

# HC-K 4/2-ESTS - Contact insert



1686889

<https://www.phoenixcontact.com/us/products/1686889>

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Contact insert, number of positions: 4+2+PE, size: B16, power contacts: 4, control contacts: 2, Pin, Screw connection, 830 V, 80 A, 1.5 mm<sup>2</sup> ... 16 mm<sup>2</sup>, application: Power/signal

## Your advantages

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

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1686889       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ABA        |
| GTIN                                 | 4017918924119 |
| Weight per piece (including packing) | 122.2 g       |
| Weight per piece (excluding packing) | 122.2 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 |
|               | Use wire end protection (screw connections do not have wire protection)                   |

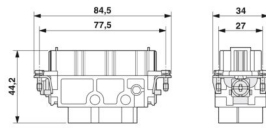
### Product properties

|                         |  |
|-------------------------|--|
| Product type            | Contact insert with a fixed no. of positions       |
| Series                  | HC-K   |
| Application             | Power/signal                                       |
| Type                    | B16<br>B32   |
| Number of positions     | 6  |
| Connection profile      | 4+2+PE   |
| Contact numbering       | 1 - 4 (power contacts)<br>1 - 2 (control contacts) |
| No. of power contacts   | 4  |
| No. of control contacts | 2  |
| Contact material type   | turned   |
| Screwdriver blade       | 0.8 x 4.5 mm (power contacts)                      |

### Insulation characteristics

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

### Dimensions

|                                 |  |
|---------------------------------|--|
| Dimensional drawing             |  |
| Width                           | 34 mm  |
| Height                          | 42 mm  |
| Length                          | 84.5 mm  |
| Drill hole distance, horizontal | 77.5 mm  |

### Connection data

#### Connection technology

|                       |                                     |
|-----------------------|-------------------------------------|
| Connection technology | Screw connection (power contacts)   |
|                       | Screw connection (control contacts) |

#### Conductor connection

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|   |  |
|---|--|
| Conductor cross-section                 | 1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> (power contacts)  |
|   | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (control contacts)   |
| Connection cross section AWG            | 16 ... 6 (power contacts)  |
|   | 20 ... 14 (control contacts)   |
| Tightening torque                       | 0.8 Nm ... 1.2 Nm (PE connection cross-section with cable lug expandable to 16 mm <sup>2</sup> )                                       |
|   | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing)   |
|   | 3 Nm (Power contacts for cross sections of 2.5 mm <sup>2</sup> ... 16 mm <sup>2</sup> ; (2 Nm for cross section 2.5 mm <sup>2</sup> )) |
|   | 0.5 Nm (control contacts)  |
| Stripping length of the individual wire | 1.2 Nm (Power contacts for cross section 1.5 mm <sup>2</sup> )   |
|   | 14 mm (Power)  |
|   | 7.5 mm (Signal)  |

## Electrical properties

|                       |                          |
|-----------------------|--------------------------|
| Rated voltage (III/3) | 830 V (power contacts)   |
|                       | 400 V (control contacts) |
| Rated surge voltage   | 8 kV (power contacts)    |
|                       | 6 kV (control contacts)  |
| Rated current         | 80 A (power contacts)    |
|                       | 16 A (control contacts)  |

## Mechanical properties

### Mechanical data

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

## Material specifications

|  |          |
|--|----------|
| Flammability rating according to UL 94       | V0       |
| Contact material                             | Cu alloy |
| Contact carrier material                     | PC       |
| Material of contact surface, power contact   | Ag       |
| Material of contact surface, control contact | Ag       |
| Standards/regulations                        | PC       |
|  | PC       |

## Environmental and real-life conditions

### Ambient conditions

|                                 |                   |
|---------------------------------|-------------------|
| Ambient temperature (operation) | -40 °C ... 125 °C |
|---------------------------------|-------------------|

## Standards and regulations

### Testing

|                       |  |
|-----------------------|--|
| Standards/regulations | PC: Fire protection in rail vehicles - requirement set R22 acc. to DIN EN 45545-2 (Risk level HL1 - HL2) |
|-----------------------|--|

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PC: Fire protection in rail vehicles - requirement set R23 acc. to  
DIN EN 45545-2 (Risk level HL1 - HL3)

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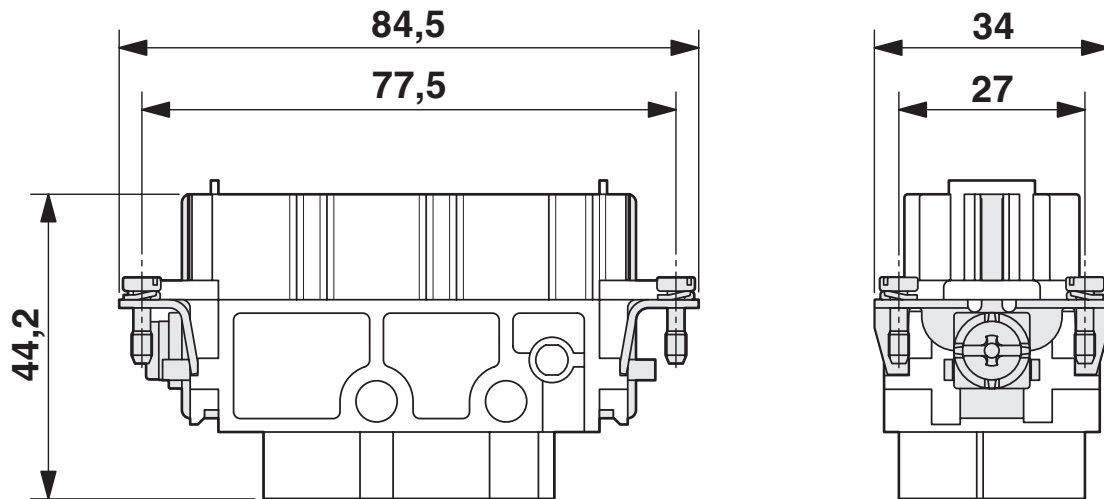


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## Drawings

Dimensional drawing



## Male insert

Dimensional drawing



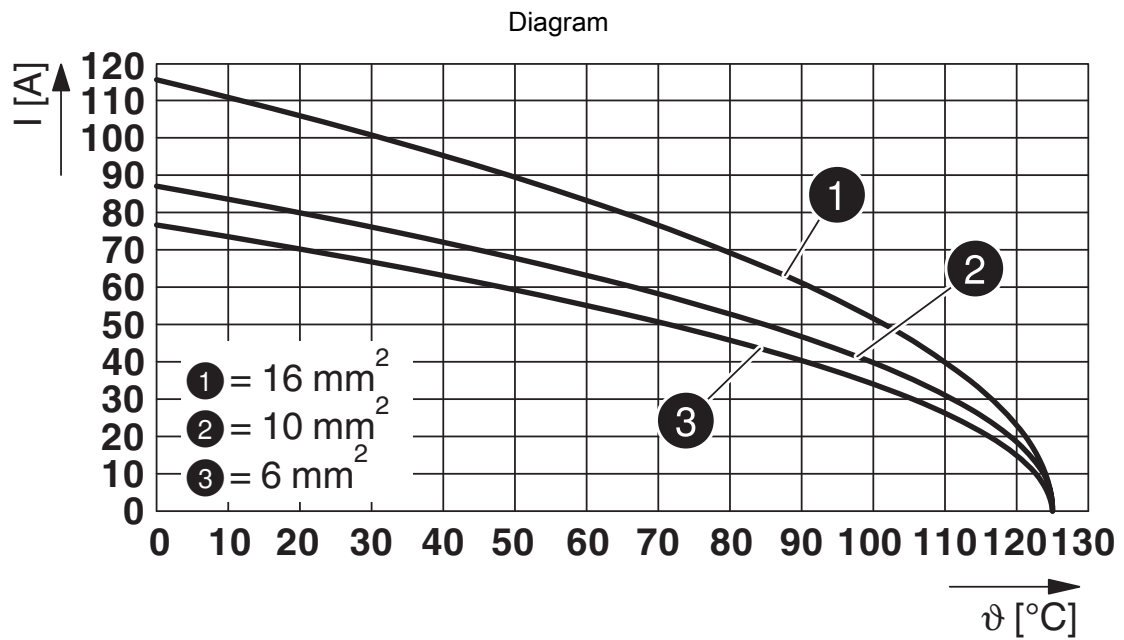
Mounting cutout when used without housing

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Derating diagram

# HC-K 4/2-ESTS - Contact insert




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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1686889>

|  <b>UL Recognized</b><br>Approval ID: E118976 |  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|--|-----------------------|-----------------------|-------------------|-----------------------------|
| keine  |  |                       |                       |                   |                             |
| Power  |  | 600 V                 | 80 A                  | - 6               | -                           |
| Control  |  | 600 V                 | 16 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-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | 1cdb4eed-7837-4c3b-9923-9ac67f935628 |

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