1464115

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PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Socket, number of rows: 1, number of positions: 11, product range: XPC 1,5/..-ST, pitch: 3.5 mm, connection method: Push-X-connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MC 1,5, locking: without, mounting: without, type of packaging: packed in cardboard

## Your advantages

- · Highly convenient operation thanks to direct, effortless, and tool-free conductor connection
- · Quick connection of all conductor types with and even without ferrules
- · Reliable wiring thanks to acoustic and visual feedback
- · Quick conductor release by simply pressing the orange release button
- · Plug-in compatibility with existing headers of the COMBICON portfolio
- · Quick and convenient testing using integrated test option

## **Commercial Data**

Item number	1464115
Packing unit	50 pc
Minimum order quantity	50 pc
Product Key	AABGAA
GTIN	4063151856038
Weight per Piece (including packing)	2.22 g
Weight per Piece (excluding packing)	2.22 g
Country of origin	DE



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## **DPHŒNIX** CONTACT

## **Technical Data**

### **Product properties**

Product line	COMBICON Connectors S
Product type	PCB connector
Product family	XPC 1,5/ST
Number of positions	11
Pitch	3.5 mm
Number of rows	1

## Electrical properties

Nominal current I <sub>N</sub>	8 A
Nominal voltage U <sub>N</sub>	160 V
Degree of pollution	3
Contact resistance	2.2 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
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

## Connection data

Connection technology

Someonion teormology	
Connector system	COMBICON MC 1,5
Nominal cross section	1.5 mm <sup>2</sup>
Type of contact	Socket
nterlock	
Locking type	without
Mounting flange	without
Conductor connection	
Connection method	Push-X-connection
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.34 mm² 1.5 mm²
Conductor cross section flexible	0.5 mm² 1.5 mm²
Conductor cross section AWG	20 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm² 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> 0.75 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / -
Stripping length	10 mm

Specifications for ferrules without insulating collar

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recommended crimping tool	1212034 CRIMPFOX 6
ferrules without insulating collar, according to DIN 46228-1	Cross section: 0.5 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 0.75 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 1 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 1.5 mm <sup>2</sup> ; Length: 10 mm
Specifications for ferrules with insulating collar	
recommended crimping tool	1212034 CRIMPFOX 6
ferrules with insulating collar, according to DIN 46228-4	Cross section: 0.25 mm <sup>2</sup> ; Length: 8 mm
	Cross section: 0.34 mm <sup>2</sup> ; Length: 8 mm 10 mm
	Cross section: 0.5 mm <sup>2</sup> ; Length: 8 mm 10 mm

## Material specifications

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
Metal surface terminal point (top layer)	Tin (4 - 8 μm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 μm Sn)

Material data Hodoling	
Color (Housing)	black (9005)
Insulating material	PA
Insulating material group	1
CTI according to IEC 60112	600
Flammability rating according to UL 94	VO

#### Material data - actuating element

Color (Actuating element)	orange (2003)
Insulating material	РВТ
Insulating material group	1
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

#### Dimensions

Dimensional drawing



Pitch	3.5 mm
Width [w]	40.13 mm
Height [h]	12.46 mm

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Length [I]	19.3 mm
otes	
Notes on operation	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.
echanical tests	
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	IEC 60999-1:1999-11
Specification	
Result	Test passed
Pull-out test	
Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force	0.34 mm² / solid / > 15 N
setpoint/actual value	0.5 mm² / flexible / > 20 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.	8 N
Withdraw strength per pos. approx.	5 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 Result	IEC 60512-1-2:2002-02 Test passed



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### Environmental and real-life conditions

Rated surge voltage (III/3)

ation test	
pecification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Sweep speed	50 m/s² (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
urability test	
Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	2.95 kV
Contact resistance R <sub>1</sub>	2.2 mΩ
Contact resistance R <sub>2</sub>	2.1 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ
matic test	
Specification	ISO 22479:2019-05
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	1.39 kV
nbient conditions	
Ambient temperature (operation)	-40 °C 105 °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
trical tests ermal test   Test group C Specification	IEC 60512-5-1:2002-02
Tested number of positions	16
	10
ulation resistance	
Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ
clearances and creepage distances	
Specification	IEC 60664-1:2007-04
Insulating material group	1
Comparative tracking index (IEC 60112)	CTI 600
	enoo
Rated insulation voltage (III/3)	160 V

2.5 kV



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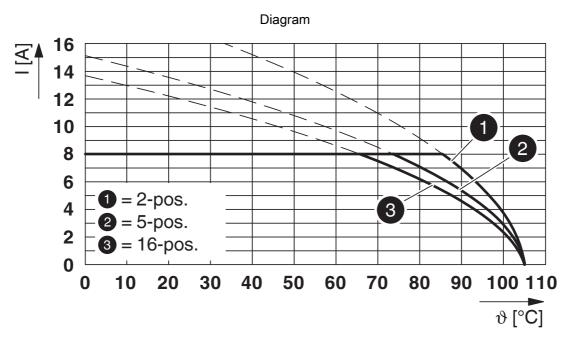
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.5 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.6 mm



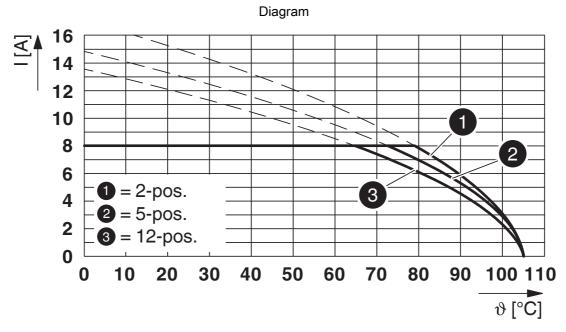
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## Drawings



Type: XPC 1,5/...-ST-3,5 with MC 1,5/...-G-3,5 P... THR

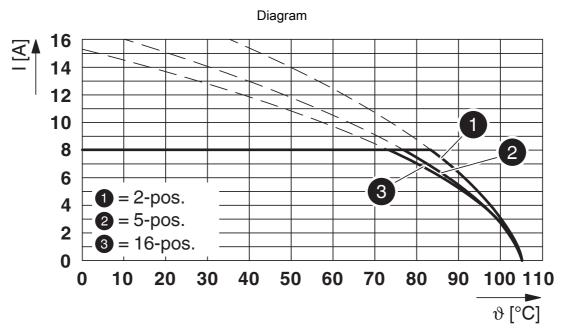


Type: XPC 1,5/...-ST-3,5 with IFMC 1,5/...-ST-3,5



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

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## Classifications

### ECLASS

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

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## Accessories

IFMC 1,5/11-ST-3,5 - Printed-circuit board connector

1844086 https://www.phoenixcontact.com/in/products/1844086



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: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: IFMC 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

### MCV 1,5/11-G-3,5 P20 THRR56 - PCB header

1781065

https://www.phoenixcontact.com/in/products/1781065



PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MCV 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 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: 56 mm wide tape, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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#### MC 1,5/11-G-3,5 P26 THR - PCB header

#### 1788686

https://www.phoenixcontact.com/in/products/1788686



PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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

### MC 1,5/11-G-3,5 P14 THR - PCB header

1789122 https://www.phoenixcontact.com/in/products/1789122



PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 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

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### MC 1,5/11-G-3,5 - PCB header

#### 1844304

https://www.phoenixcontact.com/in/products/1844304



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: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MC 1,5/..-G, pitch: 3.5 mm, mounting: Wave soldering, 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

### MCV 1,5/11-G-3,5 P26 THR - PCB header

1779543 https://www.phoenixcontact.com/in/products/1779543



PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MCV 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

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### MCV 1,5/11-G-3,5 P14 THR - PCB header

1780370

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PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MCV 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 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, For user information and design recommendations for through-hole reflow technology, go to: Downloads

### MC 1,5/11-G-3,5 P20 THR - PCB header

1788903 https://www.phoenixcontact.com/in/products/1788903



PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 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

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### MC 1,5/11-G-3,5 P20 THRR56 - PCB header

### 1788916

https://www.phoenixcontact.com/in/products/1788916



PCB headers, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 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: 56 mm wide tape

### MCV 1,5/11-G-3,5 - PCB header

1843693 https://www.phoenixcontact.com/in/products/1843693



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: Pin, number of potentials: 11, number of rows: 1, number of positions: 11, number of connections: 11, product range: MCV 1,5/..-G, pitch: 3.5 mm, mounting: Wave soldering, 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

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