

# HC-B 16-ESTQ-2,5-32 - Contact insert



1605653

<https://www.phoenixcontact.com/us/products/1605653>

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Contact insert, number of positions: 16+PE, size: B16, Pin, QUICKON connection, 500 V, 16 A, 0.34 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>

## Product description

Contact insert  
With QUICKON connection technology, the wires are connected with just a turn of the screwdriver. The wires do not have to be stripped first. This reduces connection time by at least 60%.

## Your advantages

- Shock and vibration-resistant in accordance with DIN EN 61373

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1605653       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ABC        |
| GTIN                                 | 4017918940744 |
| Weight per piece (including packing) | 90.91 g       |
| Weight per piece (excluding packing) | 90.91 g       |
| Customs tariff number                | 85366990      |
| Country of origin                    | PL            |

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## Technical data

### Notes

|         |                                                                |
|---------|----------------------------------------------------------------|
| 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 |
|---------------|-------------------------------------------------------------------------------------------|

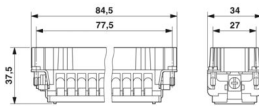
### Product properties

|                       |                                              |
|-----------------------|----------------------------------------------|
| Product type          | Contact insert with a fixed no. of positions |
| Series                | HC-B                                         |
| Type                  | B16<br>B32                                   |
| Number of positions   | 16                                           |
| Connection profile    | 16+PE                                        |
| Contact numbering     | 17 - 32                                      |
| Contact material type | rolled                                       |

### Insulation characteristics

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

### Dimensions

|                                 |                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing             |  |
| Width                           | 34 mm                                                                                |
| Height                          | 35 mm                                                                                |
| Length                          | 84.5 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 | QUICKON connection |
|-----------------------|--------------------|

#### Conductor connection

|                         |                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Conductor cross section | 0.34 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Litz wire structure VDE 0295, Class 1 - 5/litz wire diameter $\geq 0.2$ mm) |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------|

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|                              |                                                                          |
|------------------------------|--------------------------------------------------------------------------|
| Connection cross section AWG | 22 ... 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) |

## Electrical properties

|                       |       |
|-----------------------|-------|
| Rated voltage (III/3) | 500 V |
|                       | 500 V |
| Rated surge voltage   | 6 kV  |
|                       | 6 kV  |
| Rated current         | 16 A  |
|                       | 16 A  |

## Mechanical properties

### Mechanical data

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

## Material specifications

|                                        |              |
|----------------------------------------|--------------|
| Material Wire insulation               | PVC / PE     |
| Flammability rating according to UL 94 | V0           |
| Contact material                       | Copper alloy |
| Contact surface material               | Ag           |
| Contact carrier material               | PA           |
| Standards/regulations                  | PA           |
|                                        | PA           |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Ambient temperature (operation) | -40 °C ... 125 °C (including heating up of contacts) |
| Ambient temperature (assembly)  | -25 °C ... 50 °C                                     |

## Standards and regulations

### Testing

|                       |                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------|
| Standards/regulations | PA: Fire protection in rail vehicles - requirement sets R22 and R23 acc. to DIN EN 45545-2 (Risk level HL1 - HL2) |
|                       | PA: Fire protection in rail vehicles - requirement set R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)          |

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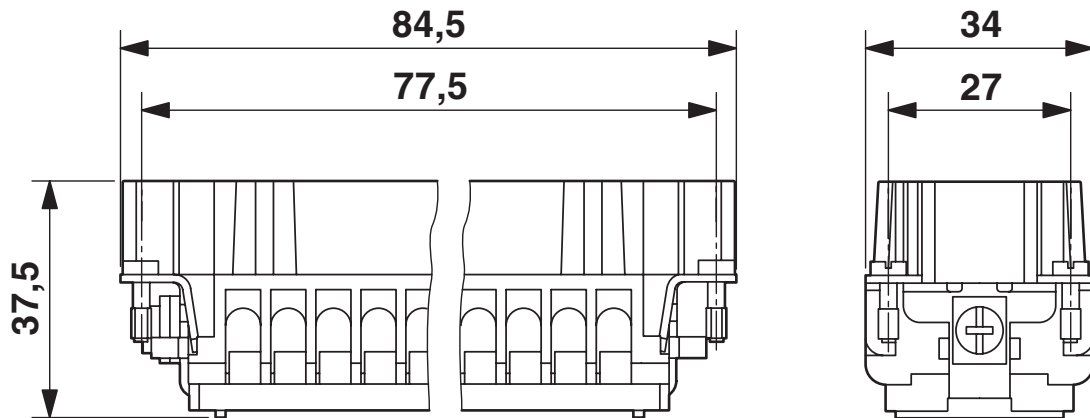
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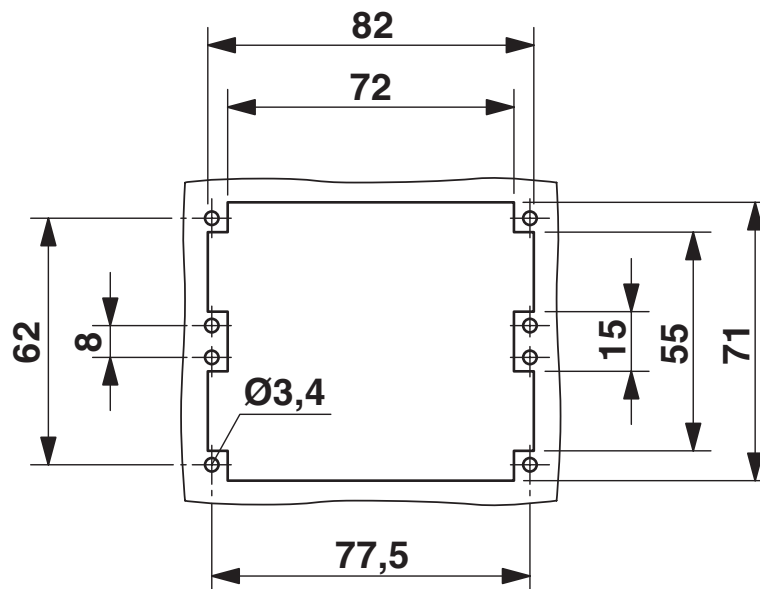
## Drawings

Dimensional drawing



Male insert

Dimensional drawing



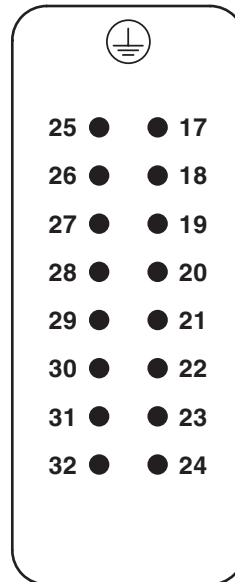
Mounting cutout when used without housing

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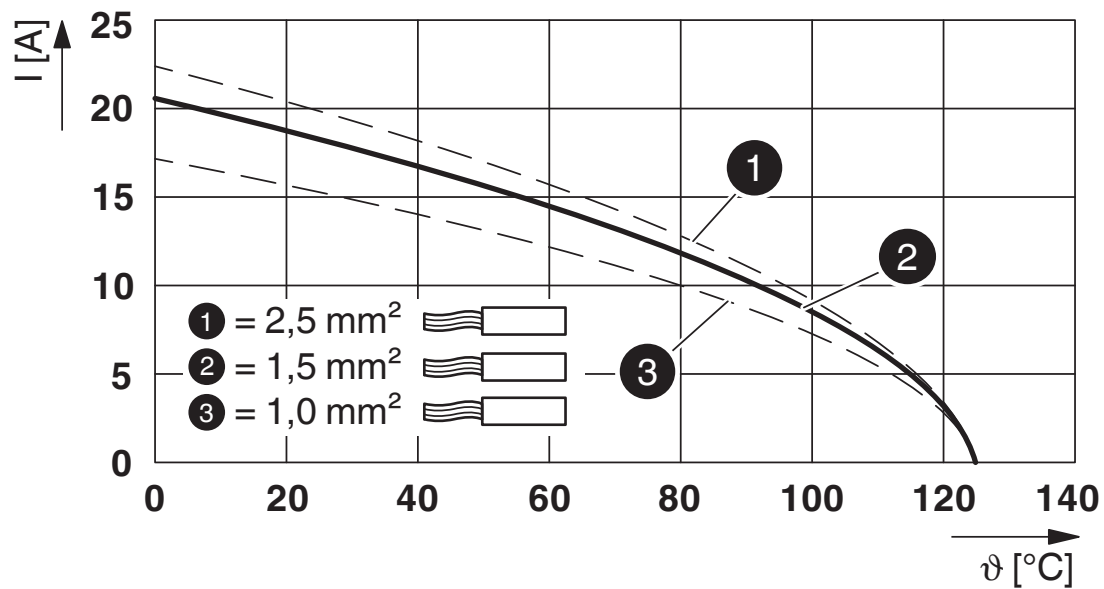
<https://www.phoenixcontact.com/us/products/1605653>

Schematic diagram

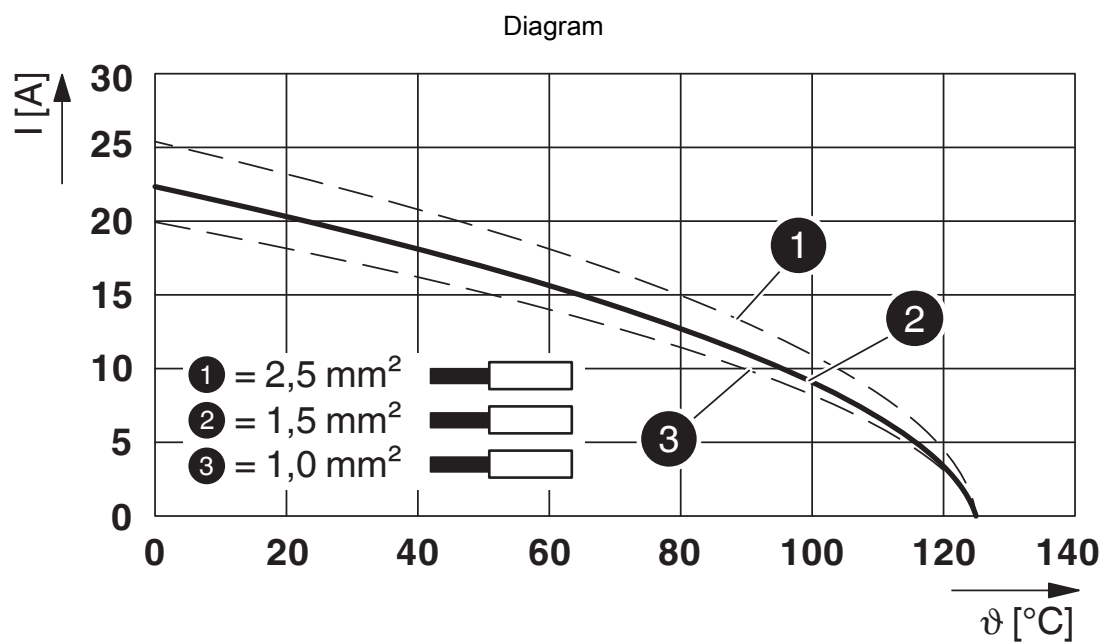


Connector pin assignment, connection side

Diagram



Derating diagram for flexible conductors



Derating diagram for solid conductors

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1605653>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 013631\_6233\_01



### cUL Recognized

Approval ID: E118976



### UL Recognized

Approval ID: E118976

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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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