

# HC-M-12-PT-F - Contact insert module



1424228

<https://www.phoenixcontact.com/pc/products/1424228>

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Contact insert module, number of positions: 12, power contacts: 0, control contacts: 12, Socket, Push-in connection, 250 V, 10 A, 0.14 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, application: Signal

## 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

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1424228             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product key                          | BF7ACE              |
| Catalog page                         | Page 577 (C-2-2019) |
| GTIN                                 | 4055626369594       |
| Weight per piece (including packing) | 25 g                |
| Weight per piece (excluding packing) | 24 g                |
| Customs tariff number                | 85366990            |
| Country of origin                    | PL                  |

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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.                             |
| General | For HEAVYCON housing type B6 to B48, HC-M-B...MF-... hinged module carrier frame required. |

### Mounting

|                       |                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------|
| Assembly instructions | To ensure correct use, installation in housing with IP54 protection or better is required |
|-----------------------|-------------------------------------------------------------------------------------------|

### Product properties

|                         |                        |
|-------------------------|------------------------|
| Product type            | Modular contact insert |
| Series                  | HC-M-12                |
| Application             | Signal                 |
| Number of positions     | 12                     |
| Connection profile      | 12                     |
| Contact numbering       | 1 - 12                 |
| Number of module slots  | 1                      |
| No. of power contacts   | 0                      |
| No. of control contacts | 12                     |
| Contact material type   | turned                 |

### Insulation characteristics

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

### Connection data

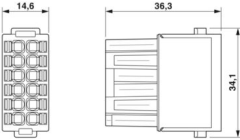
#### Connection technology

|                       |                    |
|-----------------------|--------------------|
| Connection technology | Push-in connection |
|-----------------------|--------------------|

#### Conductor connection

|                                         |                      |
|-----------------------------------------|----------------------|
| Conductor cross section                 | 0.14 mm² ... 1.5 mm² |
| Connection cross section AWG            | 26 ... 16            |
| Stripping length of the individual wire | 8 mm                 |

### Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 34.1 mm                                                                              |

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|        |         |
|--------|---------|
| Height | 36.3 mm |
| Length | 14.6 mm |

## Mechanical characteristics

|                  |        |
|------------------|--------|
| Contact diameter | 1.6 mm |
|------------------|--------|

## Electrical properties

|                                |       |
|--------------------------------|-------|
| Rated voltage (III/2) contacts | 400 V |
| Rated voltage (III/3)          | 250 V |
| Rated surge voltage (III/2)    | 4 kV  |
| Rated surge voltage (III/3)    | 4 kV  |
| Rated surge voltage            | 4 kV  |
| Rated current                  | 10 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

### 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) |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|

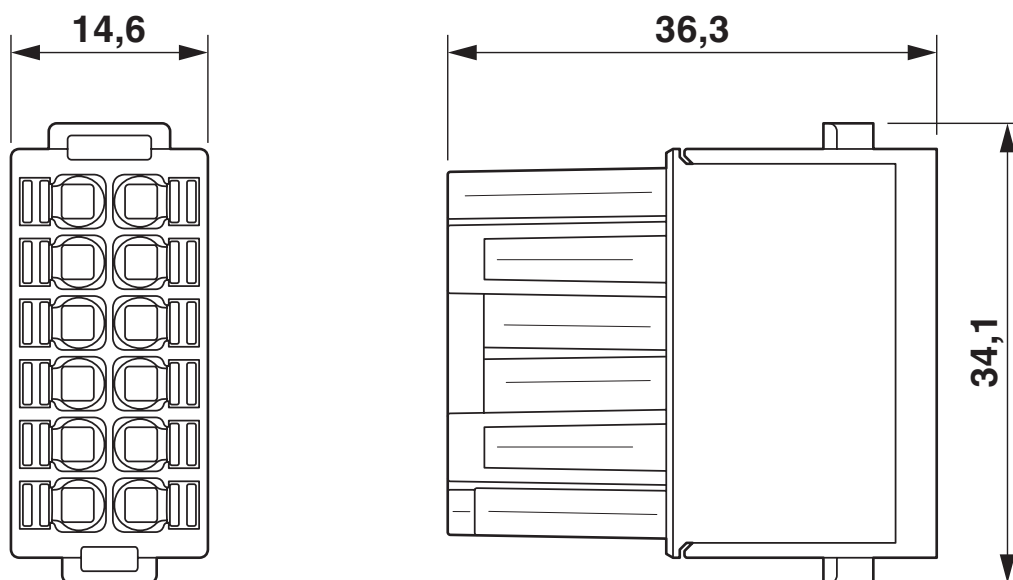
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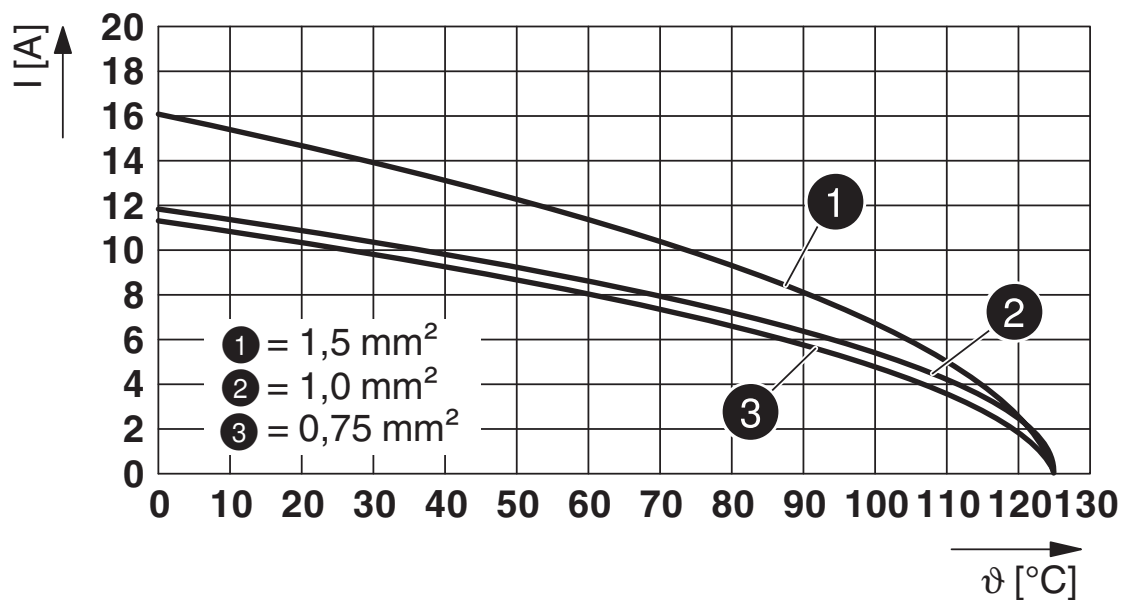
## Drawings

Dimensional drawing



Dimensional drawing

Diagram



Derating diagram

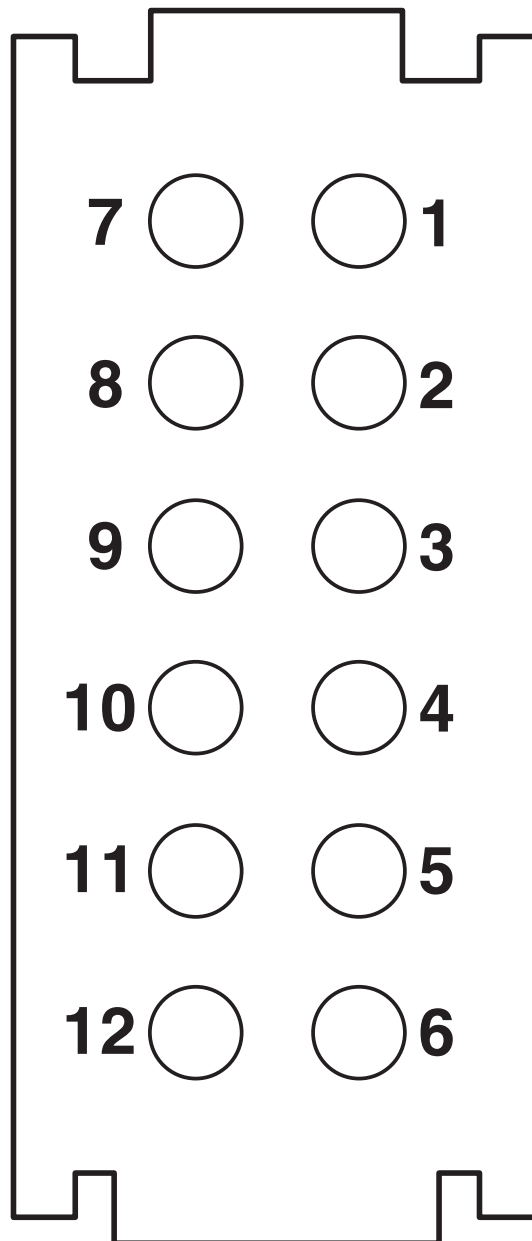
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Schematic diagram



Connector pin assignment, connection side

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## Classifications

### ECLASS

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

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | 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/pc/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/pc/products/1636127>



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

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

1182085

<https://www.phoenixcontact.com/pc/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/pc/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/pc/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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## HC-M-B24-MFH-B - Module carrier frame

1182094

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

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

1182089

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



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

1182095

<https://www.phoenixcontact.com/pc/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-12-PT-M - Contact insert module

1424246

<https://www.phoenixcontact.com/pc/products/1424246>



Contact insert module, number of positions: 12, power contacts: 0, control contacts: 12, Pin, Push-in connection, 250 V, 10 A, 0.14 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, application: Signal

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## CF CRIMPHANDY 0,5 - Electrical crimping tool

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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## CF CRIMPHANDY 0,75 - Electrical crimping tool

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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## CF CRIMPHANDY 1,0 - Electrical crimping tool

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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## CF CRIMPHANDY 1,5 - Electrical crimping tool

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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## CRIMPFOX 6 - Crimping pliers

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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## CRIMPFOX CENTRUS 10S - Crimping pliers

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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## CRIMPFOX CENTRUS 6S - Crimping pliers

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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