

# HC-BB46-I-PT-M - Contact insert



1014424

<https://www.phoenixcontact.com/us/products/1014424>

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Contact insert, number of positions: 46+PE, size: B24, power contacts: 46, control contacts: 0, number of connections per position: 1, Pin, Push-in connection, 500 V, 16 A, 0.5 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
- High contact density

## Commercial data

Item number	1014424
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF61
Product key	BF7ABD
Catalog page	Page 553 (C-2-2019)
GTIN	4055626492988
Weight per piece (including packing)	150.3 g
Weight per piece (excluding packing)	150.3 g
Customs tariff number	85366990
Country of origin	CN

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## Technical data

### Notes

General	for flexible conductors with or without ferrules
General	Connectors may be operated only when there is no load/voltage.
General	Flexible conductors may be used without ferrules as long as they comply with IEC 60228 Class 1 ... 5. The individual litz wires must have a min. diameter of 0.17 mm.

### Mounting

Assembly note	To ensure correct use, installation in housing with IP54 protection or better is required
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### Product properties

Product type	Contact insert with a fixed no. of positions
Series	HC-BB
Application	Power
Type	B24
Number of positions	46
Connection profile	46+PE
Contact numbering	1 - 46
Number of connections per position	1
No. of power contacts	46
No. of control contacts	0
Contact material type	turned

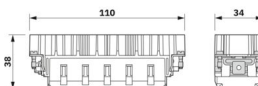
### Data management status

Article revision	03
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### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Dimensions

Dimensional drawing	
Width	34 mm
Height	38 mm
Length	110 mm
Drill hole distance, horizontal	104 mm
Drill hole distance, vertical	27 mm

### Mechanical characteristics

Minimum housing height	72 mm
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Contact diameter	2.5 mm
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## Connection data

### Connection technology

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

### Conductor connection

Conductor cross section	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection cross section AWG	20 ... 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 of the individual wire	10 mm

## Electrical properties

Rated voltage (III/3)	500 V
Rated surge voltage	6 kV
Rated current	16 A (power contacts)

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	≥ 500
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## Material specifications

Flammability rating according to UL 94	V0
Contact material	Copper alloy
Contact surface material	Ag
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)
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## 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)
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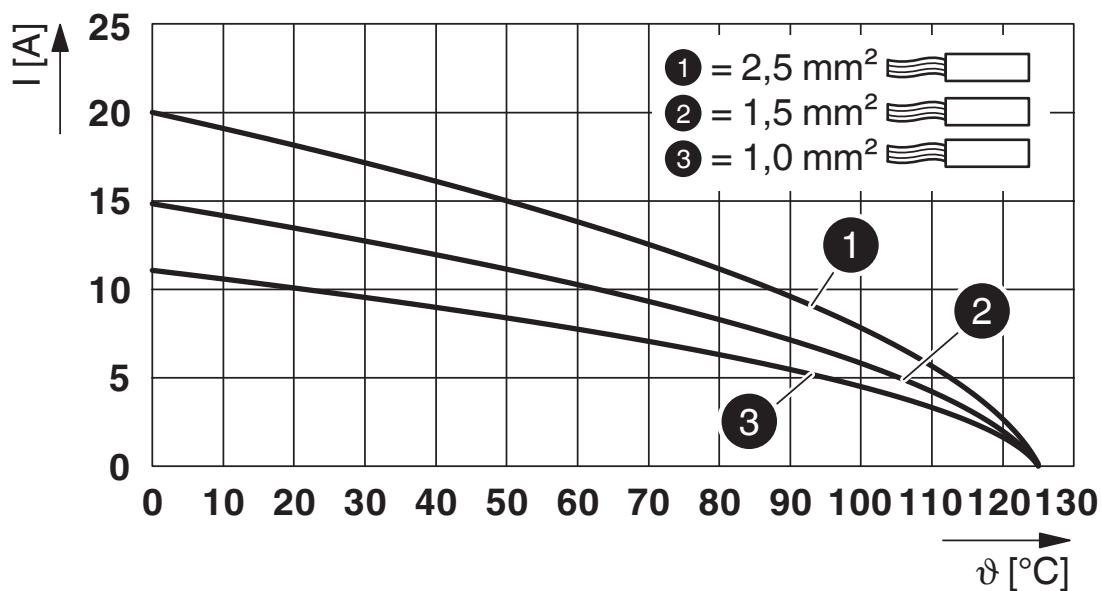
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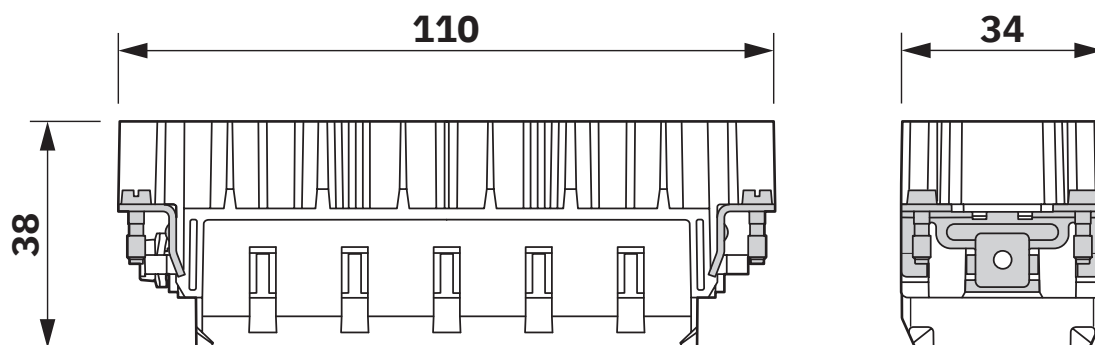
## Drawings

Diagram



Derating diagram for flexible conductors

Dimensional drawing



Dimensional drawing

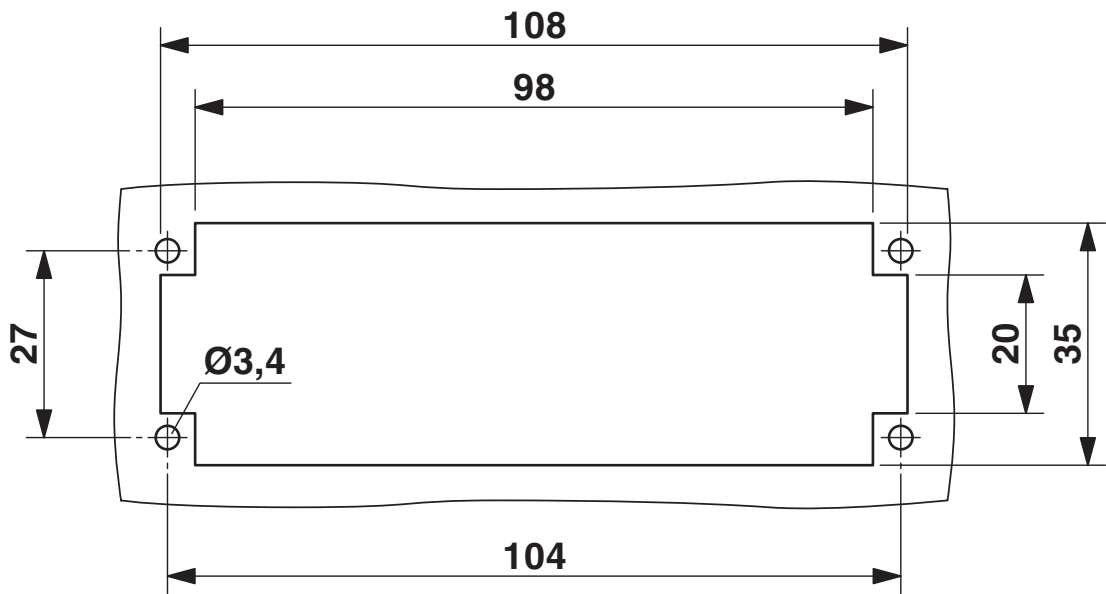
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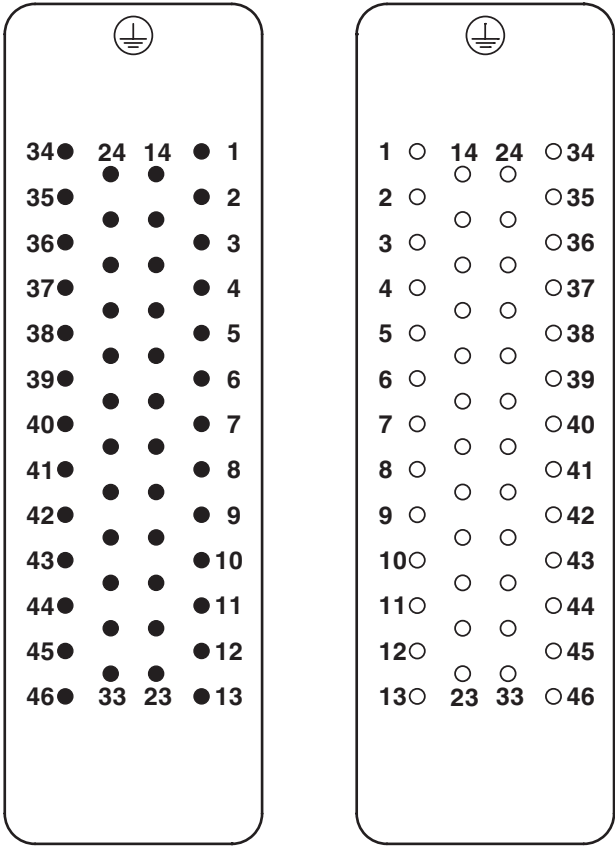


Dimensional drawing



Mounting cutout when used without housing

Schematic diagram

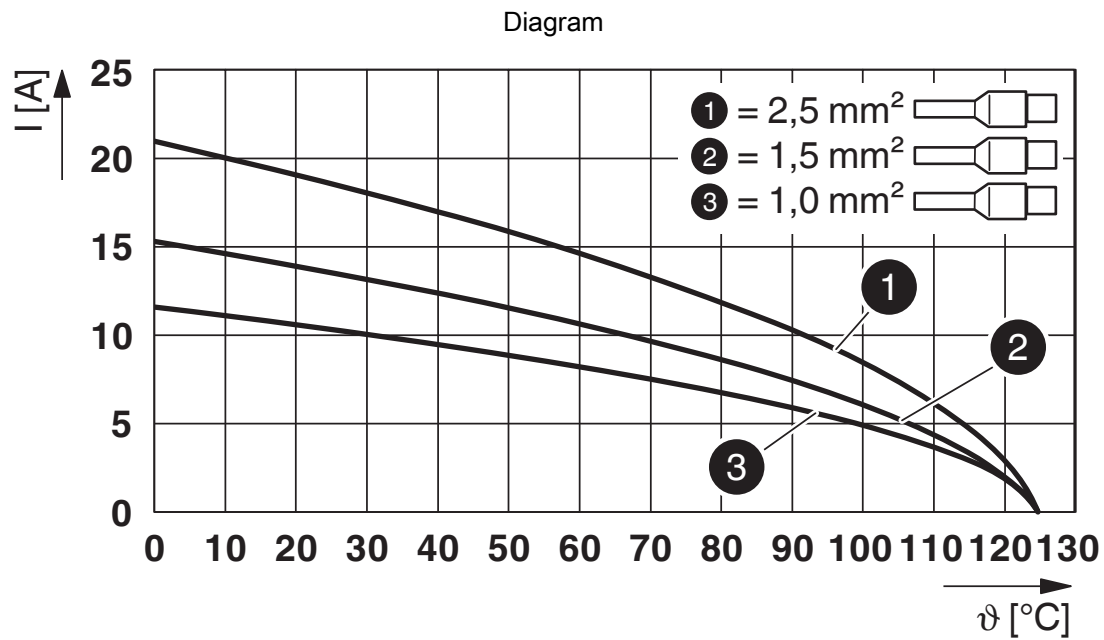


Connection side: male left; female right

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Derating diagram for flexible conductors with ferrule

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1014424>

**DNV**  
Approval ID: TAE000037S

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

	<b>UL Recognized</b> Approval ID: E468743			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
	600 V	21 A	- 14	-

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## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC000438
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### 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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