

# HC-DD24-I-CT-F - Contact insert



1584046

<https://www.phoenixcontact.com/in/products/1584046>

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Contact insert, number of positions: 24+PE, size: B6, number of connections per position: 1, Socket, Crimp connection, 250 V, 10 A, 0.14 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, application: Signal

## Your advantages

- Can be used in rail vehicles, satisfy DIN EN 45545-2 with requirement sets R22, R23, and R24 in hazard levels HL1, HL2, and HL3.
- Shock and vibration-resistant in accordance with DIN EN 61373

## Commercial data

Item number	1584046
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF7
Product key	BF7ABF
Catalog page	Page 539 (C-2-2019)
GTIN	4046356133357
Weight per piece (including packing)	39.94 g
Weight per piece (excluding packing)	39.5 g
Customs tariff number	85389099
Country of origin	CN

# HC-DD24-I-CT-F - Contact insert



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## Technical data

### Notes

General	For housing HC-B6
General	Connectors may be operated only when there is no load/voltage.
General	It is imperative that guide pins (HC-CST) and sockets (HC-CBU) are used to prevent tip collision due to misalignment.

### Mounting

Assembly note	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-DD
Application	Signal
Type	B6
Number of positions	24
Connection profile	24+PE
Contact numbering	1 - 24
Number of connections per position	1
Contact material type	turned rolled

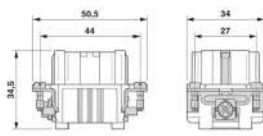
### Data management status

Article revision	13
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### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Dimensions

Dimensional drawing	
Width	34 mm
Height	34.5 mm
Length	50.5 mm
Drill hole distance, horizontal	44 mm
Drill hole distance, vertical	27 mm

### Mechanical characteristics

Minimum housing height	72 mm
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Contact diameter	1.6 mm
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## Connection data

### Connection technology

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

### Conductor connection

Conductor cross section	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Connection cross section AWG	26 ... 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	8 mm (0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> ) 6 mm (2.5 mm <sup>2</sup> )

## Electrical properties

Rated voltage (III/3)	250 V
Rated surge voltage	4 kV
Rated current	10 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 surface material	Ag (alternatively Au)
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

Constructional and testing regulations	DIN VDE 0627/86
	DIN VDE 0110/02.79
	DIN VDE 0110-1/04.97
	IEC 60664-1, DIN IEC 60512

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Tests	IEC 60352
	DIN VDE 0627/86
	DIN VDE 0110/02.79
	DIN VDE 0110-1/04.97
	IEC 60664-1, DIN IEC 60512
	IEC 60352

## 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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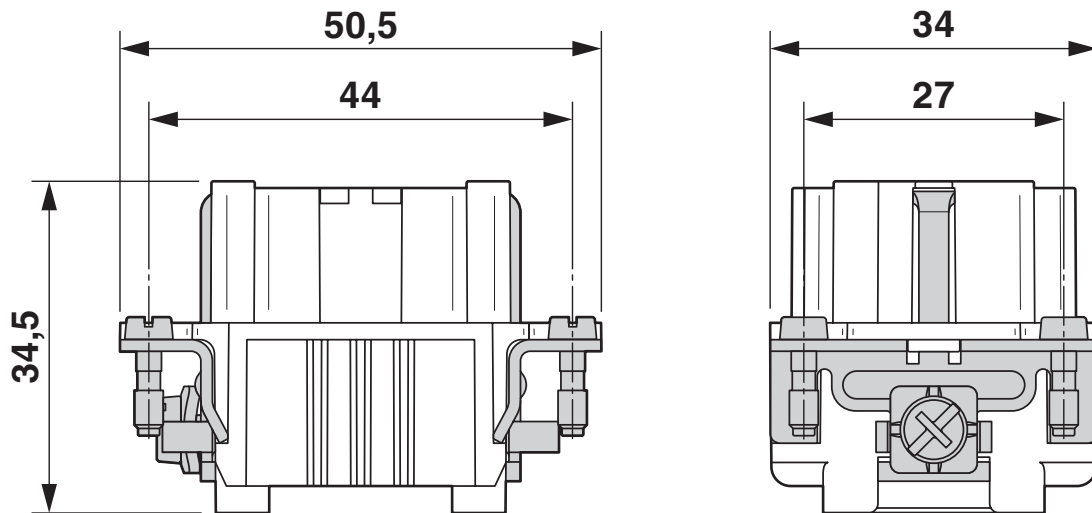
# HC-DD24-I-CT-F - Contact insert

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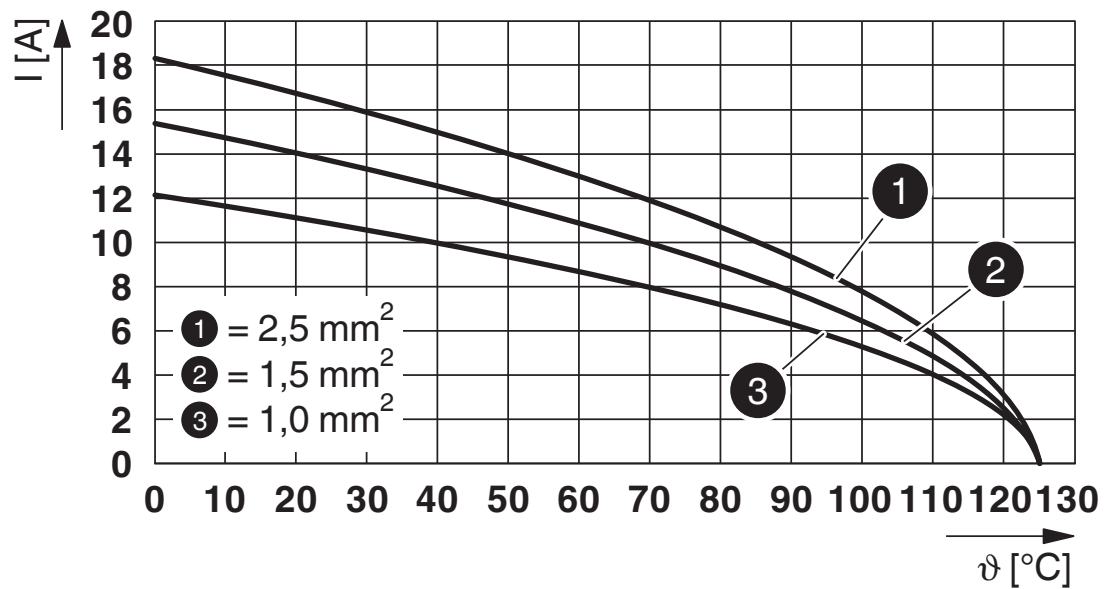
## Drawings

Dimensional drawing



Female insert

Diagram



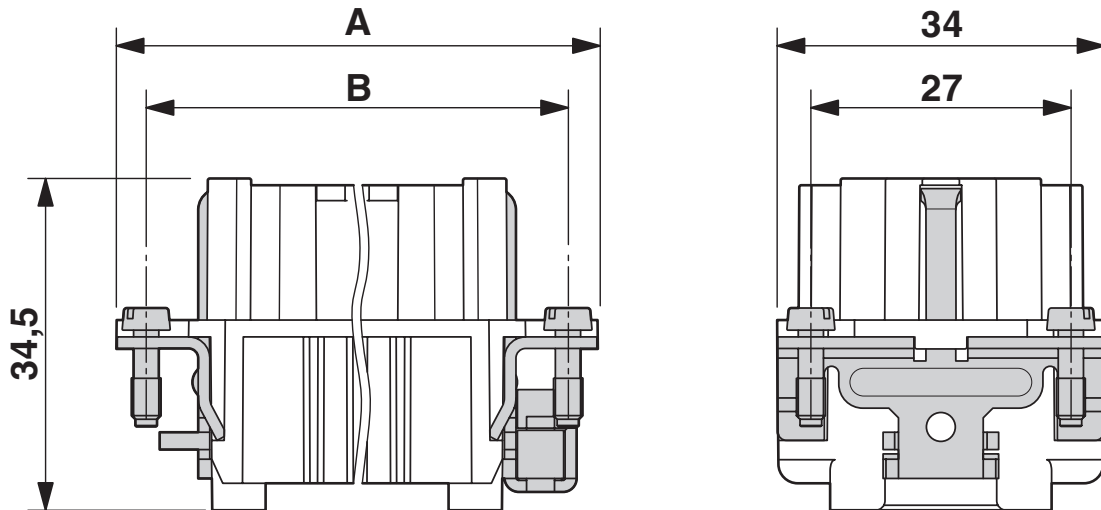
Derating diagram turned contacts

# HC-DD24-I-CT-F - Contact insert

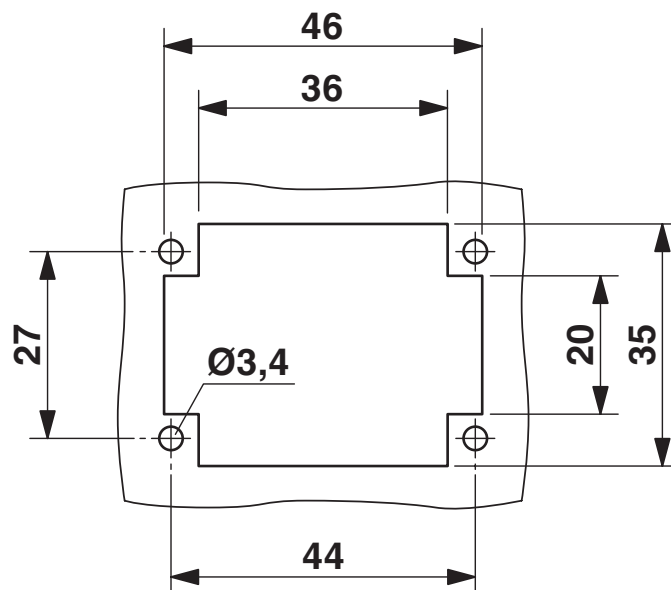
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Dimensional drawing



Dimensional drawing



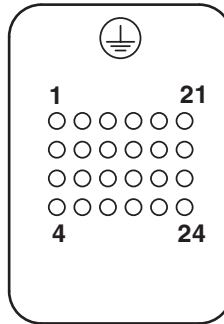
Mounting cutout when used without housing

# HC-DD24-I-CT-F - Contact insert

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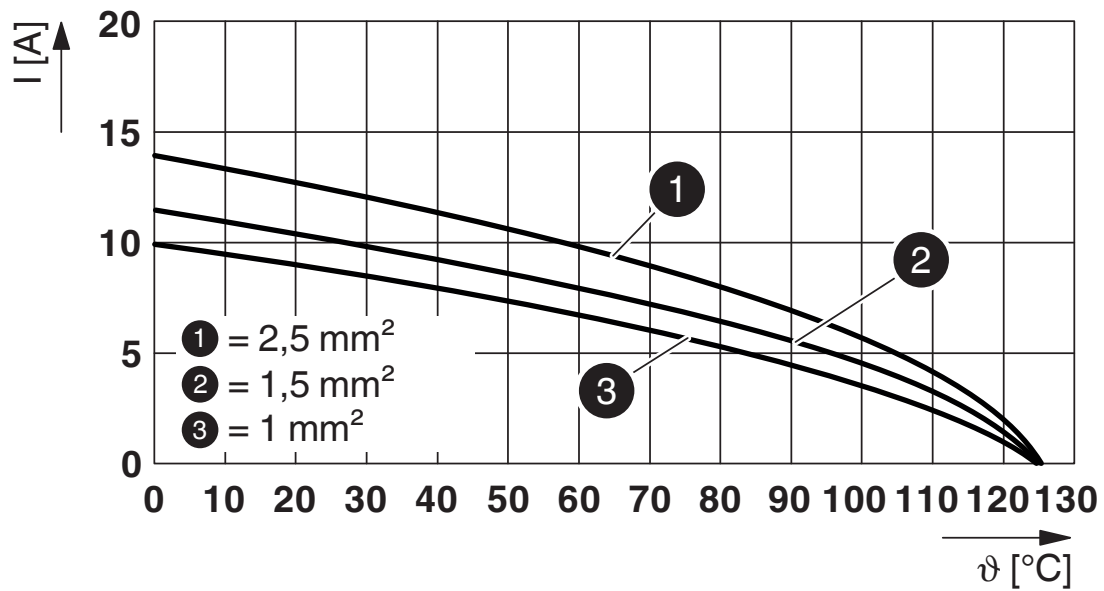
<https://www.phoenixcontact.com/in/products/1584046>

Schematic diagram



Connector pin assignment, connection side

Diagram



Derating diagram rolled contacts

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/1584046>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 013631\_6233\_01

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	7 A	26 - 14	-



### cUL Recognized

Approval ID: E118976

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	7 A	- 14	-



### UL Recognized

Approval ID: E118976

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	250 V	10 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 $\text{mm}^2$
	250 V	7 A	- 14	-

### cULus Recognized



# HC-DD24-I-CT-F - Contact insert



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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

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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

### HC-CP-CK1.6-PL - Coding element

1095422

<https://www.phoenixcontact.com/in/products/1095422>

Coding element for HC-D and HC-DD contact inserts with pole loss. Installed in the socket contact chamber.



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### HC-CST - Coding element

1676857

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

Coding peg for coding up to 16 connectors



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<https://www.phoenixcontact.com/in/products/1584046>



## HC-CBU - Coding element

1676860

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



Coding socket for coding up to 16 connectors

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## HC-B-PE-PT - Adapter

1054672

<https://www.phoenixcontact.com/in/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/in/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/in/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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<https://www.phoenixcontact.com/in/products/1584046>



## HC-B-PES - Screw

1604997

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

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



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## HC-DD24-FP-F - Front plate

1201528

<https://www.phoenixcontact.com/in/products/1201528>

Guide element/front plate for the easy and secure connection of HC-DD series high-position connectors. Snap onto the contact insert. During connection, the pin contact is guided into place first, preventing contact with the socket contact.



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## HC-B-ZG - Strain relief clamp

1685327

<https://www.phoenixcontact.com/in/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/in/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-B06-HFWL-PL - DIN rail mounting frame

1424334

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



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

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## HC-B 6-ANDOCK - Docking frame

1586112

<https://www.phoenixcontact.com/in/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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## HC-CIF-B06-24-BFAFL-PL - DIN rail mounting frame

1424338

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



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

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

1034215

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



Adapter plate, design: B24 to B6

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## CK1,6-ED-0,37BU AG - Crimp contact

1663394

<https://www.phoenixcontact.com/in/products/1663394>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 0.14 mm<sup>2</sup> ... 0.37 mm<sup>2</sup>, AWG 26 ... 22

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## CK1,6-ED-0,50BU AG - Crimp contact

1663404

<https://www.phoenixcontact.com/in/products/1663404>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 0.5 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>, AWG 20

# HC-DD24-I-CT-F - Contact insert

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## CK1,6-ED-0,75BU AG - Crimp contact

1663417

<https://www.phoenixcontact.com/in/products/1663417>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 0.75 mm<sup>2</sup> ... 0.75 mm<sup>2</sup>, AWG 18

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## CK1,6-ED-1,00BU AG - Crimp contact

1663420

<https://www.phoenixcontact.com/in/products/1663420>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 1 mm<sup>2</sup> ... 1 mm<sup>2</sup>, AWG 18

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## CK1,6-ED-1,50BU AG - Crimp contact

1663433

<https://www.phoenixcontact.com/in/products/1663433>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 1.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, AWG 16

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## CK1,6-ED-2,50BU AG - Crimp contact

1663446

<https://www.phoenixcontact.com/in/products/1663446>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 2.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 14

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<https://www.phoenixcontact.com/in/products/1584046>



## CK1,6-ED-BU-POF - Female contact

1885004

<https://www.phoenixcontact.com/in/products/1885004>



POF fiber optic socket contact, turned, for contact carriers (HC-DD...I-CT.../ HC-M-12-CT-F.../ HC-M-17-CT-F...) of CK1,6-ED... contacts

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## CK1,6-ED-0,37F AG - Crimp contact

1266249

<https://www.phoenixcontact.com/in/products/1266249>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 0.14 mm<sup>2</sup> ... 0.34 mm<sup>2</sup>, AWG 24 ... 22

# HC-DD24-I-CT-F - Contact insert

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<https://www.phoenixcontact.com/in/products/1584046>



## CK1,6-ED-0,50F AG - Crimp contact

1266252

<https://www.phoenixcontact.com/in/products/1266252>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 0.5 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>, AWG 20

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## CK1,6-ED-0,75F AG - Crimp contact

1266259

<https://www.phoenixcontact.com/in/products/1266259>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 0.75 mm<sup>2</sup> ... 0.75 mm<sup>2</sup>, AWG 18

# HC-DD24-I-CT-F - Contact insert

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## CK1,6-ED-1,00F AG - Crimp contact

1266296

<https://www.phoenixcontact.com/in/products/1266296>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 1 mm<sup>2</sup> ... 1 mm<sup>2</sup>, AWG 18

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## CK1,6-ED-1,50F AG - Crimp contact

1266263

<https://www.phoenixcontact.com/in/products/1266263>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 1.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, AWG 16

# HC-DD24-I-CT-F - Contact insert

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<https://www.phoenixcontact.com/in/products/1584046>



## CK1,6-ED-2,50F AG - Crimp contact

1266295

<https://www.phoenixcontact.com/in/products/1266295>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 2.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 14

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## CK1,6-ED-0,37BU AU - Crimp contact

1674969

<https://www.phoenixcontact.com/in/products/1674969>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: gold-plated, connection cross section: 0.14 mm<sup>2</sup> ... 0.37 mm<sup>2</sup>, AWG 26 ... 22



# HC-DD24-I-CT-F - Contact insert

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## CK1,6-ED-0,50BU AU - Crimp contact

1674480

<https://www.phoenixcontact.com/in/products/1674480>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: gold-plated, connection cross section: 0.5 mm<sup>2</sup> ... 0.5 mm<sup>2</sup>, AWG 20

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## CK1,6-ED-0,75BU AU - Crimp contact

1672440

<https://www.phoenixcontact.com/in/products/1672440>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: gold-plated, connection cross section: 0.75 mm<sup>2</sup> ... 0.75 mm<sup>2</sup>, AWG 18

# HC-DD24-I-CT-F - Contact insert

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## CK1,6-ED-1,00BU AU - Crimp contact

1674943

<https://www.phoenixcontact.com/in/products/1674943>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: gold-plated, connection cross section: 1 mm<sup>2</sup> ... 1 mm<sup>2</sup>, AWG 18

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## CK1,6-ED-1,50BU AU - Crimp contact

1674930

<https://www.phoenixcontact.com/in/products/1674930>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: gold-plated, connection cross section: 1.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, AWG 16

# HC-DD24-I-CT-F - Contact insert

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## CK1,6-ED-2,50BU AU - Crimp contact

1674985

<https://www.phoenixcontact.com/in/products/1674985>



Crimp contact, contact diameter: 1.6 mm, turned, Socket, contact material: Copper alloy, contact surface: gold-plated, connection cross section: 2.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 14

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## CK1,6-ER-1,00BU OIC AG - Crimp contact

1004362

<https://www.phoenixcontact.com/in/products/1004362>



Crimp contact, contact diameter: 1.6 mm, rolled, Socket, contact material: Cu alloy, nickel-plated, contact surface: silver-plated, connection cross section: 0.34 mm<sup>2</sup> ... 1 mm<sup>2</sup>, AWG 22 ... 17

# HC-DD24-I-CT-F - Contact insert

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## CK1,6-ER-2,50BU OIC AG - Crimp contact

1004366

<https://www.phoenixcontact.com/in/products/1004366>



Crimp contact, contact diameter: 1.6 mm, rolled, Socket, contact material: Cu alloy, nickel-plated, contact surface: silver-plated, connection cross section: 1.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 16 ... 14

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## CK1,6-BR-1,00BU OIC AG - Crimp contact

1004381

<https://www.phoenixcontact.com/in/products/1004381>



Crimp contact, contact diameter: 1.6 mm, rolled, Socket, contact material: Cu alloy, nickel-plated, contact surface: silver-plated, connection cross section: 0.34 mm<sup>2</sup> ... 1 mm<sup>2</sup>, AWG 22 ... 17, Taped products

## HC-DD24-I-CT-F - Contact insert

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## CK1,6-BR-2,50BU OIC AG - Crimp contact

1004383

<https://www.phoenixcontact.com/in/products/1004383>



Crimp contact, contact diameter: 1.6 mm, rolled, Socket, contact material: Cu alloy, nickel-plated, contact surface: silver-plated, connection cross section: 1.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 16 ... 14, Taped products

## HC-DD24-I-CT-M - Contact insert

1584033

<https://www.phoenixcontact.com/in/products/1584033>



Contact insert, number of positions: 24+PE, size: B6, number of connections per position: 1, Pin, Crimp connection, 250 V, 10 A, 0.14 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, application: Signal

# HC-DD24-I-CT-F - Contact insert

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## UNIFOX MT-CK 1.6/2.5 - Assembly tool

1089092

<https://www.phoenixcontact.com/in/products/1089092>



Assembly tool, for CK 1.6... crimp contacts for small conductor cross sections

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## UNIFOX RT-CK 1.6 - Contact removal tool

1072069

<https://www.phoenixcontact.com/in/products/1072069>



Contact removal tool, for turned and rolled CK- 1.6-... contacts

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