

# Feed-through header - MSTB 2,5/12-GF - 1776799

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PCB headers, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTB 2,5/..-GF, pitch: 5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



The figure shows a 10-position version of the product

## Your advantages

- ✓ Maximum flexibility when it comes to device design – one header for connectors with different connection technologies
- ✓ Easy PCB replacement thanks to plug-in modules
- ✓ Well-known mounting principle allows worldwide use
- ✓ Plug-in direction parallel to the PCB
- ✓ Screwable flange for superior mechanical stability



## Key Commercial Data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	
GTIN	4017918038960

## Technical data

### Item properties

Brief article description	Feed-through header
Plug-in system	CLASSIC COMBICON
Type of contact	Male connector
Range of articles	MSTB 2,5/..-GF
Pitch	5 mm
Number of positions	12
Drive form screw head	Slotted
Mounting type	Wave soldering
Pin layout	Linear pinning

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## Technical data

### Item properties

Locking	Threaded flange
Number of levels	1
Number of connections	12
Number of potentials	12

### Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage	250 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	400 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

### 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 - 3 µm Ni),
Metal surface soldering area (top layer)	Tin (3 - 5 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

### Material data - housing

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

### Dimensions for the product

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [ l ]	12 mm
Width [ w ]	70 mm
Height [ h ]	12.1 mm
Pitch	5 mm
Height (without solder pin)	8.6 mm
Solder pin [P]	3.5 mm
Pin dimensions	1 x 1 mm

### Dimensions for PCB design

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## Technical data

### Dimensions for PCB design

Hole diameter	1.4 mm
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### Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

### General product information

Type of note	Notes on operation
Note	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.

### Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

### Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	4 mm
Minimum creepage distance value (III/2)	3.2 mm
Minimum creepage distance value (II/2)	4 mm

### Standards and Regulations

Connection in acc. with standard	EN-VDE
	CSA
Flammability rating according to UL 94	V0

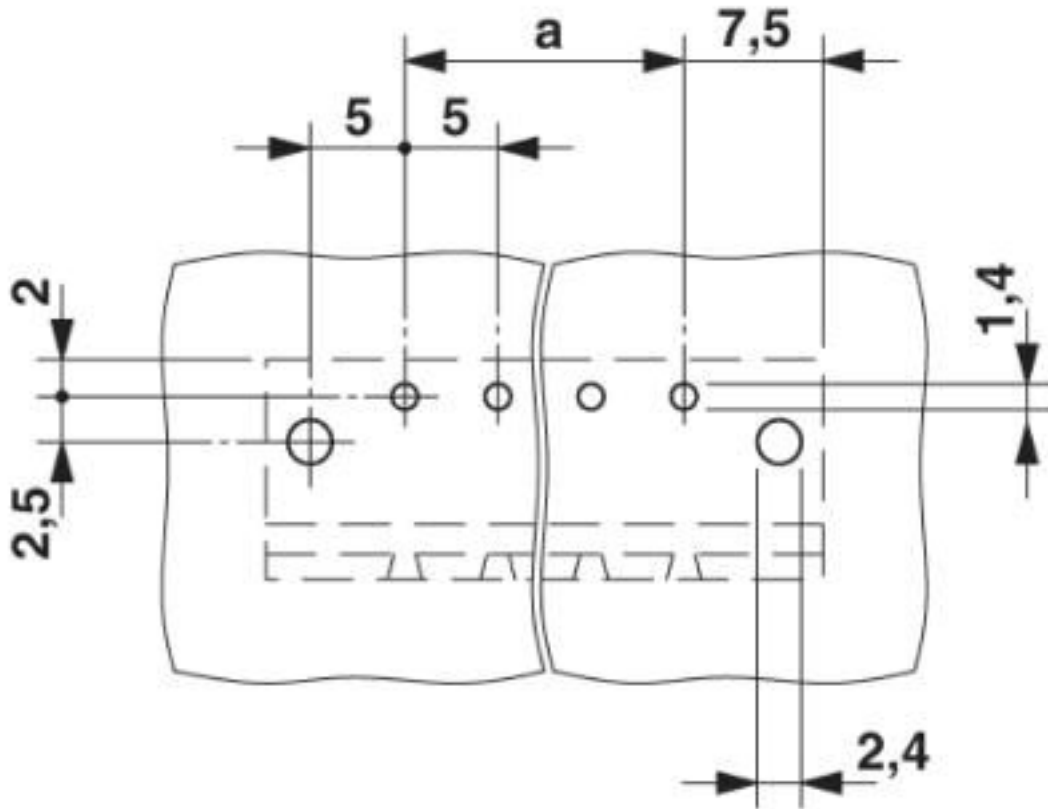
### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

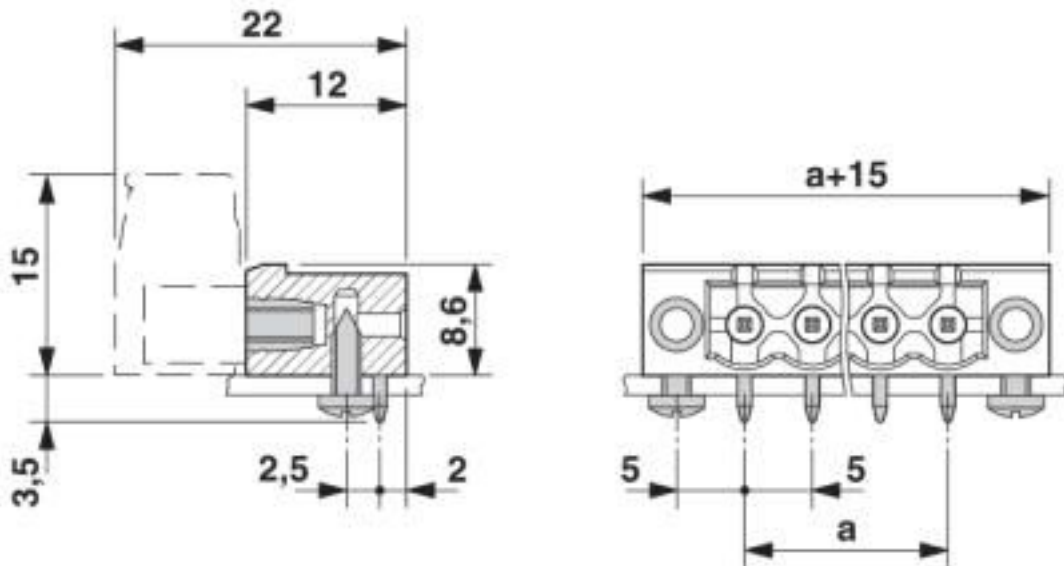
## Drawings

# Feed-through header - MSTB 2,5/12-GF - 1776799

Drilling diagram



Dimensional drawing



# Feed-through header - MSTB 2,5/12-GF - 1776799

## Classifications

### eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 11.0	27460201
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 8.0	27440402
eCl@ss 9.0	27440402

### ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002637
ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

### UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

## Approvals

### Approvals

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#### Approvals

DNV GL / CSA / RS / IECCEB Scheme / EAC / cULus Recognized / VDE Zeichengenehmigung

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#### Ex Approvals

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### Approval details

# Feed-through header - MSTB 2,5/12-GF - 1776799

## Approvals

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00001EY
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	

RS		<a href="http://www.rs-head.spb.ru/en/index.php">http://www.rs-head.spb.ru/en/index.php</a>	17.00014.272
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IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-60988-B1B2
Nominal voltage UN		250 V	
Nominal current IN		12 A	

EAC			B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-19931011
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	15 A	10 A	

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40050648
Nominal voltage UN		250 V	
Nominal current IN		12 A	

## Feed-through header - MSTB 2,5/12-GF - 1776799

### Accessories

#### Accessories

#### Coding element

Coding section - CR-MSTB - 1734401

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



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### Filler plug

Accessories - MSTB-BL - 1755477



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

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### Labeled terminal marker

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

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### Additional products

Plug - QC 1,5/12-STF - 1718216



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 630 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: QC 1,5/..-STF, pitch: 5 mm, connection method: Displacement connection, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

Printed-circuit board connector - FKCN 2,5/12-STF - 1733055



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FKCN 2,5/..-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

## Feed-through header - MSTB 2,5/12-GF - 1776799

### Accessories

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#### Printed-circuit board connector - FRONT-MSTB 2,5/12-STF - 1779741

PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FRONT-MSTB 2,5/...-STF, pitch: 5 mm, connection method: Front screw connection, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



#### Printed-circuit board connector - MSTB 2,5/12-STF - 1786938

PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MSTB 2,5/...-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



#### Printed-circuit board connector - MVSTBW 2,5/12-STF - 1835384

PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MVSTBW 2,5/...-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: -90 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



#### Printed-circuit board connector - MVSTBR 2,5/12-STF - 1835575

PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: MVSTBR 2,5/...-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 90 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



#### Printed-circuit board connector - FKCT 2,5/11-STF - 1909498

PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 11, Number of rows: 1, Number of positions per row: 11, number of connections: 11, product range: FKCT 2,5/...-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard



## Feed-through header - MSTB 2,5/12-GF - 1776799

### Accessories

#### Printed-circuit board connector - FKCVR 2,5/12-STF - 1909980



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FKCVR 2,5/..-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 90 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

#### Printed-circuit board connector - FKCVW 2,5/12-STF - 1910306



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FKCVW 2,5/..-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: -90 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

#### Printed-circuit board connector - FKC 2,5/12-STF - 1910623



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: FKC 2,5/..-STF, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard

#### Printed-circuit board connector - SMSTB 2,5/12-STF - 1970977



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 12, Number of rows: 1, Number of positions per row: 12, number of connections: 12, product range: SMSTB 2,5/..-STF, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: -45 °, Stecksystem: CLASSIC COMBICON, Locking: Screw locking, type of packaging: packed in cardboard