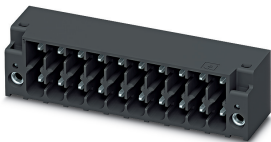


# Printed-circuit board connector - DMC 1,5/ 9-G1F-3,5-LR P20THR - 1787085

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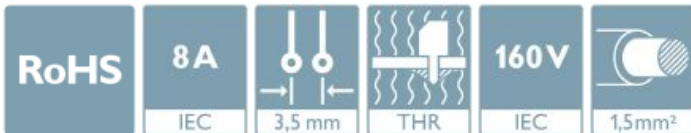
PCB header, nominal cross section: 1.5 mm<sup>2</sup>, color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 18, Number of rows: 2, Number of positions per row: 9, number of connections: 18, product range: DMC 1,5/...-G1F-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, plug-in system: MINI COMBICON - DFMC 1,5, Locking: Snap-in locking, type of packaging: packed in cardboard



The figure shows a 10-pos. version with 20 contacts

## Your advantages

- ✔ Designed for integration into the SMT soldering process
- ✔ Screwable flange for superior mechanical stability
- ✔ Automatic locking and intuitive release through Lock and Release operating lever in contrasting color
- ✔ Conductor connection on several levels enables higher contact density
- ✔ Small component size for applications where space is at a premium



## Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 50 pc         |
| GTIN         |               |
| GTIN         | 4046356596695 |

## Technical data

### Item properties

|                           |                          |
|---------------------------|--------------------------|
| Brief article description | Feed-through header      |
| Plug-in system            | MINI COMBICON - DFMC 1,5 |
| Type of contact           | Male connector           |
| Range of articles         | DMC 1,5/...-G1F-THR      |
| Pitch                     | 3.5 mm                   |
| Number of positions       | 9                        |
| Mounting type             | THR soldering            |
| Pin layout                | Linear pinning           |

# Printed-circuit board connector - DMC 1,5/ 9-G1F-3,5-LR P20THR - 1787085

## Technical data

### Item properties

|                                 |                                |
|---------------------------------|--------------------------------|
| Locking                         | Lock & release threaded flange |
| Number of levels                | 2                              |
| Number of connections           | 18                             |
| Number of potentials            | 18                             |
| Pin connector pattern alignment | Standard                       |

### Electrical parameters

|                             |        |
|-----------------------------|--------|
| Nominal current             | 8 A    |
| Nom. voltage                | 160 V  |
| Rated voltage (III/3)       | 160 V  |
| Rated voltage (III/2)       | 160 V  |
| Rated voltage (II/2)        | 250 V  |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated surge voltage (III/2) | 2.5 kV |
| Rated surge voltage (II/2)  | 2.5 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 µm Ni)  |
| Metal surface soldering area (top layer)    | Tin (3 - 5 µm Sn)   |
| Metal surface soldering area (middle layer) | Nickel (1 - 3 µm Ni)  |

### Material data - housing

|  |              |
|--|--------------|
| Housing color                          | black (9005) |
| Insulating material                    | LCP          |
| Insulating material group              | IIIa         |
| CTI according to IEC 60112             | 175          |
| Flammability rating according to UL 94 | V0           |

### Dimensions for the product

|                             |  |
|-----------------------------|--|
| Caption                     | Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center |
| Length [ l ]                | 11.6 mm  |
| Width [ w ]                 | 38.5 mm  |
| Height [ h ]                | 12.8 mm  |
| Pitch                       | 3.5 mm   |
| Height (without solder pin) | 10.8 mm  |
| Solder pin [P]              | 2 mm   |

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## Technical data

### Dimensions for the product

|                |              |
|----------------|--------------|
| Pin spacing    | 2.50 mm      |
| Pin dimensions | 0.8 x 0.8 mm |

### Dimensions for PCB design

|               |         |
|---------------|---------|
| Hole diameter | 1.4 mm  |
| Pin spacing   | 2.50 mm |

### Packaging information

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

### Processing notes

|   |  |
|---|--|
| Process                                   | Reflow/wave soldering                    |
| Specification                             | Following IPC/JEDEC J-STD-020D.1:2008-03 |
|   | Following IEC 60068-2-54:2006-04         |
|   | Following IEC 60068-2-58:2005-02         |
| Moisture Sensitive Level                  | MSL 1                                    |
| Classification temperature T <sub>c</sub> | 260 °C                                   |
| Solder cycles in the reflow               | 3  |

### 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) | 1.5 mm              |
| Minimum clearance - inhomogeneous field (III/2) | 1.5 mm              |
| Minimum clearance - inhomogeneous field (II/2)  | 1.5 mm              |
| Minimum creepage distance value (III/3)         | 2.5 mm              |
| Minimum creepage distance value (III/2)         | 1.6 mm              |
| Minimum creepage distance value (II/2)          | 2.5 mm              |

### Standards and Regulations

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

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|------------|---|

# Printed-circuit board connector - DMC 1,5/ 9-G1F-3,5-LR P20THR - 1787085

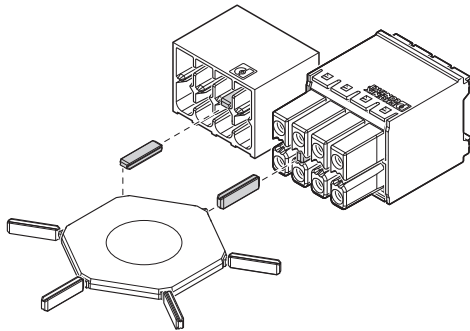
## Technical data

### Environmental Product Compliance

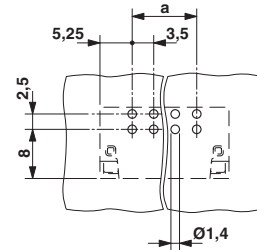
|  |  |
|--|--|
|  | No hazardous substances above threshold values |
|--|--|

## Drawings

Schematic diagram

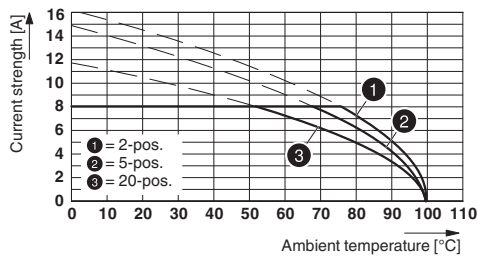


Drilling diagram

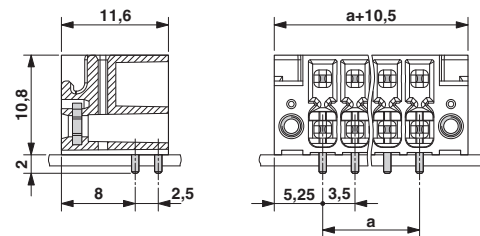


### Use of the CP-DMC... coding profile

Diagram

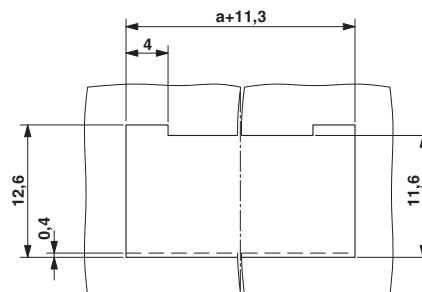


Dimensional drawing



Type: DFMC 1,5/...-ST-3,5-LR with DMC 1,5/...-G1F-3,5-LR P...THR

Schematic diagram



### Panel cutout

# Printed-circuit board connector - DMC 1,5/ 9-G1F-3,5-LR P20THR - 1787085

## 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 9.0    | 27440402 |

### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | 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

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

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#### Ex Approvals

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### Approval details

# Printed-circuit board connector - DMC 1,5/ 9-G1F-3,5-LR P20THR - 1787085

## Approvals

|  |  |  |          |
|--|--|--|----------|
| VDE Gutachten mit<br>Fertigungsüberwachung |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/<br/>VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40038423 |
| Nominal voltage UN                         |  | 160 V  |          |
| Nominal current IN                         |  | 8 A  |          |

|                    |  |   |                 |
|--------------------|--|---|-----------------|
| IECEE CB Scheme    |  | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-60359_B1_B2 |
| Nominal voltage UN |  | 160 V   |                 |
| Nominal current IN |  | 8 A   |                 |

|     |  |         |
|-----|--|---------|
| EAC |  | B.01687 |
|-----|--|---------|

|                    |       |   |                 |
|--------------------|-------|---|-----------------|
| 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     | C   | D               |
| Nominal voltage UN | 150 V | 50 V  | 300 V           |
| Nominal current IN | 8 A   | 8 A   | 8 A             |

## Accessories

### Accessories

#### Coding element

Coding profile - CP-DMC 1,5 NAT - 1790647

Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural



## Additional products

## Printed-circuit board connector - DMC 1,5/ 9-G1F-3,5-LR P20THR - 1787085

### Accessories

Printed-circuit board connector - DFMC 1,5/ 9-STF-3,5 - 1790360



Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 9 with 18 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin

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Printed-circuit board connector - DFMC 1,5/ 9-ST-3,5-LR - 1790551



Plug, nominal current: 8 A, rated voltage (III/2): 160 V, number of positions: 9 with 18 contacts, pitch: 3.5 mm, connection method: spring-cage connection, color: green, contact surface: tin

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