

## Printed-circuit board connector - MCVR 1,5/ 7-ST-3,81 - 1827172

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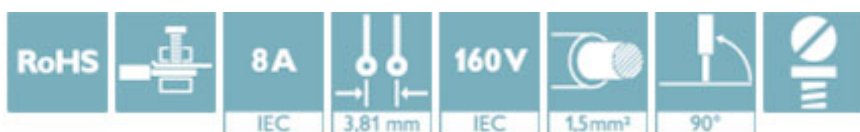


Plug component, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, Color: green, contact surface: Tin

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 050115 |
| GTIN                                 | 4017918050115                                                                                           |
| Weight per Piece (excluding packing) | 5.490 g                                                                                                 |
| Custom tariff number                 | 85366990                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### Technical data

#### Dimensions

|              |          |
|--------------|----------|
| Length [ l ] | 19.01 mm |
| Width [ w ]  | 27.16 mm |
| Height [ h ] | 10.4 mm  |
| Pitch        | 3.81 mm  |
| Dimension a  | 22.86 mm |

#### General

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

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## Technical data

### General

|                                        |                                                        |
|----------------------------------------|--------------------------------------------------------|
| Number of positions                    | 7                                                      |
| 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

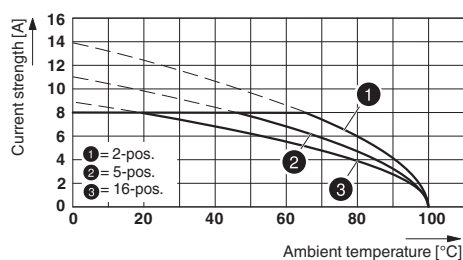
|                                        |        |
|----------------------------------------|--------|
| Connection in acc. with standard       | EN-VDE |
|                                        | CSA    |
| Flammability rating according to UL 94 | V0     |

### Environmental Product Compliance

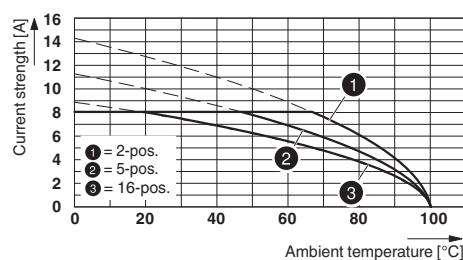
|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50           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

## Drawings

Diagram



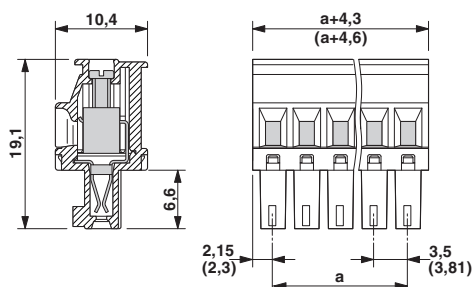
Diagram



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

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

Dimensional drawing



## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 272607xx |
| eCl@ss 4.1 | 27260701 |
| eCl@ss 5.0 | 27260701 |

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| 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

#### Approval details

|                                |                                                                                     |       |
|--------------------------------|-------------------------------------------------------------------------------------|-------|
| CSA                            |  | 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 |

## Printed-circuit board connector - MCVR 1,5/ 7-ST-3,81 - 1827172

### Approvals

|                                            |                                                                                   |                                                                                                                                                                                                              |          |
|--------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 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/<br/>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> | DE1-58415-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                                                                                                                                                 |                 |

|     |                                                                                     |         |
|-----|-------------------------------------------------------------------------------------|---------|
| EAC |  | B.01742 |
|-----|-------------------------------------------------------------------------------------|---------|

### Accessories

Accessories

Bridge

## Printed-circuit board connector - MCVR 1,5/ 7-ST-3,81 - 1827172

### Accessories

Insertion bridge - EBPL 2-3,81 - 1733495



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

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Insertion bridge - EBPL 3-3,81 - 1733505



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

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Insertion bridge - EBPL 4-3,81 - 1733518



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

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### Labeled terminal marker

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

## Printed-circuit board connector - MCVR 1,5/ 7-ST-3,81 - 1827172

### Accessories

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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### Terminal marking

Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883



Marker card, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, Office printing systems, Mounting type: adhesive, for terminal block width: 210 mm, Lettering field: 186 x 2.8 mm

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### Additional products

Base strip - MCV 1,5/ 7-G-3,81 P14 THR - 1707052



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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/ 7-G-3,81 P26 THR - 1707476



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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/ 7-G-3,81 P26 THRR56 - 1712937



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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 - MCVR 1,5/ 7-ST-3,81 - 1827172

### Accessories

Printed-circuit board connector - MC 1,5/ 7-G-3,81 P20 THRR56 - 1782624

Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: black, contact surface: Tin, mounting: THR soldering



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Base strip - MC 1,5/ 7-G-3,81 - 1803329

Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Wave soldering



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Base strip - MCV 1,5/ 7-G-3,81 - 1803471

Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Wave soldering



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Base strip - SMC 1,5/ 7-G-3,81 - 1827321

Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Wave soldering



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Base strip - MCD 1,5/ 7-G-3,81 - 1830004

Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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 - MCVR 1,5/ 7-ST-3,81 - 1827172

### Accessories

#### Base strip - MCDV 1,5/ 7-G-3,81 - 1830457



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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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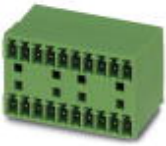
#### Base strip - MCVDU 1,5/ 7-G-3,81 - 1837489



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Wave soldering

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#### Base strip - MCD 1,5/ 7-G1-3,81 - 1843127



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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/ 7-G1-3,81 - 1847783



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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 - EMCV 1,5/ 7-G-3,81 - 1860692



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Press-in technology

## Printed-circuit board connector - MCVR 1,5/ 7-ST-3,81 - 1827172

### Accessories

#### Base strip - MCO 1,5/ 7-GR-3,81 - 1861691



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Wave soldering

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#### Base strip - MCO 1,5/ 7-GL-3,81 - 1861772



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Wave soldering

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#### Base strip - EMC 1,5/ 7-G-3,81 - 1897856



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, pitch: 3.81 mm, Color: green, contact surface: Tin, mounting: Press-in technology

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#### Base strip - MC 1,5/ 7-G-3,81 THT - 1908813



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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/ 7-G-3,81 THT-R56 - 1943807



Header, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 7, 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"