007-04SpecificationIEC 60664-1:2007-04Insulating material groupIIIaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmRated surge voltage (III/2)160 VRated surge voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated surge voltage (III/2)2.5 kVRated insulation voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)2.5 kVRated insulation voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmMaterial Subal field (III/2)1.5 mmRated surge voltage (II/2	Thermal test   Test group C	
Isulation resistance         IEC 60512-3-1:2002-02           Insulation resistance, neighboring positions         > 5 MΩ           Air clearances and creepage distances           IEC 60664-1:2007-04           Insulating material group         IIIa           Insulation voltage (III/3)         CTI 225           Rated insulation voltage (III/3)         160 V           Rated surge voltage (III/3)         1.5 mm           Rated insulation voltage (III/2)         2.5 kV           Rated surge voltage (III/2)         160 V           Rated insulation voltage (III/2)         1.5 mm           Inimimum clearance value - non-homogenous field (III/2)         1.5 mm           Rated insulation voltage (III/2)         2.5 kV           Rated insulation voltage (III/2)         1.60 V           Rated insulation voltage (III/2)         2.5 kV           Rated insulation voltage (III/2)         2.5 kV           Rated insulation voltage (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         2.5 kV           minimum clearance value - non-homogenous field (III/2)         1.5 mm           minimum clearance value - non-homogenous field (III/2)         2.5 kV           Rated insulation voltage (III/2)	Specification	IEC 60512-5-1:2002-02
SpecificationIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MΩAir clearances and creepage distances [SpecificationIEC 60664-1:2007-04Insulating material groupIIIaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/2)160 VRated surge voltage (III/2)160 VRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.6 mmminimum clearance value - non-homogenous field (III/2)1.5 mMRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.6 mmRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)1.5 mm	Tested number of positions	20
SpecificationIEC 60512-3-1:2002-02Insulation resistance, neighboring positions> 5 MΩAir clearances and creepage distances [SpecificationIEC 60664-1:2007-04Insulating material groupIIIaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmRated surge voltage (III/2)160 VRated surge voltage (III/2)1.6 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)50 VRated insulation voltage (III/2)1.6 mmminimum creepage distance (III/2)2.5 kVminimum creepage distance (III/2)1.5 mmminimum creepage distance (III/2)1.6 mmRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)1.5 mmRated surge voltage (II/2)1.5 mm		
Insulation resistance, neighboring positions> 5 MΩAir clearances and creepage distances  SpecificationIEC 60664.1:2007-04Insulating material groupIIIaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmRated surge voltage (III/2)160 VRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmMinimum clearance value - non-homogenous field (III/2)1.5 mmRated surge voltage (III/2)1.5 mmMinimum creepage distance (III/2)1.5 mmMinimum creepage distance (III/2)1.5 mmMinimum creepage distance (III/2)1.6 mmRated surge voltage (III/2)2.5 kVRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)1.5 mm		
Air clearances and creepage distances           Specification       IEC 60664-1:2007-04         Insulating material group       IIIa         Comparative tracking index (IEC 60112)       CTI 225         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         Rated insulation voltage (III/2)       160 V         Rated surge voltage (III/2)       2.5 kV         minimum creepage distance (III/2)       1.60 V         Rated surge voltage (III/2)       160 V         Rated surge voltage (III/2)       1.60 V         Rated surge voltage (III/2)       1.60 V         Rated insulation voltage (III/2)       1.5 mm         minimum clearance value - non-homogenous field (III/2)       1.5 mm         minimum creepage distance (III/2)       1.6 mm         Rated insulation voltage (II/2)       2.5 kV         minimum creepage distance (III/2)       1.6 mm         Rated insulation voltage (II/2)       2.5 kV         Rated surge voltage (II/2)       2.5 kV         Rated surge voltage (II/2)       2.5 kV         minimum clearance value - non-homogenous field (III/2)       1.5 mm		
SpecificationIEC 60664-1:2007-04Insulating material groupIIIaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmRated insulation voltage (III/2)160 VRated surge voltage (III/2)160 VRated surge voltage (III/2)1.6 VRated surge voltage (III/2)1.6 VRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmMinimum clearance value - non-homogenous field (III/2)1.5 mmRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)2.5 kVMinimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.6 mmRated insulation voltage (II/2)2.5 kVRated surge voltage (II/2)1.5 mmRated surge voltage (II/2)1.5 mmRated insulation voltage (II/2)1.5 mmRated surge voltage (II/2)1.5 mm	Insulation resistance, neighboring positions	> 5 MΩ
Insulating material groupIllaComparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmMinimum creepage distance (III/3)2.5 mmRated insulation voltage (III/2)160 VRated surge voltage (III/2)160 VRated surge voltage (III/2)1.5 mmRated surge voltage (III/2)1.5 mmMinimum creepage distance (III/2)1.5 mmMinimum creepage distance (III/2)1.5 mmMinimum creepage distance (III/2)2.5 kVMinimum creepage distance (III/2)2.5 kVMinimum creepage distance (III/2)1.6 mmRated insulation voltage (III/2)2.5 kVRated surge voltage (II/2)2.5 kVRated surge voltage (II/2)1.5 mm	Air clearances and creepage distances	
Comparative tracking index (IEC 60112)CTI 225Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmminimum creepage distance (III/2)2.5 mmRated insulation voltage (III/2)160 VRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.6 mRated insulation voltage (III/2)1.5 mmMinimum clearance value - non-homogenous field (III/2)1.5 mmRated insulation voltage (III/2)250 VRated insulation voltage (III/2)250 VRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mm	Specification	IEC 60664-1:2007-04
Rated insulation voltage (III/3)160 VRated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmminimum creepage distance (III/3)2.5 mmRated insulation voltage (III/2)160 VRated surge voltage (III/2)1.5 mmminimum clearance value - non-homogenous field (III/2)1.5 mmminimum creepage distance (III/2)1.5 mmRated insulation voltage (III/2)1.5 mmMinimum creepage distance (III/2)1.6 mmRated insulation voltage (III/2)250 VRated surge voltage (III/2)2.5 kVInimum clearance value - non-homogenous field (III/2)1.5 mm	Insulating material group	Illa
Rated surge voltage (III/3)2.5 kVminimum clearance value - non-homogenous field (III/3)1.5 mmminimum creepage distance (III/3)2.5 mmRated insulation voltage (III/2)160 VRated 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 (III/2)250 VRated surge voltage (III/2)2.5 kVRated surge voltage (III/2)1.5 mm	Comparative tracking index (IEC 60112)	CTI 225
minimum clearance value - non-homogenous field (III/3)1.5 mmminimum creepage distance (III/3)2.5 mmRated insulation voltage (III/2)160 VRated 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 (III/2)250 VRated surge voltage (II/2)2.5 kVInimum creepage distance (III/2)1.6 mmInimum creepage distance (III/2)1.6 mmRated insulation voltage (II/2)2.5 kVInimum clearance value - non-homogenous field (II/2)1.5 mm	Rated insulation voltage (III/3)	160 V
minimum creepage distance (III/3)2.5 mmRated insulation voltage (III/2)160 VRated surge voltage (III/2)2.5 kVminimum clearance value - non-homogenous field (III/2)1.5 mmMated insulation voltage (III/2)1.6 mmRated insulation voltage (III/2)250 VRated surge voltage (III/2)2.5 kVInimum clearance value - non-homogenous field (III/2)1.6 mmRated insulation voltage (II/2)1.5 kVInimum clearance value - non-homogenous field (III/2)1.5 mm	Rated surge voltage (III/3)	2.5 kV
Rated insulation voltage (III/2)160 VRated 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 clearance value - non-homogenous field (III/3)	1.5 mm
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			

## 1843677

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

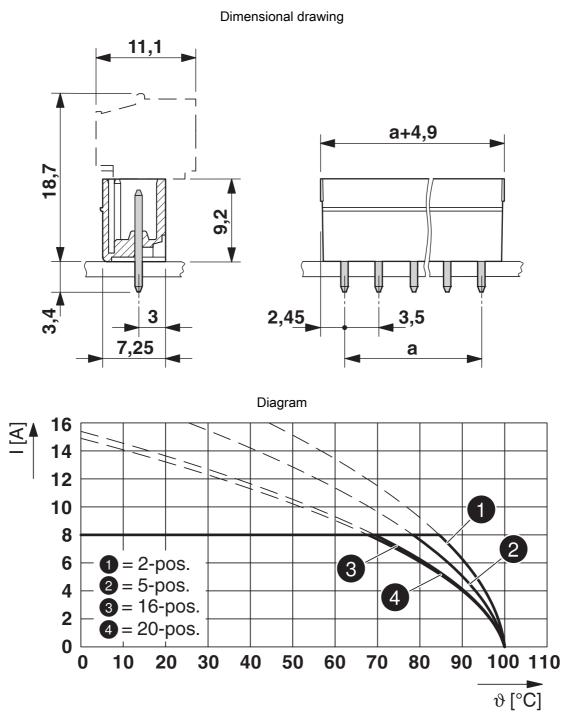
	PHŒNIX CONTACI	<b>/</b>
Ľ	CONTACI	

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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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 <sub>1</sub>	1.8 mΩ
matic test       ISO 6988:1985-02         Specification       ISO 6988:1985-02         Corrosive stress       0.2 dm³ SO <sub>2</sub> 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 <sub>2</sub>	2.2 mΩ
Specification       ISO 6988:1985-02         Corrosive stress       0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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 <sub>2</sub> 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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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

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

## Drawings

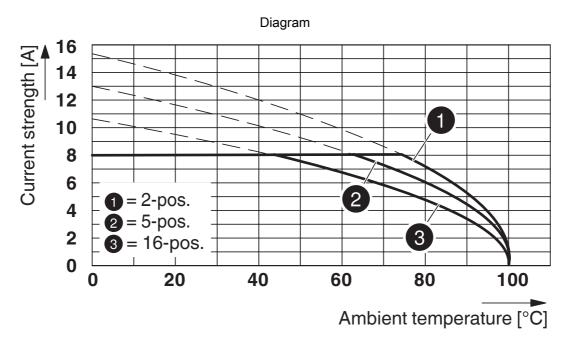


Type: FMC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5

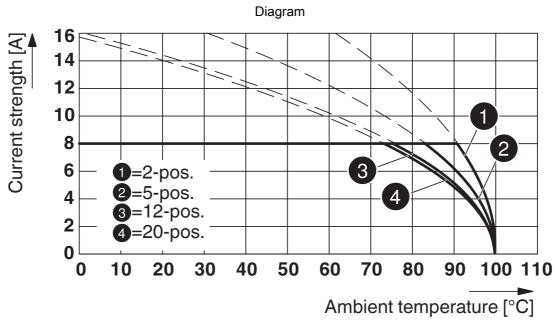




https://www.phoenixcontact.com/us/products/1843677



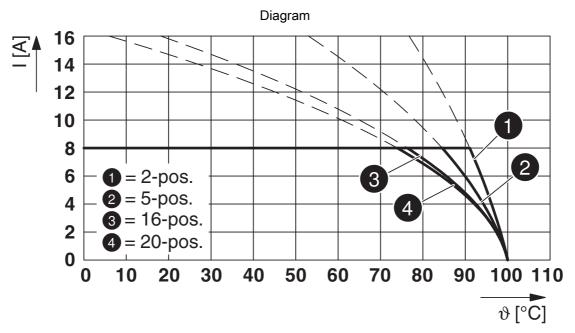
Type: MCVW 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5



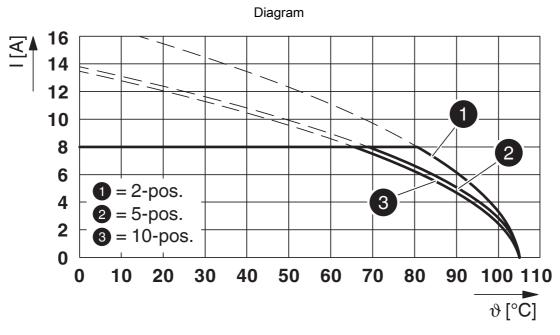
Type: MC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5



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



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

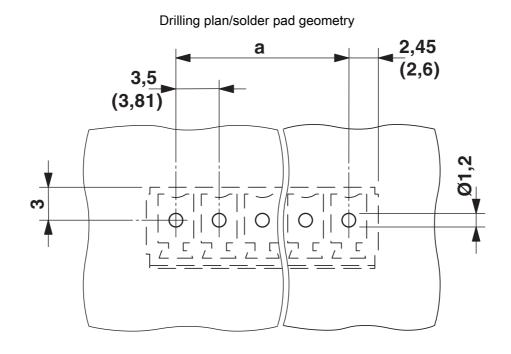


Type: TFMC 1,5/...-ST-3,5 with MCV 1,5/....-G-3,5





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





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



## Approvals

Nominal Voltage U <sub>N</sub> Nominal Current I <sub>N</sub> Cross Section AWG     Cross Section mm <sup>2</sup> Use group B     300 V     8 A     -     -       Use group D     -     -     -	()	CSA Approval ID: 13631				
300 V 8 A			Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	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 <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	160 V	8 A	-	-



### EAC Approval ID: B.01687

Approval ID: E60425-20110128				
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
	300 V	8 A	-	-
Use group D				
	300 V	8 A	-	-





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



## 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



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



# **Environmental Product Compliance**

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



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



## 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:  $3.5 \times 2.8$  mm



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



Coding profile

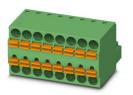
Coding profile - CP-MSTB - 1734634 https://www.phoenixcontact.com/us/products/1734634

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 mm<sup>2</sup>, 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 mm<sup>2</sup>, 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 mm<sup>2</sup>, 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 mm<sup>2</sup>, 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:  $1.5 \text{ mm}^2$ , 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:  $1.5 \text{ mm}^2$ , 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

Phoenix Contact 2022 © - 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