

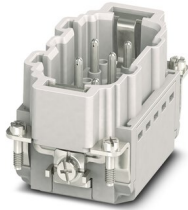
# Contact insert - HC-HV03-I-PT-M

1407739

<https://www.phoenixcontact.com/pc/products/1407739>

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HEAVYCON pin insert, HV3 series, 3-pos. + 2 switching contacts + PE, 830 V, push-in connection

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## 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

# Contact insert - HC-HV03-I-PT-M



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## Commercial Data

Item number	1407739
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF7ABG
Catalog Page	Page 559 (C-2-2019)
GTIN	4046356777445
Weight per Piece (including packing)	52.4 g
Weight per Piece (excluding packing)	52.4 g
Customs tariff number	85366990
Country of origin	CN

# Contact insert - HC-HV03-I-PT-M



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## Technical Data

### Notes

General	only use flexible conductors with ferrules
General	Connectors may be operated only when there is no load/voltage.

### Product properties

Type	B10
Product type	Contact insert with a fixed no. of positions
Number of positions	5
Connection profile	3+2+PE
Application	Power
Number of connections per position	1
No. of power contacts	3
No. of control contacts	2
Series	HC-HV

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Connection data

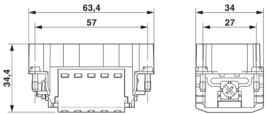
#### Connection technology

Connection technology	Push-in connection (power contacts)
Number of connections per position	1

#### Conductor connection

Connection cross section AWG	26 ... 14 (power contacts)
	26 ... 14 (control contacts)
Stripping length	8 mm ... 10 mm (power contacts)
	8 mm ... 10 mm (control contacts)

### Dimensions

Dimensional drawing	
Width	34 mm
Height	32 mm
Length	64 mm
Drill hole distance, horizontal	57 mm

### Mechanical characteristics

Contact diameter	2.5 mm
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## Electrical properties

Rated voltage (III/3)	830 V (power contacts)
	500 V (control contacts)
Rated surge voltage	8 kV (power contacts)
	6 kV (control contacts)
Rated current	16 A (power contacts)
	16 A (control contacts)
SCCR	5 kA (UL 2237)

## Material specifications

Flammability rating according to UL 94	V0
Contact material	Copper alloy
Contact carrier material	PC
Material of contact surface, power contact	Ag
Material of contact surface, control contact	Ag
Standards/regulations	PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

## Connector

Insertion/withdrawal cycles	≥ 500
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## Mounting

Assembly instructions	To ensure correct use, installation in housing with IP54 protection or better is required
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## Ambient conditions

Ambient temperature (operation)	-40 °C ... 125 °C (including heating up of contacts)
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## Standards and regulations

### Testing

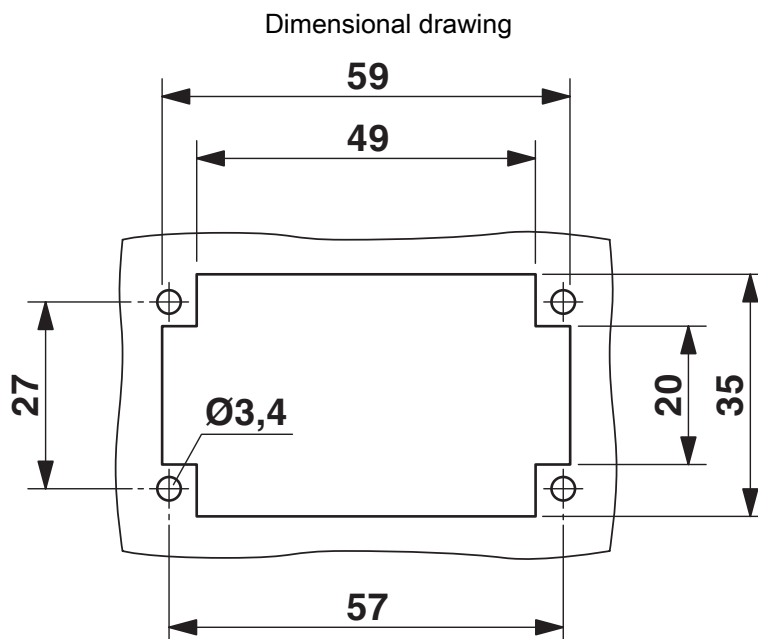
Standards/regulations	PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
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# Contact insert - HC-HV03-I-PT-M

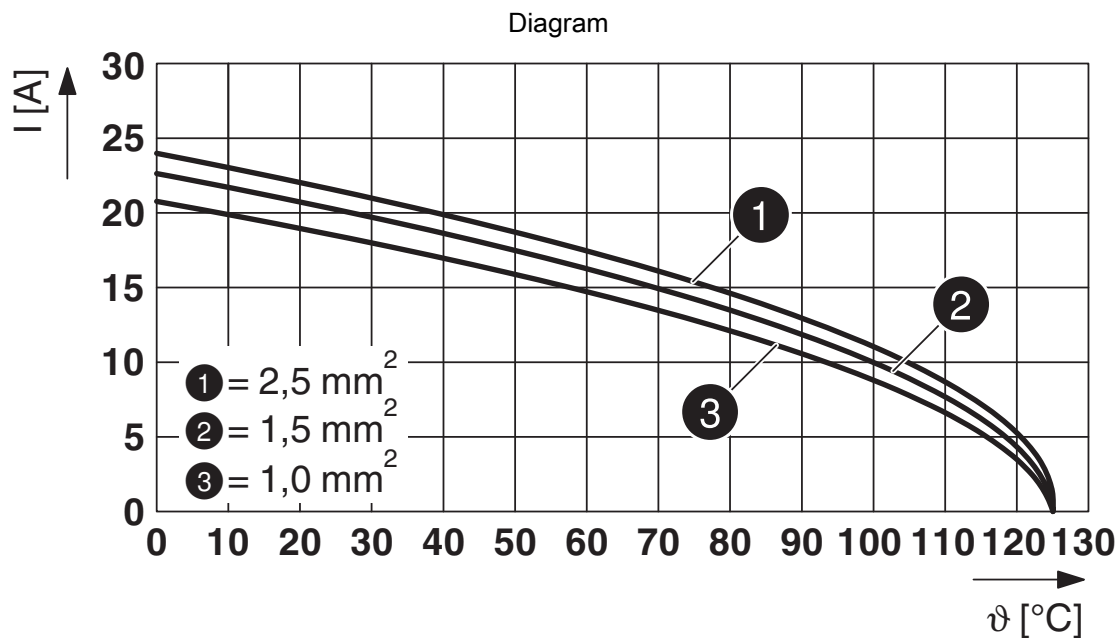
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## Drawings



Mounting cutout when used without housing



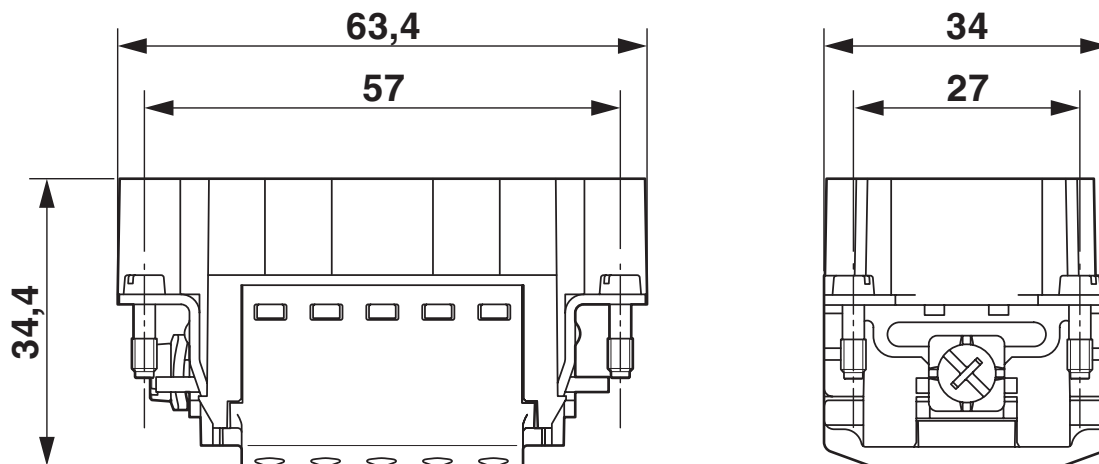
Derating diagram

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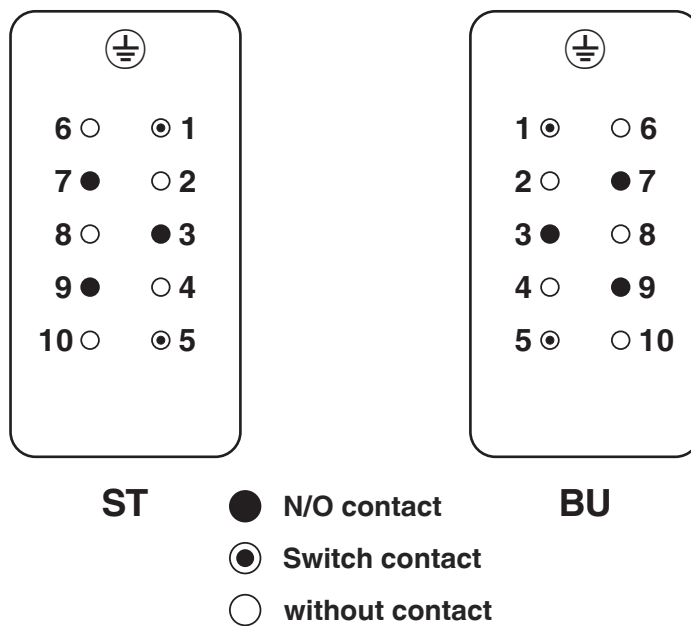
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Dimensional drawing



Dimensional drawing

Schematic diagram



View termination side

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## Approvals

**DNV**

Approval ID: TAE000037S



**CSA**

Approval ID: 013631\_0\_000

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	16 A	- 14	-



**UL Recognized**

Approval ID: E118976

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	21 A	- 14	-



**EAC**

Approval ID: RU C-DE.AI30.B.01102



**cULus Recognized**

Approval ID: E468743

	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	600 V	20 A	- 14	-



**EAC**

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

# Contact insert - HC-HV03-I-PT-M



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## Classifications

### ECLASS

ECLASS-9.0	27440205
ECLASS-10.0.1	27440205
ECLASS-11.0	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

### Electrical crimping tool

Electrical crimping tool - CF CRIMPHANDY 0,5 - 1212463

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



Mobile handheld device, battery-powered, for processing on-tape ferrules 0.5 mm<sup>2</sup> 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 mm<sup>2</sup>, packed in a robust case.

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### Electrical crimping tool

Electrical crimping tool - CF CRIMPHANDY 0,75 - 1212464

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



Mobile handheld device, battery-powered, for processing on-tape ferrules 0.75 mm<sup>2</sup> 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 mm<sup>2</sup>, packed in a robust case.

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<https://www.phoenixcontact.com/pc/products/1407739>



## Electrical crimping tool

Electrical crimping tool - CF CRIMPHANDY 1,0 - 1212465

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



Mobile handheld device, battery-powered, for processing on-tape ferrules 1.0 mm<sup>2</sup> 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 mm<sup>2</sup>, packed in a robust case.

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## Electrical crimping tool

Electrical crimping tool - CF CRIMPHANDY 1,5 - 1212466

<https://www.phoenixcontact.com/pc/products/1212466>



Mobile handheld device, battery-powered, for processing on-tape ferrules 1.5 mm<sup>2</sup> 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 mm<sup>2</sup>, packed in a robust case.

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## Coding bolt

Coding bolt - HC-CB - 1772722

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



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

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## Strain relief clamp

Strain relief clamp - HC-B-ZG - 1685327

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



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

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<https://www.phoenixcontact.com/pc/products/1407739>



## Strain relief clamp

Strain relief clamp - HC-B-ZS - 1685330

<https://www.phoenixcontact.com/pc/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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## Screw

Screw - HC-B-PES - 1604997

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



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

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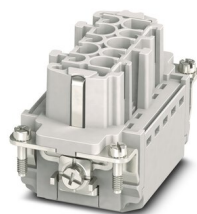
<https://www.phoenixcontact.com/pc/products/1407739>



## Contact insert

Contact insert - HC-HV03-I-PT-F - 1407743

<https://www.phoenixcontact.com/pc/products/1407743>



HEAVYCON socket insert, HV3 series, 3-pos. + 2 switching contacts + PE, 830 V, push-in connection

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## DIN rail mounting frame

DIN rail mounting frame - HC-CIF-B10-HFWL-PL - 1424335

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



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

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<https://www.phoenixcontact.com/pc/products/1407739>



## DIN rail mounting frame

DIN rail mounting frame - HC-CIF-B06-24-BFAFL-PL - 1424338

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



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

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## Docking frames

Docking frames - HC-B 10-ANDOCK - 1586125

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



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

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<https://www.phoenixcontact.com/pc/products/1407739>



## Adapter

Adapter - HC-B-PE-PT - 1054672

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



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

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## Coding element

Coding element - HC-CST - 1676857

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



Coding peg for coding up to 16 connectors



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<https://www.phoenixcontact.com/pc/products/1407739>



## Coding element

Coding element - HC-CBU - 1676860

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



Coding socket for coding up to 16 connectors

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## Coding profile

Coding profile - CP-HC - 1686478

<https://www.phoenixcontact.com/pc/products/1686478>



Coding profile, 4 coding profiles per strip, for insertion in coding keyways

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<https://www.phoenixcontact.com/pc/products/1407739>



## Adapter plate

Adapter plate - HC-B24/10-ADP-SS - 1034213

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

Adapter plate, type: B24 to B10



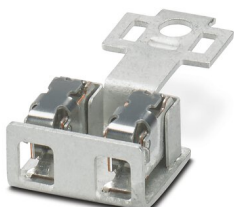
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## PE multiplier

PE multiplier - HC-B-2PE-PT - 1054675

<https://www.phoenixcontact.com/pc/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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## Crimping pliers

Crimping pliers - CRIMPFOX CENTRUS 6S - 1213144

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



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

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## Crimping pliers

Crimping pliers - CRIMPFOX CENTRUS 10S - 1213154

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



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

# Contact insert - HC-HV03-I-PT-M

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<https://www.phoenixcontact.com/pc/products/1407739>

## Crimping pliers

Crimping pliers - CRIMPFOX 6 - 1212034

<https://www.phoenixcontact.com/pc/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<sup>2</sup> ... 6.0 mm<sup>2</sup>, lateral entry, trapezoidal crimp

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## Crimping pliers

Crimping pliers - CRIMPFOX 10S - 1212045

<https://www.phoenixcontact.com/pc/products/1212045>



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm<sup>2</sup> ... 10 mm<sup>2</sup>, unlockable pressure lock, lateral entry

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