

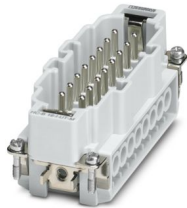
# HC-B 16-I-UT-M - Contact insert



1648238

<https://www.phoenixcontact.com/us/products/1648238>

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Contact insert, number of positions: 16+PE, size: B16, number of connections per position: 1, Pin, Screw connection, 500 V, 16 A, 0.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, application: Power

## Your advantages

- For fast coding with plastic profile
- For test pin 2 mm
- Shock and vibration-resistant in accordance with DIN EN 61373

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1648238       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ABC        |
| GTIN                                 | 4046356092364 |
| Weight per piece (including packing) | 85 g          |
| Weight per piece (excluding packing) | 83.9 g        |
| Customs tariff number                | 85366990      |
| Country of origin                    | CN            |

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## Technical data

### Mounting

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

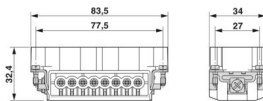
### Product properties

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Product type                       | Contact insert with a fixed no. of positions |
| Series                             | HC-B                                         |
| Application                        | Power                                        |
| Type                               | B16<br>B32                                   |
| Number of positions                | 16                                           |
| Connection profile                 | 16+PE                                        |
| Contact numbering                  | 1 - 16                                       |
| Number of connections per position | 1                                            |
| Contact material type              | turned                                       |
| Screwdriver blade                  | 0.5 x 3.5 mm                                 |

### Insulation characteristics

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

### Dimensions

|                                 |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Width                           | 34 mm                                                                                |
| Height                          | 32 mm                                                                                |
| Length                          | 84 mm                                                                                |
| Drill hole distance, horizontal | 77.5 mm                                                                              |
| Drill hole distance, vertical   | 27 mm                                                                                |

### Mechanical characteristics

|                  |        |
|------------------|--------|
| Contact diameter | 2.5 mm |
|------------------|--------|

### Connection data

#### Connection technology

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

#### Conductor connection

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|                                         |                                                                           |
|-----------------------------------------|---------------------------------------------------------------------------|
| Conductor cross-section                 | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                               |
| Connection cross section AWG            | 20 ... 12 (AWG 12 only without ferrule and with 0.8 Nm tightening torque) |
| Tightening torque                       | 0.8 Nm ... 1.2 Nm (PE connection)                                         |
|                                         | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing)  |
|                                         | 0.5 Nm ... 0.8 Nm                                                         |
| Stripping length of the individual wire | 8 mm                                                                      |

## Electrical properties

|                       |                |
|-----------------------|----------------|
| Rated voltage (III/3) | 500 V          |
| Rated surge voltage   | 6 kV           |
| Rated current         | 16 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           |
| Contact carrier material               | PC           |
| Standards/regulations                  | PC           |

## 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 EN 61984 |
|                                        | DIN EN 60664 |
|                                        | IEC 60352    |
| Tests                                  | DIN EN 61984 |
|                                        | DIN EN 60664 |
|                                        | 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) |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|

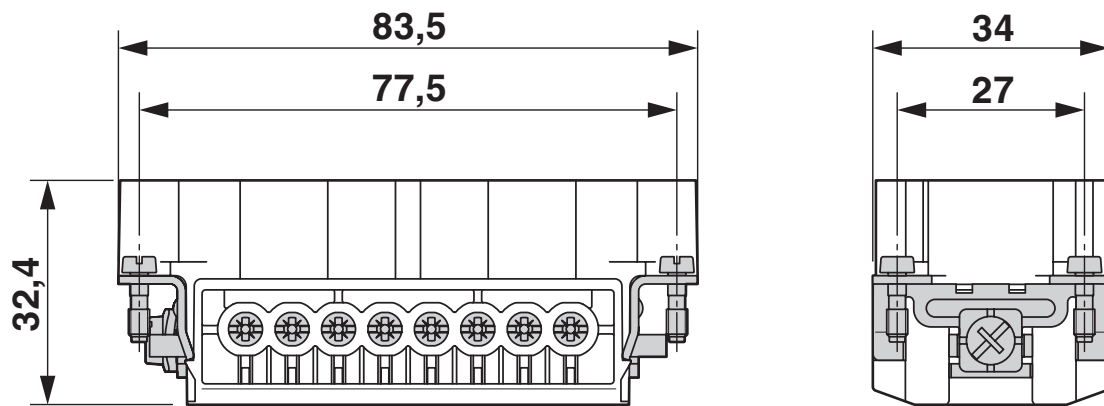
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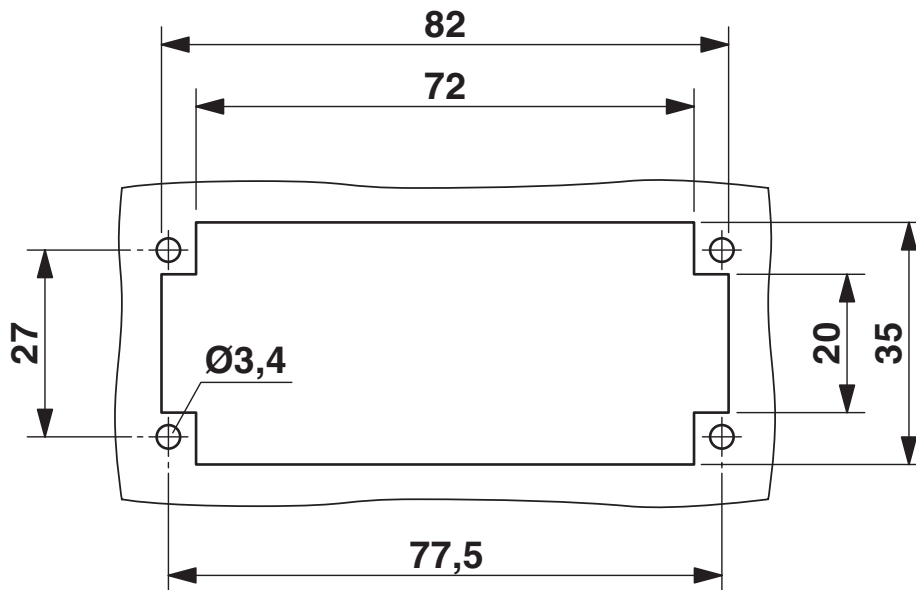
## Drawings

Dimensional drawing



Male insert

Dimensional drawing



Mounting cutout when used without housing

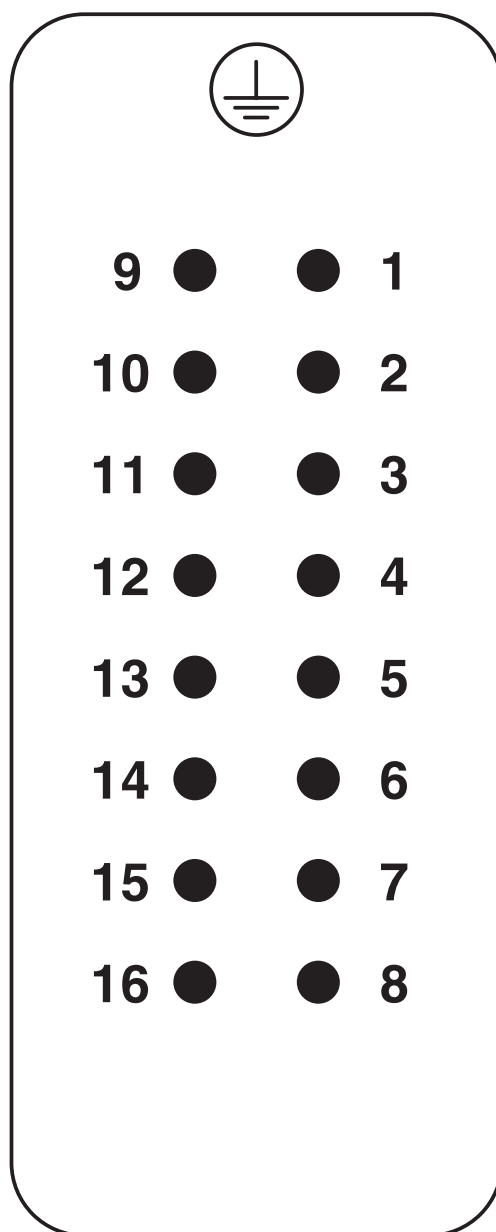
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Schematic diagram



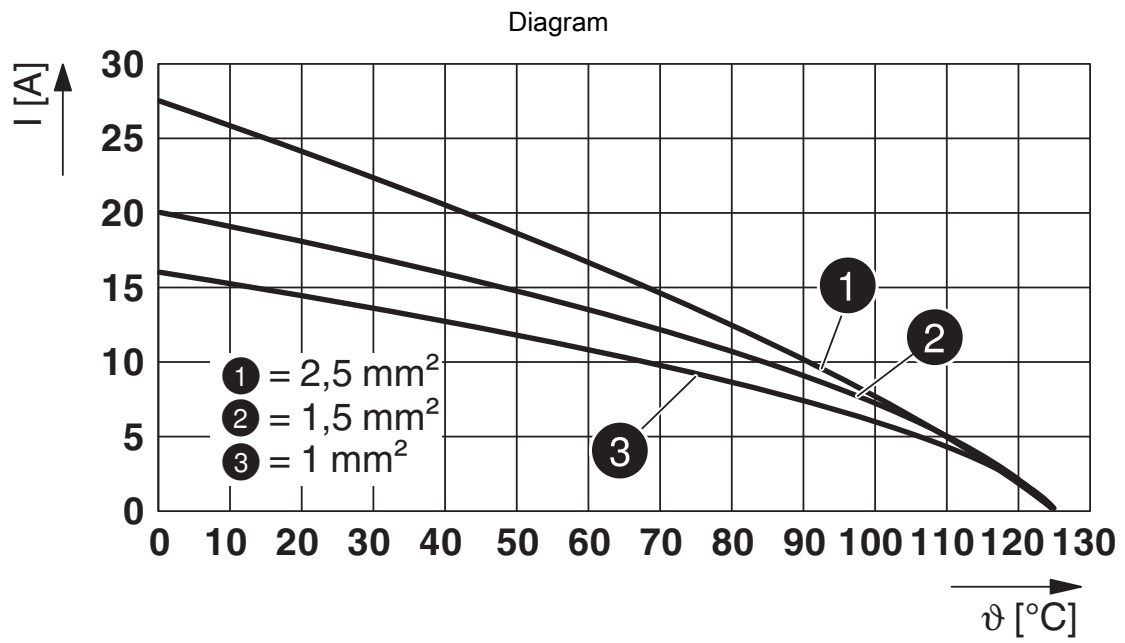
Connector pin assignment, connection side

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Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1648238>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 013631\_6233\_01

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 13 A                  | 22 - 14           | -                           |



### UL Recognized

Approval ID: E118976

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 16 A                  | - 14              | -                           |



### cULus Recognized

Approval ID: E468743

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

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27440205 |
| ECLASS-15.0 | 27440205 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC000438 |
|-----------|----------|

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|                                         |      |
|-----------------------------------------|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

### China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | 13e37eda-afd2-4f3a-a0bd-97190e5b6c0e |

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