

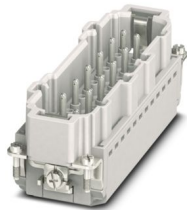
# HC-HV10-I-PT-M - Contact insert



1407741

<https://www.phoenixcontact.com/us/products/1407741>

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Contact insert, number of positions: 10+2+PE, size: B24, power contacts: 10, control contacts: 2, number of connections per position: 1, Pin, Push-in connection, 690 V, 16 A, 0.14 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

## Commercial data

Item number	1407741
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF61
Product key	BF7ABG
Catalog page	Page 559 (C-2-2019)
GTIN	4046356777469
Weight per piece (including packing)	86.6 g
Weight per piece (excluding packing)	86.6 g
Customs tariff number	85366990
Country of origin	CN

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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.

### Mounting

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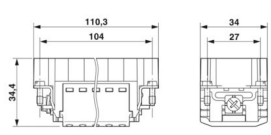
### Product properties

Product type	Contact insert with a fixed no. of positions
Series	HC-HV
Application	Power
Type	B24 B48
Number of positions	12
Connection profile	10+2+PE
Number of connections per position	1
No. of power contacts	10
No. of control contacts	2

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Dimensions

Dimensional drawing	
Width	34 mm
Height	32 mm
Length	111 mm
Drill hole distance, horizontal	104 mm

### Mechanical characteristics

Contact diameter	2.5 mm
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### Connection data

#### Connection technology

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

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## Conductor connection

Conductor cross section	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (power contacts)
	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (control contacts)
Connection cross section AWG	26 ... 14 (power contacts)
	26 ... 14 (control contacts)
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	8 mm ... 10 mm (power contacts)
	8 mm ... 10 mm (control contacts)

## Electrical properties

Rated voltage (III/2) contacts	830 V
Rated voltage (III/3)	690 V
Rated surge voltage (III/2)	8 kV
Rated surge voltage (III/3)	6 kV
Rated surge voltage	8 kV (power contacts)
	6 kV (control contacts)
Rated current	16 A
	16 A
SCCR	5 kA (UL 2237)

## 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 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)

## Environmental and real-life conditions

### Ambient conditions

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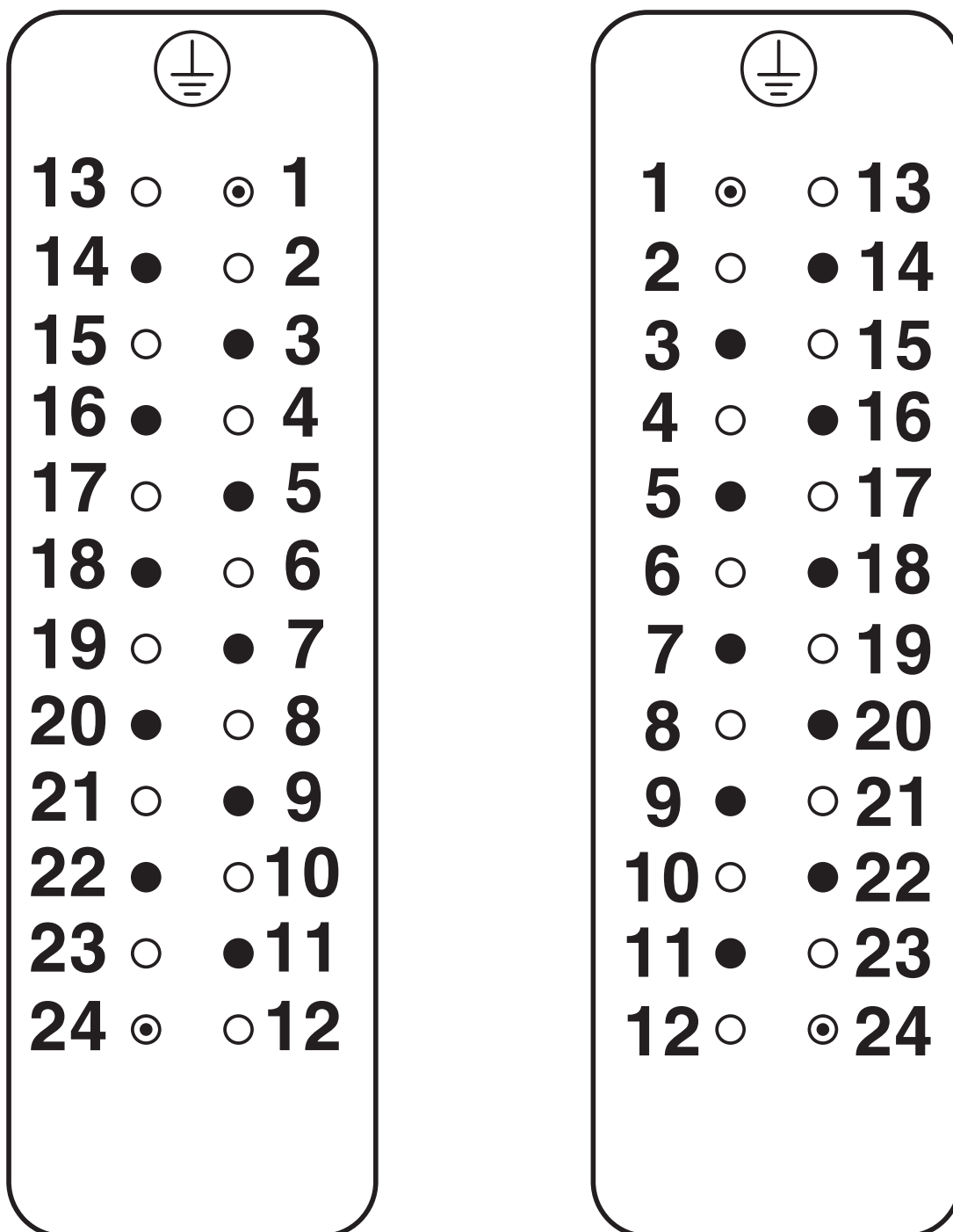
## Standards and regulations

### 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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Drawings

Schematic diagram

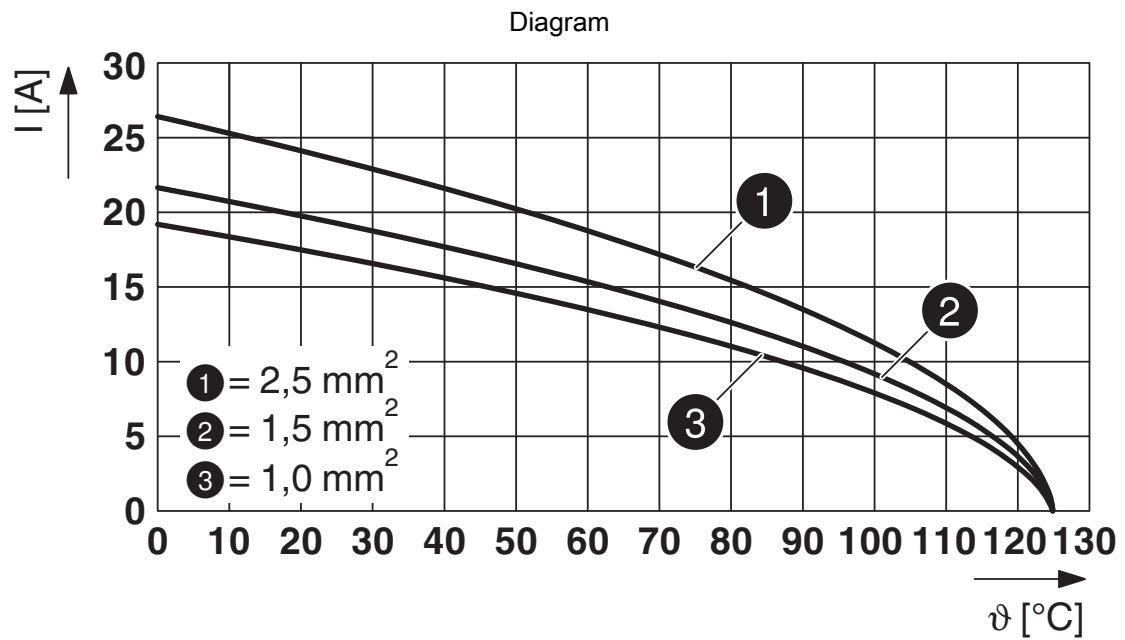


View termination side

# HC-HV10-I-PT-M - Contact insert

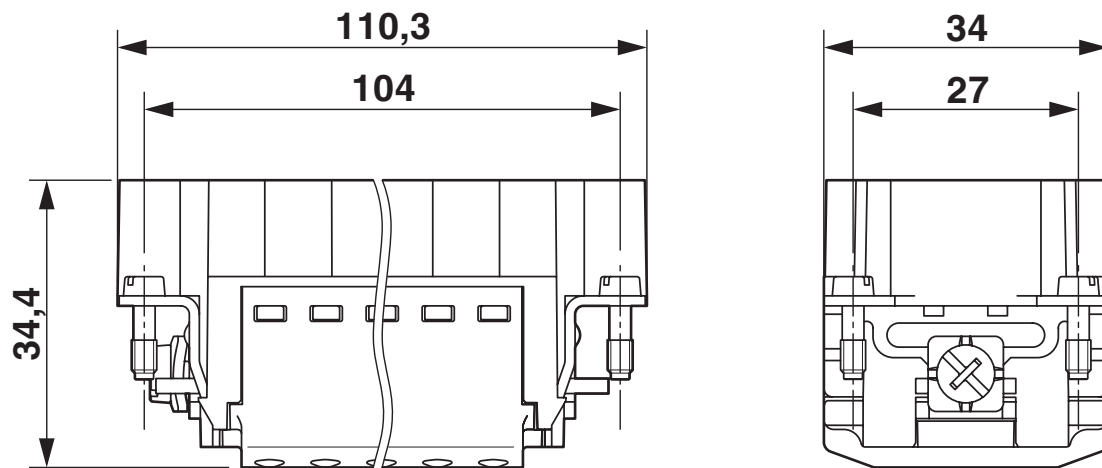
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Derating diagram

Dimensional drawing



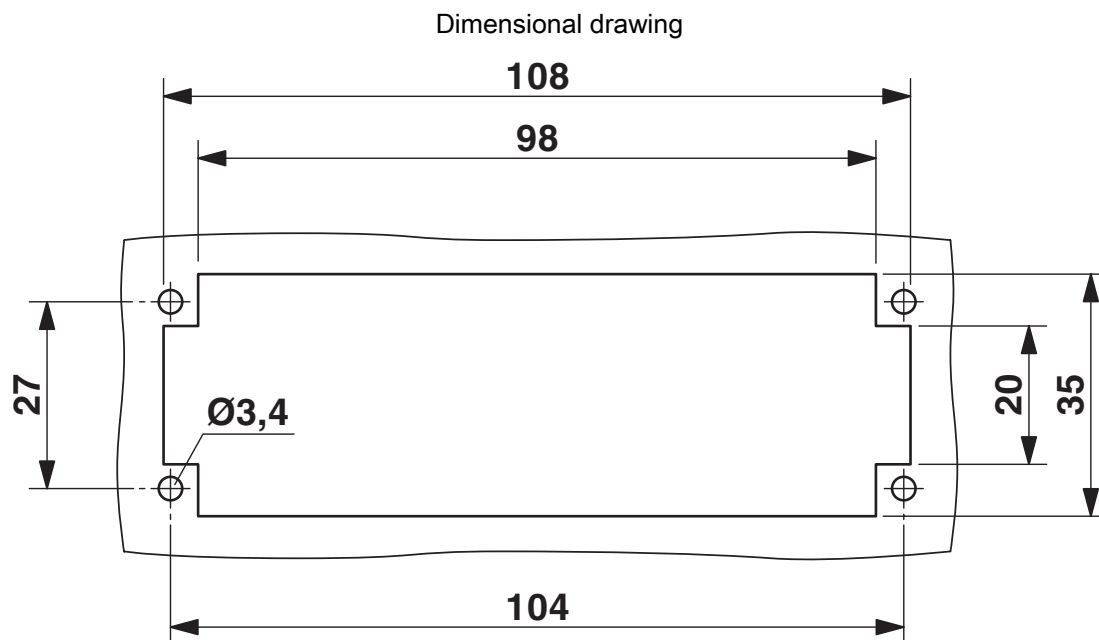
Dimensional drawing

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Mounting cutout when used without housing

# HC-HV10-I-PT-M - Contact insert



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407741>

### 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	15 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	20 A	- 14	-



### EAC

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



### 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	-

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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

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

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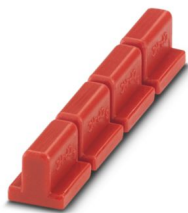


## Accessories

### CP-HC - Coding profile

1686478

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



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

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### 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

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## 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>



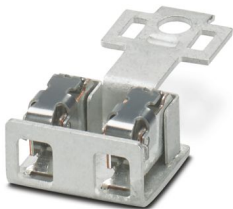
PE adapter with PT connection, for 1 PE connection, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

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## 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-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



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## 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-B24-HFWL-PL - DIN rail mounting frame

1424337

<https://www.phoenixcontact.com/us/products/1424337>



DIN rail mounting frame, design: B24, for contact inserts, Top frame

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<https://www.phoenixcontact.com/us/products/1407741>



## HC-B 24-ANDOCK - Docking frame

1586141

<https://www.phoenixcontact.com/us/products/1586141>



Docking frame for racks, for contact inserts of B24 type, with four M5 flat headed screws, rack balance x/y axis  $\pm 1.5$  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

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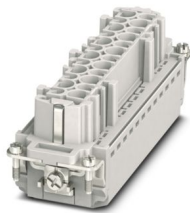
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## HC-HV10-I-PT-F - Contact insert

1407745

<https://www.phoenixcontact.com/us/products/1407745>



Contact insert, number of positions: 10+2+PE, size: B24, power contacts: 10, control contacts: 2, number of connections per position: 1, Socket, Push-in connection, 690 V, 16 A, 0.14 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, application: Power

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## 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 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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## 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 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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## 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 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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## CF CRIMPHANDY 1,5 - Electrical crimping tool

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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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## 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<sup>2</sup> ... 6.0 mm<sup>2</sup>, 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 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

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## 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<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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