

1899281

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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, type of contact: Male connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: DFK-MSTBVA 2,5/..-GF, pitch: 5.08 mm, pin layout: Linear pinning, solder pin [P]: 3.9 mm, number of solder pins per potential: 1, plug-in system: COMBICON MSTB 2,5, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

### 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



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## Commercial Data

Item number	1899281
Packing unit	1 pc
Minimum order quantity	50 pc
Sales Key	A01
Product Key	AACWCD
Catalog Page	Page 355 (C-1-2013)
GTIN	4017918186302
Weight per Piece (including packing)	4.98 g
Weight per Piece (excluding packing)	4.92 g
Customs tariff number	85366930
Country of origin	PL



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## **Technical Data**

## Product properties

Туре	Feed-through header
Product line	COMBICON Connectors M
Product type	Feed-through header
Number of positions	2
Pitch	5.08 mm
Number of connections	2
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	2
Pin layout	Linear pinning

### Electrical properties

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	320 V
Pollution degree	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

### Mounting

Mounting type Wave soldering	Wave soldering
Mounting type	Wave soldering
Flange	
Tightening torque	0.3 Nm
Flange	
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)
Metal surface soldering area (top layer)	Tin (5 - 7 μm Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)



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#### Material data - housing

Housing color	green (6021)
Insulating material	PBT
Insulating material group	Illa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

#### 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.

#### **Dimensions**

Dimensional drawing	h h
Pitch	5.08 mm
Width [w]	39.92 mm
Height [h]	15.9 mm
Length [I]	18.2 mm
Installed height	12 mm
Solder pin length [P]	3.9 mm

### Electrical tests

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	Illa
Comparative tracking index (IEC 60112)	CTI 225
Rated insulation voltage (III/3)	250 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)	3.2 mm
Rated insulation voltage (II/2)	400 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	4 mm



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### 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

### Packaging specifications

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Type of packaging	packed in cardboard

### Packaging specifications



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## Approvals

CB scrieme	IECEE CB Scheme Approval ID: DE1-60988-B1B2				
		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	-	-

EHE	EAC
LIIL	Approval ID: B.01687

cULus Recogni Approval ID: E60425	CULus Recognized Approval ID: E60425-19931011				
	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	12 A	-	-	
Use group D					
	300 V	10 A	-	-	

VDE Zeichengenehmigung Approval ID: 40050648					
	Nominal Voltage $U_N$	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**

UNSPSC 21.0

	ECLASS-9.0	27440402		
	ECLASS-10.0.1	27440402		
	ECLASS-11.0	27460201		
ETIM				
	ETIM 8.0	EC002637		
UNSPSC				

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

#### Screw set

Screw set - DFK-MSTB-SS - 0708263

https://www.phoenixcontact.com/us/products/0708263



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

#### Coding section

Coding section - CR-MSTB - 1734401

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

Coding section, inserted into the recess in the header or the inverted plug, red insulating material





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#### Accessories

Accessories - MSTB-BL - 1755477 https://www.phoenixcontact.com/us/products/1755477



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

#### PCB connector

PCB connector - TVMSTB 2,5/ 2-STF-5,08 - 1719095 https://www.phoenixcontact.com/us/products/1719095



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 400 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 4, product range: TVMSTB 2,5/..-STF, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 90 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### PCB connector

PCB connector - FKCN 2,5/ 2-STF-5,08 - 1754791 https://www.phoenixcontact.com/us/products/1754791



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCN 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### PCB connector

PCB connector - FRONT-MSTB 2,5/ 2-STF-5,08 - 1777808 https://www.phoenixcontact.com/us/products/1777808



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FRONT-MSTB 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### PCB connector

PCB connector - MSTB 2,5/ 2-STF-5,08 - 1777989 https://www.phoenixcontact.com/us/products/1777989



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

#### PCB connector

PCB connector - MSTBT 2,5/ 2-STF-5,08 - 1805301 https://www.phoenixcontact.com/us/products/1805301



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



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#### PCB connector

PCB connector - MSTBC 2,5/ 2-STZF-5,08 - 1809734 https://www.phoenixcontact.com/us/products/1809734



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MSTBC 2,5/..-STZF, pitch: 5.08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0°, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, 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

#### PCB connector

PCB connector - MVSTBW 2,5/ 2-STF-5,08 - 1834903 https://www.phoenixcontact.com/us/products/1834903



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MVSTBW 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### PCB connector

PCB connector - MVSTBR 2,5/ 2-STF-5,08 - 1835096 https://www.phoenixcontact.com/us/products/1835096



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: MVSTBR 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### PCB connector

PCB connector - TMSTBP 2,5/ 2-STF-5,08 - 1853104 https://www.phoenixcontact.com/us/products/1853104



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 4, product range: TMSTBP 2,5/..-STF, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard, The plug allows conductors to be looped through from module to module.



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#### PCB connector

PCB connector - FKC 2,5/ 2-STF-5,08 - 1873207 https://www.phoenixcontact.com/us/products/1873207



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKC 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### PCB connector

PCB connector - FKCVW 2,5/ 2-STF-5,08 - 1873809 https://www.phoenixcontact.com/us/products/1873809



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCVW 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### PCB connector

PCB connector - FKCVR 2,5/ 2-STF-5,08 - 1874109 https://www.phoenixcontact.com/us/products/1874109



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCVR 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### PCB connector

PCB connector - QC 1/2-STF-5,08 - 1883352 https://www.phoenixcontact.com/us/products/1883352



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



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#### PCB connector

PCB connector - FKCT 2,5/ 2-STF-5,08 - 1902301 https://www.phoenixcontact.com/us/products/1902301



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

#### PCB connector

PCB connector - TFKC 2,5/ 2-STF-5,08 - 1962697 https://www.phoenixcontact.com/us/products/1962697



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 4, product range: TFKC 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard



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#### PCB connector

PCB connector - SMSTB 2,5/ 2-STF-5,08 - 1971060 https://www.phoenixcontact.com/us/products/1971060



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: SMSTB 2,5/..-STF, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -45 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

#### PCB connector

PCB connector - FKCS 2,5/ 2-STF-5,08 - 1975260 https://www.phoenixcontact.com/us/products/1975260



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: FKCS 2,5/..-STF, 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: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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