

# HC-B24-I-PT-M - Contact insert



1407736

<https://www.phoenixcontact.com/us/products/1407736>

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Contact insert, number of positions: 24+PE, size: B24, number of connections per position: 1, Pin, Push-in connection, 500 V, 16 A, 0.14 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, application: Power

## Your advantages

- Easy installation without tools, even when mounted, with push-in connection technology
- Shortest installation time compared to other connection technologies
- Quick and effortless wiring, in particular when space is tight
- Automatic cabling with robots possible
- Safe wiring and operation with color-coded actuators
- Shock and vibration-resistant in accordance with DIN EN 61373
- Cost-effective and fast coding with plastic profiles
- Test pick-off for 2 mm test plug

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1407736       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ABC        |
| GTIN                                 | 4046356777711 |
| Weight per piece (including packing) | 102.8 g       |
| Weight per piece (excluding packing) | 102.3 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | CN            |

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## Technical data

### Notes

|         |  |
|---------|--|
| General | only use flexible conductors with ferrules                     |
| General | Connectors may be operated only when there is no load/voltage. |

### 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                               | B24  |
|                                    | B48  |
| Number of positions                | 24   |
| Connection profile                 | 24+PE  |
| Contact numbering                  | 1 - 24                                       |
| Number of connections per position | 1  |
| Contact material type              | rolled                                       |

### Insulation characteristics

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

### Dimensions

|                                 |         |
|---------------------------------|---------|
| Dimensional drawing             |         |
| Width                           | 34 mm   |
| Height                          | 34.4 mm |
| Length                          | 111 mm  |
| Drill hole distance, horizontal | 104 mm  |
| Drill hole distance, vertical   | 27 mm   |

### Mechanical characteristics

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

### Connection data

#### Connection technology

|                                    |                    |
|------------------------------------|--------------------|
| Connection technology              | Push-in connection |
| Number of connections per position | 1                  |

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## 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            | 0.8 Nm ... 1.2 Nm (PE connection)  |
|                              | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing) |
| Stripping length             | 8 mm ... 10 mm   |

## Electrical properties

|                       |                       |
|-----------------------|-----------------------|
| Rated voltage (III/3) | 500 V                 |
| Rated surge voltage   | 6 kV                  |
| Rated current         | 16 A (power contacts) |
| 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/Sn (tarnish protection) |
| 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

### 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) |
|-----------------------|---|

# HC-B24-I-PT-M - Contact insert

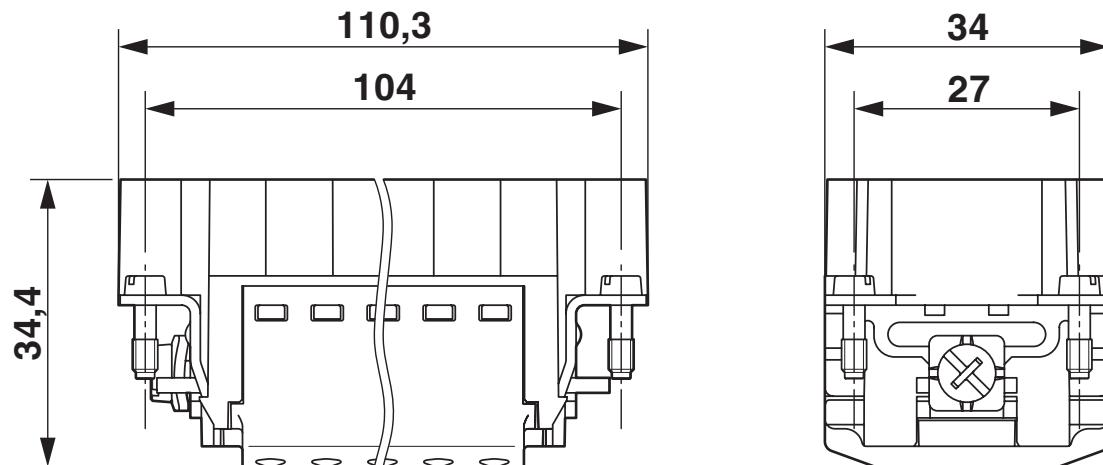
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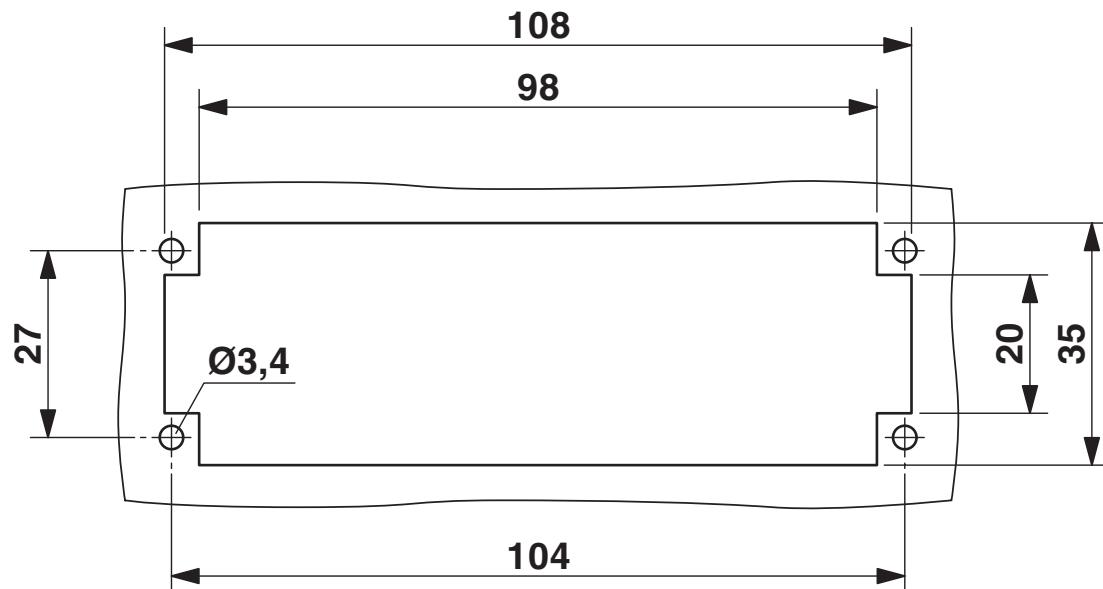
## Drawings

Dimensional drawing



Dimensional drawing

Dimensional drawing



Mounting cutout when used without housing

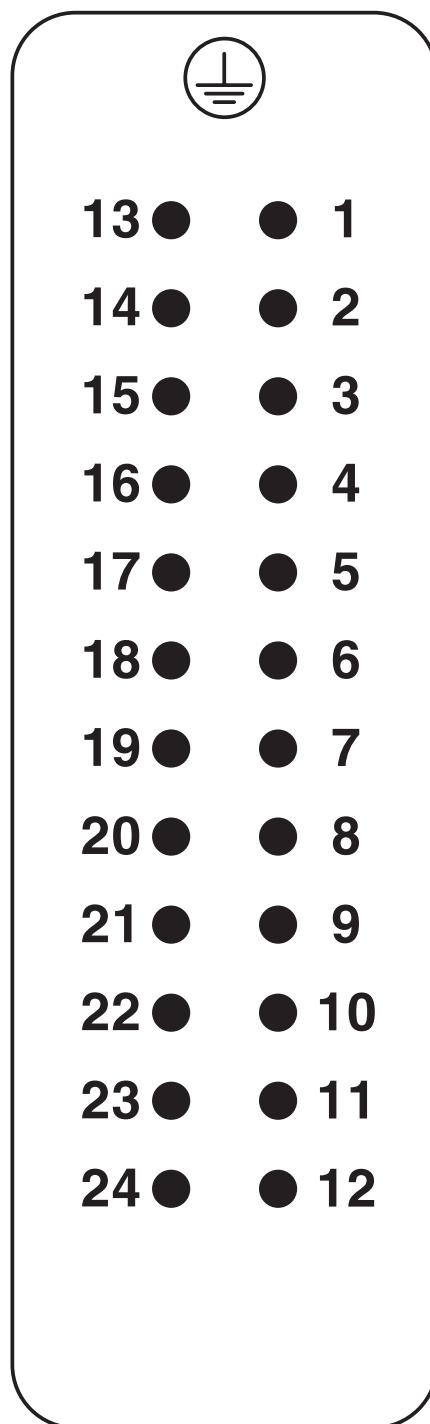
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Schematic diagram



Connector pin assignment, connection side

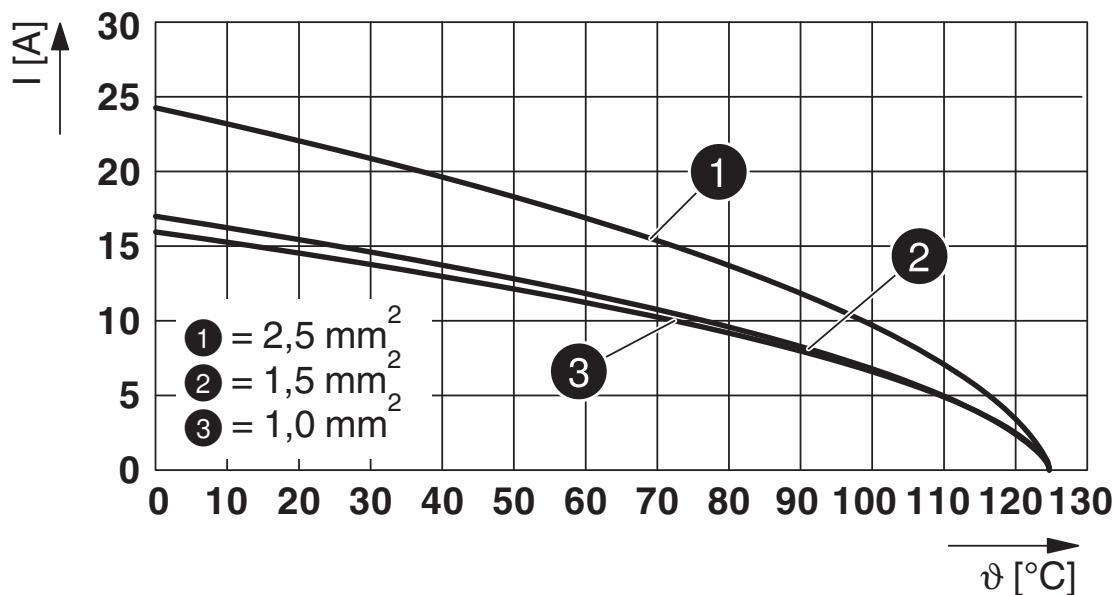
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Diagram



Derating diagram

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## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407736>

**DNV**

Approval ID: TAE000037S

|  <b>CSA</b><br>Approval ID: 13631 | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|--|-----------------------|-----------------------|-------------------|----------------------|
| keine  | 600 V                 | 10 A                  | - 14              | -                    |

|  <b>UL Recognized</b><br>Approval ID: E118976 | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|--|-----------------------|-----------------------|-------------------|----------------------|
| keine  | 600 V                 | 13 A                  | - 14              | -                    |

|  <b>cULus Recognized</b><br>Approval ID: E468743 | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|-----------------------|-----------------------|-------------------|----------------------|
| keine   | 600 V                 | 13 A                  | - 14              | -                    |

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## Classifications

### ECLASS

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

### ETIM

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

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

### China RoHS

|  |  |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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