

## Contact insert - HC-DD42-I-CT-M - 1584059

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HEAVYCON male insert, DD42 series, 42-pos., crimp connection

### Your advantages

- ✓ Can be used in rail vehicles, satisfy DIN EN 45545-2 with requirement sets R22, R23, and R24 in hazard levels HL1, HL2, and HL3.

RoHS

COMPLETE RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 1 pc                                                                                                    |
| GTIN         | <br>4 046356 133364 |
| GTIN         | 4046356133364                                                                                           |

### Technical data

#### General

|                                    |                                                                                                                       |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Note                               | Connectors may be operated only when there is no load/voltage.                                                        |
|                                    | It is imperative that guide pins (HC-CST) and sockets (HC-CBU) are used to prevent tip collision due to misalignment. |
| Connection method                  | Crimp connection                                                                                                      |
| Torque                             | 0.8 Nm ... 1.2 Nm (PE connection)                                                                                     |
|                                    | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing)                                              |
| Number of connections per position | 1                                                                                                                     |
| Degree of pollution                | 3                                                                                                                     |
| Overvoltage category               | III                                                                                                                   |
| Number of positions                | 42+PE                                                                                                                 |
| Insertion/withdrawal cycles        | ≥ 500                                                                                                                 |
| Size                               | B10                                                                                                                   |
| Contact numbering                  | 1 - 42                                                                                                                |
| Conductor cross section            | 0.14 mm² ... 2.5 mm²                                                                                                  |
| Connection cross section AWG       | 26 ... 14                                                                                                             |

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## Technical data

### General

|                                         |                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------|
| Stripping length of the individual wire | 8 mm (0.14 ... 1.5 mm <sup>2</sup> )                                                      |
|                                         | 6 mm (2.5 mm <sup>2</sup> )                                                               |
| Minimum housing height                  | 72 mm                                                                                     |
| Assembly instructions                   | To ensure correct use, installation in housing with IP54 protection or better is required |

### Ambient conditions

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Ambient temperature (operation) | -40 °C ... 125 °C (including heating up of contacts) |
|---------------------------------|------------------------------------------------------|

### Material data

|                          |                                                                                                                         |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Contact material         | Copper alloy                                                                                                            |
| Contact surface material | Ag (alternatively Au)                                                                                                   |
| Contact carrier material | PC                                                                                                                      |
| Standards/regulations    | PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

### Electrical characteristics

|                       |       |
|-----------------------|-------|
| Rated voltage (III/3) | 250 V |
| Rated surge voltage   | 4 kV  |
| Rated current         | 10 A  |

### Standards and Regulations

|                                        |                            |
|----------------------------------------|----------------------------|
| Connection in acc. with standard       | CSA                        |
| Constructional and testing regulations | DIN VDE 0627/86            |
|                                        | DIN VDE 0110/02.79         |
|                                        | DIN VDE 0110-1/04.97       |
|                                        | IEC 60664-1, DIN IEC 60512 |
|                                        | IEC 60352                  |
| Flammability rating according to UL 94 | V0                         |

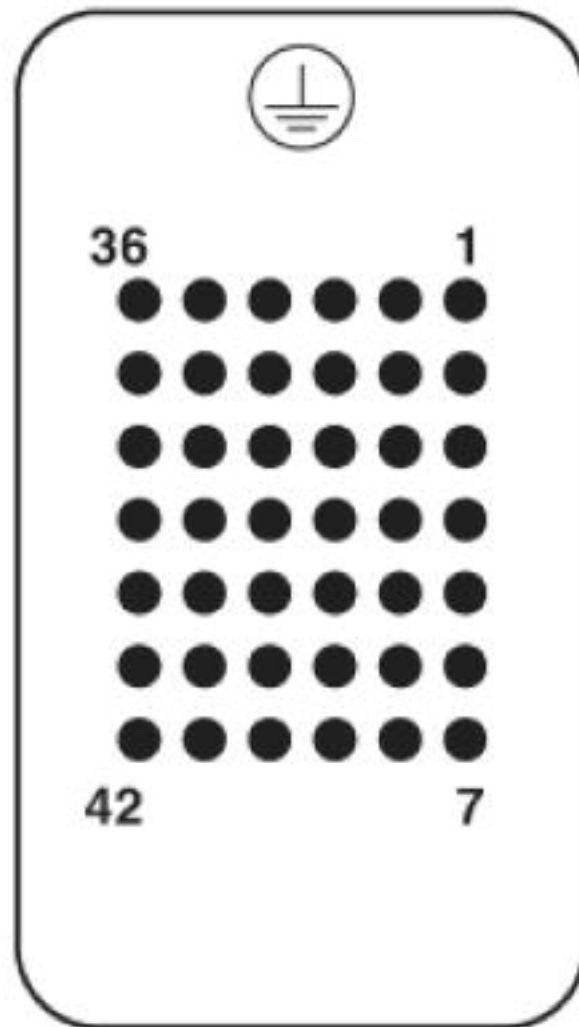
### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

## Contact insert - HC-DD42-I-CT-M - 1584059

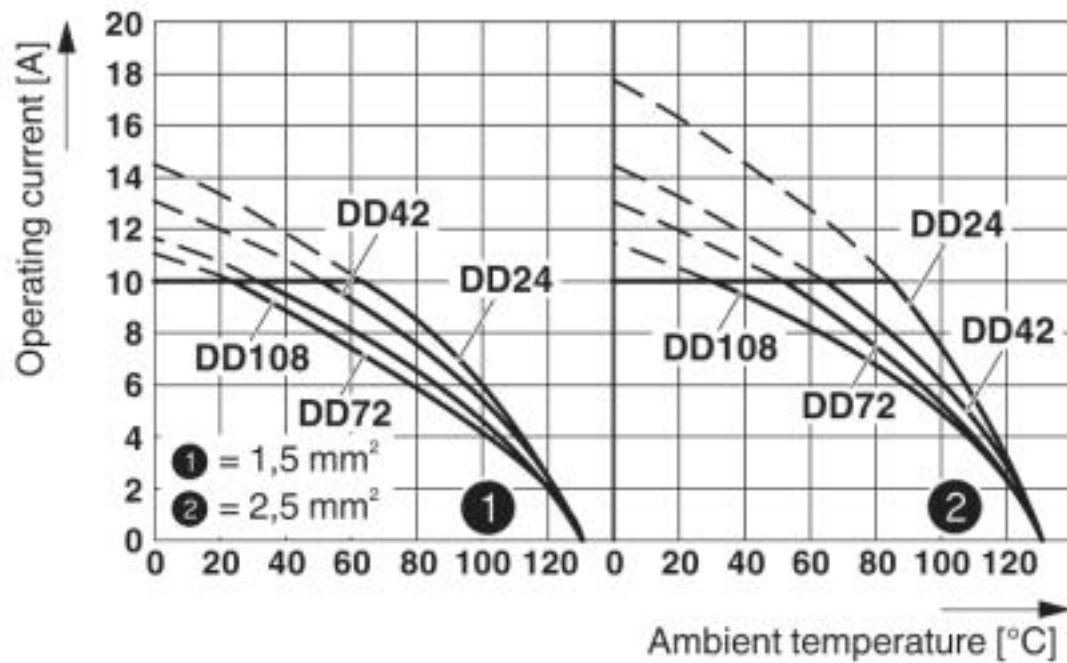
Schematic diagram



Connector pin assignment, connection side

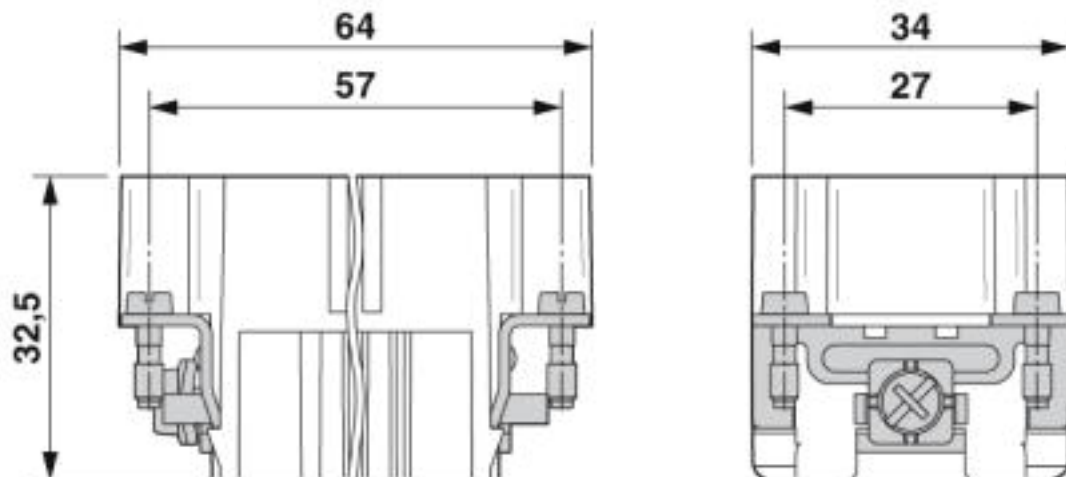
## Contact insert - HC-DD42-I-CT-M - 1584059

Diagram



Derating diagram

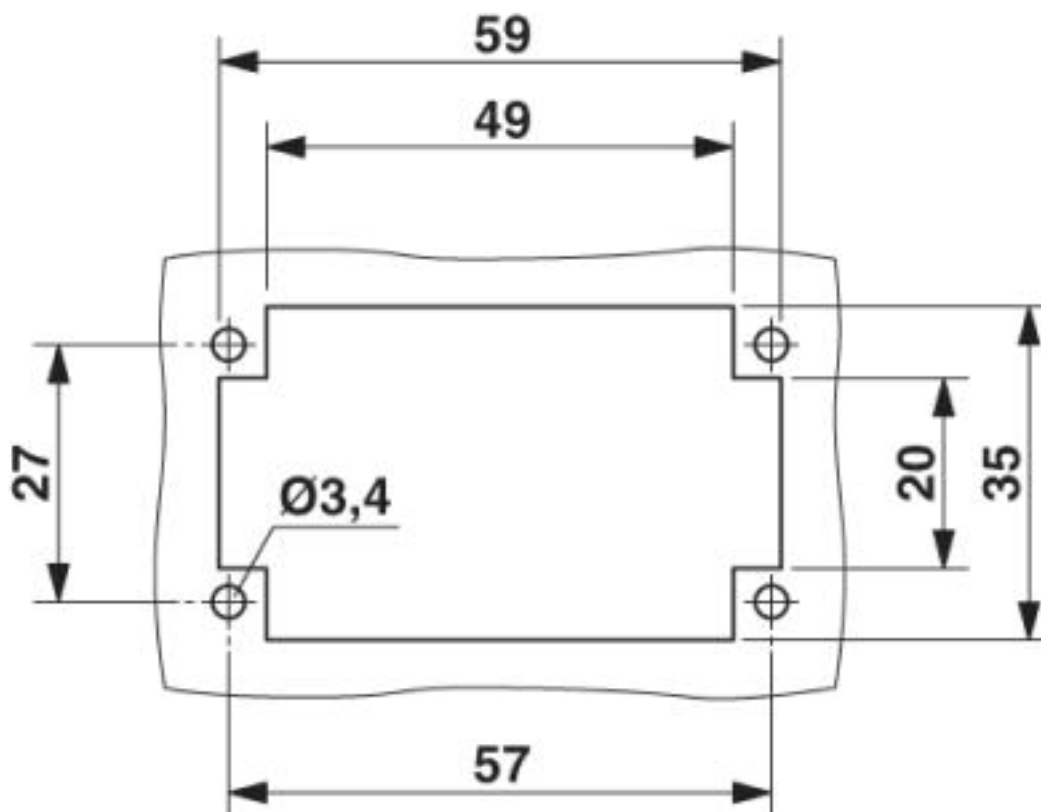
Dimensional drawing



Male insert

## Contact insert - HC-DD42-I-CT-M - 1584059

Dimensional drawing



Mounting cutout when used without housing

### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27440205 |
| eCl@ss 4.0    | 27140800 |
| eCl@ss 4.1    | 27140800 |
| eCl@ss 5.0    | 27143400 |
| eCl@ss 5.1    | 27261200 |
| eCl@ss 6.0    | 27261200 |
| eCl@ss 7.0    | 27440205 |
| eCl@ss 8.0    | 27440205 |
| eCl@ss 9.0    | 27440205 |

ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC000438 |
| ETIM 4.0 | EC000437 |
| ETIM 5.0 | EC000438 |
| ETIM 6.0 | EC000438 |

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## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 7.0 | EC000438 |
|----------|----------|

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211923 |
| UNSPSC 7.0901 | 39121522 |
| UNSPSC 11     | 39121522 |
| UNSPSC 12.01  | 39121522 |
| UNSPSC 13.2   | 39121522 |
| UNSPSC 18.0   | 39121522 |
| UNSPSC 19.0   | 39121522 |
| UNSPSC 20.0   | 39121522 |
| UNSPSC 21.0   | 39121522 |

## Approvals

### Approvals

#### Approvals

CSA / UL Recognized / cUL Recognized / EAC / DNV GL / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                    |                                                                                     |                                                                                                                                         |                |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|
| CSA                |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 013631_6233_01 |
| Nominal voltage UN |                                                                                     | 250 V                                                                                                                                   |                |
| Nominal current IN |                                                                                     | 7 A                                                                                                                                     |                |
| mm²/AWG/kcmil      |                                                                                     | 26-14                                                                                                                                   |                |

|                    |                                                                                     |                                                                                                                                                       |               |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| UL 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> | FILE E 118976 |
| Nominal voltage UN |                                                                                     | 250 V                                                                                                                                                 |               |
| Nominal current IN |                                                                                     | 10 A                                                                                                                                                  |               |
| mm²/AWG/kcmil      |                                                                                     | 14                                                                                                                                                    |               |

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### Approvals

|                    |                                                                                   |                                                                                                                                                       |               |
|--------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| cUL 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> | FILE E 118976 |
| Nominal voltage UN | 250 V                                                                             |                                                                                                                                                       |               |
| Nominal current IN | 7 A                                                                               |                                                                                                                                                       |               |
| mm²/AWG/kcmil      | 14                                                                                |                                                                                                                                                       |               |

|     |                                                                                   |                          |
|-----|-----------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.AI30.B.01102 |
|-----|-----------------------------------------------------------------------------------|--------------------------|

|        |                                                                                   |                                                                                   |            |
|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|
| DNV GL |  | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a> | TAE000037S |
|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00511 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| cULus Recognized |  |
|------------------|-------------------------------------------------------------------------------------|

### Accessories

#### Accessories

#### Assembly tool

Assembly tool - UNIFOX MT-CK 1.6/2.5 - 1089092



Assembly tool, for CK 1.6... crimp contacts for small conductor cross sections

### Coding element

## Contact insert - HC-DD42-I-CT-M - 1584059

### Accessories

Coding element - HC-CBU - 1676860



Coding socket for coding up to 16 connectors

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Coding bolt - HC-CB - 1772722



Coding pin, prevents mismatching of up to six connectors with an identical number of positions

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Coding element - HC-CST - 1676857



Coding peg for coding up to 16 connectors

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### Crimp contact

Crimp contact - CK1,6-ED-0,37ST AG - 1663336



Turned 1.6 crimp contact, individual male contact, core diameter 0.14 to 0.37 mm<sup>2</sup>, silver-plated

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Crimp contact - CK1,6-ED-0,50ST AG - 1663349



Turned 1.6 crimp contact, individual male contact, core diameter 0.5 mm<sup>2</sup>, silver-plated

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## Contact insert - HC-DD42-I-CT-M - 1584059

### Accessories

Crimp contact - CK1,6-ED-0,75ST AG - 1663352



Turned 1.6 crimp contact, individual male contact, core diameter 0.75 mm², silver-plated

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Crimp contact - CK1,6-ED-1,00ST AG - 1663365



Turned 1.6 crimp contact, individual male contact, core diameter 0.75 to 1.00 mm², silver-plated

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Crimp contact - CK1,6-ED-1,50ST AG - 1663378



Turned 1.6 crimp contact, individual male contact, core diameter 1.5 mm², silver-plated

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Crimp contact - CK1,6-ED-2,50ST AG - 1663381



Turned 1.6 crimp contact, individual male contact, core diameter 2.5 mm², silver-plated

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Crimp contact - CK1,6-ED-0,37ST AU - 1674901



Turned 1.6 crimp contact, individual male contact, core diameter 0.14 to 0.37 mm², gold-plated

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## Contact insert - HC-DD42-I-CT-M - 1584059

### Accessories

Crimp contact - CK1,6-ED-0,50ST AU - 1672453



Turned 1.6 crimp contact, individual male contact, core diameter 0.5 mm<sup>2</sup>, gold-plated

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Crimp contact - CK1,6-ED-0,75ST AU - 1674914



Turned 1.6 crimp contact, individual male contact, core diameter 0.75 mm<sup>2</sup>, gold-plated

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Crimp contact - CK1,6-ED-1,00ST AU - 1674888



Turned 1.6 crimp contact, individual male contact, core diameter 0.75 to 1.00 mm<sup>2</sup>, gold-plated

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Crimp contact - CK1,6-ED-1,50ST AU - 1674875



Turned 1.6 crimp contact, individual male contact, core diameter 1.5 mm<sup>2</sup>, gold-plated

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Crimp contact - CK1,6-ED-2,50ST AU - 1674927



Turned 1.6 crimp contact, individual male contact, core diameter 2.5 mm<sup>2</sup>, gold-plated

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### Crimping tool

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### Accessories

Crimping pliers - CRIMPFOX-TC 4 - 1212113



Crimping pliers, for CK 1,6-ED..., CK 2,5-ED..., CK 4,0-ED... turned contacts, 4 marked die stations, unlockable pressure lock, lateral entry, incl. positioning tool

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### Docking frame

Docking frames - HC-B 10-ANDOCK - 1586125



Docking frame for racks, for contact inserts of B10 type, with four M5 flat headed screws, rack balance x/y axis  $\pm 1.5$  mm

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### Fiber optics contact

Female contact - CK1,6-ED-BU-POF - 1885004



POF fiber optic socket contact, turned, for contact carriers (HC-DD...I-CT.../ HC-M-12-CT-F.../ HC-M-17-CT-F...) of CK1,6-ED... contacts

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### Mounting material

Screw - HC-B-PES - 1604997



PE screw, for contact inserts HC-B / HC-BB / HC-DD / HC-D40 / HC-D64

PE multiplier - HC-B-3PE - 1644326



PE multiplier, for three PE connections, for HC-B (besides HC-B..E..ZZ) / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

## Contact insert - HC-DD42-I-CT-M - 1584059

### Accessories

Strain relief clamp - HC-B-ZG - 1685327



Strain relief clamps contact inserts of series: B-, BB-, D 40, D 64, DD and HV, straight cable exit

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Strain relief clamp - HC-B-ZS - 1685330



Strain relief clamps contact inserts of series: B-, BB-, D 40, D 64, DD and HV, lateral cable exit

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### Universal tools

Contact removal tool - UNIFOX RT-CK 1.6 - 1072069



Contact removal tool, for turned and rolled CK- 1.6-... contacts

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### Additional products

Contact insert - HC-DD42-I-CT-F - 1584062



HEAVYCON female insert, DD42 series, 42-pos., crimp connection