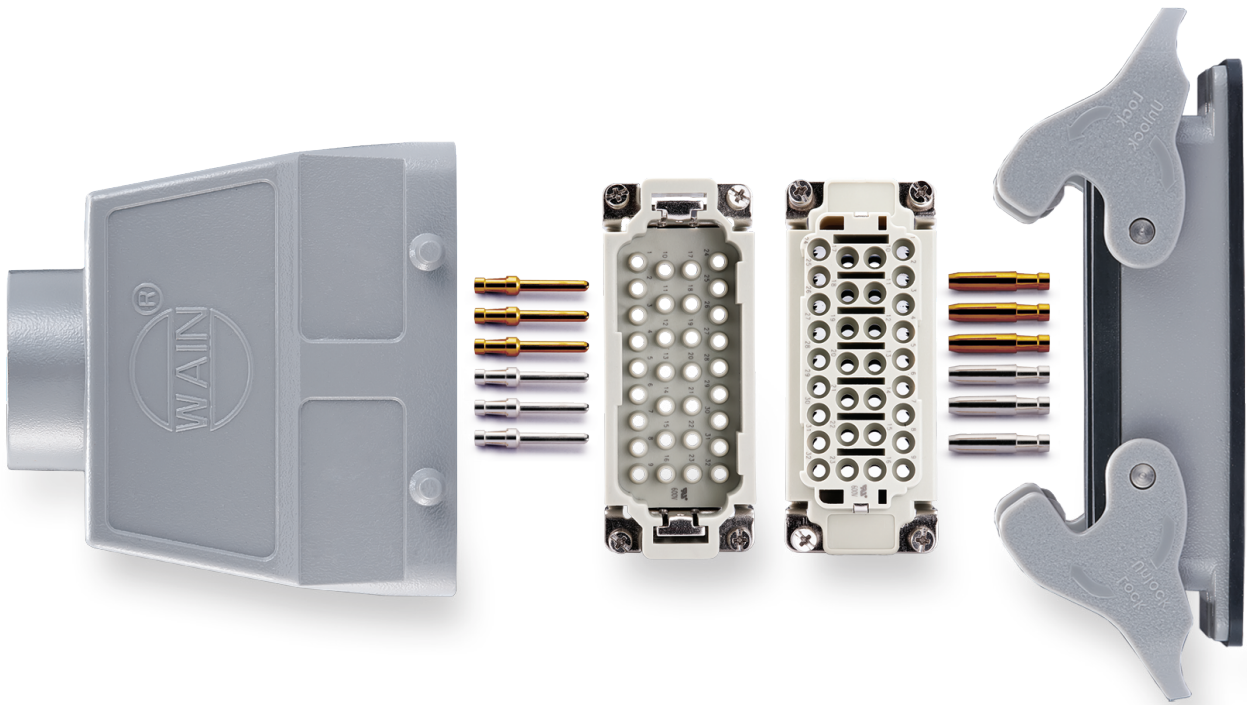


HEE SERIES

High density connector

HEE



HEE SERIES High density inserts

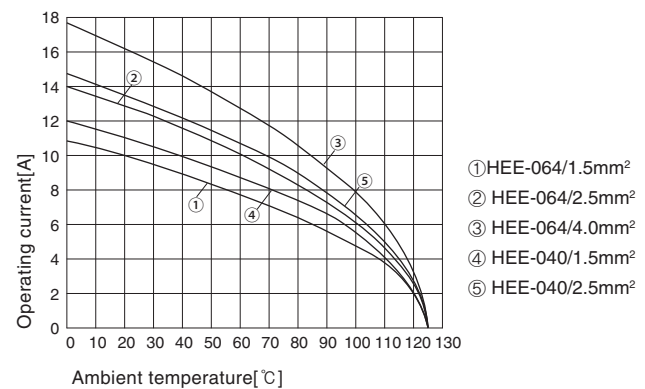
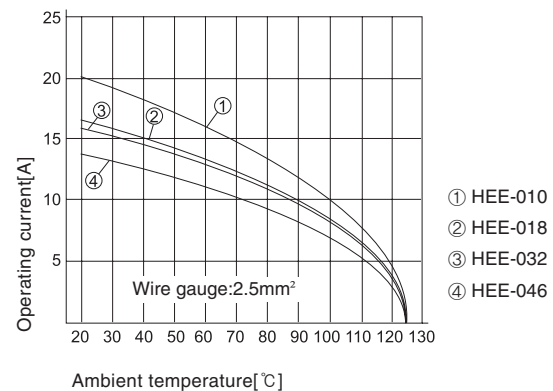
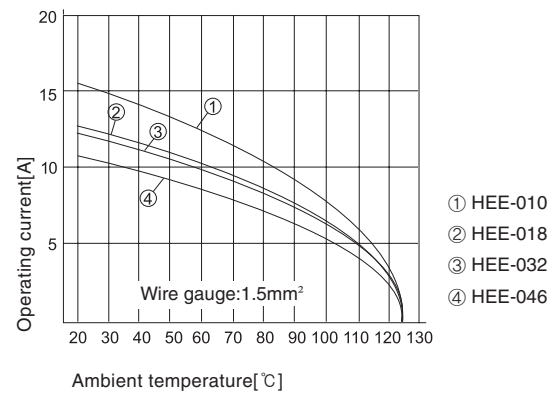
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	10,18,32,40,46,64,64(2x32), 92(2x46)+PE
Electrical data acc. to EN 61 984	
-Rated current	16A
-Rated voltage	500V
-Rated impulse voltage	6kV
-Pollution degree	3
-Pollution degree 2 also	16A 830V 8kV 2
Rated voltage acc. to UL/CSA	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)	≥ 500
Contacts	
Material	copper alloy
Surface	hard-gold plated hard-silver plated
Contact resistance	$\leq 1m\Omega$
Crimp terminal	
-Wire gauge	0.14-4.0mm ²
-AWG	26-12
-Stripping length	7.5mm

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



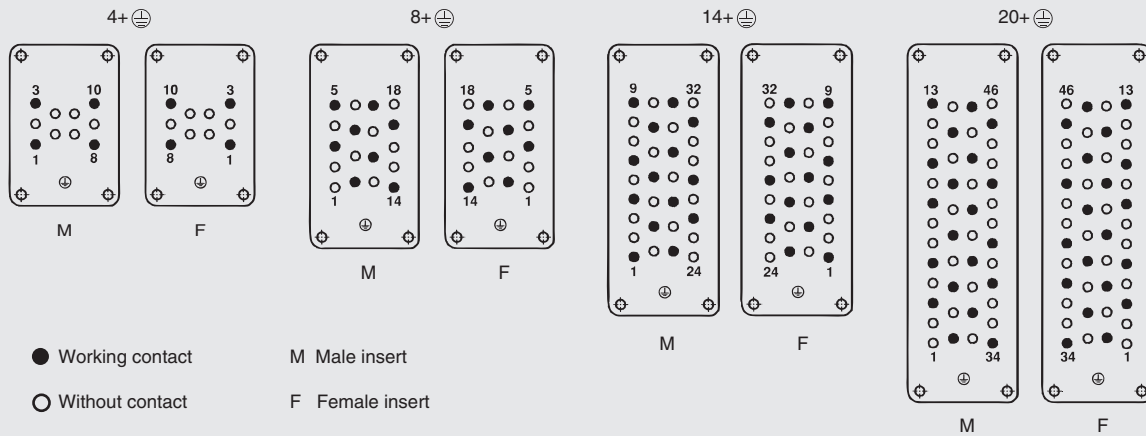
HEE Modified contact arrangement up to 1000 V

The connector series HEE equipped with all contacts may be used for voltages up to 500 V ~ pollution degree 3. A modified contact loading arrangement permits use up to 1000 V ~ pollution degree also in pollution degree C. Fully equipped connectors may also be used up to 1000 V ~ but in a lower pollution degree. According to DIN EN 61 984 connectors should not be coupled or decoupled under electrical load.

HEE

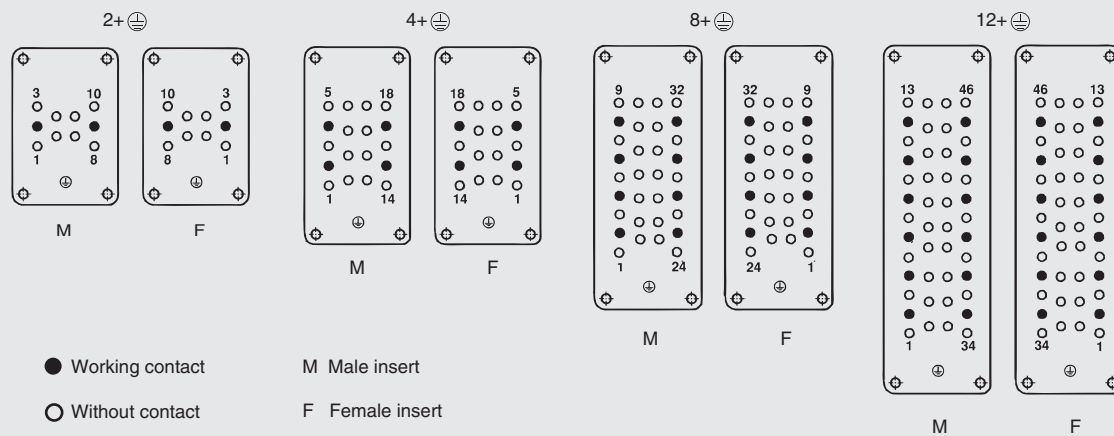
Contact arrangement view from termination side

690 V Pollution degree 3



Contact arrangement view from termination side

1000 V Pollution degree 3



HEE-010 High density inserts

500V 16A 10+ 

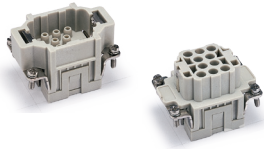


Inserts

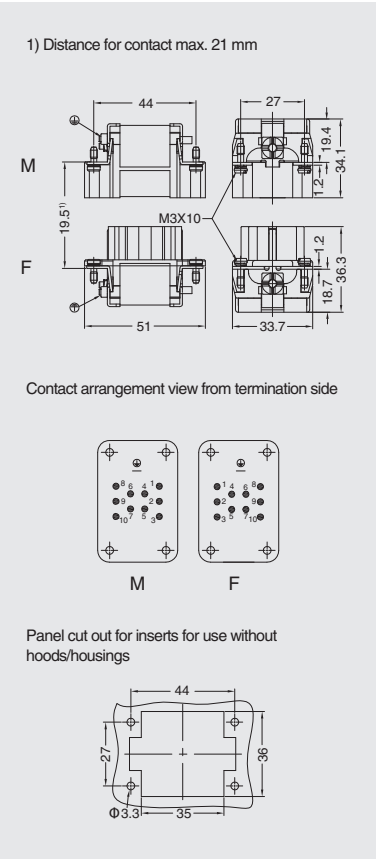
Hoods/Housings: size 6B, detail please find the page 16-17~16-24.

Crimp terminal

order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-010-MC	03201020100
Female	HEE-010-FC	03201020200



Accessories

Crimp contacts 16A

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

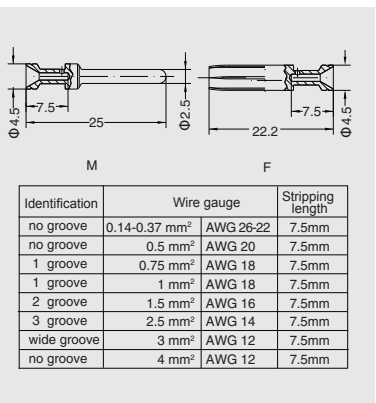


gold plated



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 ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13~18-14.

HEE-018 High density inserts

500V 16A 18+

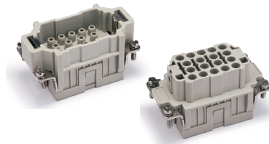


Inserts

Hoods/Housings: size 10B, detail please find the page 16-25~16-35.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-018-MC	03201820100
Female	HEE-018-FC	03201820200

1) Distance for contact max. 21 mm

Contact arrangement view from termination side

Panel cut out for inserts for use without hoods/housings

HEE

Accessories

Crimp contacts 16A

Contact resistance $\leq 1m\Omega$
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 ² AWG 26-22	7.5mm
no groove	0.5 mm ² AWG 20	7.5mm
1 groove	0.75 mm ² AWG 18	7.5mm
1 groove	1 mm ² AWG 18	7.5mm
2 groove	1.5 mm ² AWG 16	7.5mm
3 groove	2.5 mm ² AWG 14	7.5mm
wide groove	3 mm ² AWG 12	7.5mm
no groove	4 mm ² AWG 12	7.5mm

Wire gauge	Designation	Order No.
0.5-4mm ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13~18-14.

HEE-032 High density inserts

500V 16A 32+

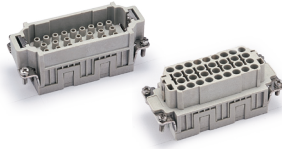


Inserts

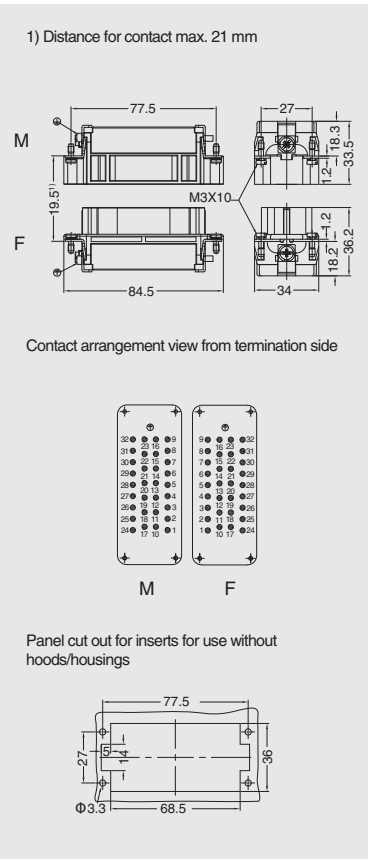
Hoods/Housings: size 16B, detail please find the page 16-42~16-53.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-032-MC	03203220100
Female	HEE-032-FC	03203220200



Accessories

Crimp contacts 16A

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

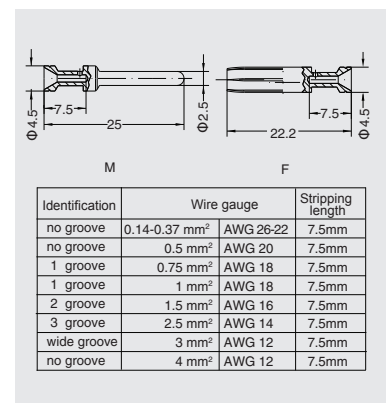


gold plated



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 ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13~18-14.

HEE-046 High density inserts

500V 16A 46+

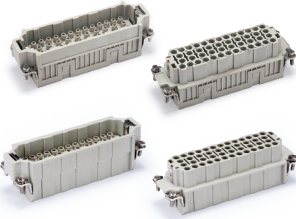


Inserts

Hoods/Housings: size 24B, detail please find the page 16-61~16-73.

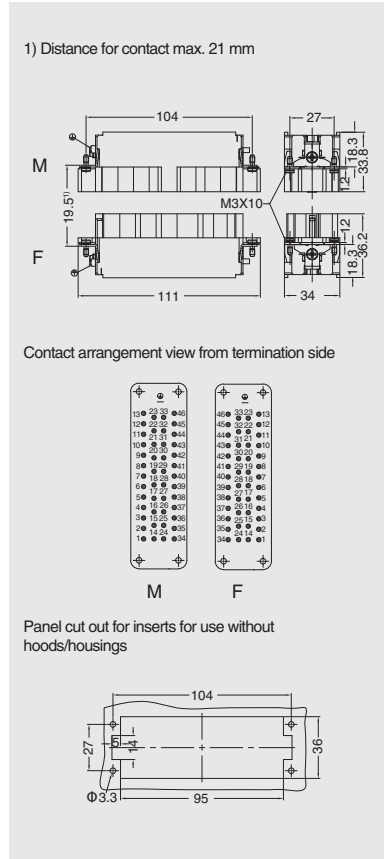
Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-046-MC	03204620100
Female	HEE-046-FC	03204620200
Male	*HEE-046-MC/N	03204621100
Female	*HEE-046-FC/N	03204621200

*for crimp contacts 16A (take three claws support) Chapter P17-03.



HEE

Accessories

Crimp contacts 16A

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



gold plated



More crimp contacts 16A see P17-03.

Tools

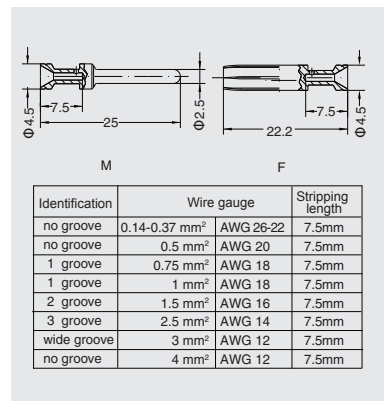
Crimping tool



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



Wire gauge	Designation	Order No.
0.5-4mm ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13-18-14.

HEE-032x2 High density inserts

500V 16A 64+ 

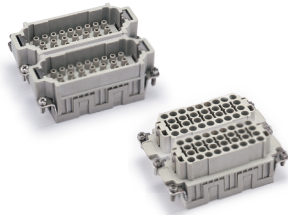


Inserts

Hoods/Housings: size 32B, detail please find the page 16-81~16-82.

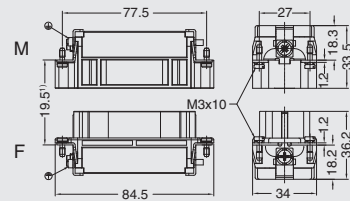
Crimp terminal

Order crimp contacts separately

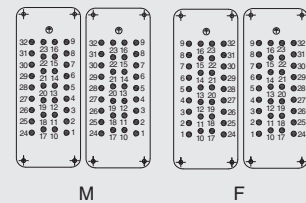


Insert	Designation	Order No.
Male	HEE-032-MC	03203220100
	HEE-032-MC(33-64)	03203222100
Female	HEE-032-FC	03203220200
	HEE-032-FC(33-64)	03203222200

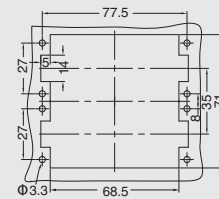
1) Distance for contact max. 21 mm



Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Accessories

Crimp contacts 16A

Contact resistance $\leq 1m\Omega$
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 ²	AWG 26-22	7.5mm
no groove	0.5 mm ²	AWG 20	7.5mm
1 groove	0.75 mm ²	AWG 18	7.5mm
1 groove	1 mm ²	AWG 18	7.5mm
2 groove	1.5 mm ²	AWG 16	7.5mm
3 groove	2.5 mm ²	AWG 14	7.5mm
wide groove	3 mm ²	AWG 12	7.5mm
no groove	4 mm ²	AWG 12	7.5mm

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.5-4mm ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13~18-14.

HEE-092 High density inserts

500V 16A 92+ 

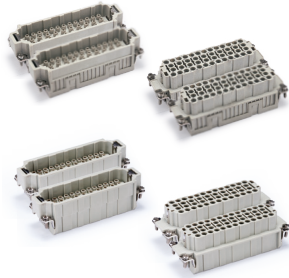


Inserts

Hoods/Housings: size 48B, detail please find the page 16-85.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-046-MC	03204620100
	HEE-046-MC(47-92)	03204622100
Female	HEE-046-FC	03204620200
	HEE-046-FC(47-92)	03204622200
Male	*HEE-046-MC/N	03204621100
	*HEE-046-MC/N(47-92)	03204623100
Female	*HEE-046-FC/N	03204621200
	*HEE-046-FC/N(47-92)	03204623200

*for crimp contacts 16A (take three claws support) Chapter P17-03.

1) Distance for contact max. 21 mm

Contact arrangement view from termination side

Panel cut out for inserts for use without hoods/housings

Accessories

Crimp contacts 16A

Contact resistance $\leq 1m\Omega$
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 ² AWG 26-22	7.5mm
no groove	0.5 mm ² AWG 20	7.5mm
1 groove	0.75 mm ² AWG 18	7.5mm
1 groove	1 mm ² AWG 18	7.5mm
2 groove	1.5 mm ² AWG 16	7.5mm
3 groove	2.5 mm ² AWG 14	7.5mm
wide groove	3 mm ² AWG 12	7.5mm
no groove	4 mm ² AWG 12	7.5mm

Wire gauge	Designation	Order No.
0.5-4mm ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13-18-14.

HEE-040 High density inserts

500V 16A 40+ 

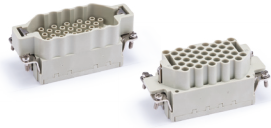


Inserts

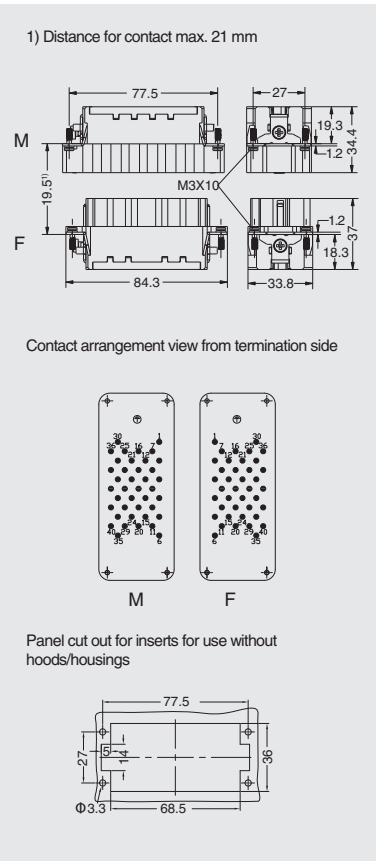
Hoods/Housings: size 16B, detail please find the page 16-42~16-53.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-040-MC	03204020100
Female	HEE-040-FC	03204020200



Accessories

Crimp contacts 16A

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

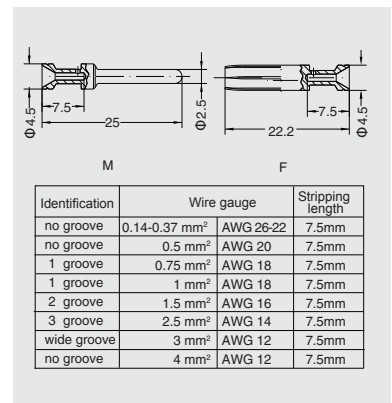


gold plated



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 ²	TL02G	09100021020

Wire gauge: 0.14-0.37mm² please select TL02 Crimping tool.

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

More tools detail please find the page 18-13~18-14.

HEE-064 High density inserts

500V 16A 64+

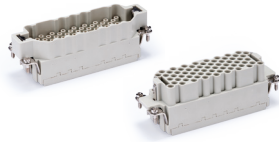


Inserts

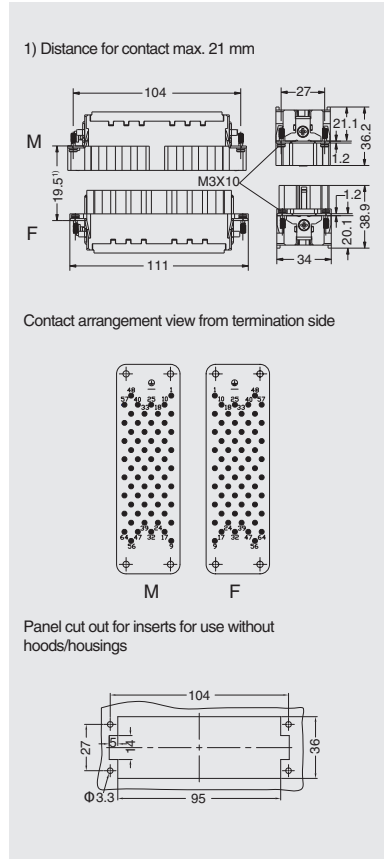
Hoods/Housings: size 24B, detail please find the page 16-61~16-73.

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HEE-064-MC	03206420130
Female	HEE-064-FC	03206420230



HEE

Accessories

Crimp contacts 16A

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

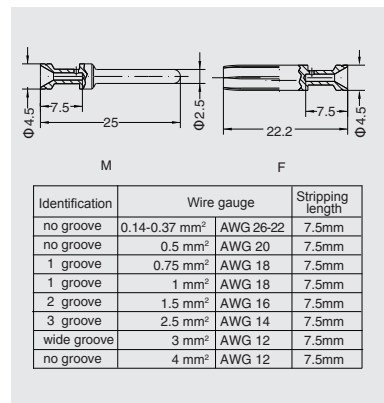


gold plated



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



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0.5-4mm ²	TL02G	09100021020

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

More tools detail please find the page 18-13~18-14.