

# HC-M-03-CT-M - Contact insert module



1414358

<https://www.phoenixcontact.com/us/products/1414358>

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Contact insert module, number of positions: 3, power contacts: 3, control contacts: 0, Pin, Crimp connection, 500 V, 40 A, 1.5 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Power

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1414358             |
| Packing unit                         | 5 pc                |
| Minimum order quantity               | 5 pc                |
| Sales key                            | BF62                |
| Product key                          | BF7ACE              |
| Catalog page                         | Page 575 (C-2-2019) |
| GTIN                                 | 4055626025018       |
| Weight per piece (including packing) | 12.91 g             |
| Weight per piece (excluding packing) | 12.8 g              |
| Customs tariff number                | 85389099            |
| Country of origin                    | PL                  |

## Technical data

### Notes

|         |                                                                                                                                                                |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | For HEAVYCON housing type B6 to B48, HC-M-B...MF-... hinged module carrier frame required, CK4,0..... crimp contacts, crimp contacts not supplied as standard. |
| General | Connectors may be operated only when there is no load/voltage.                                                                                                 |

### Mounting

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Assembly note | <p>To ensure correct use, installation in housing with IP54 protection or better is required</p> <p>The <b>UNIFOX RT-CK 4.0</b> tool (Item No. 1072064) is required <b>for removing</b> the crimp contacts.</p> <p>At every "C" contact chamber, the position of the contact retaining springs is marked with two black markings on the connection side. From the connection side, the tool is pushed over the contact in a position-oriented manner, so that it touches both the retaining springs. Then insert it up to the limit stop. <b>Do not turn the inserted tool.</b> Push the conductor out of the insulating body along with the tool from the connection side.</p> |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Product properties

|                         |                        |
|-------------------------|------------------------|
| Product type            | Modular contact insert |
| Series                  | HC-M-03                |
| Application             | Power                  |
| Number of positions     | 3                      |
| Connection profile      | 3                      |
| Contact numbering       | 1 - 3                  |
| Number of module slots  | 1                      |
| No. of power contacts   | 3                      |
| No. of control contacts | 0                      |
| Contact material type   | turned                 |

#### Data management status

|                  |    |
|------------------|----|
| Article revision | 02 |
|------------------|----|

#### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Connection data

#### Connection technology

|                                  |                  |
|----------------------------------|------------------|
| Connection technology            | Crimp connection |
| Connection in acc. with standard | IEC / EN         |

#### Conductor connection

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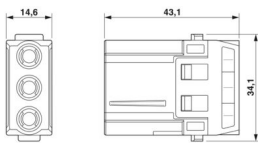


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|                                         |                                                      |
|-----------------------------------------|------------------------------------------------------|
| Conductor cross section                 | 1.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>            |
| Connection cross section AWG            | 16 ... 8                                             |
| Stripping length of the individual wire | 9 mm (for 1.5 ... 2.5 mm <sup>2</sup> )              |
|                                         | 14 mm (for 4 mm <sup>2</sup> ... 6 mm <sup>2</sup> ) |

## Dimensions

|                     |                                                                                    |
|---------------------|------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 34.2 mm                                                                            |
| Height              | 43.1 mm                                                                            |
| Length              | 14.6 mm                                                                            |

## Mechanical characteristics

|                        |       |
|------------------------|-------|
| Minimum housing height | 52 mm |
| Contact diameter       | 4 mm  |

## Electrical properties

|                                |       |
|--------------------------------|-------|
| Rated voltage (III/2) contacts | 830 V |
| Rated voltage (III/3)          | 500 V |
| Rated surge voltage (III/2)    | 8 kV  |
| Rated surge voltage (III/3)    | 6 kV  |
| Rated surge voltage            | 6 kV  |
| Rated current                  | 40 A  |

## 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 |
|---------------------------------|-------------------|

## Standards and regulations

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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) |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|

# HC-M-03-CT-M - Contact insert module

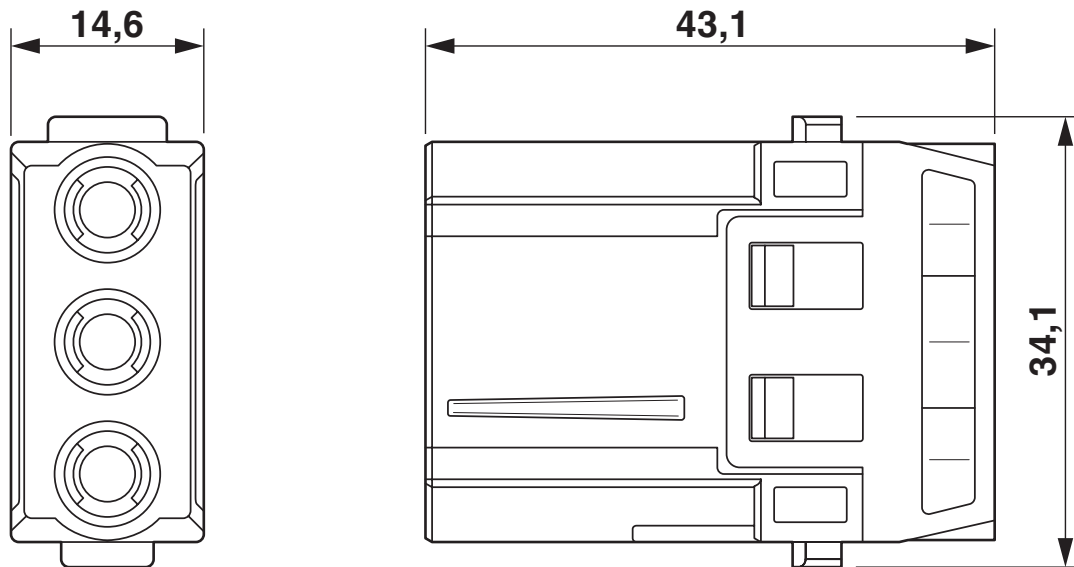


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## Drawings

Dimensional drawing



Male insert

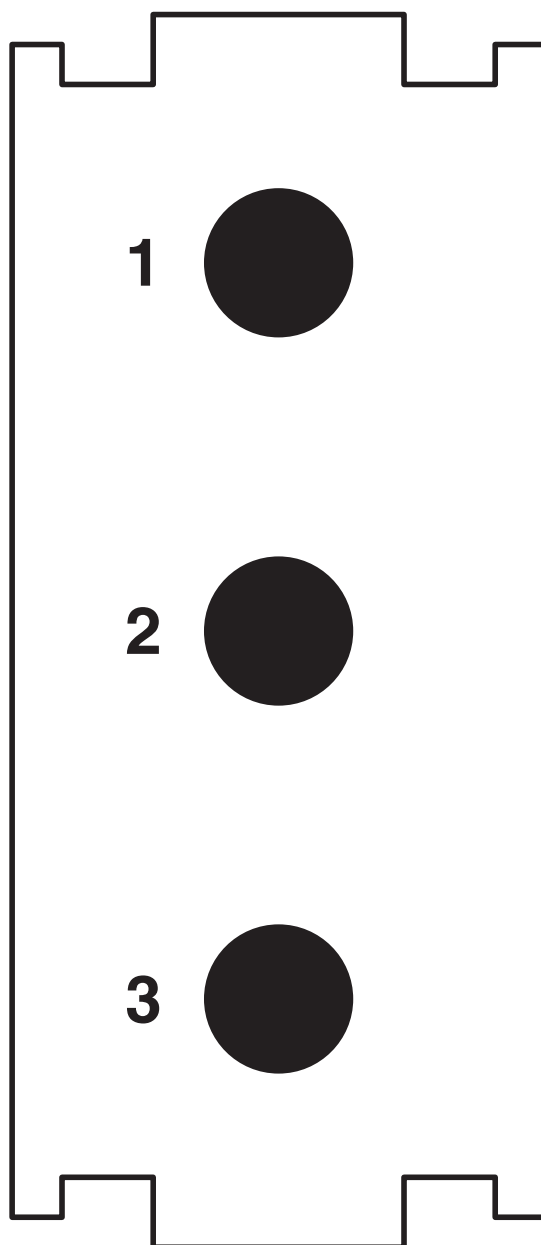
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Schematic diagram



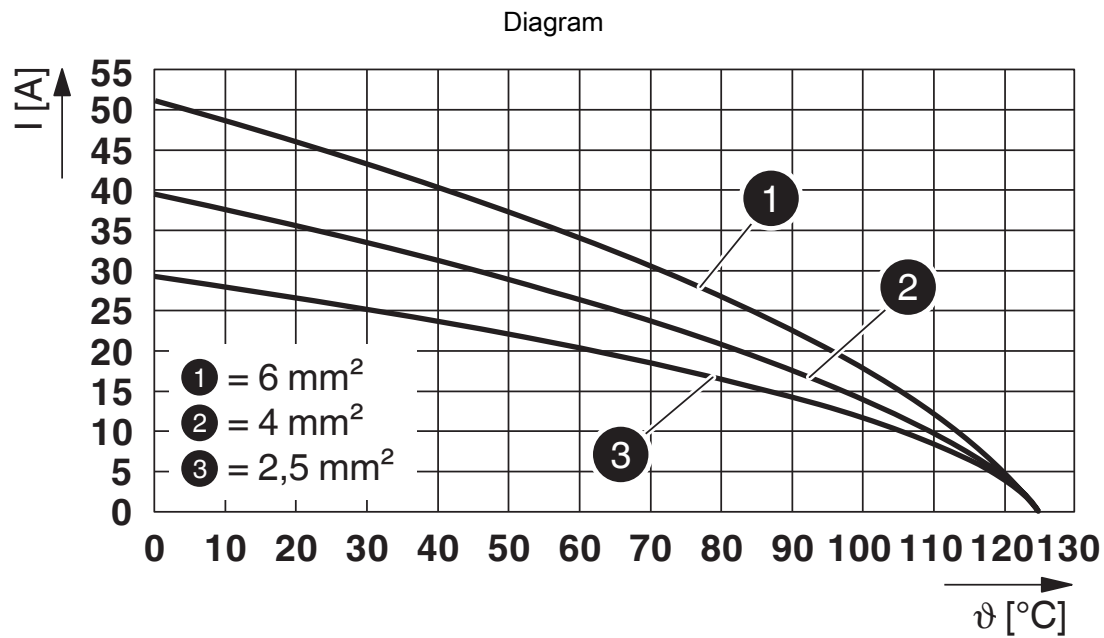
Connector pin assignment, connection side

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Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1414358>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 13631

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 33 A                  | - 10              | -                           |



### UL Recognized

Approval ID: E118976

|  | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 42 A                  | - 10              | -                           |



### 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                 | 42 A                  | -                 | -                           |



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440217 |
| ECLASS-12.0 | 27440217 |
| ECLASS-13.0 | 27440217 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000438 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121400 |
|-------------|----------|

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## 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

### HC-CBU-MOD - Coding element

1636130

<https://www.phoenixcontact.com/us/products/1636130>



Coding socket for coding up to 16 connectors, for HC Modular

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### HC-CST-MOD - Coding element

1636127

<https://www.phoenixcontact.com/us/products/1636127>



Coding peg for coding up to 16 connectors, for HC Modular

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## HC-M-MHR-PE16 - Cable lug

1636981

<https://www.phoenixcontact.com/us/products/1636981>



Cable lug for HEAVYCON-MODULAR; PE connection extension to 16 mm<sup>2</sup>, for crimping with crimp pliers

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## CK4,0-ED-1,50ST AG - Crimp contact

1663239

<https://www.phoenixcontact.com/us/products/1663239>



Crimp contact, contact diameter: 4 mm, turned, Pin, 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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## CK4,0-ED-2,50ST AG - Crimp contact

1663242

<https://www.phoenixcontact.com/us/products/1663242>



Crimp contact, contact diameter: 4 mm, turned, Pin, 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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## CK4,0-ED-4,00ST AG - Crimp contact

1663255

<https://www.phoenixcontact.com/us/products/1663255>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 4 mm<sup>2</sup> ... 4 mm<sup>2</sup>, AWG 12

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## CK4,0-ED-6,00ST AG - Crimp contact

1663268

<https://www.phoenixcontact.com/us/products/1663268>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 6 mm<sup>2</sup> ... 6 mm<sup>2</sup>, AWG 10

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## CK4,0-ED-10,00ST AG - Crimp contact

1586198

<https://www.phoenixcontact.com/us/products/1586198>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 10 mm<sup>2</sup> ... 10 mm<sup>2</sup>, AWG 8

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## CK4,0-ED-1,50M AG - Crimp contact

1274097

<https://www.phoenixcontact.com/us/products/1274097>



Crimp contact, contact diameter: 4 mm, turned, Pin, 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

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## CK4,0-ED-2,50M AG - Crimp contact

1274094

<https://www.phoenixcontact.com/us/products/1274094>



Crimp contact, contact diameter: 4 mm, turned, Pin, 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

# HC-M-03-CT-M - Contact insert module



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## CK4,0-ED-4,00M AG - Crimp contact

1274093

<https://www.phoenixcontact.com/us/products/1274093>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 4 mm<sup>2</sup> ... 4 mm<sup>2</sup>, AWG 12

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## CK4,0-ED-6,00M AG - Crimp contact

1274092

<https://www.phoenixcontact.com/us/products/1274092>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 6 mm<sup>2</sup> ... 6 mm<sup>2</sup>, AWG 10



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### CK4,0-ED-10,00M AG - Crimp contact

1274091

<https://www.phoenixcontact.com/us/products/1274091>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 10 mm<sup>2</sup> ... 10 mm<sup>2</sup>, AWG 8

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### HC-M-B06-MFH-B - Module carrier frame

1182085

<https://www.phoenixcontact.com/us/products/1182085>



Module carrier frame, size: B6, type : for the panel mounting side (a, b, c, ...), 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Module carrier frame

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## HC-M-B10-MFH-B - Module carrier frame

1182088

<https://www.phoenixcontact.com/us/products/1182088>



Module carrier frame, size: B10, type : for the panel mounting side (a, b, c, ...), 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Module carrier frame

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## HC-M-B16-MFH-B - Module carrier frame

1182090

<https://www.phoenixcontact.com/us/products/1182090>



Module carrier frame, size: B16, type : for the panel mounting side (a, b, c, ...), 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Module carrier frame

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<https://www.phoenixcontact.com/us/products/1414358>



## HC-M-B24-MFH-B - Module carrier frame

1182094

<https://www.phoenixcontact.com/us/products/1182094>

Module carrier frame, size: B24, type : for the panel mounting side (a, b, c, ...), 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Module carrier frame



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## HC-M-B06-MFH-H - Module carrier frame

1182087

<https://www.phoenixcontact.com/us/products/1182087>

Module carrier frame, size: B6, type : for the sleeve side (A, B, C, ...), 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Module carrier frame



# HC-M-03-CT-M - Contact insert module

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## HC-M-B10-MFH-H - Module carrier frame

1182089

<https://www.phoenixcontact.com/us/products/1182089>

Module carrier frame, size: B10, type : for the sleeve side (A, B, C, ...), 4 mm<sup>2</sup> ...  
6 mm<sup>2</sup>, application: Module carrier frame



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## HC-M-B16-MFH-H - Module carrier frame

1182093

<https://www.phoenixcontact.com/us/products/1182093>

Module carrier frame, size: B16, type : for the sleeve side (A, B, C, ...), 4 mm<sup>2</sup> ...  
6 mm<sup>2</sup>, application: Module carrier frame



## HC-M-03-CT-M - Contact insert module

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## HC-M-B24-MFH-H - Module carrier frame

1182095

<https://www.phoenixcontact.com/us/products/1182095>

Module carrier frame, size: B24, type : for the sleeve side (A, B, C, ...), 4 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Module carrier frame



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## HC-M-03-CT-F - Contact insert module

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<https://www.phoenixcontact.com/us/products/1414359>

Contact insert module, number of positions: 3, power contacts: 3, control contacts: 0, Socket, Crimp connection, 500 V, 40 A, 1.5 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Power



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## UNIFOX RT-CK 4.0 - Contact removal tool

1072064

<https://www.phoenixcontact.com/us/products/1072064>

Contact removal tool, for rotated CK-4,0-... contacts



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