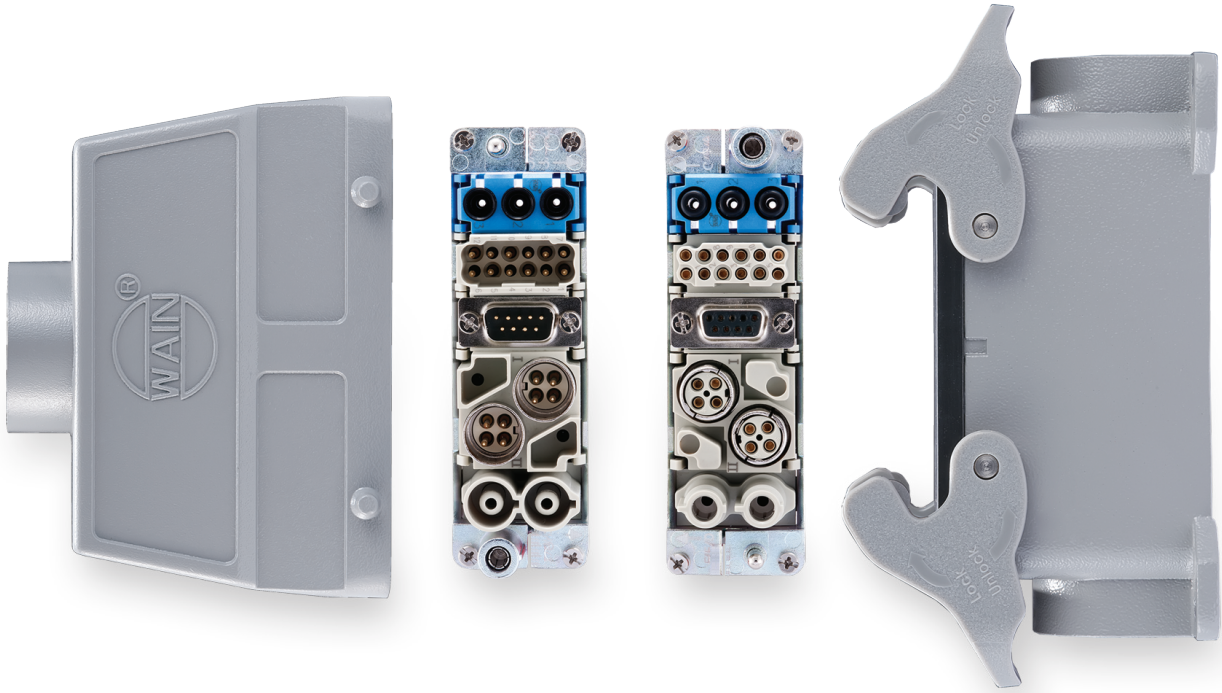


# HM SERIES

Flexible and combined connector



HM SERIES

HM

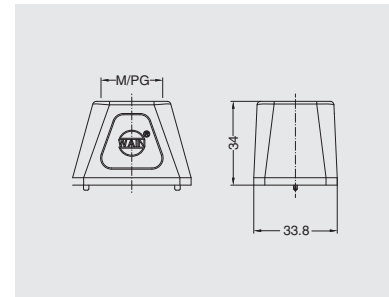
## Metal enclosure for single module(EMC)

### Hoods/Housings

#### Hoods



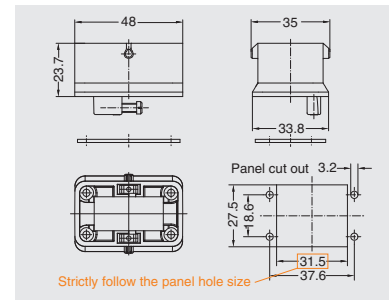
Thread	Designation	Order No.
M25	H1M-TE-M25	04201241310



#### Carrier hood



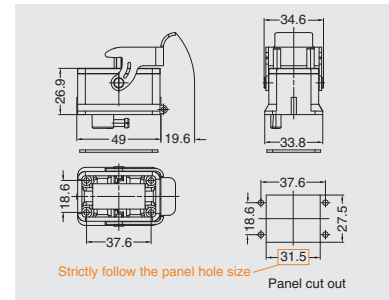
Thread	Designation	Order No.
--	H1M-MBK-2B	04201090010



#### Housings, bulkhead mounting



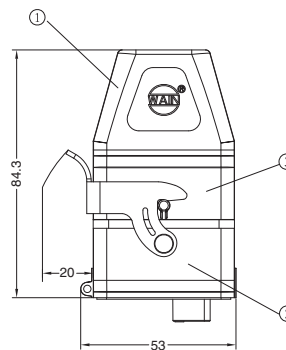
Thread	Designation	Order No.
--	H1M-BK-1L/S	04201010040



### Component

This enclosure is applicable to only one module connector.  
It is protection level IP65.

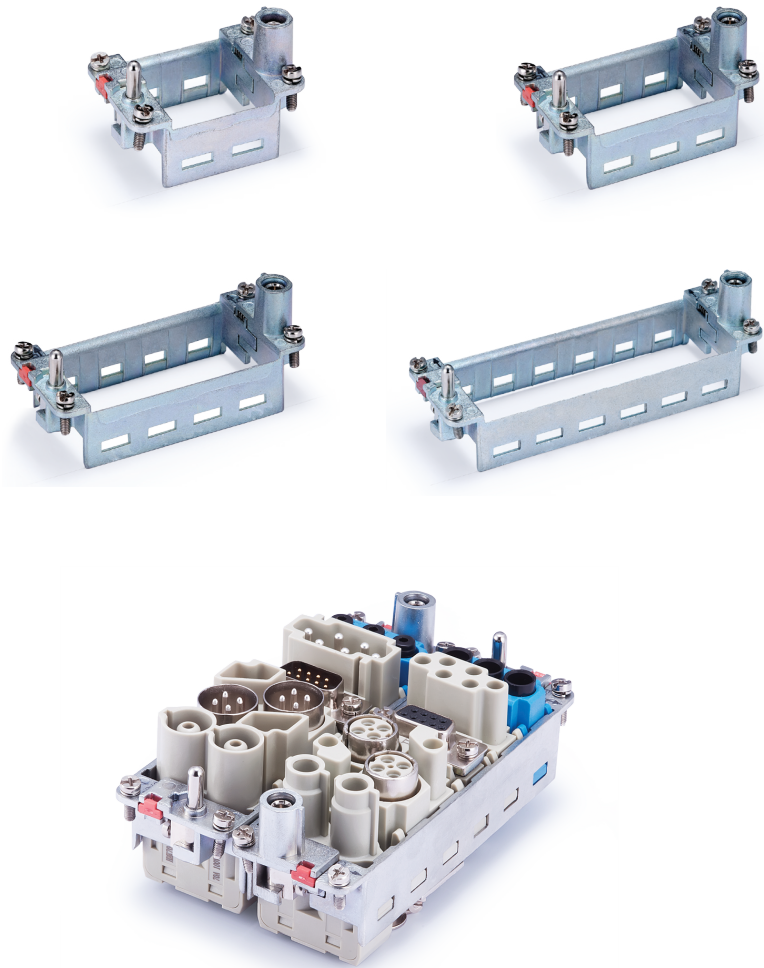
- ① Upper enclosure with outgoing hole on the top
- ② Lower enclosure with stainless steel lock hole
- ③ Enclosure for intermediate carrier



## Hinged frames

### Technical characteristics

Number of modules	2,3,4,6
PE contact(Wire gauge)	
- Power side	4-10mm <sup>2</sup>
	AWG 12-8
- Signal side	1-2.5mm <sup>2</sup>
	18-14
Material	zinc die-cast
Limiting temperatures	-40°C ...+125°C
Mechanical working life(mating cycles)	≥ 500

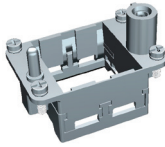


Hinged frames

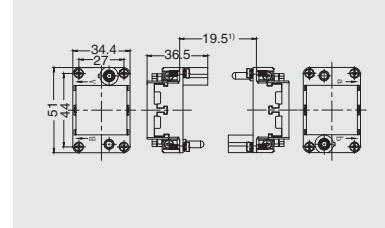
construction frame version 1

Unit: mm

6B frame, size 6B hoods/housings

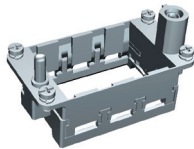


Application	Marking	Designation	Order No.
for 2 modules	A-B	HF6B-NUA3	03006C00051
for 2 modules	a-b	HF6B-NLA3	03006C00061

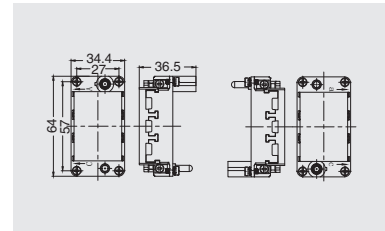


HM

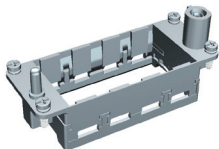
10B frame, size 10B hoods/housings



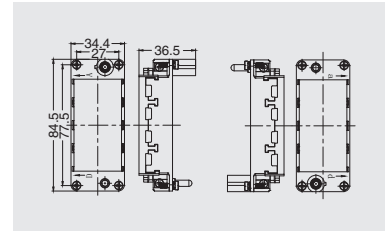
Application	Marking	Designation	Order No.
for 3 modules	A-C	HF10B-NUA3	03010C00051
for 3 modules	a-c	HF10B-NLA3	03010C00061



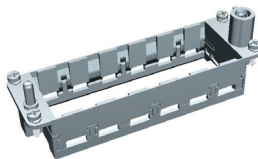
16B frame, size 16B hoods/housings



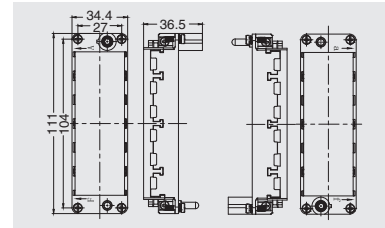
Application	Marking	Designation	Order No.
for 4 modules	A-D	HF16B-NUA3	03016C00051
for 4 modules	a-d	HF16B-NLA3	03016C00061



24B frame, size 24B hoods/housings



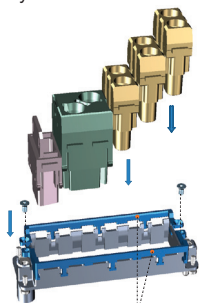
Application	Marking	Designation	Order No.
for 6 modules	A-F	HF24B-NUA3	03024C00051
for 6 modules	a-f	HF24B-NLA3	03024C00061



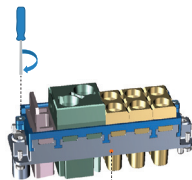
Modules dismounting instructions

Assembly instructions

Disassembly process is on the contrary.



Loosen sliding border before assembly



After finished assembly, close sliding border, lock screw

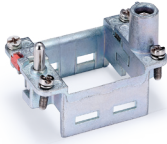


# Hinged frames

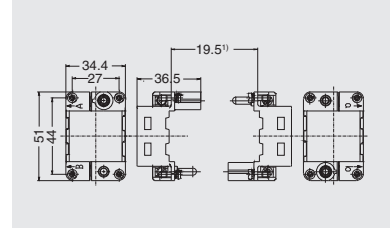
## construction frame version 2

Unit: mm

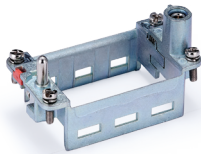
### 6B frame, size 6B hoods/housings



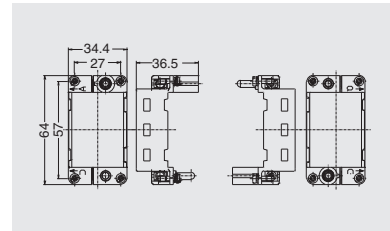
Application	Marking	Designation	Order No.
for 2 modules	A-B	HF6B-NUA2	03006C00031
for 2 modules	a-b	HF6B-NLA2	03006C00041



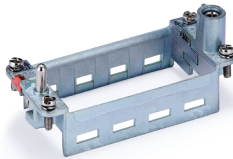
### 10B frame, size 10B hoods/housings



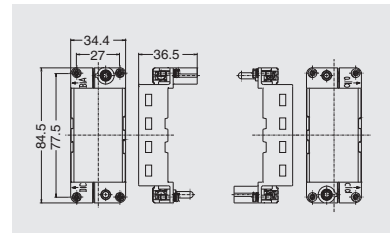
Application	Marking	Designation	Order No.
for 3 modules	A-C	HF10B-NUA2	03010C00031
for 3 modules	a-c	HF10B-NLA2	03010C00041



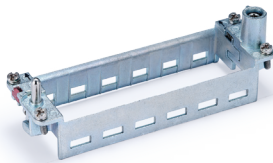
### 16B frame, size 16B hoods/housings



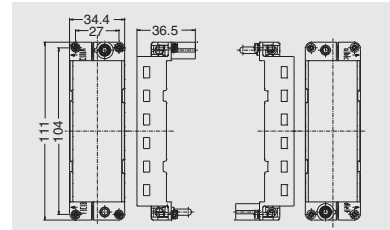
Application	Marking	Designation	Order No.
for 4 modules	A-D	HF16B-NUA2	03016C00031
for 4 modules	a-d	HF16B-NLA2	03016C00041



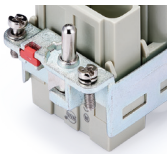
### 24B frame, size 24B hoods/housings



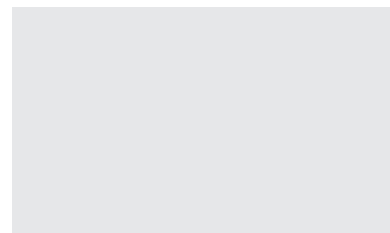
Application	Marking	Designation	Order No.
for 6 modules	A-F	HF24B-NUA2	03024C00031
for 6 modules	a-f	HF24B-NLA2	03024C00041



### Locking element

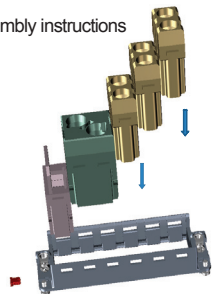


Application	Designation	Order No.
Ideal to pre-assemble the hinged frames	HF-LE2	03000C00010

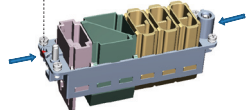


## Modules dismantling instructions

### Assembly instructions

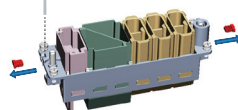


After finished assembly, put the red block on both sides

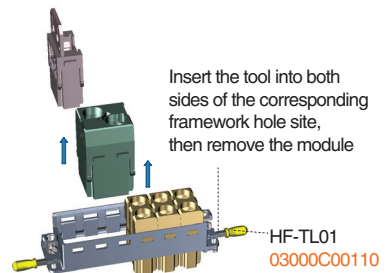


### Disassembly instructions

Use word screwdriver to get out the red block



Insert the tool into both sides of the corresponding framework hole site, then remove the module

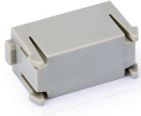


HF-TL01  
03000C00110

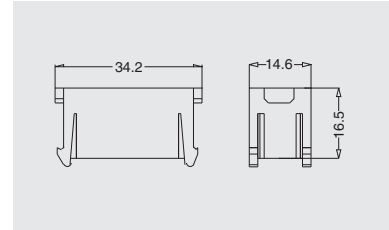
Modular Accessories

Unit: mm

Dummy module



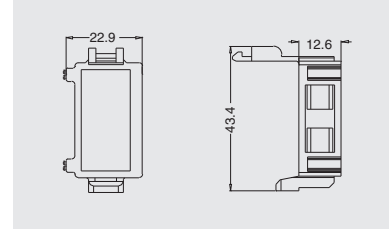
Description	Designation	Order No.
to fill up module spaces not in use in the frame	HM-000	08222260020



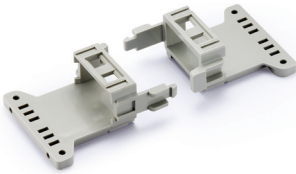
Module clamp



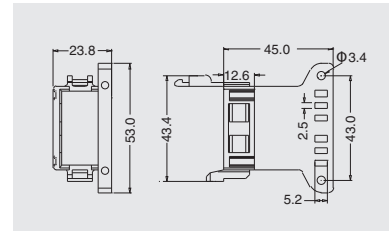
Description	Designation	Order No.
without strain relief	HM-CP1	03800000100



Module clamp



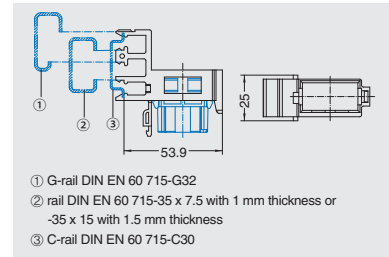
Description	Designation	Order No.
with strain relief	HM-CP2	03800000200



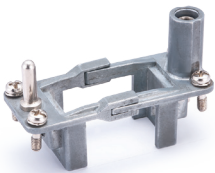
Module clamp



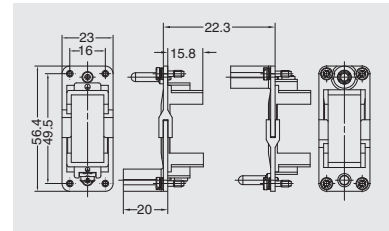
Description	Designation	Order No.
for rail	HM-CP3	03800000300



Hinged frame, size 10A hoods/housings



Description	Designation	Order No.
for 1 module	HF10A	02010C00010



# H2MK-001 Axial module

1000V 200A

## Inserts



Combination with hinged frame and other modules possible.

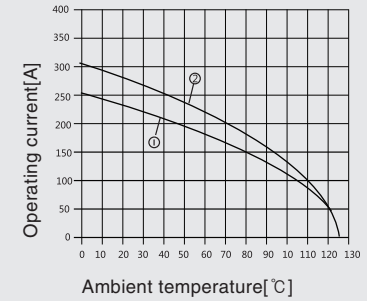
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
<b>Inserts</b>		<b>Contacts</b>	
Number of contacts	1	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	200A	Contact resistance	0.2mΩ
-Rated voltage	1000V	For stranded wire according to IEC 60 228 Class 5	
-Rated impulse voltage	8kV	Screw terminal	
-Pollution degree	3	- Wire gauge	25-70mm <sup>2</sup>
Rated voltage acc. to UL	600V	- AWG	2-0
Insulation resistance	≥ 10 <sup>10</sup> Ω	- Hexagonal driver	SW 5
Material	polycarbonate	- Stripping length	16mm
Limiting temperatures	-40 °C ... +125 °C	- Tightening torque	
Flammability acc. to UL 94	V0	- mm <sup>2</sup>	25 35 50 70
Mechanical working life		- Nm	8 8 9 10
- mating cycles	≥ 500		

### Current carrying capacity

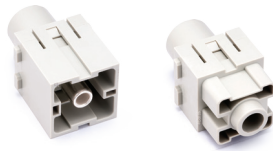
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

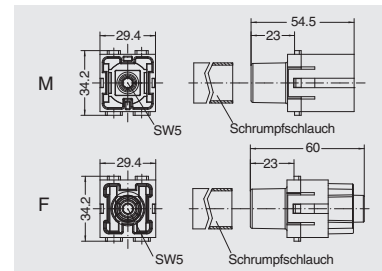


- ① 24 B hoods/housings with 3 modules, wire gauge: 50mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules, wire gauge: 70mm<sup>2</sup>

## Axial screw terminal



Insert	Designation	Order No.
Male	H2MK-001.1-M (25-40mm <sup>2</sup> )	03800110100
	H2MK-001.2-M (40-70mm <sup>2</sup> )	03800110110
Female	H2MK-001.1-F (25-40mm <sup>2</sup> )	03800110200
	H2MK-001.2-F (40-70mm <sup>2</sup> )	03800110210



## Accessories

### Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW-5x150	09100060230

## H2MK-001 Crimp module

1000V 200A

Inserts



Combination with hinged frame and other modules possible.

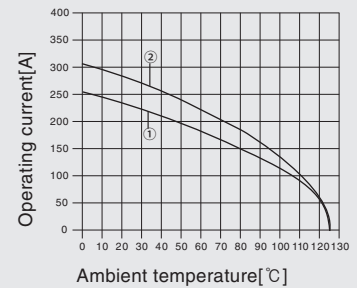
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts		Contacts	
Number of contacts	1	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
- Rated current	200A	Contact resistance	≤ 0.3mΩ
- Rated voltage	1000V	Crimp terminal	
- Rated impulse voltage	8kV	- mm <sup>2</sup>	25-70mm <sup>2</sup>
- Pollution degree	3	Stripping length	22.5mm
Insulation resistance	≥ 10 <sup>10</sup> Ω	Max. insulation diameter	18mm
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

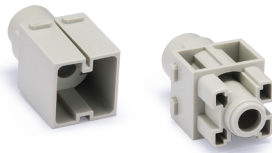
Control and test procedures according to DIN EN 60512-5



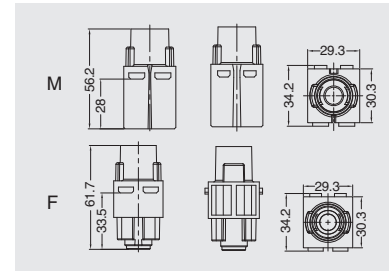
- ① 24 B hoods/housings with 3 modules, wire gauge: 50mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules, wire gauge: 70mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MK-001-MC	03800120110
Female	H2MK-001-FC	03800120210



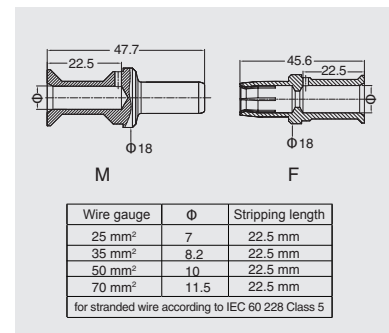
### Accessories

#### Crimp contacts 200A

Contact resistance ≤ 0.3 mΩ  
silver plated



Male	Order No.	Female	Order No.
CHSM200-25	8121401100	CHSF200-25	08121402200
CHSM200-35	8121403100	CHSF200-35	08121404200
CHSM200-50	8121405100	CHSF200-50	08121406200
CHSM200-70	8121407100	CHSF200-70	08121408200



#### Tools

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10-240mm <sup>2</sup>	TL05	09100015000

# HMK-001 Crimp module

830V 100A

## Inserts



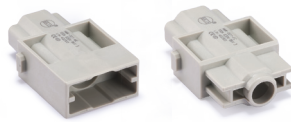
Combination with hinged frame and other modules possible.

## Technical characteristics

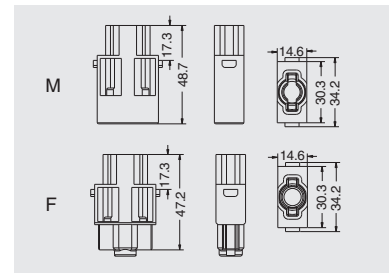
Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts	Contacts		
Number of contacts	1	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	100A	Contact resistance	≤ 0.3mΩ
-Rated voltage	830V	Crimp terminal	
-Rated impulse voltage	8kV	- mm <sup>2</sup>	10-35mm <sup>2</sup>
-Pollution degree	3		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		
Max. insulation diameter	13mm		

## Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK-001-MC	03800120130
Female	HMK-001-FC	03800120230



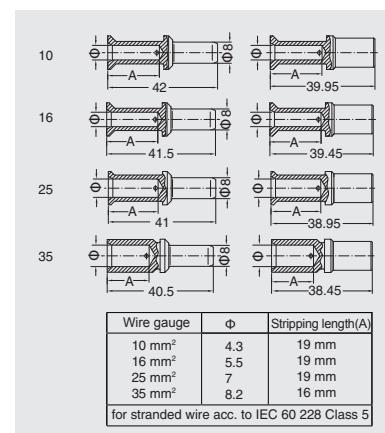
## Accessories

### Crimp contacts 100A

Contact resistance ≤ 0.3 mΩ  
silver plated



Male	Order No.	Female	Order No.
CKSM-10	08121069000	CKSF-10G	08121070200
CKSM-16	08121071000	CKSF-16G	08121072200
CKSM-25	08121073000	CKSF-25G	08121074200
CKSM-35	08121075000	CKSF-35G	08121076200



### Tools

Manual hydraulic clamp



Contact removal tool



Wire gauge	Designation	Order No.
10-240mm <sup>2</sup>	TL05	09100015000
Application	Designation	Order No.
for crimp contacts 100A	TL11	09100018000

## H2MK-002 Axial module

1000V 100A

Inserts



Combination with hinged frame and other modules possible.

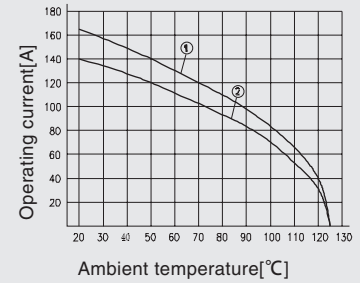
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts	Contacts		
Number of contacts	2	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	100A	Contact resistance	0.3mΩ
-Rated voltage	1000V	For stranded wire according to IEC 60 228 Class 5	
-Rated impulse voltage	8kV	Screw terminal	
-Pollution degree	3	- Wire gauge	10-38mm <sup>2</sup>
Rated voltage acc. to UL	600V	- AWG	6-2
Insulation resistance	≥ 10 <sup>10</sup> Ω	- Hexagonal driver	SW 4
Material	polycarbonate	- Stripping length	13mm
Limiting temperatures	-40°C...+125°C	- Tightening torque	
Flammability acc. to UL 94	V0	-mm <sup>2</sup>	10 16 25 35
Mechanical working life		-Nm	6 6 7 8
- mating cycles	≥ 500		

### Current carrying capacity

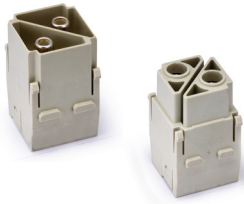
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

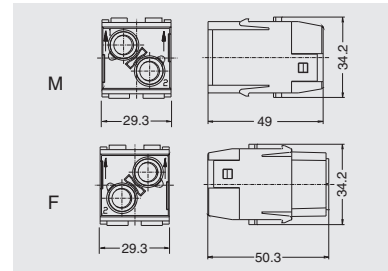


- ① 24 B hoods/housings with 3 modules, wire gauge: 35mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules, wire gauge: 25mm<sup>2</sup>

### Axial screw terminal



Insert	Designation	Order No.
Male	H2MK-002.1-M (10-25mm <sup>2</sup> )	03800210120
	H2MK-002.2-M (16-35mm <sup>2</sup> )	03800210130
Female	H2MK-002.1-F (10-25mm <sup>2</sup> )	03800210220
	H2MK-002.2-F (16-35mm <sup>2</sup> )	03800210230

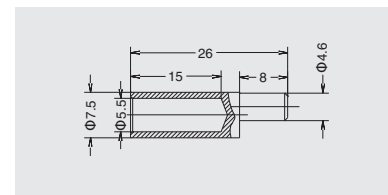


### Accessories

#### Cable shoe 16mm<sup>2</sup>



Description	Designation	Order No.
for PE extension	PE-E16	08121025000

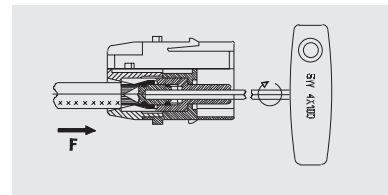


#### Tool

#### hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW-4x100	09100060100



# H2MK-002 Crimp module

1000V 100A

## Inserts



Combination with hinged frame and other modules possible.

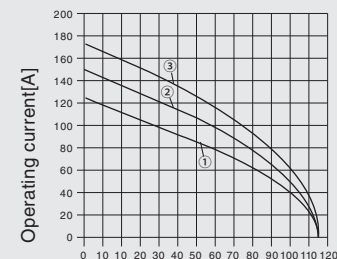
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	2	Contact resistance	≤ 0.3mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
-Rated current	100A	- mm <sup>2</sup>	10-35mm <sup>2</sup>
-Rated voltage	1000V	Max. insulation diameter	14mm
-Rated impulse voltage	8kV		
-Pollution degree	3		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

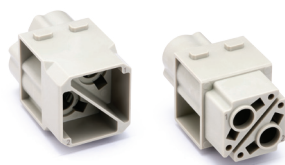
Control and test procedures according to DIN EN 60512-5



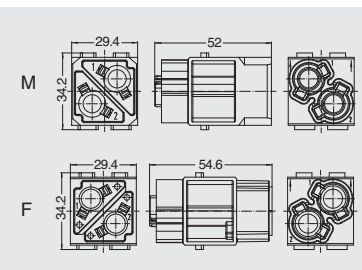
- ① 24 B hoods/housings with 3 modules, wire gauge: 16mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules, wire gauge: 25mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules, wire gauge: 35mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MK-002-MC	03800220100
Female	H2MK-002-FC	03800220200



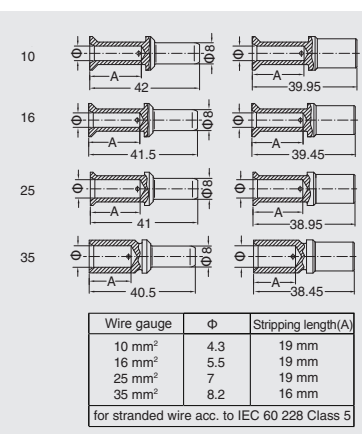
## Accessories

### Crimp contacts 100A

Contact resistance ≤ 0.3 mΩ  
silver plated



Male	Order No.	Female	Order No.
CKSM-10	08121069000	CKSF-10G	08121070200
CKSM-16	08121071000	CKSF-16G	08121072200
CKSM-25	08121073000	CKSF-25G	08121074200
CKSM-35	08121075000	CKSF-35G	08121076200



### Tools

Manual hydraulic clamp



Contact removal tool



Wire gauge	Designation	Order No.
10-240mm <sup>2</sup>	TL05	09100015000

Application	Designation	Order No.
for crimp contacts 100A	TL07	09100014000



# HMK70-002 Axial module

1000V 70A

Inserts



Combination with hinged frame and other modules possible.

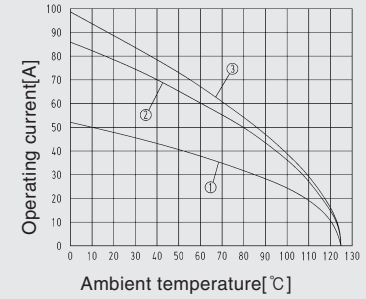
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts	Contacts		
Number of contacts	2	Contacts	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	70A	Contact resistance	0.5mΩ
-Rated voltage	1000V	For stranded wire according to IEC 60 228 Class 5	
-Rated impulse voltage	8kV	Screw terminal	
-Pollution degree	3	-Wire gauge	6-22mm <sup>2</sup>
Rated voltage acc. to UL	600V	-AWG	8-4
Insulation resistance	≥ 10 <sup>10</sup> Ω	-Hexagonal driver	SW 2.5
Material	polycarbonate	-Stripping length	
Limiting temperatures	-40°C ... +125°C	-mm	6 10 16 22
Flammability acc. to UL 94	V0	-AWG	11 <sup>+1</sup> 11 <sup>+1</sup> 11 <sup>+1</sup> 12.5 <sup>+1</sup>
Mechanical working life		-Tightening torque	
- mating cycles	≥ 500	-mm <sup>2</sup>	6 10 16 22
		-Nm	2 3 4 5

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

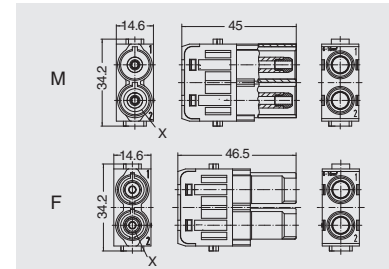


- ① 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 16mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules, wire gauge: 22mm<sup>2</sup>

### Axial screw terminal



Insert	Designation	Order No.
Male	HMK70-002.1-M (6-16mm <sup>2</sup> )	03800210150
	HMK70-002.2-M (14-22mm <sup>2</sup> )	03800210160
Female	HMK70-002.1-F (6-16mm <sup>2</sup> )	03800210250
	HMK70-002.2-F (14-22mm <sup>2</sup> )	03800210260



## Accessories

### Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW-2.5x100	09100060220

# HMK70-002 Crimp Module

1000V 70A

## Inserts



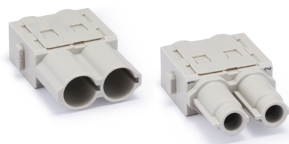
Combination with hinged frame and other modules possible.

## Technical characteristics

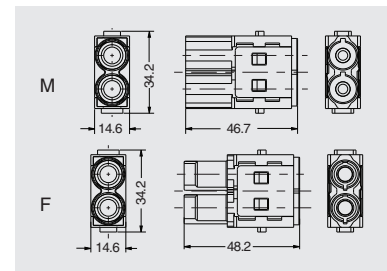
Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
<b>Inserts</b>		<b>Contacts</b>	
Number of contacts	2	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	70A	Contact resistance	≤ 0.5mΩ
-Rated voltage	1000V	Crimp terminal	
-Rated impulse voltage	8kV	- wire gauge	10-25mm <sup>2</sup>
-Pollution degree	3	Max. insulation diameter	11mm
Insulation resistance	≥ 10 <sup>10</sup> Ω	Stripping length	15.5mm
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

## Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK70-002-MC	03800220120
Female	HMK70-002-FC	03800220220



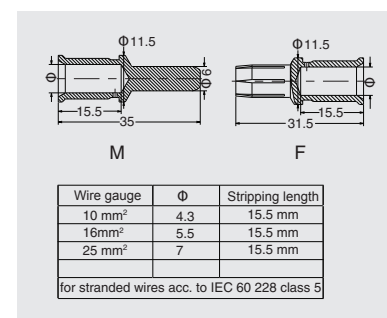
## Accessories

### Crimp contacts 70A

Contact resistance ≤ 0.5 mΩ  
silver plated



Male	Order No.	Female	Order No.
CKSM70-10	08121069100	CKSF70-10	08121070100
CKSM70-16	08121071100	CKSF70-16	08121072100
CKSM70-25	08121073100	CKSF70-25	08121074100



## Tools

Manual hydraulic clamp



Wire gauge	Designation	Order No.
10-240mm <sup>2</sup>	TL05	09100015000

# HMK-002 Axial module

1000V 40A

Inserts



Combination with hinged frame and other modules possible.

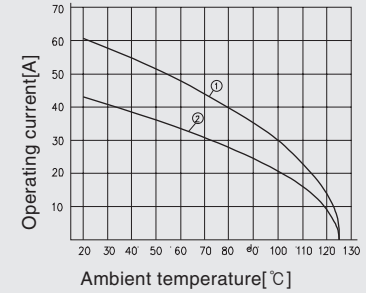
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	
Approvals		
Inserts	Contacts	
Number of contacts	2	Material copper alloy
Electrical data acc. to EN 61 984	Surface hard-silver plated	
-Rated current	40A	Contact resistance 0.5mΩ
-Rated voltage	1000V	Screw terminal
-Rated impulse voltage	8kV	- Wire gauge 2.5-10mm <sup>2</sup>
-Pollution degree	3	-AWG 14-8
Rated voltage acc. to UL	600V	-Hexagonal driver SW 2
Insulation resistance	≥ 10 <sup>10</sup> Ω	- Stripping length
Material	polycarbonate	- mm <sup>2</sup> 2.5 4 6 10
Limiting temperatures	-40°C ... +125°C	-mm 5 <sup>+1</sup> 5 <sup>+1</sup> 8 <sup>+1</sup> 11 <sup>+1</sup>
Flammability acc. to UL 94	V0	-Tightening torque
Mechanical working life	-mm <sup>2</sup> 2.5 4 6 10	
- mating cycles	≥ 500	-Nm 1.5 1.5 2 2

### Current carrying capacity

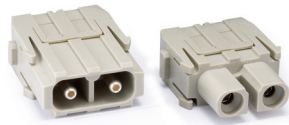
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

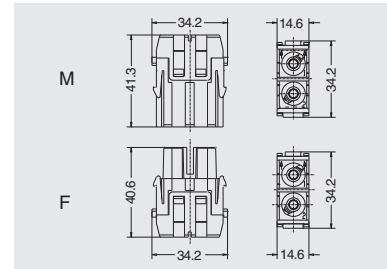


- ① 24 B hoods/housings with 6 modules, wire gauge: 10mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>

### Axial screw terminal



Insert	Designation	Order No.
Male	HMK-002.1-M (2.5-8mm <sup>2</sup> )	03800210100
	HMK-002.2-M (6-10mm <sup>2</sup> )	03800210110
Female	HMK-002.1-F (2.5-8mm <sup>2</sup> )	03800210200
	HMK-002.2-F (6-10mm <sup>2</sup> )	03800210210



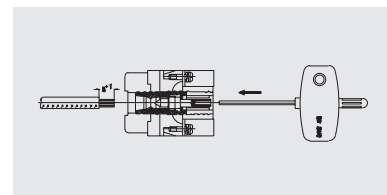
### Accessories

#### Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW-2x40	09100060200



# HMK-002 Crimp module

1000V 40A

## Inserts



Combination with hinged frame and other modules possible.

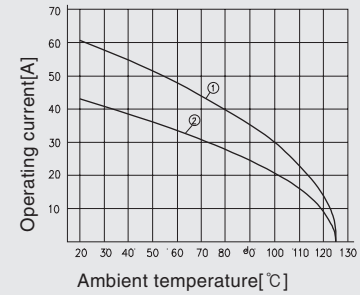
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	2	Contact resistance	≤ 0.3mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
-Rated current	40A	-mm <sup>2</sup>	1.5-10mm <sup>2</sup>
-Rated voltage	1000V	-AWG	16-8
-Rated impulse voltage	8kV		
-Pollution degree	3		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40 °C ... +125 °C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

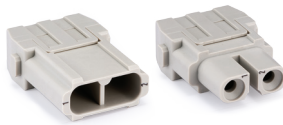
Control and test procedures according to DIN EN 60512-5



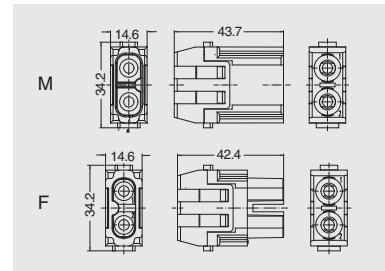
- ① 24 B hoods/housings with 6 modules, wire gauge: 10mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>

## Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK-002-MC	03800220110
Female	HMK-002-FC	03800220210



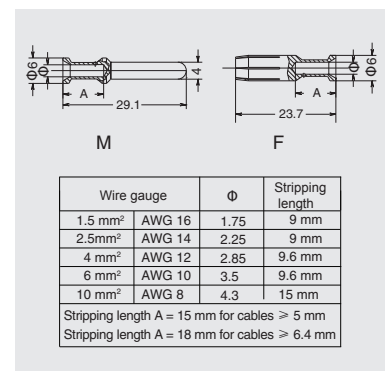
## Accessories

### Crimp contacts 40A

Contact resistance ≤ 0.3 mΩ silver plated



Male	Order No.	Female	Order No.
CCSM-1.5	08121151000	CCSF-1.5	08121161000
CCSM-2.5	08121152000	CCSF-2.5	08121162000
CCSM-4.0	08121153000	CCSF-4.0	08121163000
CCSM-6.0	08121154000	CCSF-6.0	08121164000
CCSM-10.0	08121155000	CCSF-10.0	08121165000



## Tools

### Crimping tool



### Contact removal tool



Wire gauge	Designation	Order No.
1.5-6mm <sup>2</sup>	TL02-0G	09100021120
4/6/10mm <sup>2</sup>	TL02-3G	09100021220

Application	Designation	Order No.
for crimp contacts 40A	TL06	09100013000

## HMK-003 Axial module

690V 40A

Inserts



Combination with hinged frame and other modules possible.

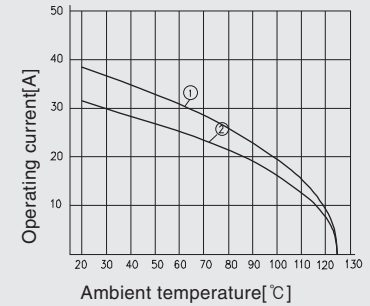
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts	Contacts		
Number of contacts	3	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	40A	Contact resistance	0.3mΩ
-Rated voltage	690V	Screw terminal	
-Rated impulse voltage	8kV	- Wire gauge	2.5-10mm <sup>2</sup>
-Pollution degree	3	-AWG	14-8
Rated voltage acc. to UL	600V	-Hexagonal driver	SW 2
Insulation resistance	≥ 10 <sup>10</sup> Ω	- Stripping length	
Material	polycarbonate	- mm <sup>2</sup>	2.5 4 6 10
Limiting temperatures	-40°C...+125°C	-mm	5 <sup>+1</sup> 5 <sup>+1</sup> 8 <sup>+1</sup> 11 <sup>+1</sup>
Flammability acc. to UL 94	V0	-Tightening torque	
Mechanical working life		-mm <sup>2</sup>	2.5 4 6 10
- mating cycles	≥500	-Nm	1.5 1.5 2 2

### Current carrying capacity

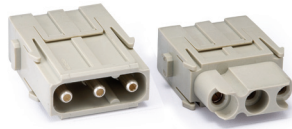
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

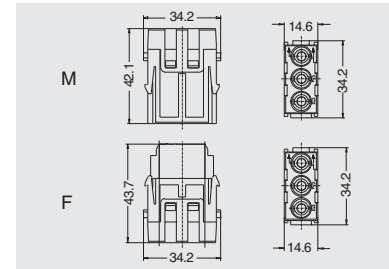


- ① 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 4mm<sup>2</sup>

### Axial screw terminal



Insert	Designation	Order No.
Male	HMK-003.1-M (2.5-8mm <sup>2</sup> )	03800310110
	HMK-003.2-M (6-10mm <sup>2</sup> )	03800310120
Female	HMK-003.1-F (2.5-8mm <sup>2</sup> )	03800310210
	HMK-003.2-F (6-10mm <sup>2</sup> )	03800310220



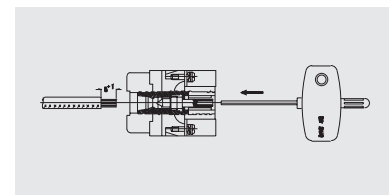
### Accessories

#### Tool

hexagonal driver



Description	Designation	Order No.
for axial setscrew with grip	SW-2x40	09100060200



# HMK-003 Crimp module

500V 40A

Inserts



Combination with hinged frame and other modules possible.

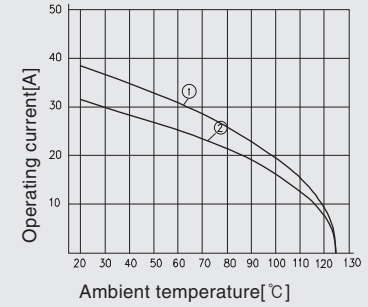
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	3	Contact resistance	≤ 0.3mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
Cable diameter up to 7.5 mm		-mm <sup>2</sup>	1.5-10mm <sup>2</sup>
-Rated current	40A	-AWG	16-8
-Rated voltage	500V		
-Rated impulse voltage	6kV		
-Pollution degree	3		
Rated voltage acc. to UL/CSA	600V		
Rated current acc. to UL/CSA	32A		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

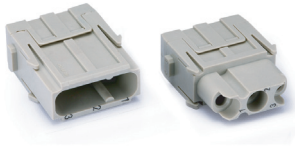
Control and test procedures according to DIN EN 60512-5



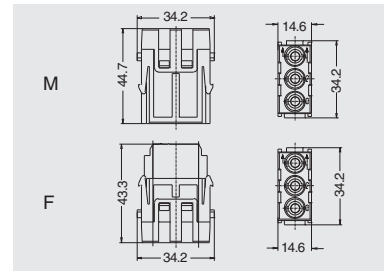
- ① 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 4mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK-003-MC	03800320100
Female	HMK-003-FC	03800320200



## Accessories

### Crimp contacts 40A

Contact resistance ≤ 0.3 mΩ  
silver plated



Male	Order No.	Female	Order No.
CCSM-1.5	08121151000	CCSF-1.5	08121161000
CCSM-2.5	08121152000	CCSF-2.5	08121162000
CCSM-4.0	08121153000	CCSF-4.0	08121163000
CCSM-6.0	08121154000	CCSF-6.0	08121164000
CCSM-10.0	08121155000	CCSF-10.0	08121165000

Wire gauge	AWG	Φ	Stripping length
1.5 mm <sup>2</sup>	AWG 16	1.75	9 mm
2.5 mm <sup>2</sup>	AWG 14	2.25	9 mm
4 mm <sup>2</sup>	AWG 12	2.85	9.6 mm
6 mm <sup>2</sup>	AWG 10	3.5	9.6 mm
10 mm <sup>2</sup>	AWG 8	4.3	15 mm

Stripping length A = 15 mm for cables ≥ 5 mm  
Stripping length A = 18 mm for cables > 6.4 mm

### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
1.5-6mm <sup>2</sup>	TL02-0G	09100021120
4/6/10mm <sup>2</sup>	TL02-3G	09100021220

Application	Designation	Order No.
for crimp contacts 40A	TL06	09100013000

# HMK-003/4 Crimp module

830/830V 40/10A

## Inserts



Combination with hinged frame and other modules possible.

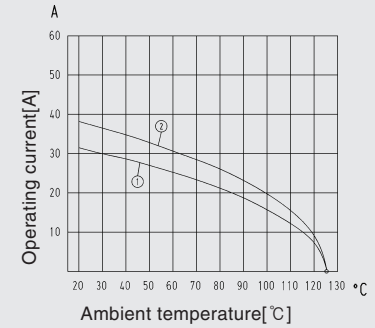
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts		Contacts	
Number of contacts	3/4	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
Power contacts			hard-gold plated
-Rated current	40A	Contact resistance	
-Rated voltage	830V	-Power contacts	≤ 0.3mΩ
-Rated impulse voltage	8kV	-Signal contacts	≤ 3mΩ
-Pollution degree	3	Crimp terminal	
Signal contacts		- mm <sup>2</sup>	
-Rated current	10A	-Power contacts	1.5-6mm <sup>2</sup>
-Rated voltage	830V	-Signal contacts	0.14-2.5mm <sup>2</sup>
-Rated impulse voltage	8kV	- AWG	
-Pollution degree	3	-Power contacts	16-10
Rated voltage acc. to UL	600V	-Signal contacts	26-14
Insulation resistance	≥ 10 <sup>10</sup> Ω	Max. insulation diameter	
Material	polycarbonate	- Power contacts	5mm
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

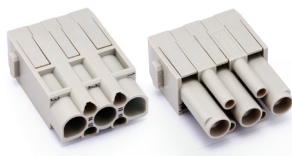
Control and test procedures according to DIN EN 60512-5



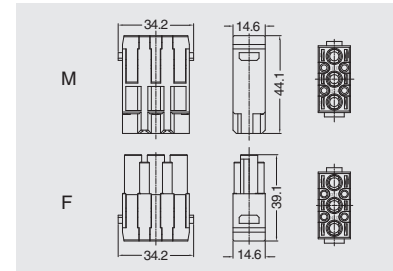
- ① 24 B hoods/housings with 6 modules, wire gauge: 4mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK-003/4-MC	03800720100
Female	HMK-003/4-FC	03800720200



### Accessories

#### Crimp contacts 40A/10A

Contact resistance ≤ 0.3mΩ  
silver plated



Contact resistance ≤ 3mΩ  
silver plated



Contact resistance ≤ 3mΩ  
silver plated



Male	Order No.	Female	Order No.
CCSM-1.5	08121151000	CCSF-1.5	08121161000
CCSM-2.5	08121152000	CCSF-2.5	08121162000
CCSM-4.0	08121153000	CCSF-4.0	08121163000
CCSM-6.0	08121154000	CCSF-6.0	08121164000
CDSM-0.37	08121101000	CDSF-0.37	08121102000
CDSM-0.5	08121103000	CDSF-0.5	08121104000
CDSM-0.75	08121105000	CDSF-0.75	08121106000
CDSM-1.0	08121107000	CDSF-1.0	08121108000
CDSM-1.5	08121109000	CDSF-1.5	08121110000
CDSM-2.5	08121111000	CDSF-2.5	08121112000
CDGM-0.37	08121101010	CDGF-0.37	08121102010
CDGM-0.5	08121103010	CDGF-0.5	08121104010
CDGM-0.75	08121105010	CDGF-0.75	08121106010
CDGM-1.0	08121107010	CDGF-1.0	08121108010
CDGM-1.5	08121109010	CDGF-1.5	08121110010
CDGM-2.5	08121111010	CDGF-2.5	08121112010

Wire gauge	Φ	Stripping length
1.5 mm <sup>2</sup> AWG 16	1.75	9 mm
2.5mm <sup>2</sup> AWG 14	2.25	9 mm
4 mm <sup>2</sup> AWG 12	2.85	9.6 mm
6 mm <sup>2</sup> AWG 10	3.5	9.6 mm

Wire gauge	Φ	Stripping length
0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9	8 mm
0.5 mm <sup>2</sup> AWG 20	1.1	8 mm
0.75 mm <sup>2</sup> AWG 18	1.3	8 mm
1 mm <sup>2</sup> AWG 18	1.45	8 mm
1.5 mm <sup>2</sup> AWG 16	1.75	8 mm
2.5 mm <sup>2</sup> AWG 14	2.25	6 mm

\*Crimp contact tools detail please find the page18-13~18-14.



# HMK-004 Crimp module

830V 40A

Inserts



Combination with hinged frame and other modules possible.

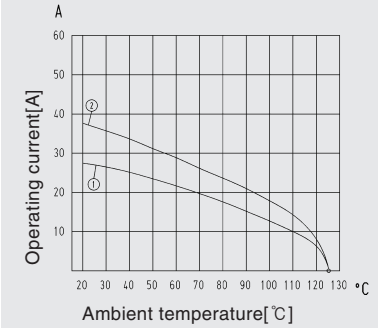
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	4	Contact resistance	≤ 0.3mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
Rated current	40A	-mm <sup>2</sup>	1.5-6mm <sup>2</sup>
Rated voltage	830V	-AWG	16-10
Rated impulse voltage	8kV		
Pollution degree	3		
Rated voltage acc. to UL	600V		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40 °C ... +125 °C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

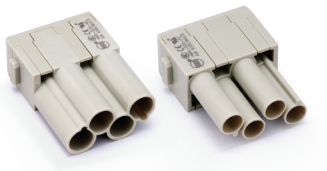
Control and test procedures according to DIN EN 60512-5



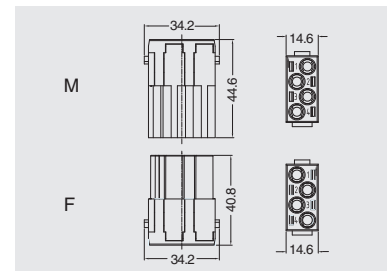
- ① 24 B hoods/housings with 6 modules, wire gauge: 4mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 6mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMK-004-MC	03800420130
Female	HMK-004-FC	03800420230



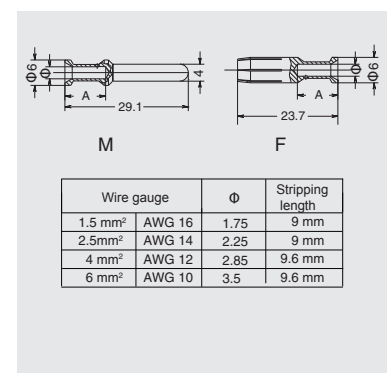
## Accessories

### Crimp contacts 40A

Contact resistance ≤ 0.3 mΩ  
silver plated



Male	Order No.	Female	Order No.
CCSM-1.5	08121151000	CCSF-1.5	08121161000
CCSM-2.5	08121152000	CCSF-2.5	08121162000
CCSM-4.0	08121153000	CCSF-4.0	08121163000
CCSM-6.0	08121154000	CCSF-6.0	08121164000



### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
1.5-6mm <sup>2</sup>	TL02-0G	09100021120
Application	Designation	Order No.
for crimp contacts 40A	TL06	09100013000

# H2MVC-002 High voltage module

2900/5000V 40A

## Inserts



Combination with hinged frame and other modules possible.

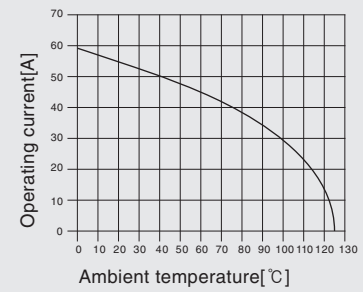
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	2	Contact resistance	≤ 0.3mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
- Rated current	40A	- mm <sup>2</sup>	1.5-10mm <sup>2</sup>
- Rated voltage conductor(ground)	2900V	- AWG	16-8
- Rated voltage conductor(conductor)	5000V	<b>Assembly instructions</b>	
- Rated impulse voltage	15kV	<p>Crimp with crimping tool Snap crimped cable in the insert</p>	
- Pollution degree	3	<p>shrink the heat shrink tube over the rear of contact</p>	
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate/ PTFE		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Max. cable diameter	9mm		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

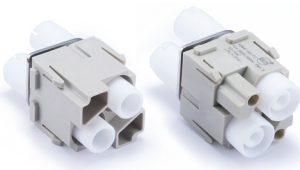
Control and test procedures according to DIN EN 60512-5



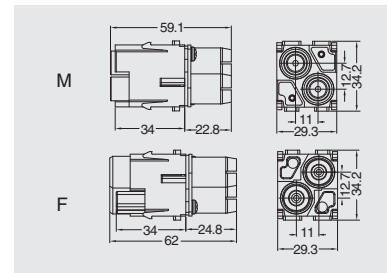
① 24 B hoods/housings with 3 modules, wire gauge: 6mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MVC-002-MC	05800230100
Female	H2MVC-002-FC	05800230200



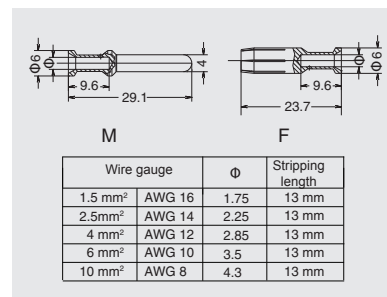
### Accessories

#### Crimp contacts 40A

Contact resistance ≤ 0.3mΩ  
silver plated



Male	Order No.	Female	Order No.
CCSM-1.5	08121151000	CCSF-1.5	08121161000
CCSM-2.5	08121152000	CCSF-2.5	08121162000
CCSM-4.0	08121153000	CCSF-4.0	08121163000
CCSM-6.0	08121154000	CCSF-6.0	08121164000
CCSM-10.0	08121155000	CCSF-10.0	08121165000



#### Tools

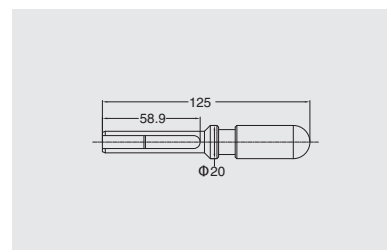
##### Crimping tool



Wire gauge	Designation	Order No.
1.5-6mm <sup>2</sup>	TL02-0G	09100021120
4/6/10mm <sup>2</sup>	TL02-3G	09100021220

Description	Designation	Order No.
for locking sleeve	TL10	09100016000



# H2MVE-002 High voltage module

2900/5000V 16A

## Inserts



Combination with hinged frame and other modules possible.

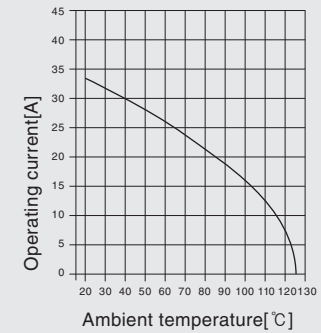
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	- hard-silver plated - hard-gold plated
Number of contacts	2	Contact resistance	≤ 1 mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
- Rated current	16A	- mm <sup>2</sup>	0.5-4mm <sup>2</sup>
- Rated voltage conductor(ground)	2900V	- AWG	20-12
- Rated voltage conductor(conductor)	5000V	Assembly instructions	
- Rated impulse voltage	15kV		
- Pollution degree	3	shrink the heat shrink tube over the rear of contact	
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate/PTFE		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

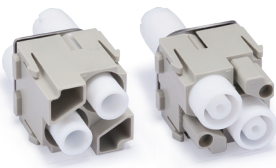


① 16 B hoods/housings with 1 module, wire gauge: 2.5mm<sup>2</sup>

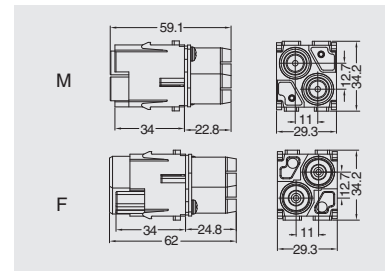
HM

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MVE-002-MC	05800220140
Female	H2MVE-002-FC	05800220240



### Accessories

#### Crimp contacts 16A

Contact resistance ≤ 1mΩ  
silver plated

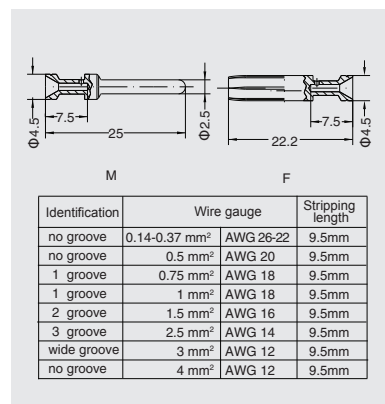


gold plated



More crimp contacts 16A see P17-03.

Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	CESF-3.0	08121144000
CESM-4.0	08121145000	CESF-4.0	08121146000
CEGM-0.37	08121131010	CEGF-0.37	08121132010
CEGM-0.5	08121133010	CEGF-0.5	08121134010
CEGM-0.75	08121135010	CEGF-0.75	08121136010
CEGM-1.0	08121137010	CEGF-1.0	08121138010
CEGM-1.5	08121139010	CEGF-1.5	08121140010
CEGM-2.5	08121141010	CEGF-2.5	08121142010
CEGM-3.0	08121143010	CEGF-3.0	08121144010
CEGM-4.0	08121145010	CEGF-4.0	08121146010



#### Tools

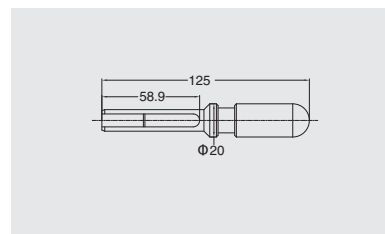
Crimping tool



Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	09100021020

Wire gauge: 0.14-0.37mm<sup>2</sup> please select TL02 Crimping tool.

Description	Designation	Order No.
for locking sleeve	TL10	09100016000



# HME-005 Cage-clamp module

400V 16A

Inserts



Combination with hinged frame and other modules possible.

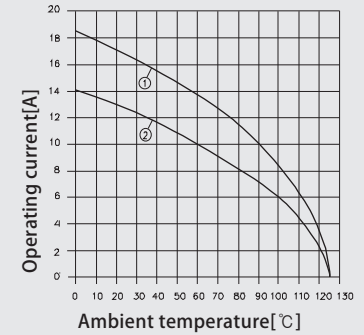
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	
Approvals		
Inserts	Contacts	
Number of contacts	5	Material: copper alloy
Electrical data acc. to EN 61 984	Surface: hard-silver plated	
-Rated current	16A	Contact resistance: $\leq 3m\Omega$
-Rated voltage	400V	Cage clamp terminal
-Rated impulse voltage	6kV	-mm <sup>2</sup> : 0.14-2.5mm <sup>2</sup>
-Pollution degree	3	-AWG: 26-14
Rated voltage acc. to UL	600V	
Insulation resistance	$\geq 10^{10}\Omega$	
Material	polycarbonate	
Limiting temperatures	-40°C ... +125°C	
Flammability acc. to UL 94	V0	
Mechanical working life		
- mating cycles	$\geq 500$	

### Current carrying capacity

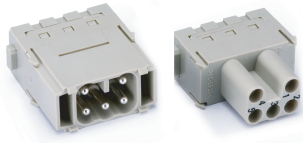
The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

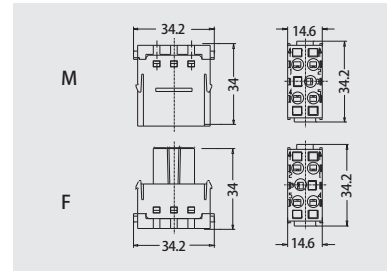


- ① 24 B hoods/housings with 6 modules, wire gauge: 2.5mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 1.5mm<sup>2</sup>

### Cage-clamp terminal



Insert	Designation	Order No.
Male	HME-005-MS	03800520100
Female	HME-005-FS	03800520200



# HME-006 Crimp module

500V 16A

Inserts



Combination with hinged frame and other modules possible.

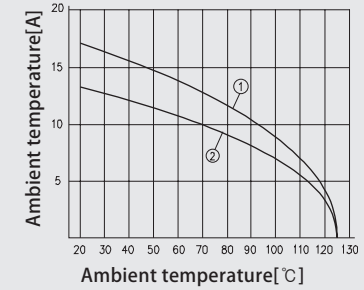
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts		Contacts	
Number of contacts	6	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
Rated current	16A		hard-gold plated
Rated voltage	500V	Contact resistance	≤ 1mΩ
Rated impulse voltage	6kV	Crimp terminal	
Pollution degree	3	- mm <sup>2</sup>	0.14-4mm <sup>2</sup>
Rated voltage acc. to UL/CSA	600V	- AWG	26-12
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40 °C ... +125 °C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

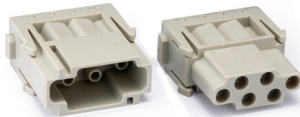
Control and test procedures according to DIN EN 60512-5



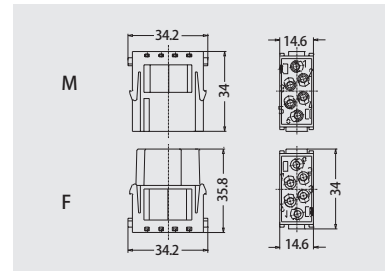
- ① 24 B hoods/housings with 6 modules, wire gauge: 2.5mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 1.5mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HME-006-MC	03800620100
Female	HME-006-FC	03800620200



## Accessories

### Crimp contacts 16A

Contact resistance ≤ 1mΩ  
silver plated

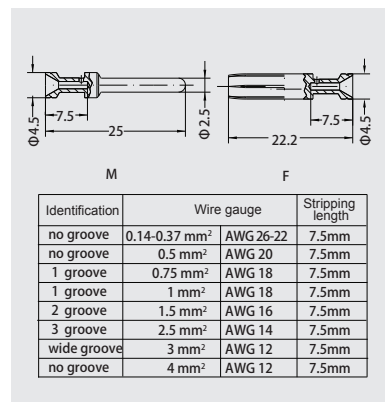


gold plated



More crimp contacts 16A see P17-03.

Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	CESF-3.0	08121144000
CESM-4.0	08121145000	CESF-4.0	08121146000
CEGM-0.37	08121131010	CEGF-0.37	08121132010
CEGM-0.5	08121133010	CEGF-0.5	08121134010
CEGM-0.75	08121135010	CEGF-0.75	08121136010
CEGM-1.0	08121137010	CEGF-1.0	08121138010
CEGM-1.5	08121139010	CEGF-1.5	08121140010
CEGM-2.5	08121141010	CEGF-2.5	08121142010
CEGM-3.0	08121143010	CEGF-3.0	08121144010
CEGM-4.0	08121145010	CEGF-4.0	08121146010



### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	09100021020

Wire gauge: 0.14-0.37mm<sup>2</sup> please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	09100012000

## HVME-006 Protected module

830V 16A

Inserts



Combination with hinged frame and other modules possible.

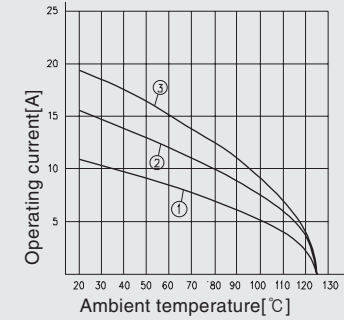
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated hard-gold plated
Number of contacts	6	Contact resistance	≤ 1mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
-Rated current	16A	-mm <sup>2</sup>	0.14-4mm <sup>2</sup>
-Rated voltage	830V	-AWG	26-12
-Rated impulse voltage	8kV		
-Pollution degree	3		
Rated voltage acc. to UL	600V		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5

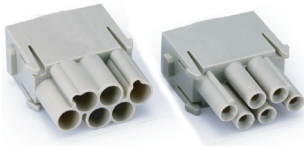


- ① 24 B hoods/housings with 6 modules, wire gauge: 1.5mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 2.5mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules, wire gauge: 4.0mm<sup>2</sup>

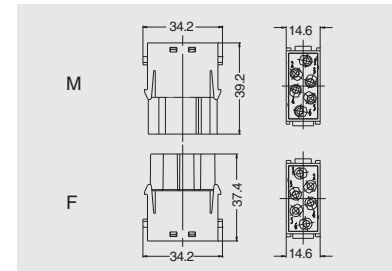
HM

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HVME-006-MC	03800621100
Female	HVME-006-FC	03800621200



### Accessories

#### Crimp contacts 16A

Contact resistance ≤ 1mΩ  
silver plated



gold plated



More crimp contacts 16A see P17-03.

Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	CESF-3.0	08121144000
CESM-4.0	08121145000	CESF-4.0	08121146000
CEGM-0.37	08121131010	CEGF-0.37	08121132010
CEGM-0.5	08121133010	CEGF-0.5	08121134010
CEGM-0.75	08121135010	CEGF-0.75	08121136010
CEGM-1.0	08121137010	CEGF-1.0	08121138010
CEGM-1.5	08121139010	CEGF-1.5	08121140010
CEGM-2.5	08121141010	CEGF-2.5	08121142010
CEGM-3.0	08121143010	CEGF-3.0	08121144010
CEGM-4.0	08121145010	CEGF-4.0	08121146010

Identification	Wire gauge	Stripping length	
no groove	0.14-0.37 mm <sup>2</sup>	AWG 26-22	7.5mm
no groove	0.5 mm <sup>2</sup>	AWG 20	7.5mm
1 groove	0.75 mm <sup>2</sup>	AWG 18	7.5mm
1 groove	1 mm <sup>2</sup>	AWG 18	7.5mm
2 groove	1.5 mm <sup>2</sup>	AWG 16	7.5mm
3 groove	2.5 mm <sup>2</sup>	AWG 14	7.5mm
wide groove	3 mm <sup>2</sup>	AWG 12	7.5mm
no groove	4 mm <sup>2</sup>	AWG 12	7.5mm

### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	09100021020

Wire gauge: 0.14-0.37mm<sup>2</sup> please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	09100012000



# HMEE-008 Crimp module

400V 16A

Inserts



Combination with hinged frame and other modules possible.

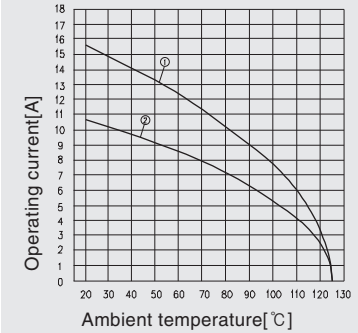
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	8	Contact resistance	≤ 1mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
-Rated current	16A	-mm <sup>2</sup>	0.14-4mm <sup>2</sup>
-Rated voltage	400V	-AWG	26-12
-Rated impulse voltage	6kV		
-Pollution degree	3		
Rated voltage acc. to UL	600V		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C ... +125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

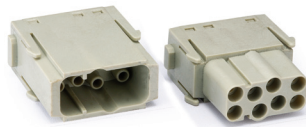
Control and test procedures according to DIN EN 60512-5



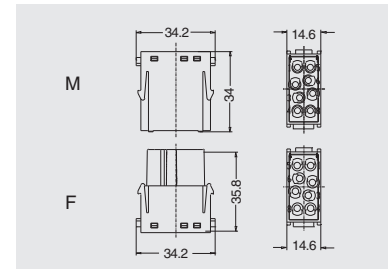
- ① 24 B hoods/housings with 6 modules, wire gauge: 2.5mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 1.5mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMEE-008-MC	03800820100
Female	HMEE-008-FC	03800820200



## Accessories

### Crimp contacts 16A

Contact resistance ≤ 1mΩ  
silver plated



gold plated



More 16A crimp contacts see P17-03.

### Tools

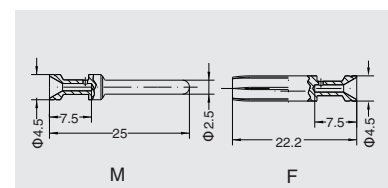
Crimping tool



Contact removal tool



Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	CESF-3.0	08121144000
CESM-4.0	08121145000	CESF-4.0	08121146000
CEGM-0.37	08121131010	CEGF-0.37	08121132010
CEGM-0.5	08121133010	CEGF-0.5	08121134010
CEGM-0.75	08121135010	CEGF-0.75	08121136010
CEGM-1.0	08121137010	CEGF-1.0	08121138010
CEGM-1.5	08121139010	CEGF-1.5	08121140010
CEGM-2.5	08121141010	CEGF-2.5	08121142010
CEGM-3.0	08121143010	CEGF-3.0	08121144010
CEGM-4.0	08121145010	CEGF-4.0	08121146010



Identification	Wire gauge	Stripping length	
no groove	0.14-0.37 mm <sup>2</sup>	AWG 26-22	7.5mm
no groove	0.5 mm <sup>2</sup>	AWG 20	7.5mm
1 groove	0.75 mm <sup>2</sup>	AWG 18	7.5mm
1 groove	1 mm <sup>2</sup>	AWG 18	7.5mm
2 groove	1.5 mm <sup>2</sup>	AWG 16	7.5mm
3 groove	2.5 mm <sup>2</sup>	AWG 14	7.5mm
wide groove	3 mm <sup>2</sup>	AWG 12	7.5mm
no groove	4 mm <sup>2</sup>	AWG 12	7.5mm

Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	09100021020

Wire gauge: 0.14-0.37mm<sup>2</sup> please select TL02 Crimping tool.

Application	Designation	Order No.
for 16A crimp contact	TL01	09100012000



## H2MEE-020 Crimp module

500V 16A

Inserts



Combination with hinged frame and other modules possible.

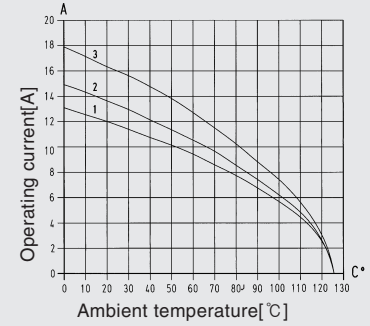
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	
Approvals		
Inserts	Contacts	
Number of contacts	20	Material copper alloy
Electrical data acc. to EN 61 984		Surface hard-silver plated
-Rated current	16A	hard-gold plated
-Rated voltage	500V	Contact resistance $\leq 1\text{m}\Omega$
-Rated impulse voltage	6kV	Crimp terminal
-Pollution degree	3	-mm <sup>2</sup> 0.14-4mm <sup>2</sup>
Rated voltage acc. to UL	600V	-AWG 26-12
Insulation resistance	$\geq 10^{10}\Omega$	
Material	polycarbonate	
Limiting temperatures	-40°C ... +125°C	
Flammability acc. to UL 94	V0	
Mechanical working life		
- mating cycles	$\geq 500$	

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5



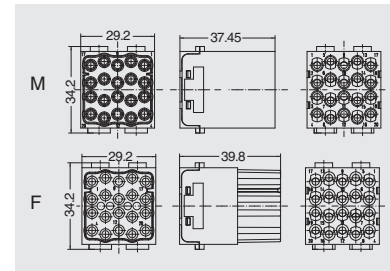
- ① 24 B hoods/housings with 3 modules, wire gauge: 1.5mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules, wire gauge: 2.5mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules, wire gauge: 4.0mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	H2MEE-020-MC	03802020100
Female	H2MEE-020-FC	03802020200



### Accessories

#### Crimp contacts 16A

Contact resistance  $\leq 1\text{m}\Omega$   
silver plated



gold plated



More crimp contacts 16A see P17-03.

#### Tools

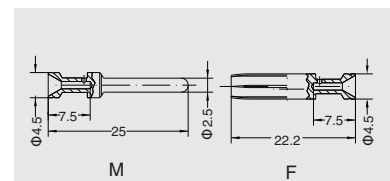
Crimping tool



Contact removal tool



Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	CESF-3.0	08121144000
CESM-4.0	08121145000	CESF-4.0	08121146000
CEGM-0.37	08121131010	CEGF-0.37	08121132010
CEGM-0.5	08121133010	CEGF-0.5	08121134010
CEGM-0.75	08121135010	CEGF-0.75	08121136010
CEGM-1.0	08121137010	CEGF-1.0	08121138010
CEGM-1.5	08121139010	CEGF-1.5	08121140010
CEGM-2.5	08121141010	CEGF-2.5	08121142010
CEGM-3.0	08121143010	CEGF-3.0	08121144010
CEGM-4.0	08121145010	CEGF-4.0	08121146010



Identification	Wire gauge	Stripping length	
no groove	0.14-0.37 mm <sup>2</sup>	AWG 26-22	7.5mm
no groove	0.5 mm <sup>2</sup>	AWG 20	7.5mm
1 groove	0.75 mm <sup>2</sup>	AWG 18	7.5mm
1 groove	1 mm <sup>2</sup>	AWG 18	7.5mm
2 groove	1.5 mm <sup>2</sup>	AWG 16	7.5mm
3 groove	2.5 mm <sup>2</sup>	AWG 14	7.5mm
wide groove	3 mm <sup>2</sup>	AWG 12	7.5mm
no groove	4 mm <sup>2</sup>	AWG 12	7.5mm

Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	09100021020

Wire gauge: 0.14-0.37mm<sup>2</sup> please select TL02 Crimping tool.

Application	Designation	Order No.
for crimp contacts 16A	TL01	09100012000

# HMD-012 Crimp module

250V 10A

## Inserts



Combination with hinged frame and other modules possible.

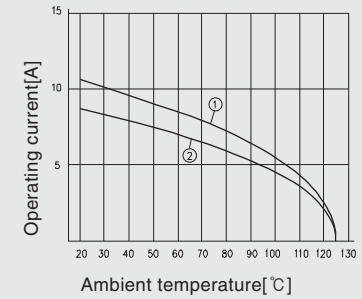
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	Contacts	
Approvals		Material	copper alloy
Inserts		Surface	hard-silver plated
Number of contacts	12	Contact resistance	≤ 3mΩ
Electrical data acc. to EN 61 984		Crimp terminal	
-Rated current	10A	-mm <sup>2</sup>	0.14-2.5mm <sup>2</sup>
-Rated voltage	250V	-AWG	26-14
-Rated impulse voltage	4kV		
-Pollution degree	3		
Rated voltage acc. to UL/CSA	600V		
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

Control and test procedures according to DIN EN 60512-5



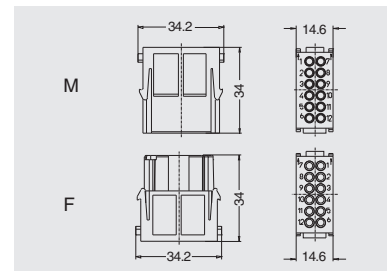
- ① 24 B hoods/housings with 6 modules, wire gauge: 1.5mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 1.0mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMD-012-MC	03801220100
Female	HMD-012-FC	03801220200



### Accessories

#### Crimp contacts 10A

Contact resistance ≤ 3mΩ silver plated



gold plated



More crimp contacts 10A see P17-02.

#### Tools

Crimping tool



Contact removal tool



Male	Order No.	Female	Order No.
CDSM-0.37	08121101000	CDSF-0.37	08121102000
CDSM-0.5	08121103000	CDSF-0.5	08121104000
CDSM-0.75	08121105000	CDSF-0.75	08121106000
CDSM-1.0	08121107000	CDSF-1.0	08121108000
CDSM-1.5	08121109000	CDSF-1.5	08121110000
CDSM-2.5	08121111000	CDSF-2.5	08121112000
CDGM-0.37	08121101010	CDGF-0.37	08121102010
CDGM-0.5	08121103010	CDGF-0.5	08121104010
CDGM-0.75	08121105010	CDGF-0.75	08121106010
CDGM-1.0	08121107010	CDGF-1.0	08121108010
CDGM-1.5	08121109010	CDGF-1.5	08121110010
CDGM-2.5	08121111010	CDGF-2.5	08121112010

Wire gauge	Φ	Stripping length
0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9
0.5 mm <sup>2</sup>	AWG 20	1.1
0.75 mm <sup>2</sup>	AWG 18	1.3
1 mm <sup>2</sup>	AWG 18	1.45
1.5 mm <sup>2</sup>	AWG 16	1.75
2.5 mm <sup>2</sup>	AWG 14	2.25

Wire gauge	Designation	Order No.
0.14-4mm <sup>2</sup>	TL02G	09100021020

Application	Designation	Order No.
for crimp contacts 10A	TL00	09100011000

## HMDD-017 Crimp module

160V 10A

Inserts



Combination with hinged frame and other modules possible.

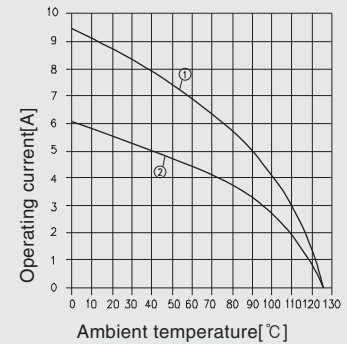
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts	Contacts		
Number of contacts	17	Material	copper alloy
Electrical data acc. to EN 61 984		Surface	hard-silver plated
-Rated current	10A		hard-gold plated
-Rated voltage	160V	Contact resistance	≤ 3mΩ
-Rated impulse voltage	2.5kV	Crimp terminal	
-Pollution degree	3	-mm <sup>2</sup>	0.14-2.5mm <sup>2</sup>
Rated voltage acc. to UL	250V	-AWG	26-14
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C...+125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycle	≥ 500		

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

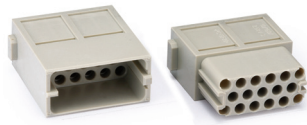
Control and test procedures according to DIN EN 60512-5



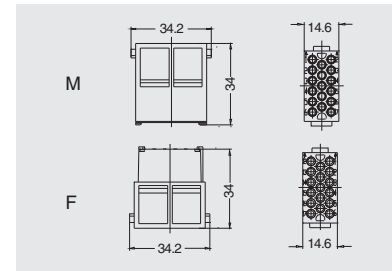
- ① 24 B hoods/housings with 6 modules, wire gauge: 1.5mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules, wire gauge: 1.0mm<sup>2</sup>

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMDD-017-MC	03801720100
Female	HMDD-017-FC	03801720200



### Accessories

#### Crimp contacts 10A

Contact resistance ≤ 3mΩ  
silver plated



gold plated



Male	Order No.	Female	Order No.
CDSM-0.37	08121101000	CDSF-0.37	08121102000
CDSM-0.5	08121103000	CDSF-0.5	08121104000
CDSM-0.75	08121105000	CDSF-0.75	08121106000
CDSM-1.0	08121107000	CDSF-1.0	08121108000
CDSM-1.5	08121109000	CDSF-1.5	08121110000
CDSM-2.5	08121111000	CDSF-2.5	08121112000
CDGM-0.37	08121101010	CDGF-0.37	08121102010
CDGM-0.5	08121103010	CDGF-0.5	08121104010
CDGM-0.75	08121105010	CDGF-0.75	08121106010
CDGM-1.0	08121107010	CDGF-1.0	08121108010
CDGM-1.5	08121109010	CDGF-1.5	08121110010
CDGM-2.5	08121111010	CDGF-2.5	08121112010

More crimp contacts 10A see P17-02.

#### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.14-4mm <sup>2</sup>	TL02G	09100021020
Application	Designation	Order No.
for crimp contacts 10A	TL00	009100011000

Wire gauge	Φ	Stripping length	
0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9	8 mm
0.5 mm <sup>2</sup>	AWG 20	1.1	8 mm
0.75 mm <sup>2</sup>	AWG 18	1.3	8 mm
1 mm <sup>2</sup>	AWG 18	1.45	8 mm
1.5 mm <sup>2</sup>	AWG 16	1.75	8 mm
2.5 mm <sup>2</sup>	AWG 14	2.25	6 mm

# HMDS-009 D-Sub module

50V 5A

Inserts



Combination with hinged frame and other modules possible.

## Technical characteristics

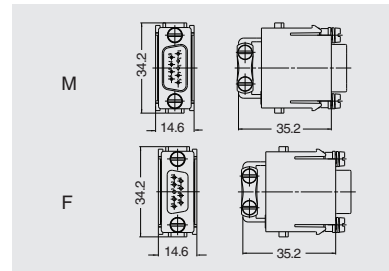
Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
Inserts	Contacts		
Number of contacts	9	Material	copper alloy
Electrical dataacc. to EN 61 984		Surface	hard-silver plated hard-gold plated
-Rated current	5A	Contact resistance	≤ 3mΩ
-Rated voltage	50V	Crimp terminal	
-Rated impulse voltage	0.8kV	-mm <sup>2</sup>	0.09-0.82mm <sup>2</sup>
-Pollution degree	3	-AWG	28-18
Insulation resistance	≥ 10 <sup>10</sup> Ω		
Material	polycarbonate		
Limiting temperatures	-40°C ... +125°C		
Flammability acc. to UL 94	V0		
Mechanical working life			
- mating cycles	≥ 500		

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMDS-009-MC	03800920100
Female	HMDS-009-FC	03800920200



## Accessories

### Crimp contacts 5A

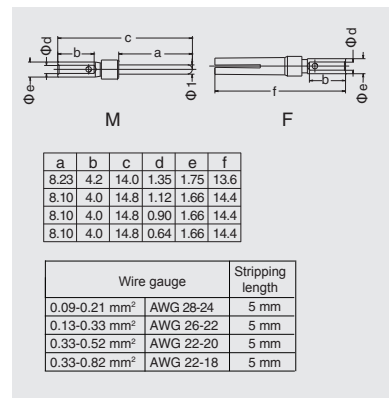
Contact resistance ≤ 3mΩ  
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM-0.25	08121171100	CSSF-0.25	08121172100
CSSM-0.33	08121173100	CSSF-0.33	08121174100
CSSM-0.52	08121175010	CSSF-0.52	08121176010
CSSM-0.82	08121177100	CSSF-0.82	08121178100
CSGM-0.25	08121171000	CSGF-0.25	08121172000
CSGM-0.33	08121173000	CSGF-0.33	08121174000
CSGM-0.52	08121175000	CSGF-0.52	08121176000
CSGM-0.82	08121177000	CSGF-0.82	08121178000



### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09-0.82mm <sup>2</sup>	TL03	09100030000
Application	Designation	Order No.
for 5A crimp contact	TL08	09100010000

## HMDS-025 High Density module

50V 4A

Inserts



Combination with hinged frame and other modules possible.

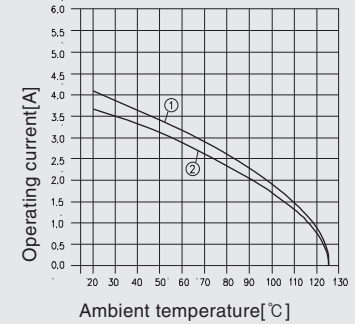
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	
Approvals		
Inserts	Contacts	
Number of contacts	25	Material copper alloy
Electrical data acc. to EN 61 984		Surface hard-silver plated
-Rated current	4A	hard-gold plated
-Rated voltage	50V	Contact resistance $\leq 3m\Omega$
-Rated impulse voltage	0.8kV	Crimp terminal
-Pollution degree	3	-mm <sup>2</sup> 0.09-0.52mm <sup>2</sup>
Insulation resistance	$\geq 10^{10}\Omega$	-AWG 28-20
Material	polycarbonate	
Limiting temperatures	-40 °C ... +125 °C	
Flammability acc. to UL 94	V0	
Mechanical working life		
- mating cycles	$\geq 500$	

### Current carrying capacity

The current carrying is limited by maximum temperature of materials for inserts and contacts including terminals

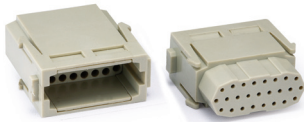
Control and test procedures according to DIN EN 60512-5



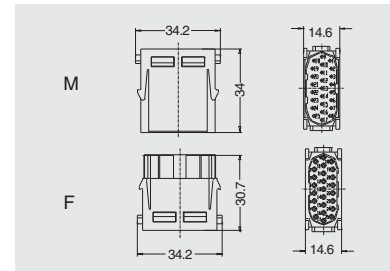
- ① 24 B hoods/housings with 6 modules, wire gauge: 0.5mm<sup>2</sup>(turned contacts)
- ② 24 B hoods/housings with 6 modules, wire gauge: 0.5mm<sup>2</sup>(stamped contacts)

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HMDS-025-MC	03802520100
Female	HMDS-025-FC	03802520200



### Accessories

#### Crimp contacts 5A

Contact resistance  $\leq 3m\Omega$   
silver plated



gold plated



Male	Order No.	Female	Order No.
CSSM-0.25	08121171100	CSSF-0.25	08121172100
CSSM-0.33	08121173100	CSSF-0.33	08121174100
CSSM-0.52	08121175010	CSSF-0.52	08121176010
CSSM-0.82	08121177100	CSSF-0.82	08121178100
CSGM-0.25	08121171000	CSGF-0.25	08121172000
CSGM-0.33	08121173000	CSGF-0.33	08121174000
CSGM-0.52	08121175000	CSGF-0.52	08121176000
CSGM-0.82	08121177000	CSGF-0.82	08121178000

a	b	c	d	e	f
8.23	4.2	14.0	1.35	1.75	13.6
8.10	4.0	14.8	1.12	1.66	14.4
8.10	4.0	14.8	0.90	1.66	14.4
8.10	4.0	14.8	0.64	1.66	14.4

Wire gauge	Stripping length
0.09-0.21 mm <sup>2</sup> AWG 28-24	5 mm
0.13-0.33 mm <sup>2</sup> AWG 26-22	5 mm
0.33-0.52 mm <sup>2</sup> AWG 22-20	5 mm
0.33-0.82 mm <sup>2</sup> AWG 22-18	5 mm

#### Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.09-0.82mm <sup>2</sup>	TL03	09100030000
Application	Designation	Order No.
for 5A crimp contact	TL08	09100010000

# HM-USB module

50V 1A

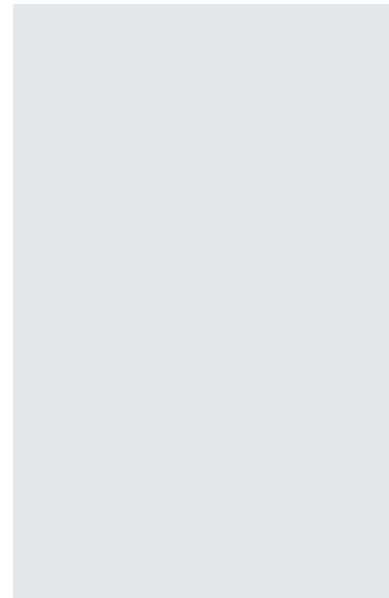
## Inserts



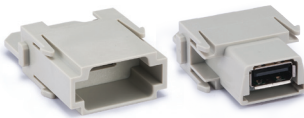
Combination with hinged frame and other modules possible.

### Technical characteristics

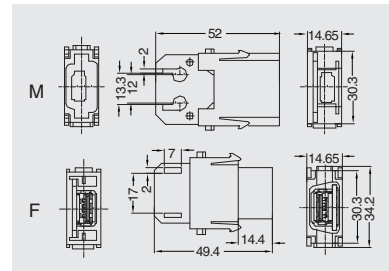
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	4
Electrical data acc. to EN 61 984	
-Rated current	1A
-Rated voltage	50V
-Rated impulse voltage	0.8kV
-Pollution degree	3
Rated voltage acc. to UL	<30V
Insulation resistance	$\geq 10^{10} \Omega$
Material	polycarbonate
Limiting temperatures	-40 °C ... +85 °C
Flammability acc. to UL 94	V0
Mechanical working life	
- mating cycle	$\geq 500$



### Module for patch cable



Insert	Designation	Order No.
Male	HM-USB-M	03800150100
Female	HM-USB-F	03800150200



# HM-RJ45 module

50V 1A

Inserts



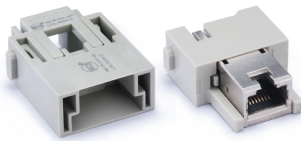
Combination with hinged frame and other modules possible.

## Technical characteristics

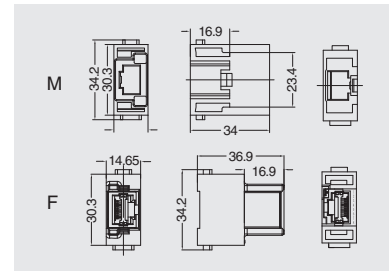
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	8
Electrical data acc. to EN 61 984	
- Rated current	1A
- Rated voltage	50V
- Rated impulse voltage	0.8kV
- Pollution degree	3
Rated voltage acc. to UL	< 30 V
Transmission features	
	Category 6 /Class E up to 250 MHz; acc. to ISO/IEC 11 801:2002 and EN 50 173-1
Transmission rate	10/100/1000 Mbit/s
Insulation resistance	$\geq 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	-40 °C ... +85 °C
Flammability acc. to UL 94	V0
Mechanical working life	
- mating cycle	$\geq 500$

HM

### Inserts for patch cable



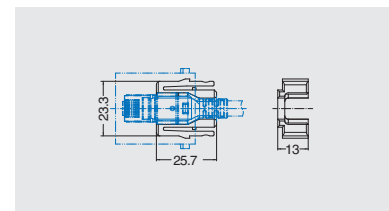
Insert	Designation	Order No.
Male	HM-RJ45-M	03804510100
Female	HM-RJ45-F	03804510200



### Adapter



Description	Designation	Order No.
go with male insert for patch cable	HM-RJ45-APT	03804510300
go with male insert:HM-RJ45-M/APT		03804510110





# HM-RJ45 Patch cables

50V 1A

## Technical characteristics

Specifications	ISO/IEC 24 702
	ISO/IEC 11 801
	ISO/IEC 61 935-2

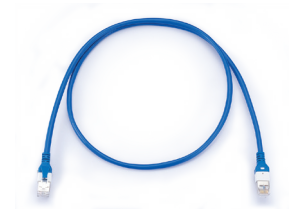
### Cat.5 e RJ45 Patch cables

Transmission features	Category 5 /Class D up to 100 MHz;acc. to ISO/IEC 24 702 or ISO/IEC 11 801
Transmission rate	10/100/1000 Mbit/s
Cable type	1:1 EIA/TIA 568 B, 8 poles
Material cables	SF/UTP, PUR, blue
Limiting temperatures	
- mobile	0°C...+60°C
- stationary	-40°C...+80°C
Flammability	flame retardant, halogen-free
Degree of protection	IP20

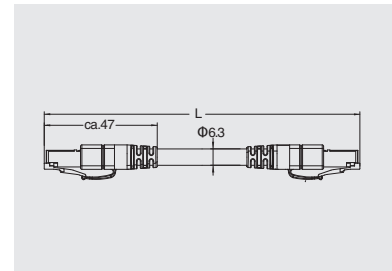
### Assembly diagram



## Patch cables



Length(L)	Designation	Order No.
1.5m	PC-RJ45-1.5(Cat.5e)	03804512010
2m	PC-RJ45-2.0(Cat.5e)	03804512020
3m	PC-RJ45-3.0(Cat.5e)	03804512030
4m	PC-RJ45-4.0(Cat.5e)	03804512040
5m	PC-RJ45-5.0(Cat.5e)	03804512050
7m	PC-RJ45-7.0(Cat.5e)	03804512060
9m	PC-RJ45-9.0(Cat.5e)	03804512070
10m	PC-RJ45-10.0(Cat.5e)	03804512080



# HMP-002 Pneumatic module

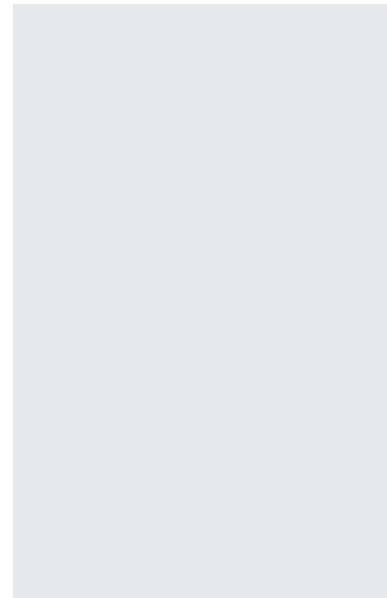


Combination with hinged frame and other modules possible.

## Inserts

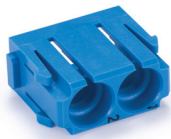
### Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984	
Approvals		
Inserts	Contacts	
Number of contacts	2	Material delrin acetal
Colour	blue	Colour black
Material	polycarbonate	Tube termination
Limiting temperatures	-40 °C ... +80 °C	- Internal diameter (ID) 6.0mm / 1/4"
Flammability acc. to UL 94	V0	Working pressure up to 8 bar / 116 psi
Mechanical working life	Sealing	
- mating cycles	≥ 500	-Material Buna-N
		Shut off valve
		-Material Polypropylen

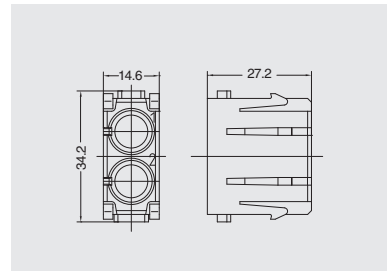


### Pneumatic module

Order contacts separately



Description	Designation	Order No.
for 6 mm	HMP-002	03800250000



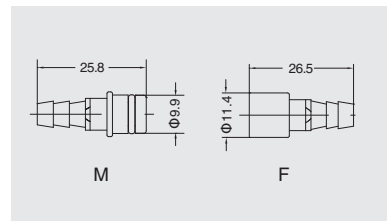
### Accessories

#### Pneumatic contacts

for tube internal diameter (ID)



Description	Category	ID	Designation	Order No.
without shut off	Male	6.0 mm	PCM-6.0	18211412120
without shut off	Female	6.0 mm	PCF-6.0	18211412220

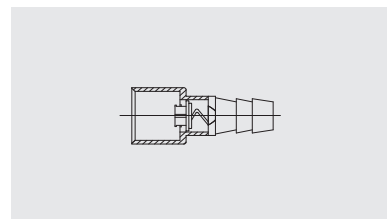


#### Pneumatic contacts

for tube internal diameter (ID)



Description	Category	ID	Designation	Order No.
with shut off	Female	6.0 mm	PCFS-6.0	08211412230



# HMP-003 Pneumatic module

HMP-003 module

## Inserts



Combination with hinged frame and other modules possible.

## Technical characteristics

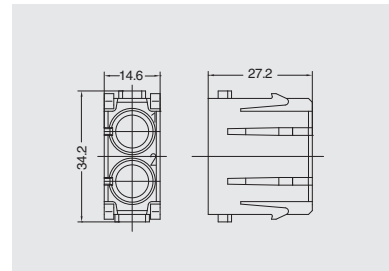
Specifications	DIN EN 60 664 DIN EN 61 984		
Approvals			
<b>Inserts</b>	<b>Contacts</b>		
Number of contacts	3	Material	delrin acetal
Colour	blue	Colour	black
Material	polycarbonate	Tube termination	
Limiting temperatures	-40°C...+80°C	- Internal diameter (ID)	1.6mm / 1/16"
Flammability acc. to UL 94	V0		3.0mm
Mechanical working life			4.0mm / 1/8"
- mating cycles	≥ 500	Working pressure	up to 8 bar / 116 psi
		Sealing	
		-Material	Buna-N
		Shut off valve	
		-Material	Polypropylen

## Pneumatic module

Order contacts separately



Description	Designation	Order No.
for 1.6; 3; 4 mm	HMP-003	03800350000



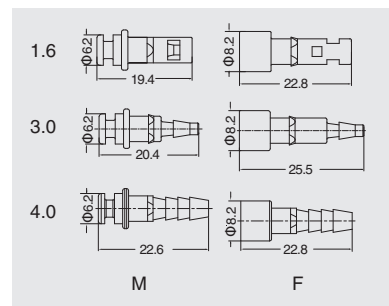
## Accessories

### Pneumatic contacts

for tube internal diameter (ID)



Description	Category	ID	Designation	Order No.
without shut off	Male	1.6 mm	PCM-1.6	18211409120
		3.0 mm	PCM-3.0	18211410120
		4.0 mm	PCM-4.0	18211411120
without shut off	Female	1.6 mm	PCF-1.6	18211409220
		3.0 mm	PCF-3.0	18211410220
		4.0 mm	PCF-4.0	18211411220

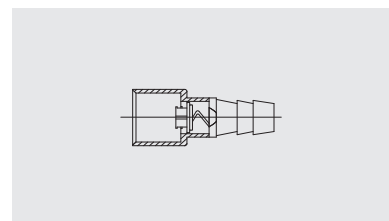


### Pneumatic contacts

for tube internal diameter (ID)



Description	Category	ID	Designation	Order No.
with shut off	Female	1.6 mm	PCFS-1.6	08211409230
		3.0 mm	PCFS-3.0	08211410230
		4.0 mm	PCFS-4.0	08211411230



## Q-Coax Electromagnetic screening module



### Technical characteristics

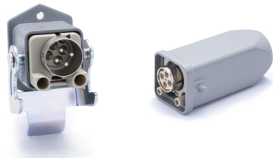
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
<b>Inserts</b>	
Number of contacts	1,2
Insulation resistance	$\geq 10^{10} \Omega$
Material	polycarbonate
Limiting temperatures	-40°C...+125°C
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	$\geq 500$
<b>Q-Coax contacts</b>	
Number of contacts	
- Q-Coax	4 + shielding
- High Density Q-Coax	8 + shielding
Electrical data acc. to EN 61 984	
- Q-Coax	10A 50V 0.8kV 3
- High Density Q-Coax	5A 50V 0.8kV 3
Rated current	10/5A
Rated voltage	50V
Rated impulse voltage	0.8kV
Pollution degree	3
Material	
- Insulator	polycarbonate
- Outer conductor	zinc alloy
Contact resistance	$\leq 4m\Omega$
Limiting temperatures	-40°C...+85°C
Flammability acc. to UL 94	V0
Outer surface finish	nickel
Cable diameter	3-9.5mm
<b>D-Sub crimp contacts(5A)</b>	
Material	copper alloy
Surface	hard-gold plated
Contact resistance	$\leq 3m\Omega$
Crimp terminal	
-mm <sup>2</sup>	0.09-0.52mm <sup>2</sup>
-AWG	28-20
<b>D contacts(10A)</b>	
Material	copper alloy
Surface	hard-gold plated
Contact resistance	$\leq 3m\Omega$
Crimp terminal	
-mm <sup>2</sup>	0.14-2.5mm <sup>2</sup>
-AWG	26-14

### • Features

- Shielding bus separate from housing potential
- Perfect for transmission of sensitive signals
- The four pole Q-Coax contact is suitable for Ethernet Cat. 5e and PROFIBUS when diagonally wiring of the data pairs.



## Q-Coax Electromagnetic screening module

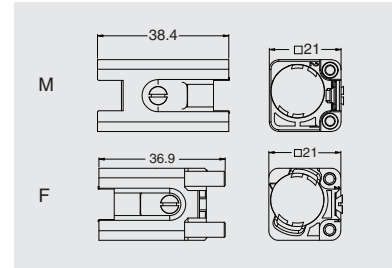


Hoods/Housings: size 3A with sealing, detail please find the page 10-43~10-49.

### Crimp terminal



Insert	Designation	Order No.
Male	H3A-001-M	02100110100
Female	H3A-001-F	02100110200

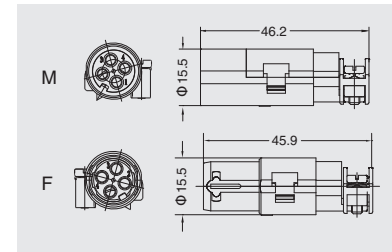


### Q-Coax 4 + shielding

Crimp contacts 10A  
Order crimp contacts separately  
Cable diameter 3mm-9.5mm



Insert	Designation	Order No.
Male	EMC-004-MC	03800420100
Female	EMC-004-FC	03800420200

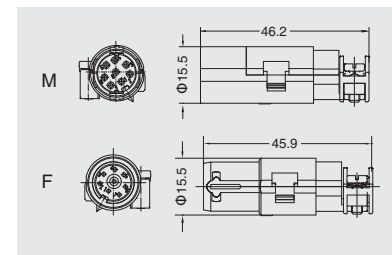


### Q-Coax 8 + shielding

Crimp contacts 5A  
Order crimp contacts separately  
Cable diameter 3mm-9.5mm



Insert	Designation	Order No.
Male	EMC-008-MC	03800820110
Female	EMC-008-FC	03800820210



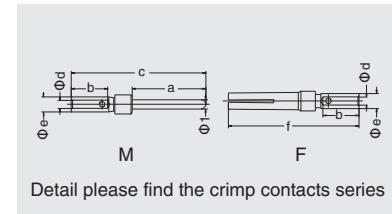
## Accessories

### Crimp contacts 5A

Contact resistance  $\leq 3m\Omega$   
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.09-0.25	CSGM-0.25	08121171000	CSGF-0.25	08121172000
0.13-0.33	CSGM-0.33	08121173000	CSGF-0.33	08121174000
0.33-0.52	CSGM-0.52	08121175000	CSGF-0.52	08121176000

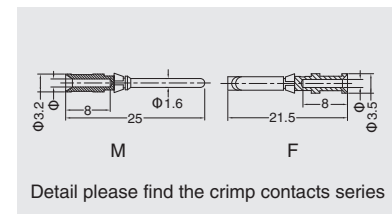


### Crimp contacts 10A

Contact resistance  $\leq 3m\Omega$   
gold plated



Wire gauge	Male	Order No.	Female	Order No.
0.14-0.37	CDGM-0.37	08121101010	CDGF-0.37	08121102010
0.5	CDGM-0.5	08121103010	CDGF-0.5	08121104010
0.75	CDGM-0.75	08121105010	CDGF-0.75	08121106010
1	CDGM-1.0	08121107010	CDGF-1.0	08121108010
1.5	CDGM-1.5	08121109010	CDGF-1.5	08121110010
2.5	CDGM-2.5	08121111010	CDGF-2.5	08121112010



More 10A crimp contacts see P17-02.

\*Crimp contact tools detail please find the page 18-13~18-14.

## Coax Electromagnetic screening module



### Technical characteristics

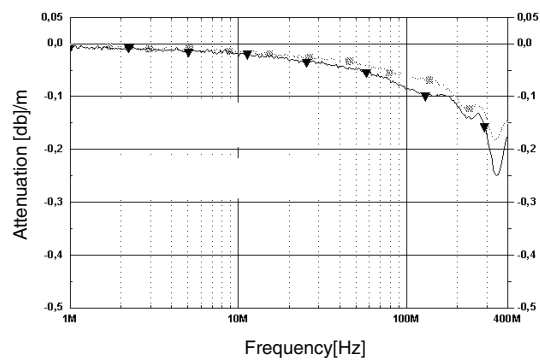
Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	1,2
Insulation resistance	$\geq 10^{10}\Omega$
Material	polycarbonate
Limiting temperatures	-40°C...+85°C
Flammability acc. to UL 94	V0
Mechanical working life(mating cycles)	$\geq 500$
Coax contacts	
Number of contacts	1 + shielding
Electrical data acc. to EN 61 984	
- D Coax	10A 50V 0.8kV 3
- E Coax	16A 50V 0.8kV 3
Rated current	10/16A
Rated voltage	50V
Rated impulse voltage	0.8kV
Pollution degree	3
Impedance	
- D Coax	75Ω
- E Coax	50Ω
Material	
- Insulator	polycarbonate
- Outer conductor	zinc alloy
Contact resistance	$\leq 4m\Omega$
Limiting temperatures	-40°C...+85°C
Flammability acc. to UL 94	V0
Outer surface finish	nickel
Cable diameter	3-9.5mm
D Coax contacts(10A)	
Material	copper alloy
Surface	hard-gold plated
Contact resistance	$\leq 3m\Omega$
Crimp terminal	
-mm <sup>2</sup>	0.14-2.5mm <sup>2</sup>
-AWG	26-14
E Coax contacts	
Material	copper alloy
Surface	hard-gold plated
Contact resistance	$\leq 1m\Omega$
Crimp terminal	
-mm <sup>2</sup>	0.14-4mm <sup>2</sup>
-AWG	26-12

### • Features

- Shielding bus separate from housing potential
- Perfect for transmission of sensitive signals
- The four pole Q-Coax contact is suitable for Ethernet Cat. 5e and PROFIBUS when diagonally wiring of the data pairs.

### Transmission characteristics

#### Impedance 75 Ω



--- 75 Ω cable

—▲ 75 Ω cable with D Coax contacts

75 Ω coax cable diameter shielding: 7.3 mm

#### Impedance 50 Ω

E Coax with ETCS S21 Eurobalise cable (4 mm <sup>2</sup> )	27 MHz
Return loss [db]	35,4
Attenuation [db]	0,017

E Coax with RG 213 cable(2.5 mm <sup>2</sup> )	200 MHz	500 MHz	1,0 GHz	1,2 GHz	1,5 GHz	2,0 GHz	2,5 GHz
Return loss [db]	23,8	21,1	>18,7	>17,7	>16,4	>14,1	>12,0
Attenuation [db]	0,07	0,11	0,17	0,2	<0,23	<0,53	<2,0

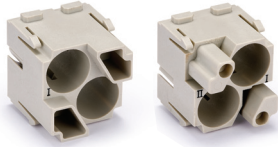


# Coax Electromagnetic screening module

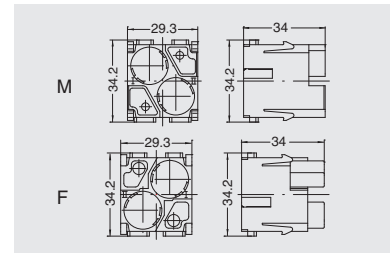


Combination with hinged frame and other modules possible.

## Crimp terminal



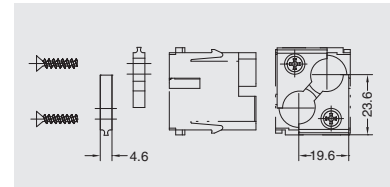
Insert	Designation	Order No.
Male	H2M-002-M	03800210140
Female	H2M-002-F	03800210240



## Q-Coax metal adapter



Description	Designation	Order No.
	APT-H2MQ	08132104100

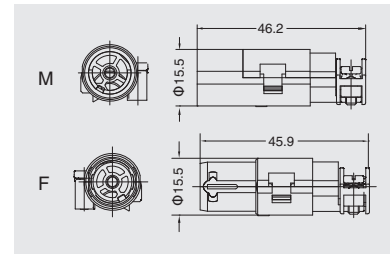


## D Coax 1 + shielding

Impedance 75Ω  
Crimp contacts 10A  
Order crimp contacts separately  
Cable diameter 3mm-9.5mm



Insert	Designation	Order No.
Male	EMC-001-MC	03800120100
Female	EMC-001-FC	03800120200

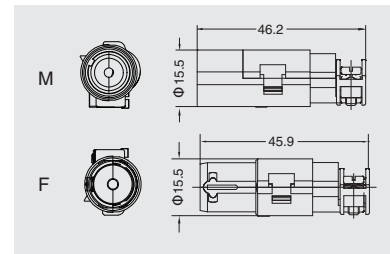


## E Coax 1 + shielding

Impedance 50Ω  
Crimp contacts 16A  
Order crimp contacts separately  
Cable diameter 3mm-9.5mm



Insert	Designation	Order No.
Male	EMC-001-MC/E	03800120120
Female	EMC-001-FC/E	03800120220



## Accessories

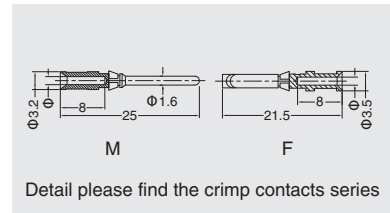
### Crimp contacts 10A

Contact resistance ≤ 3mΩ  
gold plated



More 10A crimp contacts see P17-02.

Wire gauge	Male	Order No.	Female	Order No.
0.14-0.37	CDGM-0.37	08121101010	CDGF-0.37	08121102010
0.5	CDGM-0.5	08121103010	CDGF-0.5	08121104010
0.75	CDGM-0.75	08121105010	CDGF-0.75	08121106010
1	CDGM-1.0	08121107010	CDGF-1.0	08121108010
1.5	CDGM-1.5	08121109010	CDGF-1.5	08121110010
2.5	CDGM-2.5	08121111010	CDGF-2.5	08121112010



Detail please find the crimp contacts series

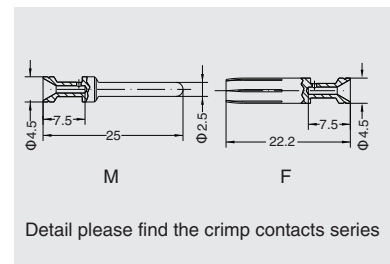
### Crimp contacts 16A

Contact resistance ≤ 1mΩ  
gold plated



More 16A crimp contacts see P17-03.

Wire gauge	Male	Order No.	Female	Order No.
0.14-0.37	CEGM-0.37	08121131010	CEGF-0.37	08121132010
0.5	CEGM-0.5	08121133010	CEGF-0.5	08121134010
0.75	CEGM-0.75	08121135010	CEGF-0.75	08121136010
1	CEGM-1.0	08121137010	CEGF-1.0	08121138010
1.5	CEGM-1.5	08121139010	CEGF-1.5	08121140010
2.5	CEGM-2.5	08121141010	CEGF-2.5	08121142010
3	CEGM-3.0	08121143010	CEGF-3.0	08121144010
4	CEGM-4.0	08121145010	CEGF-4.0	08121146010



Detail please find the crimp contacts series

\*Crimp contact tools detail please find the page 18-13~18-14.

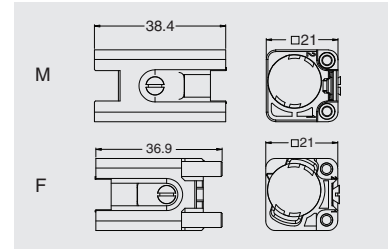
# Coax Electromagnetic screening module

Hoods/Housings: size 3A with sealing, detail please find the page 10-43~10-49.

## Crimp terminal



插芯	型号	订货号
公	H3A-001-M	02100110100
母	H3A-001-F	02100110200

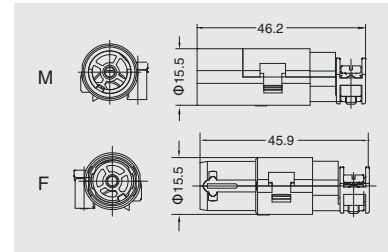


## D Coax 1 + shielding

Impedance 75Ω  
Crimp contacts 10A  
Order crimp contacts separately  
Cable diameter 3mm-9.5mm



Insert	Designation	Order No.
Male	EMC-001-MC	03800120100
Female	EMC-001-FC	03800120200

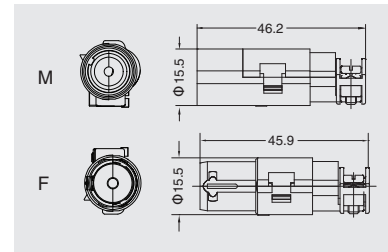


## E Coax 1 + shielding

Impedance 50Ω  
Crimp contacts 16A  
Order crimp contacts separately  
Cable diameter 3mm-9.5mm



Insert	Designation	Order No.
Male	EMC-001-MC/E	03800120120
Female	EMC-001-FC/E	03800120220



## Accessories

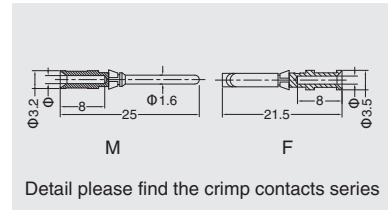
### Crimp contacts 10A

Contact resistance  $\leq 3m\Omega$   
gold plated



More 10A crimp contacts see P17-02.

Wire gauge	Male	Order No.	Female	Order No.
0.14-0.37	CDGM-0.37	08121101010	CDGF-0.37	08121102010
0.5	CDGM-0.5	08121103010	CDGF-0.5	08121104010
0.75	CDGM-0.75	08121105010	CDGF-0.75	08121106010
1	CDGM-1.0	08121107010	CDGF-1.0	08121108010
1.5	CDGM-1.5	08121109010	CDGF-1.5	08121110010
2.5	CDGM-2.5	08121111010	CDGF-2.5	08121112010



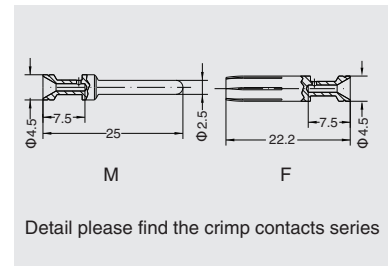
### Crimp contacts 16A

Contact resistance  $\leq 1m\Omega$   
gold plated



More 16A crimp contacts see P17-03.

Wire gauge	Male	Order No.	Female	Order No.
0.14-0.37	CEGM-0.37	08121131010	CEGF-0.37	08121132010
0.5	CEGM-0.5	08121133010	CEGF-0.5	08121134010
0.75	CEGM-0.75	08121135010	CEGF-0.75	08121136010
1	CEGM-1.0	08121137010	CEGF-1.0	08121138010
1.5	CEGM-1.5	08121139010	CEGF-1.5	08121140010
2.5	CEGM-2.5	08121141010	CEGF-2.5	08121142010
3	CEGM-3.0	08121143010	CEGF-3.0	08121144010
4	CEGM-4.0	08121145010	CEGF-4.0	08121146010

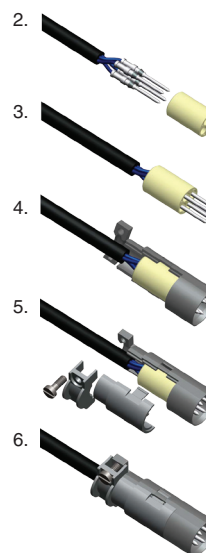
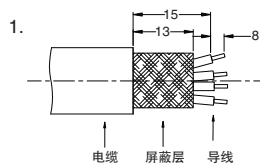


\*Crimp contact tools detail please find the page 18-13~18-14.

## Assembly instructions

### Q-Coax inserts

1. Strip cable acc. to drawing 1 and fold the shielding over the cable.
2. Crimp Dcontacts onto the wires.
3. Insert D contacts into corresponding cavities of insulator until they are snapped in.
4. Fit the insert including the cable into the opened shielded bushing.  
The coding pin of the shielded bushing has to meet the groove of the insulator.
5. Clamp the tilt over the shielding onto the cable by means of the special clamp (small opening for cable diameter of 3 - 6 mm, large opening for cable diameter of 6 - 9.5 mm).
6. Check the wiring.
7. Close the shielded bushing with the cover and insert it into the corresponding cavity of the Quintax Module as usual.



### 3A Plastic hoods/housings

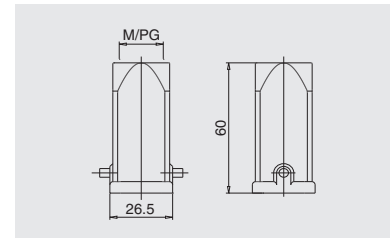
With sealing

Degree of protection: IP65

#### Hoods, top entry



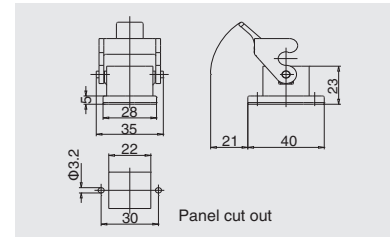
Thread	Designation	Order No.
M20	H3A.P-TE/S-2B-M20	02003261211
PG11	H3A.P-TE/S-2B-PG11	02003263311



#### Housings, bulkhead mounting



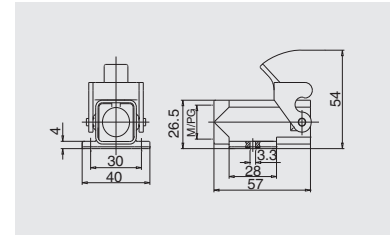
Thread	Designation	Order No.
--	H3A.P-BK-1L	02003010011



#### Housings, surface mounting



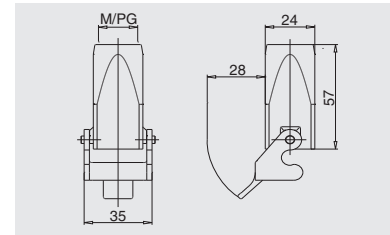
Thread	Designation	Order No.
M20	H3A.P-SF-1L-M20	02003511211
PG11	H3A.P-SF-1L-PG11	02003513311



#### Housings, cable to cable



Thread	Designation	Order No.
M20	H3A.P-CCT-1L-M20	02003711211
PG11	H3A.P-CCT-1L-PG11	02003713311





### 3A Plastic hoods/housings

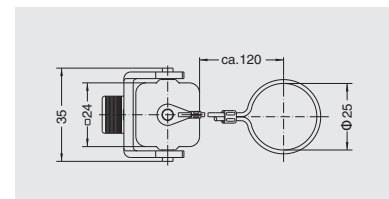
With sealing

Degree of protection: IP65

Protection covers





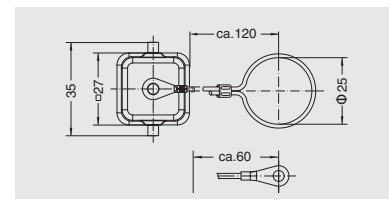
Connect way	Designation	Order No.
	H3A-CV-1L/1M (for male insert)	02021111110
	H3A-CV-1L/1F (for female insert)	02021111120



Protection covers



Connect way	Designation	Order No.
	H3A-CV/S-2B/1	02021111330
	H3A-CV/S-2B/2	02021111230



## 3A Metal hoods/housings

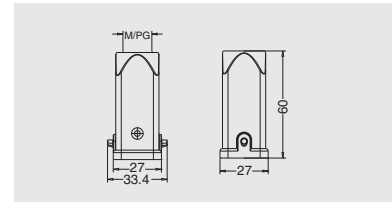
With sealing

Degree of protection: IP65

### Hoods, top entry



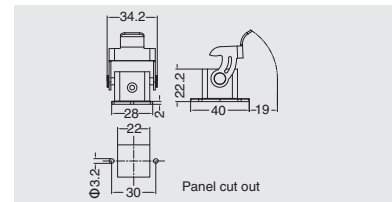
Thread	Designation	Order No.
M20	H3A-TE/S-2B-M20	02003261212
PG11	H3A-TE/S-2B-PG11	02003263312



### Housings, bulkhead mounting



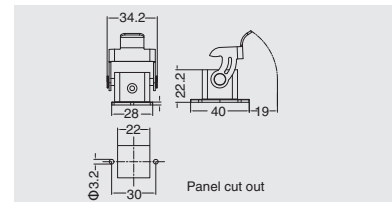
Thread	Designation	Order No.
--	H3A-BK-1L/W	02003010012



### Housings, bulkhead mounting



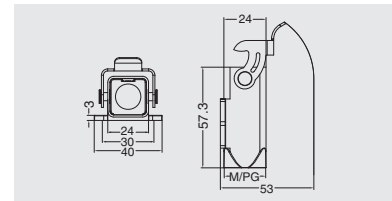
Thread	Designation	Order No.
--	H3A-BK-1L/W-MCV/S	02003020063



### Housings, surface mounting



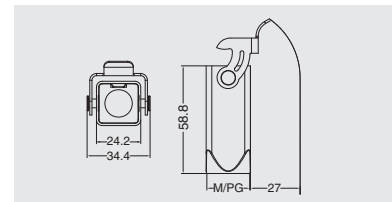
Thread	Designation	Order No.
M20	H3A-SF-1L/W-M20	02003931210
PG11	H3A-SF-1L/W-PG11	02003513310



### Housings, cable to cable



Thread	Designation	Order No.
M20	H3A-CCT-1L/W-M20	02003711212
PG11	H3A-CCT-1L/W-PG11	02003713312



3A Metal hoods/housings(EMC)

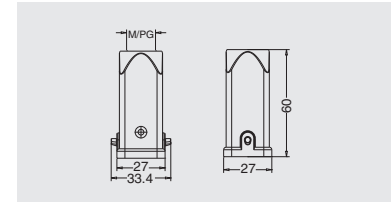
With sealing

Degree of protection: IP65

Hoods, top entry



Thread	Designation	Order No.
M20	EMC.H3A-TE/S-2B-M20	02003241232
PG11	EMC.H3A-TE/S-2B-PG11	02003243332

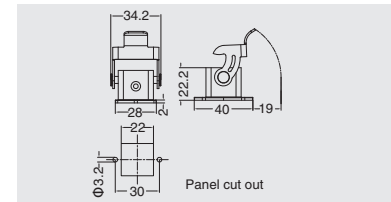


HM

Housings, bulkhead mounting



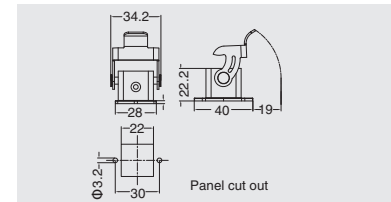
Thread	Designation	Order No.
---	EMC.H3A-BK-1L/W	02003010015



Housings, bulkhead mounting



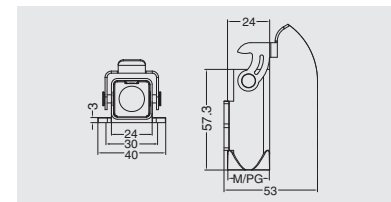
Thread	Designation	Order No.
---	EMC.H3A-BK-1L/W-MCV/S	02003020065



Housings, surface mounting



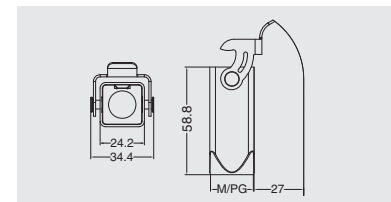
Thread	Designation	Order No.
M20	EMC.H3A-SF-1L/W-M20	02003511215
PG11	EMC.H3A-SF-1L/W-PG11	02003512215



Housings, cable to cable



Thread	Designation	Order No.
M20	EMC.H3A-CCT-1L/W-M20	02003711215
PG11	EMC.H3A-CCT-1L/W-PG11	02003713315







## 3A Metal hoods/housings

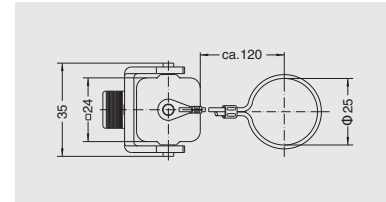
With sealing

Degree of protection: IP65

Protection covers





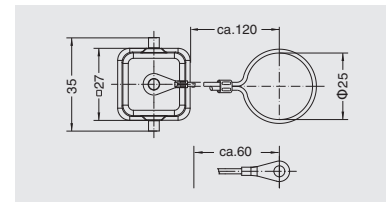
Connect way	Designation	Order No.
	H3A-MCV-1L/1M (for male insert)	02003390110
	H3A-MCV-1L/1F (for female insert)	02003390120



Protection covers



Connect way	Designation	Order No.
	H3A-MCV/S-2B/1	02003390330
	H3A-MCV/S-2B/2	02003390230



### 3A Pressure tight hoods/housings

Epoxy power paint/Chromated

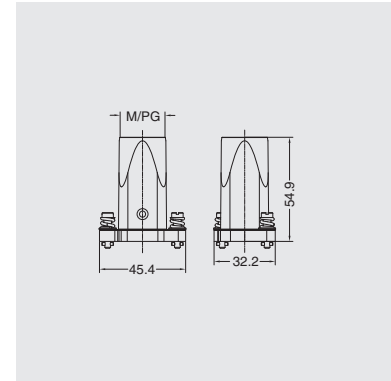
Degree of protection: IP68

H version

#### Hoods, top entry



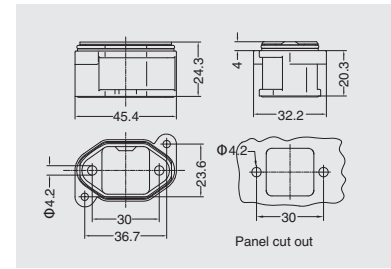
Thread	Designation	Order No.
	Epoxy power paint-Screw locking	
M20	HP3A/H-TE-2S-M20	04103851222
PG13.5	HP3A/H-TE-2S-PG13.5	04103853422
	Epoxy power paint-Toggle locking	
M20	HP3A/H-TE-2T-M20	04103451222
PG13.5	HP3A/H-TE-2T-PG13.5	04103453422
	Chromated-Screw locking	
M20	C.HP3A/H-TE-2S-M20	04103851212
PG13.5	C.HP3A/H-TE-2S-PG13.5	04103853412
	Chromated-Toggle locking	
M20	C.HP3A/H-TE-2T-M20	04103451212
PG13.5	C.HP3A/H-TE-2T-PG13.5	04103453412



#### Housings \*, bulkhead mounting



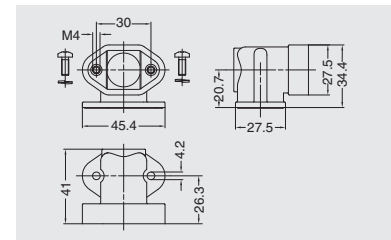
Thread	Designation	Order No.
	Epoxy power paint-Screw locking	
--	HP3A/H-BK-2H	04103020022
	Epoxy power paint-Toggle locking	
--	HP3A/H-BK-2T	04103010022
	Chromated-Screw locking	
--	C.HP3A/H-BK-2H	04103020012
	Chromated-Toggle locking	
--	C.HP3A/H-BK-2T	04103010012



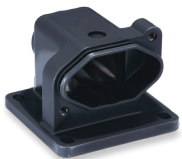
#### Adaptor for Housings \*



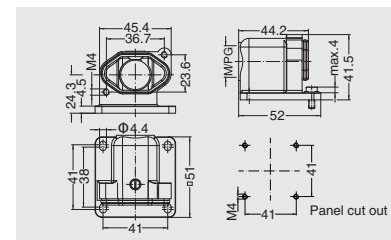
Thread	Designation	Order No.
	Epoxy power paint	
--	HP3A/H-BK-SE	04103090022
	Chromated	
--	C.HP3A/H-BK-SE	04103090012



#### Housings, surface mounting



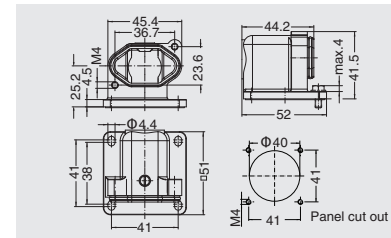
Thread	Designation	Order No.
	Epoxy power paint-Screw locking	
M20	HP3A/H-SF-2H-M20	04103310022
PG13.5	HP3A/H-SF-2H-PG13.5	04103313422
	Chromated-Screw locking	
M20	C.HP3A/H-SF-2H-M20	04103310012
PG13.5	C.HP3A/H-SF-2H-PG13.5	04103313412



#### Housings, bulkhead mounting



Thread	Designation	Order No.
	Epoxy power paint-Screw locking	
--	HP3A/H-SF-2H	04103510011
	Chromated-Screw locking	
--	C.HP3A/H-SF-2H	04103510012



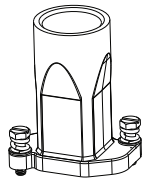
### 3A Pressure tight hoods/housings

Epoxy power paint/Chromated

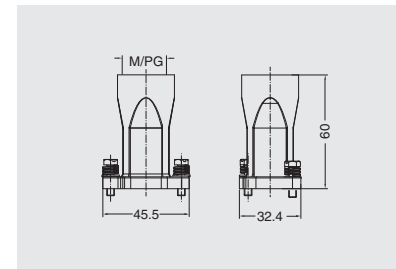
Degree of protection: IP68

H version

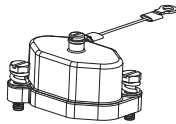
Hoods, top entry, high construction



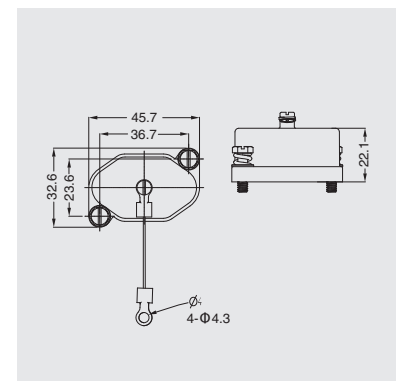
Thread	Designation	Order No.
	Epoxy power paint-Screw locking	
M25	HP3A/H-TEH-2S-M25	04103861322
	Epoxy power paint-Toggle locking	
M25	HP3A/H-TEH-2T-M25	04103461322
	Chromated-Screw locking	
M25	C.HP3A/H-TEH-2S-M25	04103861312
	Chromated-Toggle locking	
M25	C.HP3A/H-TEH-2T-M25	04103461312



Protection covers



Thread	Designation	Order No.
	Epoxy power paint-Screw locking	
---	HP3A/H-MCV-2S	04103952122
	HP3A/H-MCV-2S/2S	04103952112
	Epoxy power paint-Toggle locking	
---	HP3A/H-MCV-2T	04103951122
	HP3A/H-MCV-2T/2S	04103951112
	Chromated-Screw locking	
---	C.HP3A/H-MCV-2S	04103952022
	C.HP3A/H-MCV-2S/2S	04103952012
	Chromated-Toggle locking	
---	C.HP3A/H-MCV-2T	04103951022
	C.HP3A/H-MCV-2T/2S	04103951012



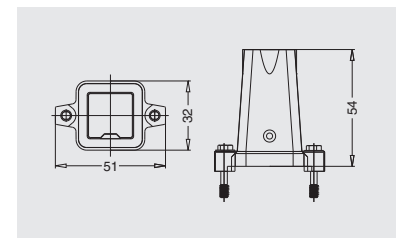
Degree of protection: IP68

W version

Hoods, top entry



Thread	Designation	Order No.
M20	HP3A-TE-2S-M20	04003451202
PG11	HP3A-TE-2S-PG11	04003253300



Housings, bulkhead mounting



Thread	Designation	Order No.
---	HP3A-BK-2H	04003010010

