

# HC-M-02-AT-M-10 - Contact insert module



1417389

<https://www.phoenixcontact.com/us/products/1417389>

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Contact insert module, number of positions: 2, power contacts: 2, control contacts: 0, Pin, Axial screw connection, 690 V, 40 A, 2.5 mm<sup>2</sup> ... 10 mm<sup>2</sup>, application: Power

## Commercial data

Item number	1417389
Packing unit	2 pc
Minimum order quantity	2 pc
Sales key	BF62
Product key	AF7ACE
GTIN	4055626112695
Weight per piece (including packing)	26.05 g
Weight per piece (excluding packing)	24.9 g
Customs tariff number	85366990
Country of origin	PL

## Technical data

### Mounting

<p>Assembly note</p>	<p>To ensure correct use, installation in housing with IP54 protection or better is required</p> <p><b>Note regarding axial connection technology:</b>                      Only for stranded wires. The specified conductor cross-sections refer to the geometric cross section of the cable used. Cables with a geometric cross section which deviates significantly from the nominal cable cross section must be checked before use.                      The axial connection technology connection space is designed for fine strand cables according to VDE 0295 Class 5. Deviating cable structures (e.g., Class 6 cables) must be checked before use.</p> <p><b>Assembly instructions</b>                      Before assembly, ensure that the tapered screw is fully loosened (chamber is open). Cables must not be twisted. The wires must be pushed into the contact chamber as far as they will go (until the insulation touches the contact). Hold the wires in position and tighten using an Allen key. The used wire end must be cut off before reconnection. The terminal screw must only be retightened once to prevent the litz wires from breaking. To prevent damage to the contact, the wire/cable must be mechanically held at an appropriate distance from the connection point (e.g., when used in a plate cut out). For notes on correct execution, see DIN VDE 0100-520:2003-06. Unused connections must be tightened with maximum torque.</p>
<p>Hexagonal socket</p>	<p>SW2,0</p>

### Product properties

<p>Product type</p>	<p>Modular contact insert</p>
<p>Series</p>	<p>HC-M-02</p>
<p>Application</p>	<p>Power</p>
<p>Number of positions</p>	<p>2</p>
<p>Connection profile</p>	<p>2</p>
<p>Number of module slots</p>	<p>1</p>
<p>No. of power contacts</p>	<p>2</p>
<p>No. of control contacts</p>	<p>0</p>

### Insulation characteristics

<p>Overvoltage category</p>	<p>III</p>
<p>Degree of pollution</p>	<p>3</p>

### Connection data

#### Connection technology

<p>Connection technology</p>	<p>Axial screw connection</p>
<p>Connection in acc. with standard</p>	<p>IEC / EN</p>

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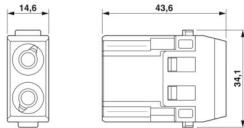
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## Conductor connection

Conductor cross-section	2.5 mm <sup>2</sup> ... 10 mm <sup>2</sup> (The cross section specification refers to the geometric cross section of the cable used)
Connection cross section AWG	12 ... 10
Tightening torque	1.5 Nm (2.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> )
	2 Nm (6 mm <sup>2</sup> ... 10 mm <sup>2</sup> )
Stripping length of the individual wire	9 mm (with an outside conductor diameter up to 4.8 mm)
	11 mm (with an outside conductor diameter up to 6.5 mm)

## Dimensions

Dimensional drawing	
Width	34.2 mm
Height	34.7 mm
Length	14.6 mm

## Mechanical characteristics

Contact diameter	4 mm
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## Electrical properties

Rated voltage (III/2) contacts	1000 V
Rated voltage (III/3)	690 V
Rated surge voltage (III/2)	8 kV
Rated surge voltage (III/3)	8 kV
Rated surge voltage	8 kV
Rated current	40 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
Contact carrier material	PC
Standards/regulations	PC

## Environmental and real-life conditions

### Ambient conditions

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Ambient temperature (operation)
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-40 °C ... 125 °C
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## Standards and regulations

### Testing

Standards/regulations
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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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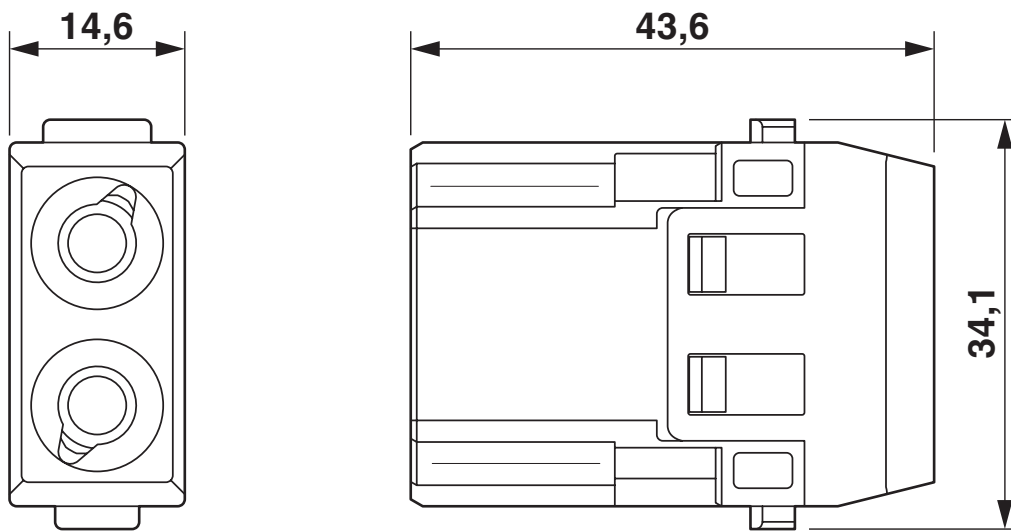
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## Drawings

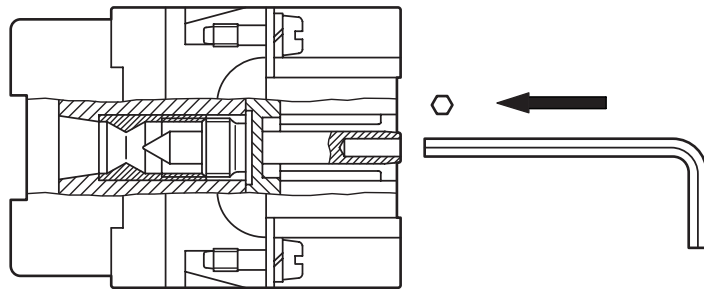
Dimensional drawing



Male insert



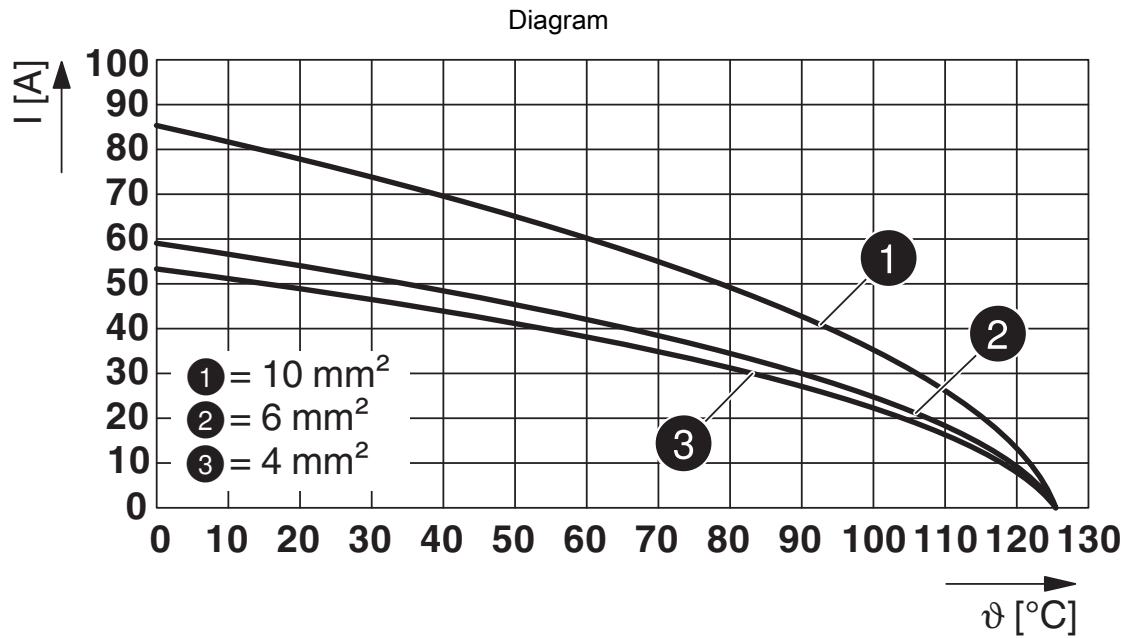
Schematic diagram



Axial connection (2 mm Allen key)

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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/1417389>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 158887

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	600 V	45 A	- 8	-



### UL Recognized

Approval ID: E118976

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	600 V	55 A	- 8	-



### UL Recognized

Approval ID: E468743

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	600 V	55 A	-	-

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## Classifications

### ECLASS

ECLASS-13.0	27440217
ECLASS-15.0	27440217

### ETIM

ETIM 10.0	EC000438
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### UNSPSC

UNSPSC 21.0	39121400
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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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### EF3.1 Climate Change

CO2e kg	0.166 kg CO2e
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