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

1014420

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

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 mm^2 ... 2.5 mm^2, 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

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

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
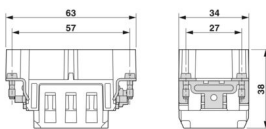
Data management status

Article revision	03

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

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 mm² ... 2.5 mm²
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

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)

Standards and regulations

Testing

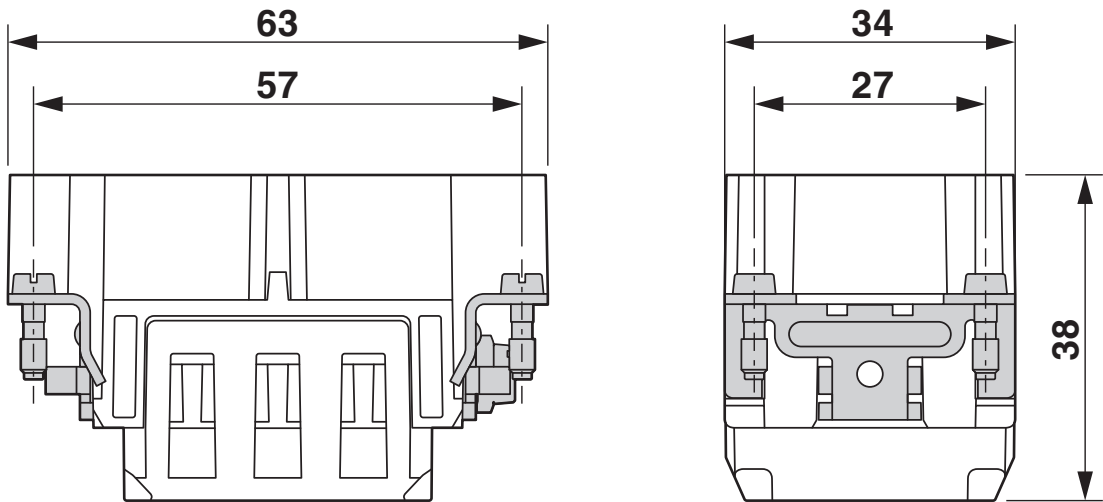| Standards/regulations	PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

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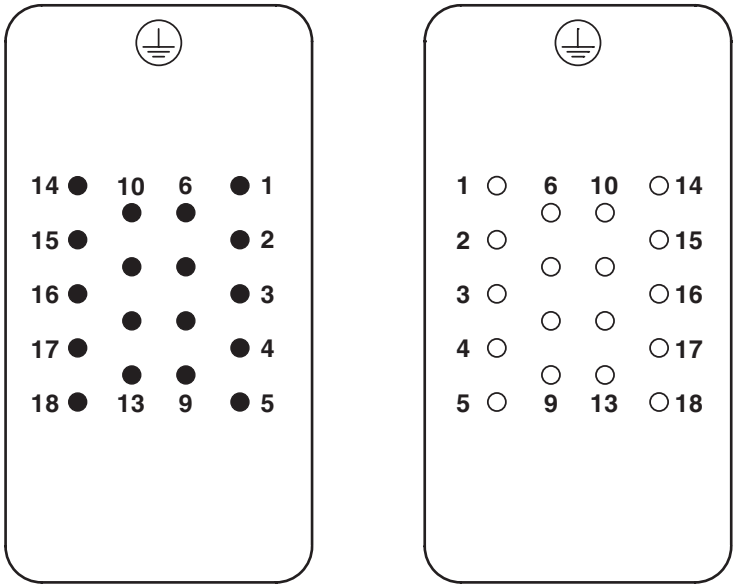https://www.phoenixcontact.com/us/products/1014420

Drawings

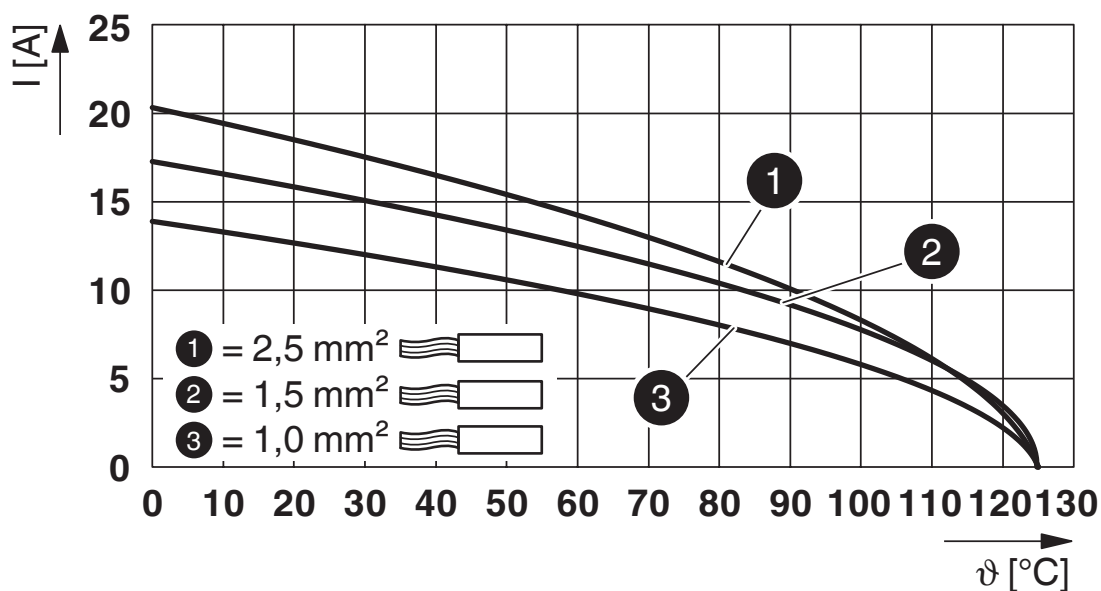### Dimensional drawing

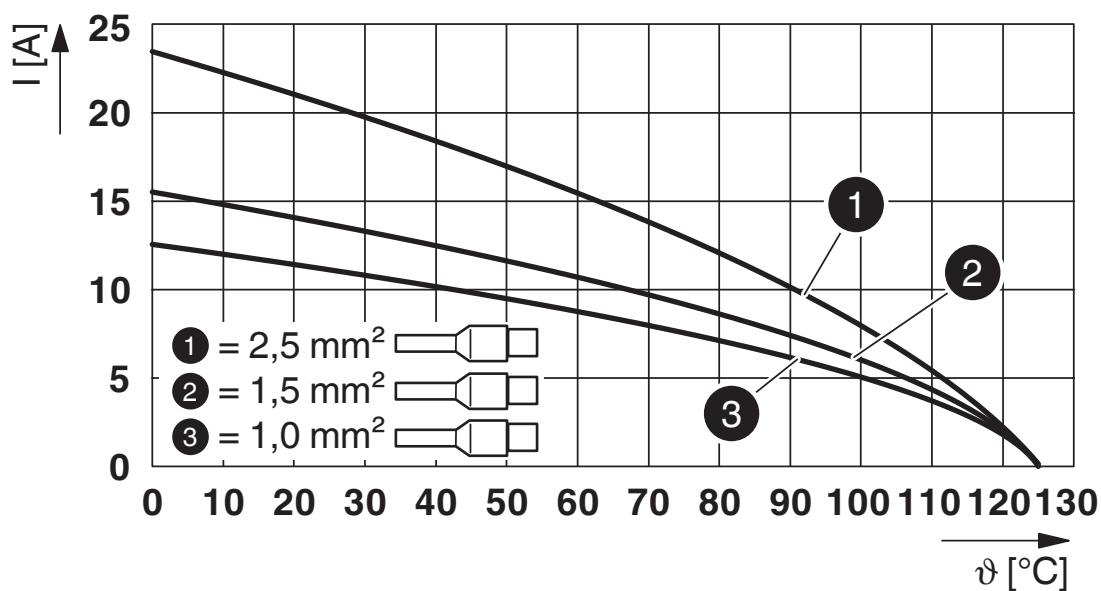Male insert

Schematic diagram

Connector pin assignment: Left pin - right socket

Diagram

Derating diagram for flexible conductors

Diagram

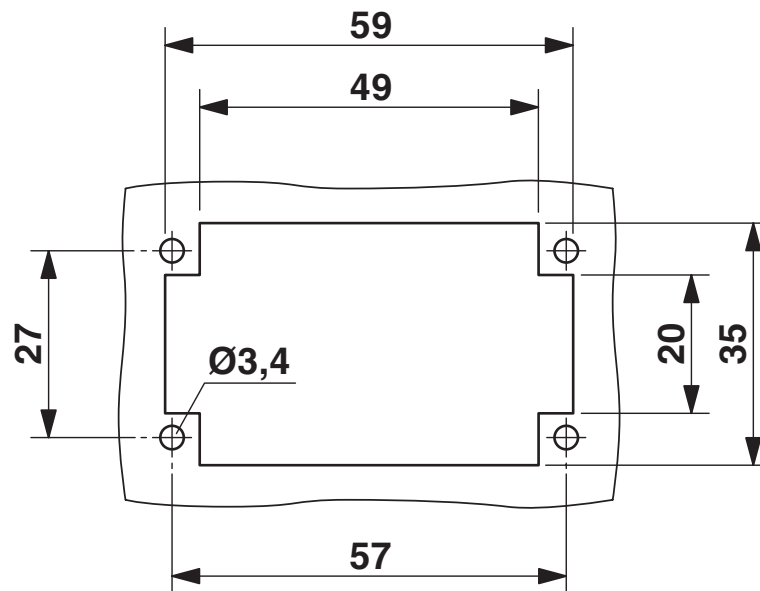Derating diagram for flexible conductors with ferrule

Dimensional drawing

59

49

27

Ø3,4

20

35

57

Mounting cutout when used without housing

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

UNSPSC

UNSPSC 21.0	39121500

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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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 mismating 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

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

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

HC-B-PE-PT - Adapter

1054672

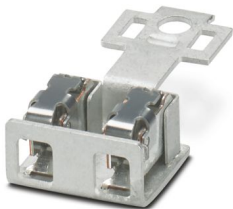https://www.phoenixcontact.com/us/products/1054672

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

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

1014420

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

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

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

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

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

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

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

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

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

1014420

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

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

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

1014420

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

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

1014419

https://www.phoenixcontact.com/us/products/1014419

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 mm^2 ... 2.5 mm^2, application: Power

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 mm^2 ... 6.0 mm^2, lateral entry, trapezoidal crimp

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

1014420

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

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 mm^2 ... 10 mm^2, also for TWIN ferrules up to 2 x 4 mm^2, 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 mm^2 ... 6 mm^2, also for TWIN ferrules up to 2 x 4 mm^2, automatic cross section adjustment, lateral insertion, equipped with fall protection