

0707248

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Feed-through header, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Pin, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-MSTB 2,5/..-G, pitch: 5.08 mm, connection method: Solder/Slip-on connection, mounting: Direct mounting, pin layout: Linear pinning, solder pin [P]: 9.3 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard, accessory Item No. 5030172 can only be used in conjunction with MSTB 2,5/...ST-5,08 and MSTBT 2,5/...ST-5,08.

# Your advantages

- · Cable connection on the inside of the device enables flexible positioning of the panel feed-through
- Free choice permanent solder connection or standardized slip-on connection
- · Maximum flexibility when it comes to device design one header for connectors with different connection technologies

### Commercial Data

Item number	0707248
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	AAC
Product Key	AACWBA
Catalog Page	Page 352 (C-1-2013)
GTIN	4017918004019
Weight per Piece (including packing)	3.543 g
Weight per Piece (excluding packing)	3.1 g
Customs tariff number	85366930
Country of origin	DE



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# **Technical Data**

## Product properties

Туре	Feed-through header
Product line	COMBICON Connectors M
Product type	Feed-through header
Product family	DFK-MSTB 2,5/G
Number of positions	2
Pitch	5.08 mm
Number of connections	2
Number of rows	1
Mounting flange	without
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	1

# Electrical properties

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	320 V
Degree of pollution	3
Rated voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

## Mounting

Mounting type	Direct mounting	
Pin layout	Linear pinning	
Connection method Solder/Slip-on connection		
Attachment to feed-through panel		
Tightening torque	0.3 Nm	
Screw	0708263 DFK-MSTB SS for housing walls of up to 6 mm thick	

## 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 (5 - 7 μm Sn)	
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni)	



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Metal surface soldering area (top layer)	Tin (5 - 7 μm Sn)	
Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)	
Made 2nd date - Inc. 1851		
Material data - housing		
Color (Housing)	green (6021)	
Insulating material	PA	
Insulating material group	1	
CTI according to IEC 60112	600	
Flammability rating according to LIL 94	V/2	

### Notes

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.
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### **Dimensions**

Dimensional drawing	h
Pitch	5.08 mm
Width [w]	30.48 mm
Height [h]	29.5 mm
Length [I]	17.5 mm
Installed height	20.2 mm
Solder pin length [P]	9.3 mm

## Electrical tests

# Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	T .
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm



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	minimum creepage distance (II/2)	3.2 mm		
En	Environmental and real-life conditions			
	Ambient conditions			
	Ambient temperature (operation)	-40 °C 100 °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		



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# **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/0707248

CSA Approval ID: 13631				
	Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
Use group B				
	300 V	15 A	-	-
Use group D				
	300 V	10 A	-	-

EHE	EAC
LIIL	Approval ID: B.01687

cULus Recogn Approval ID: E6042	CULus Recognized Approval ID: E60425-19931011					
	Nominal Voltage $U_N$	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>		
Use group B						
	300 V	15 A	-	-		
Use group D						
	300 V	10 A	-	-		

VDE Zeichengenehmigung Approval ID: 40050648					
	Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>	
	250 V	12 A	-	-	



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# Classifications

## **ECLASS**

	ECLASS-11.0	27460201	
	ECLASS-12.0	27460201	
	ECLASS-13.0	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

DFK-MSTB-SS - Screw set

0708263

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Screw set, for securing the header to the device wall, consists of an M3 x 10 screw, with a spring washer and a nut

## CR-MSTB - Coding section

1734401

https://www.phoenixcontact.com/in/products/1734401

Coding section, inserted into the recess in the header or the inverted plug, red insulating material  $% \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right$ 





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### MSTB-BL - Accessories

1755477

https://www.phoenixcontact.com/in/products/1755477



Keying cap, for forming sections, plugs onto header pin, green insulating material

## DFK-MSTB-R - Accessories

5030172

https://www.phoenixcontact.com/in/products/5030172



Locking latch, red insulating material, for housings MSTB 2.5/...ST and MSTBT 2.5/...ST



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### C-SCF 1/2,8X0,8 - Connector

3240153

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Slip-on sleeve, non-insulated, 0.5 ... 1 mm<sup>2</sup>, 2.8 x 0.8

## C-SCFI 1,5/2,8X0,8 - Connector

3240049

https://www.phoenixcontact.com/in/products/3240049

Slip-on sleeve, red, 0.5 ... 1.5  $\mathrm{mm}^2$ , 2.8 x 0.8





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### C-SCFFI 1,5/2,8X0,8 - Connector

3240535

https://www.phoenixcontact.com/in/products/3240535



Slip-on sleeve, fully isolated, red, 0.5 ... 1.5 mm<sup>2</sup>, for plug 2.8 x 0.8 mm

### MSTB 2,5/2-ST-5,08 - PCB connector

1757019

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTB 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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### FKCVR 2,5/2-ST-5,08 - PCB connector

1873951

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCVR 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

### MSTBC 2,5/2-STZ-5,08 - PCB connector

1809501

https://www.phoenixcontact.com/in/products/1809501



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTBC 2,5/..-STZ, pitch: 5.08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0°, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte



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### MSTBC 2,5/2-ST-5,08 - PCB connector

1808816

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTBC 2,5/..-ST, pitch: 5.08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0°, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

### MVSTBW 2,5/ 2-ST-5,08 - PCB connector

1792757

https://www.phoenixcontact.com/in/products/1792757



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MVSTBW 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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#### IC 2,5/2-G-5,08 - PCB header

1786404

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PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IC 2,5/..-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

### MSTBP 2,5/ 2-ST-5,08 - PCB connector

1769010

https://www.phoenixcontact.com/in/products/1769010



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTBP 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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### MSTBT 2,5/ 2-ST-5,08 - PCB connector

1779987

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTBT 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

### MVSTBR 2,5/ 2-ST-5,08 - PCB connector

1792249

https://www.phoenixcontact.com/in/products/1792249



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MVSTBR 2,5/..-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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### ICV 2,5/ 2-G-5,08 - PCB header

#### 1785942

https://www.phoenixcontact.com/in/products/1785942



PCB headers, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: ICV 2,5/.-G, pitch: 5.08 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.6 mm, number of solder pins per potential: 2, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: without, mounting: without, type of packaging: packed in cardboard

### FRONT-MSTB 2,5/ 2-ST-5,08 - PCB connector

#### 1777280

https://www.phoenixcontact.com/in/products/1777280



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FRONT-MSTB 2,5/..-ST, pitch: 5.08 mm, connection method: Front screw connection, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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### FKCVW 2,5/ 2-ST-5,08 - PCB connector

1873650

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCVW 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

### QC 1/2-ST-5,08 - PCB connector

1883255

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PCB connector, nominal cross section: 1 mm², color: green, nominal current: 10 A, rated voltage (III/2): 630 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: QC 1/..-ST, pitch: 5.08 mm, connection method: Displacement connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



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### FKCT 2,5/2-ST-5,08 - PCB connector

1902110

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PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCT 2,5/..-ST, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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