

HC-BB18-I-PT-M - Contact insert



1014420

<https://www.phoenixcontact.com/us/products/1014420>

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Contact insert, number of positions: 18+PE, size: B10, power contacts: 18, control contacts: 0, number of connections per position: 1, Pin, Push-in connection, 500 V, 16 A, 0.5 mm² ... 2.5 mm², 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	1014420
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF61
Product key	BF7ABD
Catalog page	Page 553 (C-2-2019)
GTIN	4055626492179
Weight per piece (including packing)	76.4 g
Weight per piece (excluding packing)	76 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 instructions	To ensure correct use, installation in housing with IP54 protection or better is required
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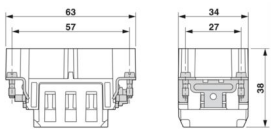
Product properties

Product type	Contact insert with a fixed no. of positions
Series	HC-BB
Application	Power
Type	B10
Number of positions	18
Connection profile	18+PE
Contact numbering	1 - 18
Number of connections per position	1
No. of power contacts	18
No. of control contacts	0
Contact material type	turned

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Dimensions

Dimensional drawing	
Width	34 mm
Height	33.2 mm
Length	64 mm
Drill hole distance, horizontal	57 mm
Drill hole distance, vertical	27 mm

Mechanical characteristics

Minimum housing height	72 mm
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 ² ... 2.5 mm ²
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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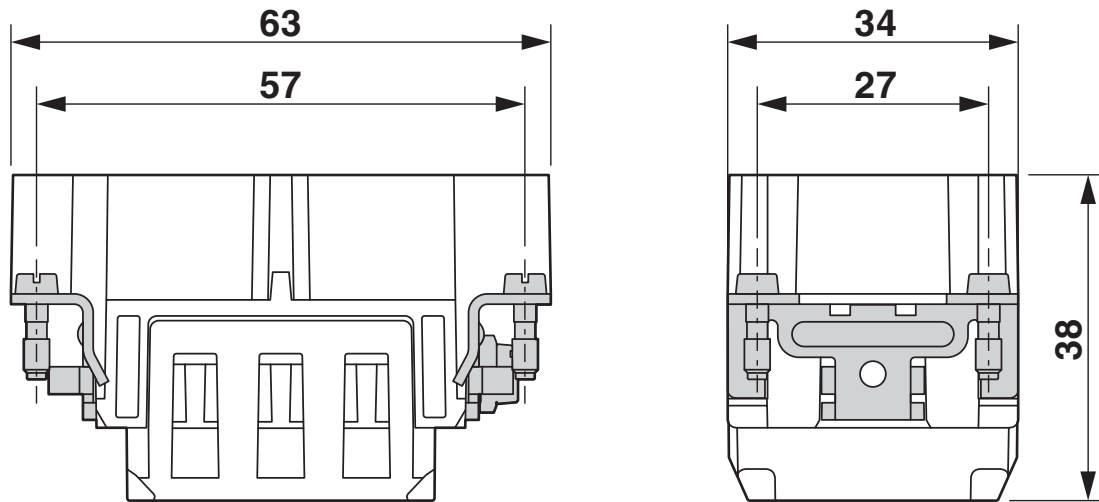
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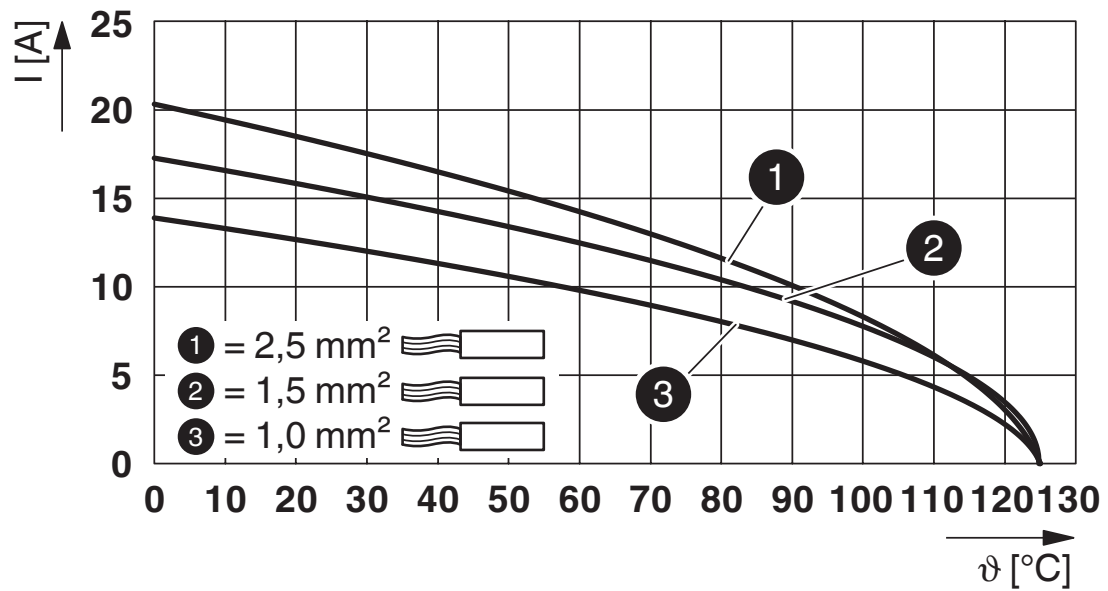
Drawings

Dimensional drawing



Male insert

Diagram

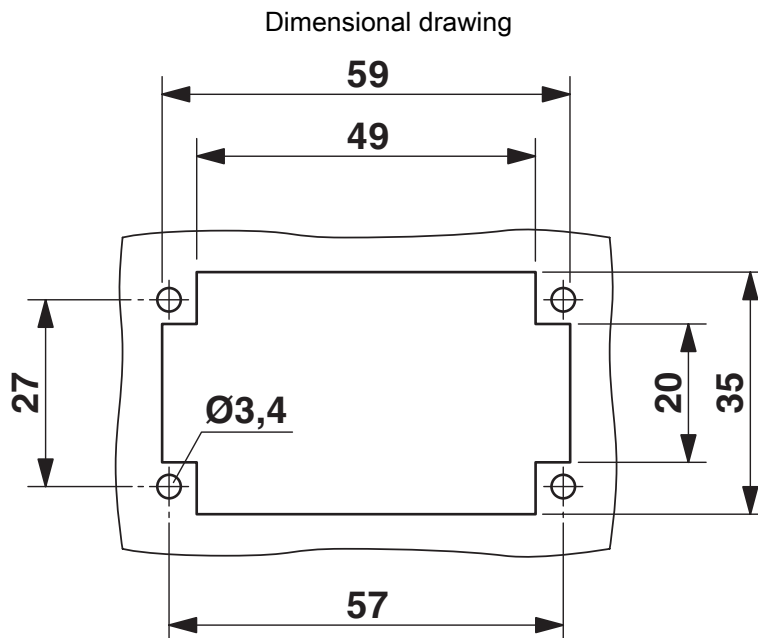


Derating diagram for flexible conductors

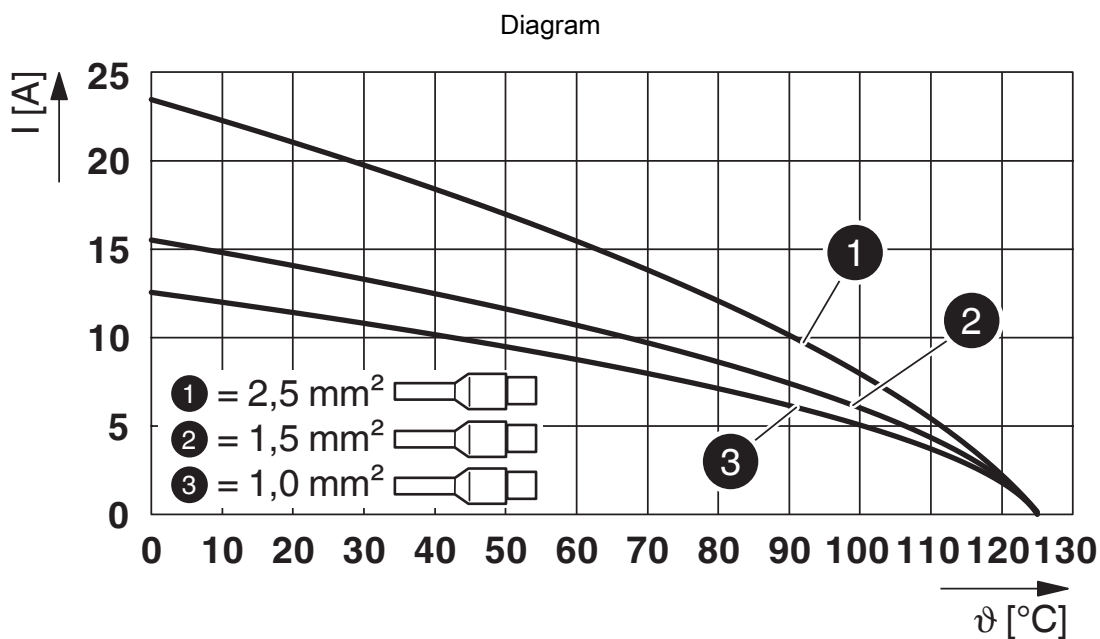
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Mounting cutout when used without housing



Derating diagram for flexible conductors with ferrule

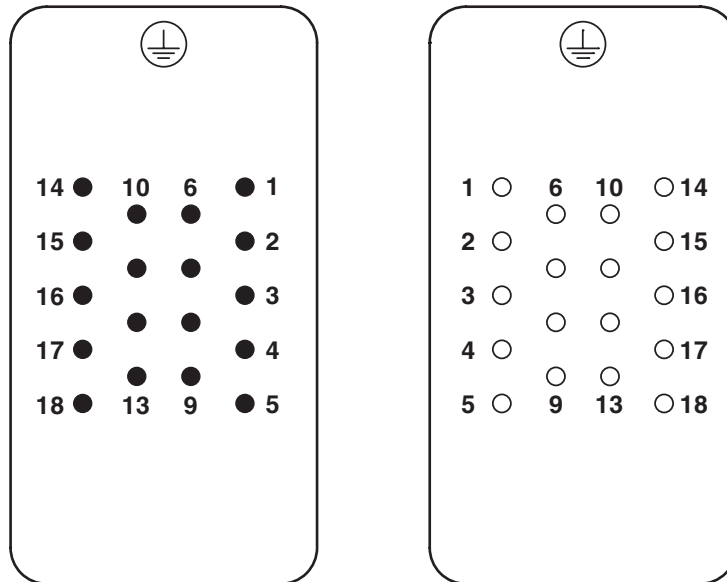
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Schematic diagram



Connector pin assignment: Left pin - right socket

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1014420>

DNV

Approval ID: TAE000037S



EAC

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



UL Recognized

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 8.0	EC000438
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UNSPSC

UNSPSC 21.0	39121500
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

CP-HC-S - Coding profile

1410916

<https://www.phoenixcontact.com/us/products/1410916>

Coding profile, for contact inserts HC-BB... / HC-A10... / HC-A16...



HC-CB - Coding bolt

1772722

<https://www.phoenixcontact.com/us/products/1772722>

Coding pin, prevents mismatching of up to six connectors with an identical number of positions



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HC-CST - Coding element

1676857

<https://www.phoenixcontact.com/us/products/1676857>



Coding peg for coding up to 16 connectors

HC-CBU - Coding element

1676860

<https://www.phoenixcontact.com/us/products/1676860>



Coding socket for coding up to 16 connectors

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HC-B-PE-PT - Adapter

1054672

<https://www.phoenixcontact.com/us/products/1054672>



PE adapter with PT connection, for 1 PE connection, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

HC-B-2PE-PT - PE multiplier

1054675

<https://www.phoenixcontact.com/us/products/1054675>



PE adapter with PT connection, for 2 PE connections, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

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HC-B-3PE - PE multiplier

1644326

<https://www.phoenixcontact.com/us/products/1644326>



PE multiplier, for 3 PE connections, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

HC-B-PES - Screw

1604997

<https://www.phoenixcontact.com/us/products/1604997>



PE screw, for contact inserts HC-B / HC-BB / HC-DD / HC-D40 / HC-D64

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HC-B-ZG - Strain relief clamp

1685327

<https://www.phoenixcontact.com/us/products/1685327>



Strain relief clamps contact inserts of series: B-, BB-, D 40, D 64, DD and HV, straight cable exit

HC-B-ZS - Strain relief clamp

1685330

<https://www.phoenixcontact.com/us/products/1685330>



Strain relief clamps contact inserts of series: B-, BB-, D 40, D 64, DD and HV, lateral cable exit

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HC-CIF-B10-HFWL-PL - DIN rail mounting frame

1424335

<https://www.phoenixcontact.com/us/products/1424335>



DIN rail mounting frame, design: B10, for contact inserts, Top frame

HC-B 10-ANDOCK - Docking frame

1586125

<https://www.phoenixcontact.com/us/products/1586125>



Docking frame for racks, for contact inserts of B10 type, with four M5 flat headed screws, rack balance x/y axis ± 1.5 mm

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HC-CIF-B06-24-BFAFL-PL - DIN rail mounting frame

1424338

<https://www.phoenixcontact.com/us/products/1424338>

DIN rail mounting frame, design: B6 - B24, for contact inserts, Base frame



HC-B24/10-ADP-SS - Adapter plate

1034213

<https://www.phoenixcontact.com/us/products/1034213>

Adapter plate, design: B24 to B10



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HC-BB18-I-PT-F - Contact insert

1014419

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Contact insert, number of positions: 18+PE, size: B10, power contacts: 18, control contacts: 0, number of connections per position: 1, Socket, Push-in connection, 500 V, 16 A, 0.5 mm² ... 2.5 mm², application: Power

CF CRIMPHANDY 0,5 - Electrical crimping tool

1212463

<https://www.phoenixcontact.com/us/products/1212463>



Mobile handheld device, battery-powered, for processing on-tape ferrules 0.5 mm² with functional end, suitable for PVC insulated conductors (H05V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 0.5 mm², packed in a robust case.

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CF CRIMPHANDY 0,75 - Electrical crimping tool

1212464

<https://www.phoenixcontact.com/us/products/1212464>



Mobile handheld device, battery-powered, for processing on-tape ferrules 0.75 mm² with functional end, suitable for PVC insulated conductors (H05V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 0.75 mm², packed in a robust case.

CF CRIMPHANDY 1,0 - Electrical crimping tool

1212465

<https://www.phoenixcontact.com/us/products/1212465>



Mobile handheld device, battery-powered, for processing on-tape ferrules 1.0 mm² with functional end, suitable for PVC insulated conductors (H05V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 1.0 mm², packed in a robust case.

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CF CRIMPHANDY 1,5 - Electrical crimping tool

1212466

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Mobile handheld device, battery-powered, for processing on-tape ferrules 1.5 mm² with functional end, suitable for PVC insulated conductors (H07V-K), incl. battery, charger, CUTFOX 12 cable cutter, waste guide plate 2, service tool for error correction, and one strip of ferrules 1.5 mm², packed in a robust case.

CRIMPFOX 6 - Crimping pliers

1212034

<https://www.phoenixcontact.com/us/products/1212034>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

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CRIMPFOX CENTRUS 10S - Crimping pliers

1213154

<https://www.phoenixcontact.com/us/products/1213154>



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm² ... 10 mm², also for TWIN ferrules up to 2 x 4 mm², automatic cross section adjustment, lateral insertion, equipped with fall protection

CRIMPFOX CENTRUS 6S - Crimping pliers

1213144

<https://www.phoenixcontact.com/us/products/1213144>



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm² ... 6 mm², also for TWIN ferrules up to 2 x 4 mm², automatic cross section adjustment, lateral insertion, equipped with fall protection

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