

# Contact insert - HC-BB10-I-PT-M

1014418

<https://www.phoenixcontact.com/pc/products/1014418>

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Contact insert, number of positions: 10+PE, size: B6, power contacts: 10, 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

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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
- High contact density

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## Commercial Data

Item number	1014418
Packing unit	1 pc
Minimum order quantity	1 pc
Product Key	BF7ABD
Catalog Page	Page 553 (C-2-2019)
GTIN	4055626494418
Weight per Piece (including packing)	55.9 g
Weight per Piece (excluding packing)	53.7 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.

### Product properties

Type	B6
Product type	Contact insert with a fixed no. of positions
Number of positions	10
Connection profile	10+PE
Application	Power
Number of connections per position	1
No. of power contacts	10
No. of control contacts	0
Contact type	turned
Series	HC-BB

### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Connection data

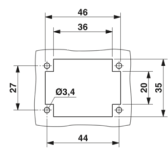
#### Connection technology

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

#### Conductor connection

Connection cross section AWG	20 ... 14
Stripping length of the individual wire	10 mm

### Dimensions

Dimensional drawing	
Width	34 mm
Height	32.5 mm
Length	51 mm

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Drill hole distance, horizontal	44 mm
Drill hole distance, vertical	27 mm

## Mechanical characteristics

Minimum housing height	72 mm
Contact diameter	2.5 mm

## Electrical properties

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

## Material specifications

Color	gray
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)

## Connector

Insertion/withdrawal cycles	≥ 500
Application	Power
Contact type	Pin
Number of positions	10
Connection profile	10+PE
Insertion/withdrawal cycles	≥ 500
Contact material	Copper alloy
Contact surface material	Ag
Application	Power
Contact type	Pin
Number of positions	10
Connection profile	10+PE
Insertion/withdrawal cycles	≥ 500
Contact material	Copper alloy
Contact surface material	Ag

## Cable / line

### Cable structure

Stripping length of the individual wire	10 mm
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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)

## 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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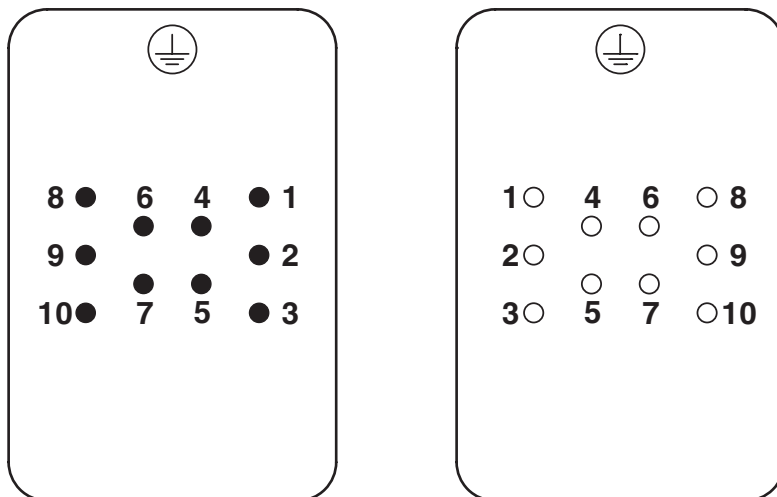


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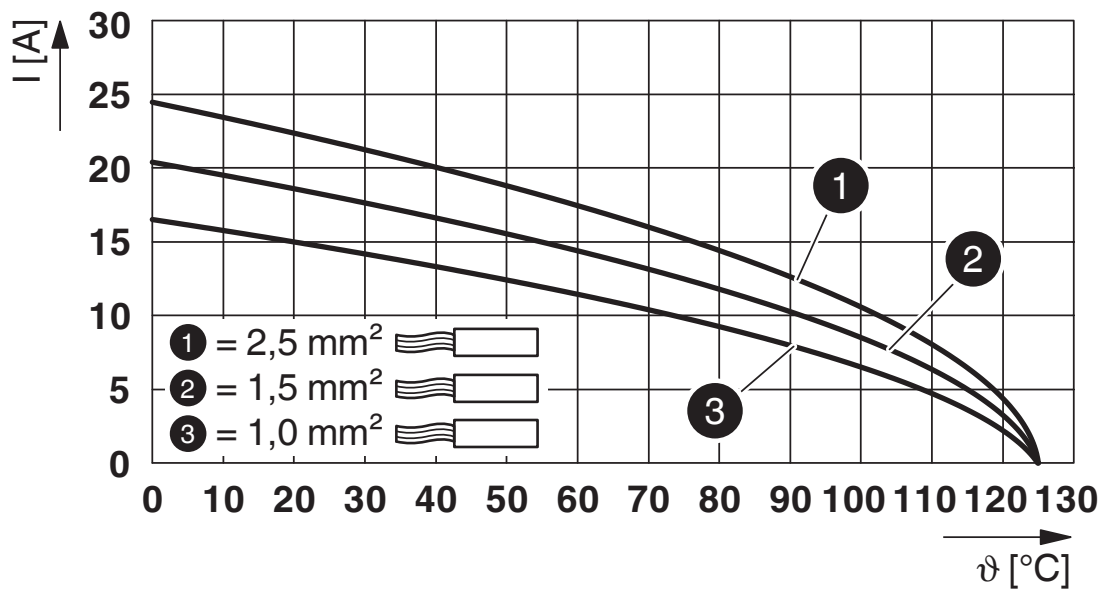
## Drawings

Schematic diagram



Connector pin assignment: Left pin - right socket

Diagram

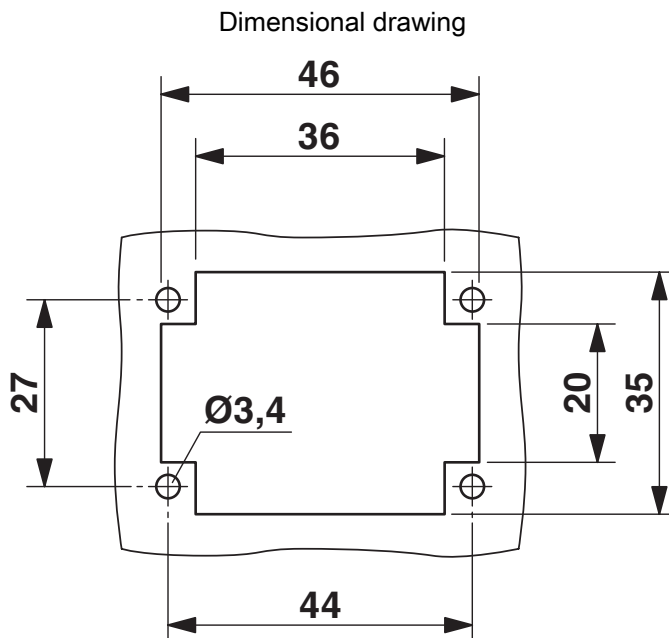


Derating diagram for flexible conductors

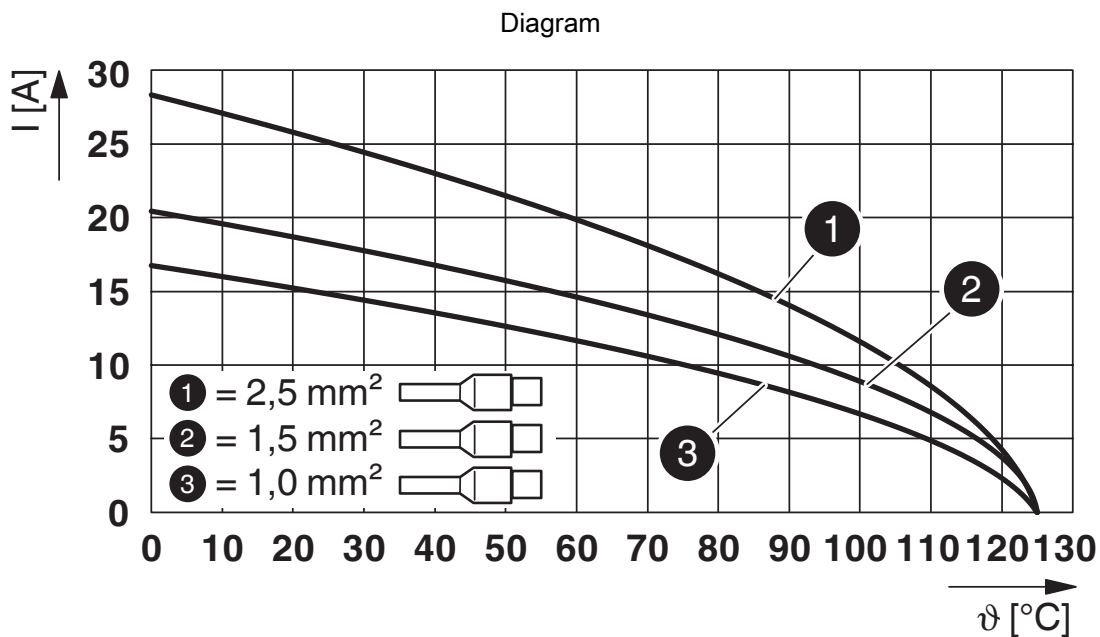
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Mounting cutout when used without housing



Derating diagram for flexible conductors with ferrule

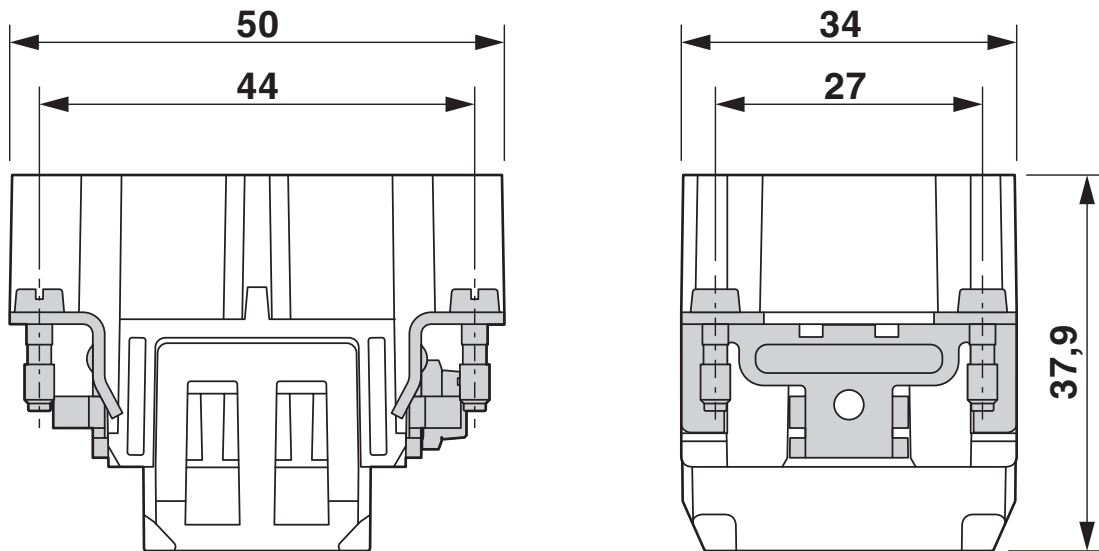
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Dimensional drawing



Male insert



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## Approvals

**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 $\text{mm}^2$
	600 V	21 A	- 14	-

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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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## 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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## 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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## Contact insert

Contact insert - HC-BB10-I-PT-F - 1014417

<https://www.phoenixcontact.com/pc/products/1014417>



Contact insert, number of positions: 10+PE, size: B6, power contacts: 10, control contacts: 0, number of connections per position: 1, Socket, Push-in connection, 500 V, 16 A, 0.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, application: Power

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## DIN rail mounting frame

DIN rail mounting frame - HC-CIF-B06-HFWL-PL - 1424334

<https://www.phoenixcontact.com/pc/products/1424334>



DIN rail mounting frame, type: B6, for contact inserts, Top frame



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## 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 6-ANDOCK - 1586112

<https://www.phoenixcontact.com/pc/products/1586112>



Docking frames for racks, for type B6 contact inserts, with 4 M5 flat headed screws, slide-in offset for x/y axis of  $\pm 1.5$  mm

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## 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/1014418>



## 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-S - 1410916

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



Coding profile, 4 elements per star, for insertion in a coding keyway, for contact inserts HC-BB... / HC-A10-I-UT... / HC-A16-I-UT...

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## Adapter plate

Adapter plate - HC-B24/6-ADP-SS - 1034215

<https://www.phoenixcontact.com/pc/products/1034215>

Adapter plate, type: B24 to B6



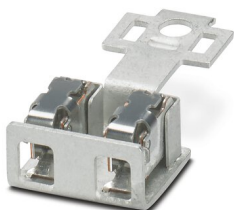
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## PE multiplier

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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## PE multiplier

PE multiplier - HC-B-3PE - 1644326

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

PE multiplier, for 3 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

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## 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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