

## Printed-circuit board connector - MC 1,5/ 7-ST-3,81 - 1803620

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

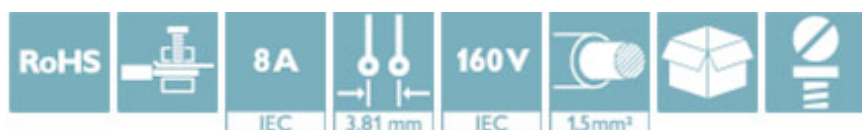
Plug component, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 7, Pitch: 3.81 mm, Connection method: Screw connection with tension sleeve, Color: green, Contact surface: Tin



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 045937 |
| GTIN                                 | 4017918045937                                                                                           |
| Weight per Piece (excluding packing) | 4.890 g                                                                                                 |
| Custom tariff number                 | 85366990                                                                                                |
| Country of origin                    | Germany                                                                                                 |

### Technical data

#### Dimensions

|             |          |
|-------------|----------|
| Length      | 16.1 mm  |
| Height      | 11.1 mm  |
| Width       | 27.46 mm |
| Pitch       | 3.81 mm  |
| Dimension a | 22.86 mm |

#### General

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

# Printed-circuit board connector - MC 1,5/ 7-ST-3,81 - 1803620

## 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>  |

# Printed-circuit board connector - MC 1,5/ 7-ST-3,81 - 1803620

## 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

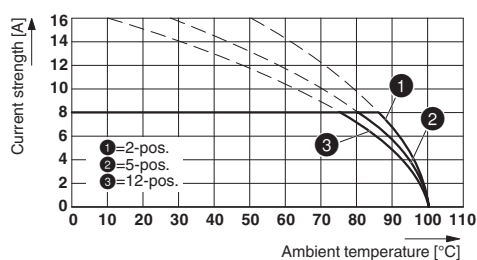
|                                        |        |
|----------------------------------------|--------|
| Connection in acc. with standard       | EN-VDE |
|                                        | CSA    |
| Flammability rating according to UL 94 | V0     |

### Environmental Product Compliance

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

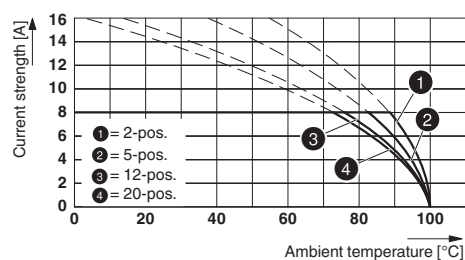
## Drawings

Diagram



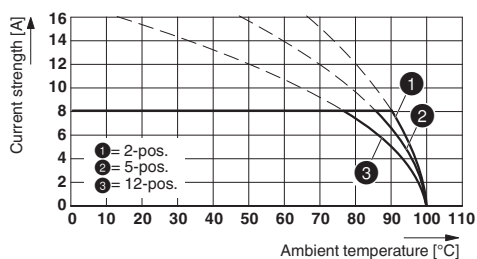
Type: MC 1,5/...-ST-3,81 with MC 1,5/...-G-3,81 THT

Diagram



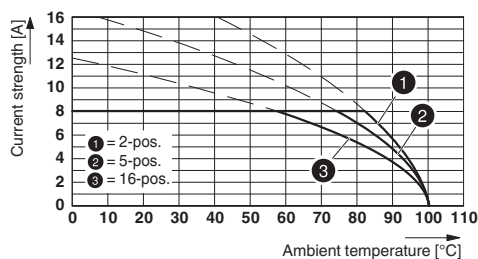
Type: MC 1,5/...-ST-3,81 with MCV 1,5/...-G-3,81

Diagram



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

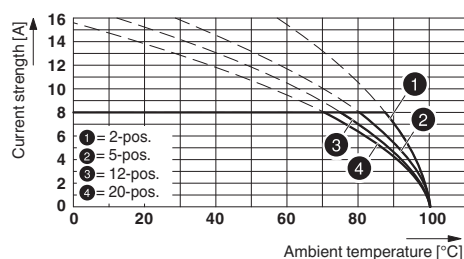
Diagram



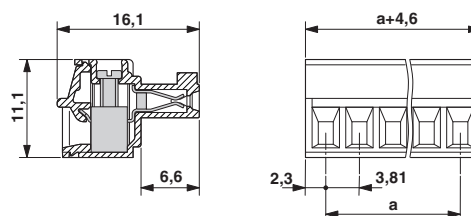
Type: MC 1,5/...-ST-3,81 with MCD 1,5/...-G1-3,81

## Printed-circuit board connector - MC 1,5/ 7-ST-3,81 - 1803620

Diagram



Dimensional drawing



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/ 7-ST-3,81 - 1803620

### 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/ 7-ST-3,81 - 1803620

### 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/ 7 - 1834398



Cable housing, Pitch: 3.81 mm, Number of positions: 7, Dimension a: 29.09 mm, Color: green

##### Labeled terminal marker

## Printed-circuit board connector - MC 1,5/ 7-ST-3,81 - 1803620

### 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

---

### 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

---

### 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"

---

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"

---

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 - MC 1,5/ 7-ST-3,81 - 1803620

### 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



---

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



---

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



---

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



---

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 - MC 1,5/ 7-ST-3,81 - 1803620

### Accessories

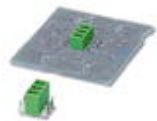
#### Base strip - MCDV 1,5/ 7-G-3,81 - 1830457



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.

---

#### 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

---

#### 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.

---

#### 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.

---

#### 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 - MC 1,5/ 7-ST-3,81 - 1803620

### 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

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

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

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"

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"