

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

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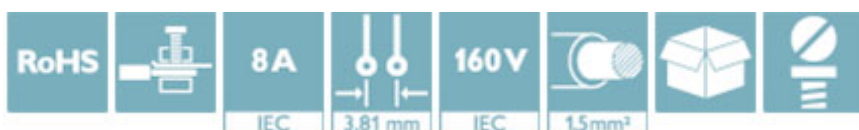
Plug component, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Connection method: Screw connection with tension sleeve, Color: green, Contact surface: Tin



The figure shows a 10-position version of the product

### Why buy this product

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors



### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 50 STK                                                                                                  |
| GTIN                                 | <br>4 017918 045982 |
| GTIN                                 | 4017918045982                                                                                           |
| Weight per Piece (excluding packing) | 8.880 g                                                                                                 |
| Custom tariff number                 | 85366990                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### Technical data

#### Dimensions

|             |          |
|-------------|----------|
| Length      | 16.1 mm  |
| Height      | 11.1 mm  |
| Width       | 46.51 mm |
| Pitch       | 3.81 mm  |
| Dimension a | 41.91 mm |

#### General

|                   |                  |
|-------------------|------------------|
| Range of articles | MC 1,5/...-ST    |
| Type of contact   | Female connector |

# Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

## Technical data

### General

|                                        |                                                        |
|----------------------------------------|--------------------------------------------------------|
| Number of positions                    | 12                                                     |
| Connection method                      | Screw connection with tension sleeve                   |
| Insulating material group              | I                                                      |
| Rated surge voltage (III/3)            | 2.5 kV                                                 |
| Rated surge voltage (III/2)            | 2.5 kV                                                 |
| Rated surge voltage (II/2)             | 2.5 kV                                                 |
| Rated voltage (III/3)                  | 160 V                                                  |
| Rated voltage (III/2)                  | 160 V                                                  |
| Rated voltage (II/2)                   | 320 V                                                  |
| Connection in acc. with standard       | EN-VDE                                                 |
| Nominal current $I_N$                  | 8 A                                                    |
| Nominal cross section                  | 1.5 mm <sup>2</sup>                                    |
| Maximum load current                   | 8 A (with 1.5 mm <sup>2</sup> conductor cross section) |
| Insulating material                    | PA                                                     |
| Flammability rating according to UL 94 | V0                                                     |
| Internal cylindrical gage              | A1                                                     |
| Stripping length                       | 7 mm                                                   |
| Screw thread                           | M2                                                     |
| Tightening torque, min                 | 0.22 Nm                                                |
| Tightening torque max                  | 0.25 Nm                                                |

### Connection data

|                                                                                         |                      |
|-----------------------------------------------------------------------------------------|----------------------|
| Conductor cross section solid min.                                                      | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.                                                      | 1.5 mm <sup>2</sup>  |
| Conductor cross section flexible min.                                                   | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible max.                                                   | 1.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule without plastic sleeve min.              | 0.25 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve max.              | 1.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule with plastic sleeve min.                 | 0.25 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule with plastic sleeve max.                 | 0.5 mm <sup>2</sup>  |
| Conductor cross section AWG min.                                                        | 28                   |
| Conductor cross section AWG max.                                                        | 16                   |
| 2 conductors with same cross section, solid min.                                        | 0.08 mm <sup>2</sup> |
| 2 conductors with same cross section, solid max.                                        | 0.5 mm <sup>2</sup>  |
| 2 conductors with same cross section, stranded min.                                     | 0.08 mm <sup>2</sup> |
| 2 conductors with same cross section, stranded max.                                     | 0.75 mm <sup>2</sup> |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.   | 0.25 mm <sup>2</sup> |
| 2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.   | 0.34 mm <sup>2</sup> |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min. | 0.5 mm <sup>2</sup>  |

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## Technical data

### Connection data

|                                                                                         |                     |
|-----------------------------------------------------------------------------------------|---------------------|
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max. | 0.5 mm <sup>2</sup> |
| Minimum AWG according to UL/CUL                                                         | 30                  |
| Maximum AWG according to UL/CUL                                                         | 14                  |

### Standards and Regulations

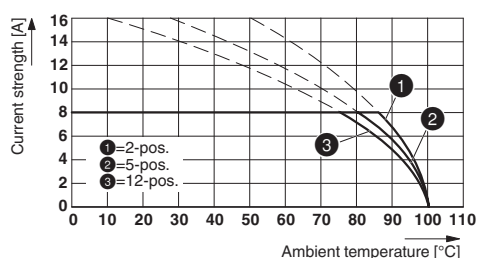
|                                        |        |
|----------------------------------------|--------|
| Connection in acc. with standard       | EN-VDE |
|                                        | CSA    |
| Flammability rating according to UL 94 | V0     |

### Environmental Product Compliance

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

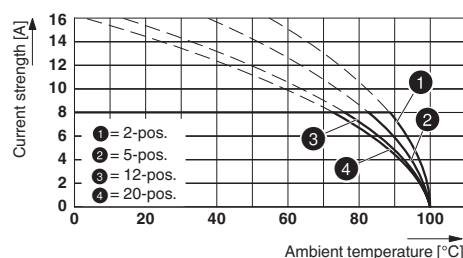
## Drawings

Diagram



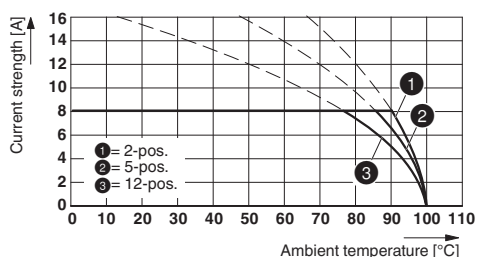
Type: MC 1,5/...-ST-3,81 with MC 1,5/...-G-3,81 THT

Diagram



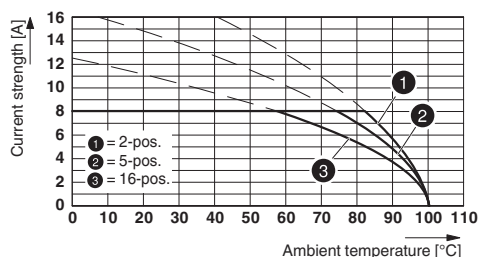
Type: MC 1,5/...-ST-3,81 with MCV 1,5/...-G-3,81

Diagram



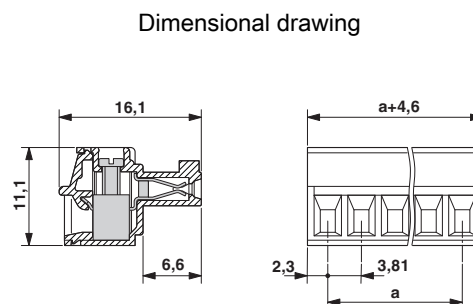
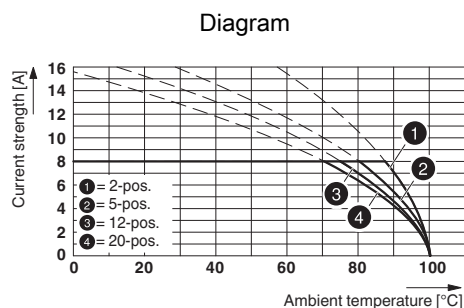
Type: MC 1,5/...-ST-3,81 with MCV 1,5/...-G-3,81 P26 THR

Diagram



Type: MC 1,5/...-ST-3,81 with MCD 1,5/...-G1-3,81

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675



Type: MC 1,5/...-ST-3,81 with MC 1,5/...-G-3,81

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 272607xx |
| eCl@ss 4.1 | 27260701 |
| eCl@ss 5.0 | 27260701 |
| eCl@ss 5.1 | 27260701 |
| eCl@ss 6.0 | 27260704 |
| eCl@ss 7.0 | 27440402 |
| eCl@ss 8.0 | 27440309 |
| eCl@ss 9.0 | 27440309 |

ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001121 |
| ETIM 4.0 | EC002638 |
| ETIM 5.0 | EC002638 |
| ETIM 6.0 | EC002638 |

UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211810 |
| UNSPSC 7.0901 | 39121409 |
| UNSPSC 11     | 39121409 |
| UNSPSC 12.01  | 39121409 |
| UNSPSC 13.2   | 39121409 |

### Approvals

Approvals

Approvals

CSA / VDE Gutachten mit Fertigungsüberwachung / IECCEB Scheme / CCA / cULus Recognized / EAC

Ex Approvals

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

### Approvals

#### Approval details

|                                |                                                                                   |                                                                                                                                                                                           |       |
|--------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                            |  | <a href="http://www.csagroup.org/services/testing-and-certification/certified-product-listing/">http://www.csagroup.org/services/testing-and-certification/certified-product-listing/</a> | 13631 |
|                                | B                                                                                 | D                                                                                                                                                                                         |       |
| mm²/AWG/kcmil                  | 28-16                                                                             | 28-16                                                                                                                                                                                     |       |
| Nominal current I <sub>N</sub> | 8 A                                                                               | 8 A                                                                                                                                                                                       |       |
| Nominal voltage U <sub>N</sub> | 300 V                                                                             | 300 V                                                                                                                                                                                     |       |

|                                            |                                                                                   |                                                                                                                                                                                                         |          |
|--------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| VDE Gutachten mit<br>Fertigungsüberwachung |  | <a href="http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx">http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx</a> | 40011723 |
|                                            |                                                                                   |                                                                                                                                                                                                         |          |
| mm²/AWG/kcmil                              | 0.2-1.5                                                                           |                                                                                                                                                                                                         |          |
| Nominal current I <sub>N</sub>             | 8 A                                                                               |                                                                                                                                                                                                         |          |
| Nominal voltage U <sub>N</sub>             | 160 V                                                                             |                                                                                                                                                                                                         |          |

|                                |                                                                                     |                                                           |                |
|--------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------|
| IECEE CB Scheme                |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-56063-B1B2 |
|                                |                                                                                     |                                                           |                |
| mm²/AWG/kcmil                  | 0.2-1.5                                                                             |                                                           |                |
| Nominal current I <sub>N</sub> | 8 A                                                                                 |                                                           |                |
| Nominal voltage U <sub>N</sub> | 160 V                                                                               |                                                           |                |

|                                |                |  |  |
|--------------------------------|----------------|--|--|
| CCA                            | CCA/ DE1 34219 |  |  |
|                                |                |  |  |
| mm²/AWG/kcmil                  | 0.2-1.5        |  |  |
| Nominal current I <sub>N</sub> | 8 A            |  |  |
| Nominal voltage U <sub>N</sub> | 160 V          |  |  |

|                                |                                                                                     |                                                                                                                                                       |                 |
|--------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 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> | E60425-20110128 |
|                                | B                                                                                   | D                                                                                                                                                     |                 |
| mm²/AWG/kcmil                  | 30-14                                                                               | 30-14                                                                                                                                                 |                 |
| Nominal current I <sub>N</sub> | 8 A                                                                                 | 8 A                                                                                                                                                   |                 |
| Nominal voltage U <sub>N</sub> | 300 V                                                                               | 300 V                                                                                                                                                 |                 |

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

### Approvals

EAC



B.01742

### Accessories

#### Accessories

##### Bridge

Insertion bridge - EBPL 2-3,81 - 1733495



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

Insertion bridge - EBPL 3-3,81 - 1733505



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

Insertion bridge - EBPL 4-3,81 - 1733518



Insertion bridge for plugs featuring a screw connection with a 3.81 mm pitch

##### Cable housing

Cable housing - KGG-MC 1,5/12 - 1834440



Cable housing, Pitch: 3.81 mm, Number of positions: 12, Dimension a: 48.11 mm, Color: green

##### Labeled terminal marker

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

### Accessories

Marker card - SK 3,81/2,8:FORTL.ZAHLEN - 0804109



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: 3.81 mm, Lettering field: 3.81 x 2.8 mm

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### Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

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### Screwdriver tools

Screwdriver - SZS 0,4X2,5 VDE - 1205037



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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### Additional products

Base strip - MCV 1,5/12-G-3,81 P14 THR - 1707104



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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Base strip - MCV 1,5/12-G-3,81 P26 THR - 1707528



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

### Accessories

Base strip - MCV 1,5/12-G-3,81 P26 THRR72 - 1712982



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering

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Printed-circuit board connector - MC 1,5/12-G-3,81 P20 THRR72 - 1782679



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"

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Base strip - MC 1,5/12-G-3,81 - 1803374



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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Base strip - MCV 1,5/12-G-3,81 - 1803523



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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Base strip - SMC 1,5/12-G-3,81 - 1827376



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

### Accessories

#### Base strip - MCD 1,5/12-G-3,81 - 1830059



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

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#### Base strip - MCDV 1,5/12-G-3,81 - 1830509



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

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#### Base strip - MCVDU 1,5/12-G-3,81 - 1837531



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering

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#### Base strip - MCD 1,5/12-G1-3,81 - 1843172



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

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#### Base strip - MCDV 1,5/12-G1-3,81 - 1847835



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Wave soldering, In combination with MCV plug components, both an MCVW and an MCVR plug must be used.

## Printed-circuit board connector - MC 1,5/12-ST-3,81 - 1803675

### Accessories

#### Base strip - EMCV 1,5/12-G-3,81 - 1860744



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Press-in technology

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#### Base strip - EMC 1,5/12-G-3,81 - 1897908



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: green, Contact surface: Tin, Mounting: Press-in technology

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#### Base strip - MC 1,5/12-G-3,81 THT - 1908868



Header, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 12, Pitch: 3.81 mm, Color: black, Contact surface: Tin, Mounting: THR soldering, User information and design recommendations for through hole reflow technology can be found under "Downloads"