

# HC-D 25-I-CT-F - Contact insert

1584402

<https://www.phoenixcontact.com/sg/products/1584402>



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Contact insert, number of positions: 25+PE, size: D25, number of connections per position: 1, Socket, Crimp connection, 250 V, 10 A, 0.14 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>

## 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.

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 1584402                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | *****                          |
| Product key                          | BF7ABE                         |
| Catalog page                         | Page 523 (C-2-2019)            |
| GTIN                                 | 4046356142663                  |
| Weight per piece (including packing) | 35 g                           |
| Weight per piece (excluding packing) | 30.9 g                         |
| Customs tariff number                | 85389099                       |
| Country of origin                    | CN                             |

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## Technical data

### Notes

|         |                                                                                                                       |
|---------|-----------------------------------------------------------------------------------------------------------------------|
| General | For HEAVYCON housing type D25, CK1,6-ED crimp contacts (crimp contacts not supplied as standard)                      |
| General | Connectors may be operated only when there is no load/voltage.                                                        |
| General | It is imperative that guide pins (HC-CST) and sockets (HC-CBU) are used to prevent tip collision due to misalignment. |

### Mounting

|                       |                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------|
| Assembly instructions | To ensure correct use, installation in housing with IP54 protection or better is required |
|-----------------------|-------------------------------------------------------------------------------------------|

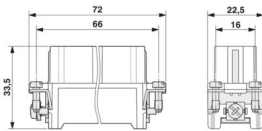
### Product properties

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Type                               | D25                                          |
|                                    | D50                                          |
| Product type                       | Contact insert with a fixed no. of positions |
| Number of positions                | 25                                           |
| Note number of positions           | 25+PE                                        |
| Connection profile                 | 25+PE                                        |
| Number of connections per position | 1                                            |
| Contact material type              | turned                                       |
|                                    | rolled                                       |
| Series                             | HC-D                                         |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Dimensions

|                                 |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Width                           | 22.5 mm                                                                              |
| Height                          | 33.5 mm                                                                              |
| Length                          | 72 mm                                                                                |
| Drill hole distance, horizontal | 66 mm                                                                                |
| Drill hole distance, vertical   | 16 mm                                                                                |

### Mechanical characteristics

|                  |        |
|------------------|--------|
| Contact diameter | 1.6 mm |
|------------------|--------|

### Connection data

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## Connection technology

|                                    |                  |
|------------------------------------|------------------|
| Connection technology              | Crimp connection |
| Number of connections per position | 1                |
| Connection in acc. with standard   | IEC / EN         |

## Conductor connection

|                                         |                                                                                                             |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Conductor cross section                 | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                                                |
| Connection cross section AWG            | 26 ... 14                                                                                                   |
| Tightening torque                       | 0.7 Nm ... 1 Nm (PE connection)<br>0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing) |
| Stripping length of the individual wire | 8 mm (0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> )                                                        |
|                                         | 6 mm (2.5 mm <sup>2</sup> )                                                                                 |

## Electrical properties

|                       |                |
|-----------------------|----------------|
| Rated voltage (III/3) | 250 V          |
| Rated surge voltage   | 4 kV           |
| Rated current         | 10 A           |
| SCCR                  | 5 kA (UL 2237) |

## Mechanical properties

### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 500 |
|-----------------------------|-------|

## Material specifications

|                                        |                                                                                                                         |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Flammability rating according to UL 94 | V0                                                                                                                      |
| 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) |

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

|                                        |                            |
|----------------------------------------|----------------------------|
| 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                  |
| Tests                                  | DIN VDE 0627/86            |
|                                        | DIN VDE 0110/02.79         |

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|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
|                       | DIN VDE 0110-1/04.97                                                                                                    |
|                       | IEC 60664-1, DIN IEC 60512                                                                                              |
|                       | IEC 60352                                                                                                               |
| Testing               |                                                                                                                         |
| Standards/regulations | PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3) |

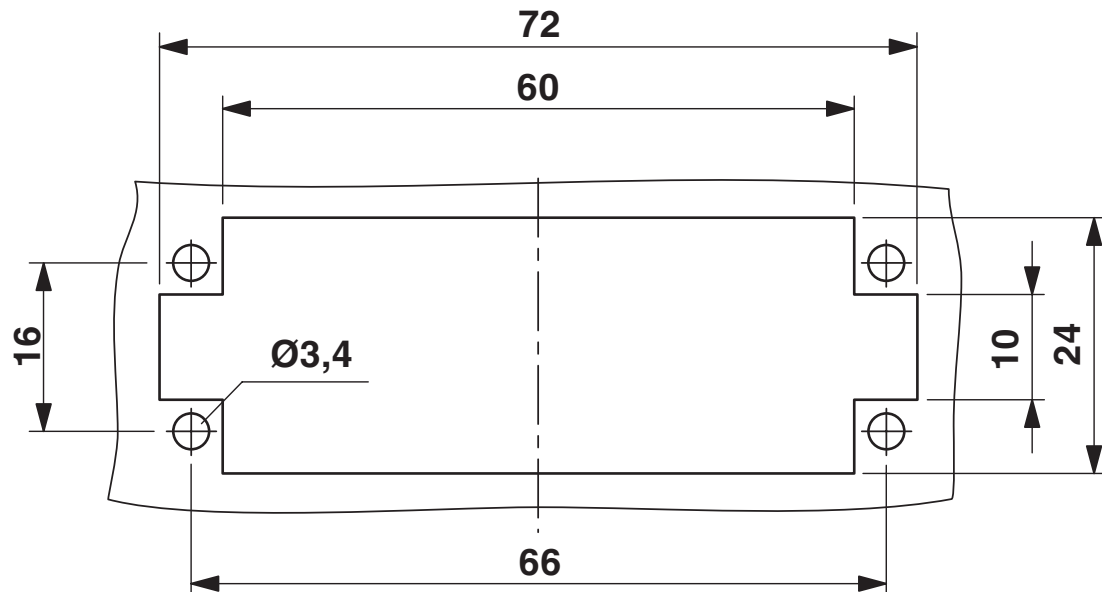
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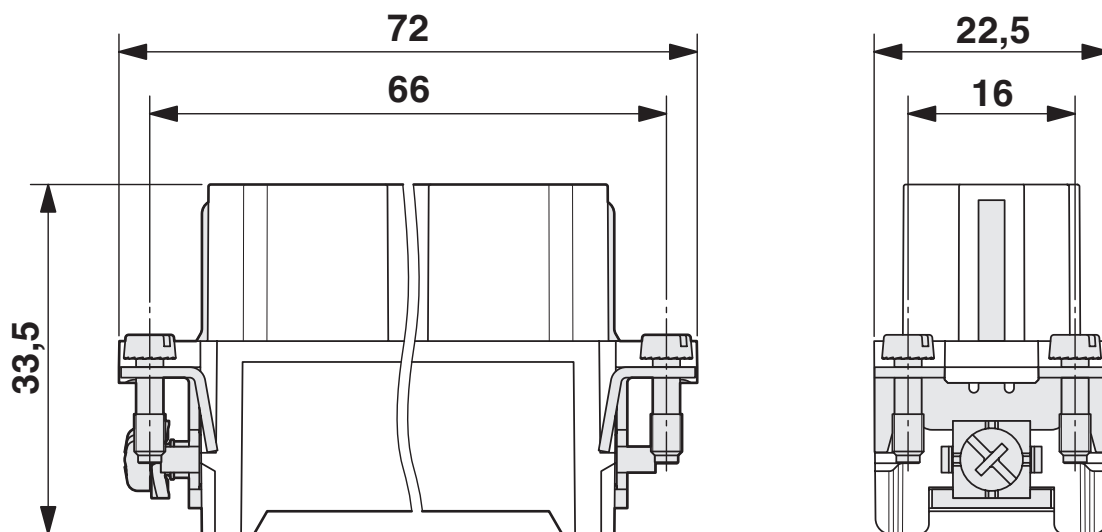
## Drawings

Dimensional drawing



Mounting cutout when used without housing

Dimensional drawing

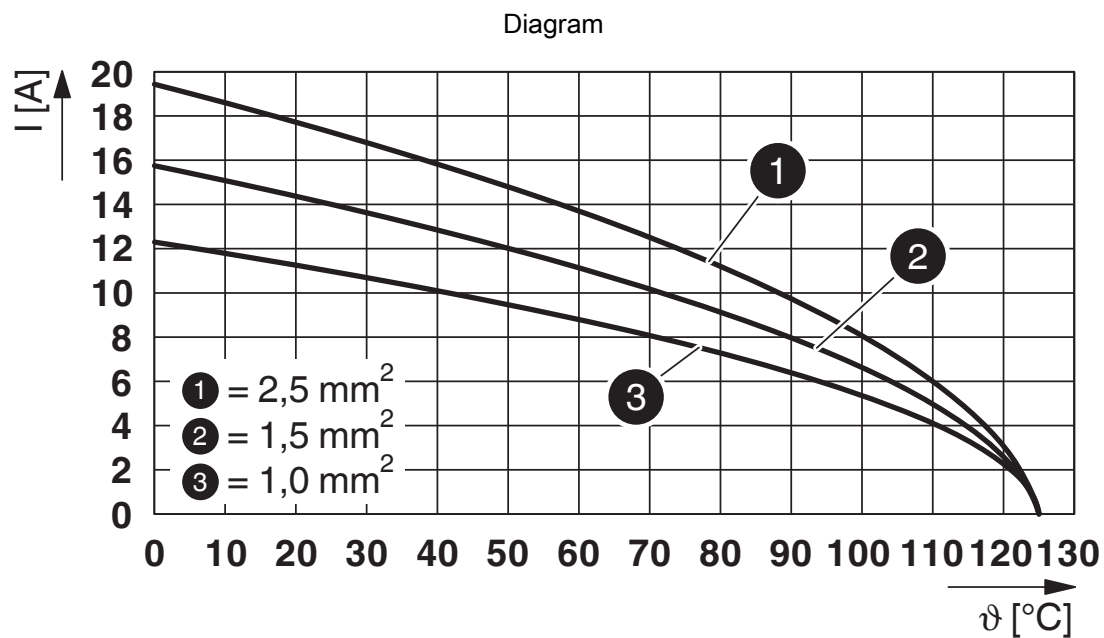


Female insert

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Derating diagram turned contacts

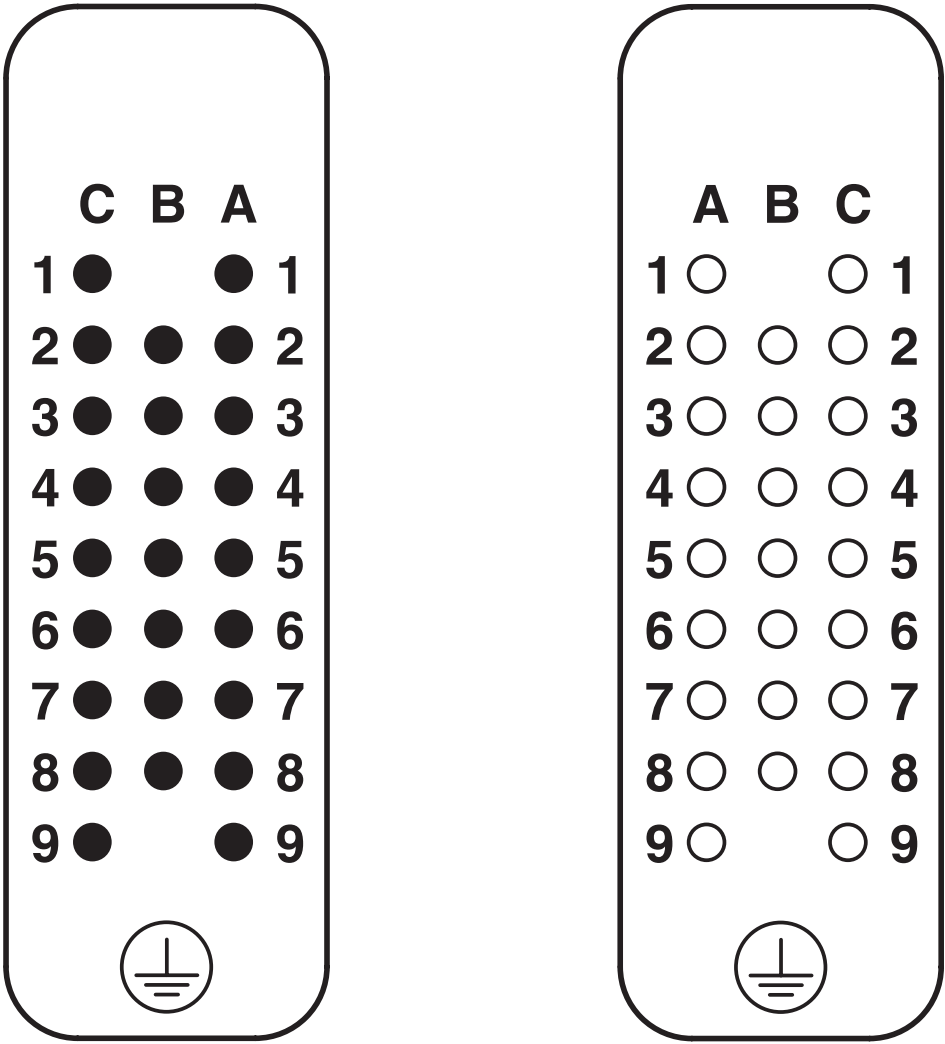
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Schematic diagram

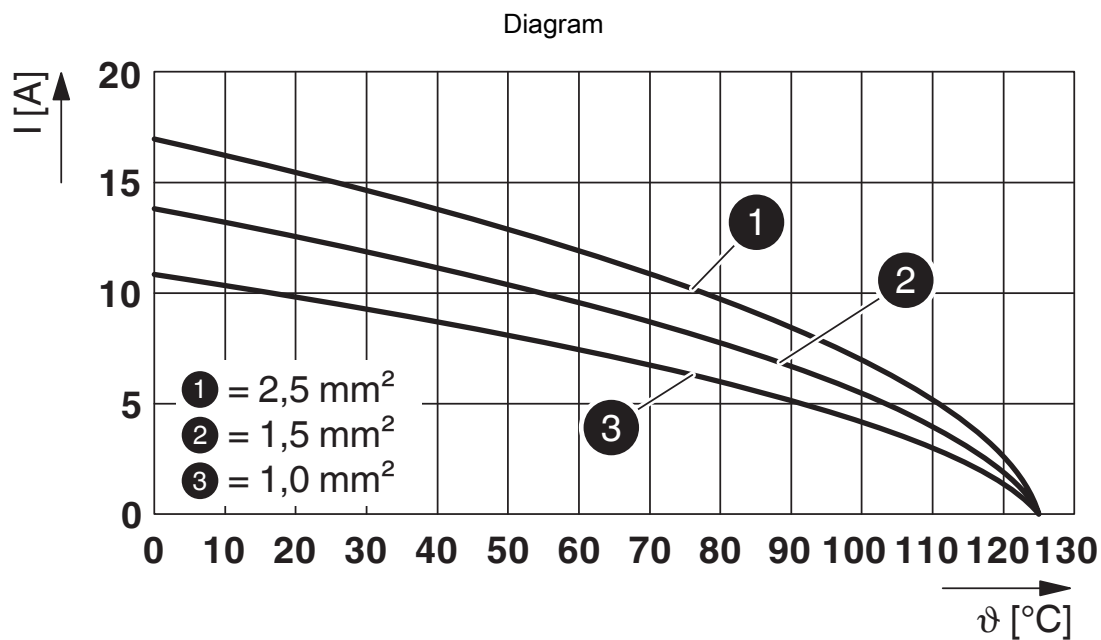


Connector pin assignment connection side: Left pin; right socket

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Derating diagram rolled contacts

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/1584402>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 13631

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 8 A                   | - 14              | -                           |



### UL Recognized

Approval ID: FILE E 118976

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 10 A                  | -                 | -                           |



### EAC

Approval ID: RU C-DE.BL08.B.00511



### UL Recognized

Approval ID: E468743

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 10 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440205 |
| ECLASS-12.0 | 27440205 |
| ECLASS-13.0 | 27440205 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000438 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121500 |
|-------------|----------|

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## Environmental product compliance

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

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