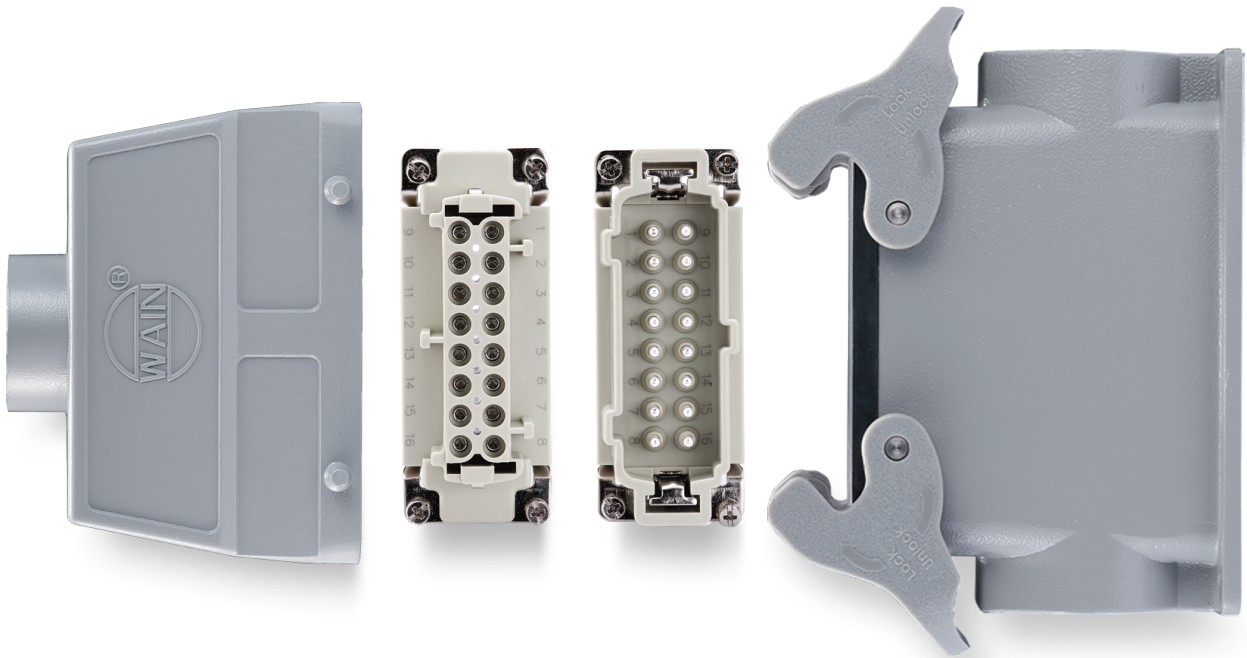


# HE SERIES

Standard products

HE



## HE SERIES Standard inserts

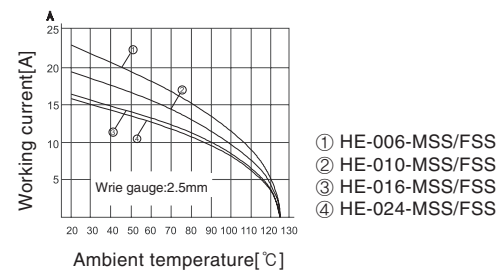
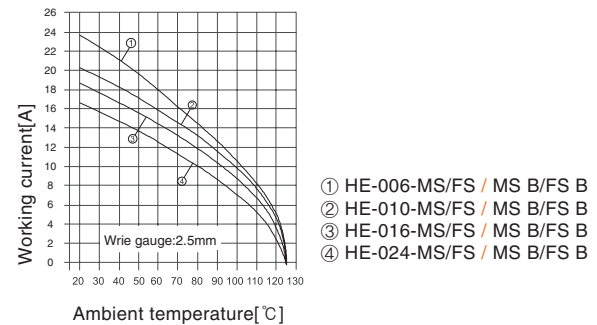
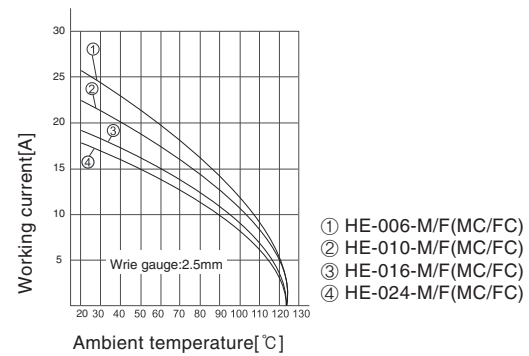
## Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
<b>Inserts</b>	
Number of contacts	6,10,16,24,32(2X16),48(2X24)+PE
Electrical data acc. to	
-Rated current	16A
-Rated voltage	500V
-Rated impulse voltage	6KV
-Pollution degree	3
-Pollution degree 2 also	16A 400/690V 6kV 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)	$\geq 500$
<b>Contacts</b>	
Material	copper alloy
Surface	hard-gold plated hard-silver plated
Contact resistance	$\leq 1m\Omega$
<b>Screw terminal</b>	
-Wrie gauge	1.0-2.5mm <sup>2</sup>
-AWG	18-14
-Tightening/Test torque	0.5Nm
-Stripping length	7.0mm
<b>Crimp terminal</b>	
-Wrie gauge	0.14-4.0mm <sup>2</sup>
-AWG	26-12
-Stripping length	7.5mm
<b>Spring terminal</b>	
-Wrie gauge	0.14-2.5mm <sup>2</sup>
-AWG	26-14
-Stripping length	7-9mm

## 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



HE-006 Standard inserts

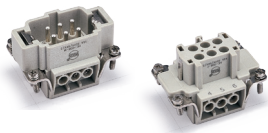
500V 16A 6+⊕



Inserts

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

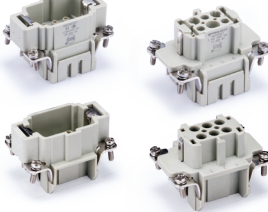
Screw terminal



Insert	Designation	Order No.
Male	HE-006-M	03100610100
Female	HE-006-F	03100610200

Crimp terminal

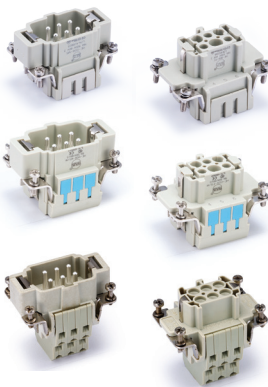
Order crimp contacts separately



Insert	Designation	Order No.
Male	HE-006-MC	03100620100
Female	HE-006-FC	03100620200
Male	*HE-006-MC/N	03100621100
Female	*HE-006-FC/N	03100621200

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

Spring terminal



Insert	Designation	Order No.
Male	HE-006-MS	03100630100
Female	HE-006-FS	03100630200
Male	HE-006-MS B	03100631100
Female	HE-006-FS B	03100631200
Double spring connection (Two terminal per contact)		
Male	HE-006-MSS	03100640100
Female	HE-006-FSS	03100640200

1) Distance for contact max. 21 mm

	a	b	c	d
M/F	18	33	18	35
MC/FC	19	34	19	36
MCN/FCN	18.3	34	19	36
MS/FS	19	34	19	36
MSS/FSS	34	49	32	49
MS B / FS B	19.6	34.7	19	36.3

Contact arrangement view from termination side

Panel cut out for inserts for use without hoods/housings

Accessories

Crimp contacts 16A

Contact resistance ≤ 1mΩ  
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 <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

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

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

## HE-010 Standard inserts

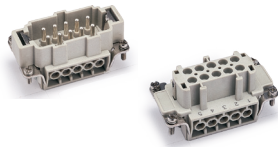
500V 16A 10+



### Inserts

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

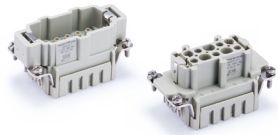
#### Screw terminal



Insert	Designation	Order No.
Male	HE-010-M	03101010100
Female	HE-010-F	03101010200

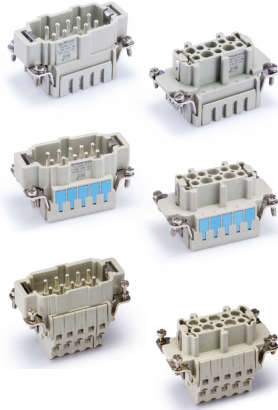
#### Crimp terminal

Order crimp contacts separately



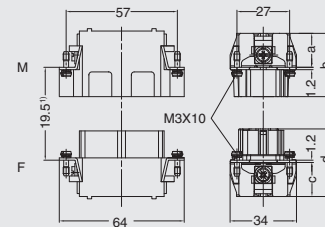
Insert	Designation	Order No.
Male	HE-010-MC	03101020100
Female	HE-010-FC	03101020200

#### Spring terminal



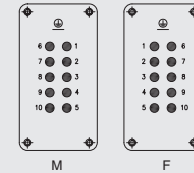
Insert	Designation	Order No.
Male	HE-010-MS	03101030100
Female	HE-010-FS	03101030200
Double spring connection (Two terminal per contact)		
Male	HE-010-MS B	03101031100
Female	HE-010-FS B	03101031200
Male	HE-010-MSS	03101040100
Female	HE-010-FSS	03101040200

1) Distance for contact max. 21 mm

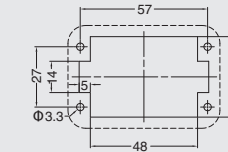


	a	b	c	d
M/F	18	33	18	35
MC/FC	19	34	19	36
MS/FS	19	34	19	36
MSS/FSS	34	49	32	49
MSB / FS B	19.6	34.7	19	36.3

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



## 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



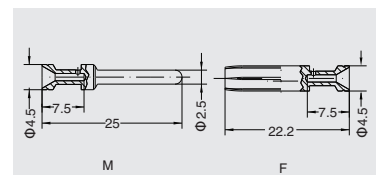
Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	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

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

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



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

## HE-016 Standard inserts

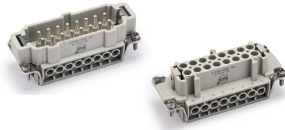
500V 16A 16+



### Inserts

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

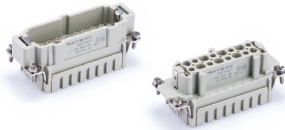
#### Screw terminal



Insert	Designation	Order No.
Male	HE-016-M	03101610100
Female	HE-016-F	03101610200

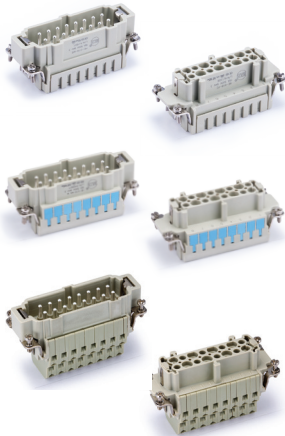
#### Crimp terminal

Order crimp contacts separately



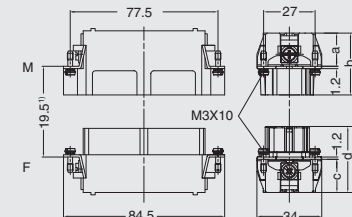
Insert	Designation	Order No.
Male	HE-016-MC	03101620100
Female	HE-016-FC	03101620200

#### Spring terminal



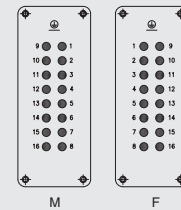
Insert	Designation	Order No.
Male	HE-016-MS	03101630100
Female	HE-016-FS	03101630200
Male	HE-016-MS B	03101631100
Female	HE-016-FS B	03101631200
Double spring connection(Two terminal per contact )		
Male	HE-016-MSS	03101640100
Female	HE-016-FSS	03101640200

1) Distance for contact max. 21 mm

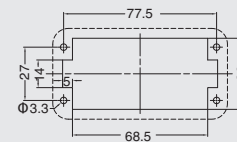


	a	b	c	d
M/F	18	33	18	35
MC/FC	19	34	19	36
MS/FS	19	34	19	36
MSS/FSS	34	49	32	49
MS B / FS B	19.6	34.7	19	36.3

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



## 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



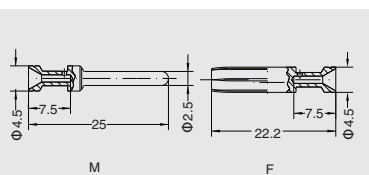
Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	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

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

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



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



## HE-032 Standard inserts

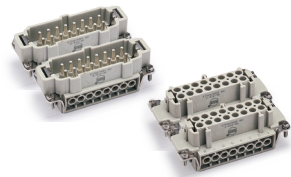
500V 16A 32+



### Inserts

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

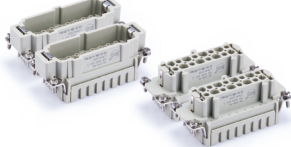
#### Screw terminal



Insert	Designation	Order No.
Male	HE-016-M	03101610100
	HE-016-M(17-32)	03101612100
Female	HE-016-F	03101610200
	HE-016-F(17-32)	03101612200

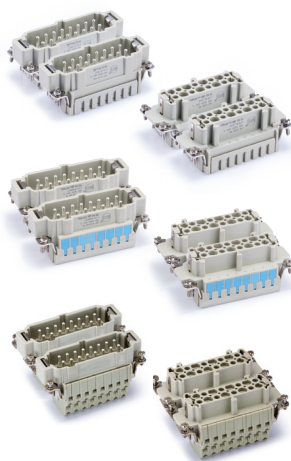
#### Crimp terminal

Order crimp contacts separately

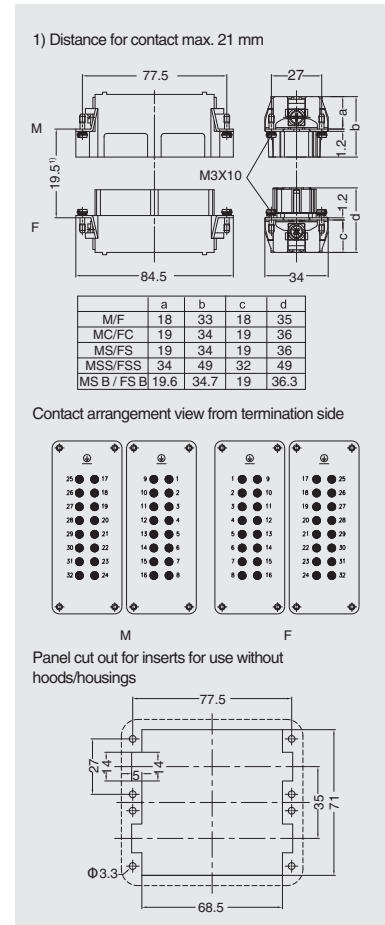


Insert	Designation	Order No.
Male	HE-016-MC	03101620100
	HE-016-MC(17-32)	03101622100
Female	HE-016-FC	03101620200
	HE-016-FC(17-32)	03101622200

#### Spring terminal



Insert	Designation	Order No.
Male	HE-016-MS	03101630100
	HE-016-MS(17-32)	03101632100
Female	HE-016-FS	03101630200
	HE-016-FS(17-32)	03101632200
Male	HE-016-MS B	03101631100
	HE-016-MS B(17-32)	03101633100
Female	HE-016-FS B	03101631200
	HE-016-FS B(17-32)	03101633200
Double spring connection(Two terminal per contact)		
Male	HE-016-MSS	03101640100
	HE-016-MSS(17-32)	03101642100
Female	HE-016-FSS	03101640200
	HE-016-FSS(17-32)	03101642200



## Accessories

### Crimp contacts 16A

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



gold plated



More crimp contacts 16A see P17-03.

#### Tools

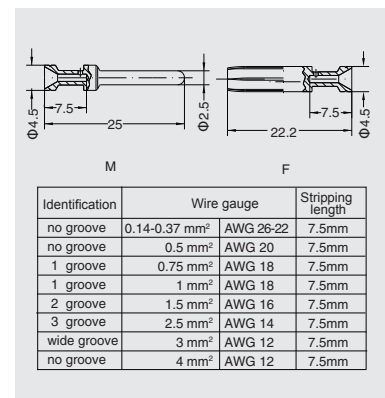
Crimping tool



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



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

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

## HE-048 Standard inserts

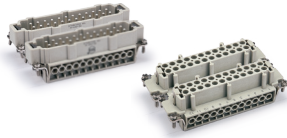
500V 16A 48+



### Inserts

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

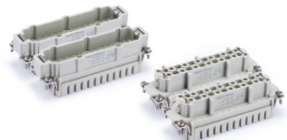
#### Screw terminal



Insert	Designation	Order No.
Male	HE-024-M	03102410100
Female	HE-024-M(25-48)	03102412100
	HE-024-F	03102410200
	HE-024-F(25-48)	03102412200

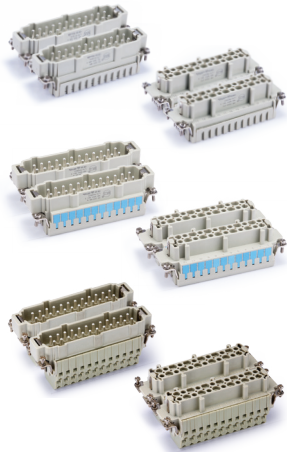
#### Crimp terminal

Order crimp contacts separately



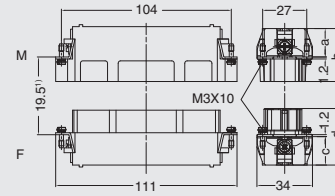
Insert	Designation	Order No.
Male	HE-024-MC	03102420100
	HE-024-MC(25-48)	03102422100
Female	HE-024-FC	03102420200
	HE-024-FC(25-48)	03102422200

#### Spring terminal



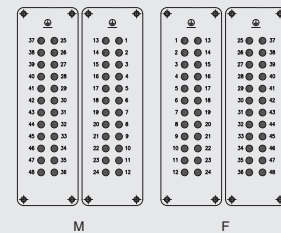
Insert	Designation	Order No.
Male	HE-024-MS	03102430100
	HE-024-MS(25-48)	03102432100
Female	HE-024-FS	03102430200
	HE-024-FS(25-48)	03102432200
Male	HE-024-MS B	03102431100
	HE-024-MS B(25-48)	03102433100
Female	HE-024-FS B	03102431200
	HE-024-FS B(25-48)	03102433200
Double spring connection(Two terminal per contact)		
Male	HE-024-MSS	03102440100
	HE-024-MSS(25-48)	03102442100
Female	HE-024-FSS	03102440200
	HE-024-FSS(25-48)	03102442200

1) Distance for contact max. 21 mm

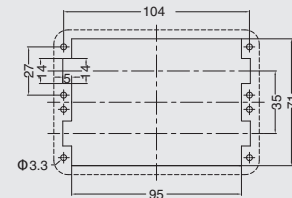


	a	b	c	d
M/F	18	33	18	35
MC/FC	19	34	19	36
MS/FS	19	34	19	36
MSS/FSS	34	49	32	49
MS B / FS B	19.6	34.7	19	36.3

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



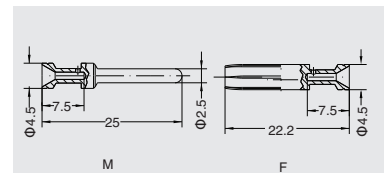
Male	Order No.	Female	Order No.
CESM-0.37	08121131000	CESF-0.37	08121132000
CESM-0.5	08121133000	CESF-0.5	08121134000
CESM-0.75	08121135000	CESF-0.75	08121136000
CESM-1.0	08121137000	CESF-1.0	08121138000
CESM-1.5	08121139000	CESF-1.5	08121140000
CESM-2.5	08121141000	CESF-2.5	08121142000
CESM-3.0	08121143000	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

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

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



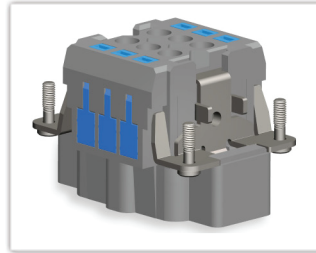
Identification	Wire gauge	Stripping length
no groove	0.14-0.37 mm <sup>2</sup>	AWG 26-22
no groove	0.5 mm <sup>2</sup>	AWG 20
1 groove	0.75 mm <sup>2</sup>	AWG 18
1 groove	1 mm <sup>2</sup>	AWG 18
2 groove	1.5 mm <sup>2</sup>	AWG 16
3 groove	2.5 mm <sup>2</sup>	AWG 14
wide groove	3 mm <sup>2</sup>	AWG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



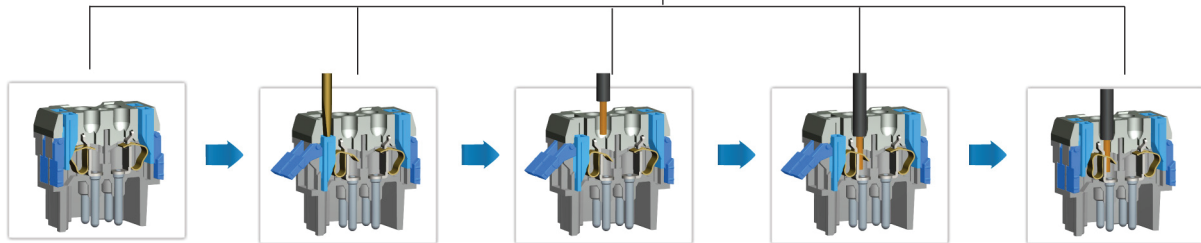
## HE push spring insert

### Characteristics of the product

The product can be connected and disassembled in limited space without special tool. Installation and disassembly can't be disturbed by tools, operation is convenient; Furthermore, during connection and disassembly it can open the corresponding hole or slot easily through pushing lever or driving lever, and can open all the holes of upper insert with simple special tools simultaneously, which is more efficient. During operating without contacting conductor, avoiding electric shock.



### Assembly instructions



step 1: Strip the insulate layer by 9-11mm;

step 2: Using slotted screwdriver of spec. 0.5\*3 to insert into groove of rectangle pushing lever, and push to the bottom, to let the driving lever tilt out. At this moment the spring stabilizes at opening condition.

step 3: Insert striped wire/cable into the round hole.

step 4: Reset the driving lever until hearing the "bang", which indicates the pushing lever automatically reset and the spring shut, the wire/cable and contact are connected securely.

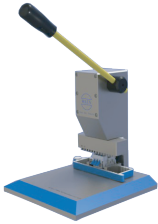
step 5: Installation is completed.

# HE push spring insert

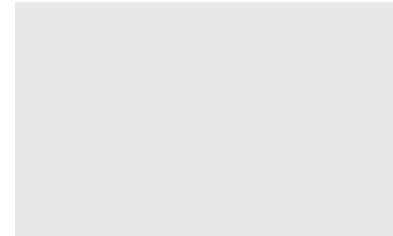
HE Push spring insert

## Tools

HE B Spring open machine<sup>1)</sup>



Description	Designation	Order NO.
for all HE B spring inserts	SOM01	09100080100



HE

1) It can open all the shrapnel windows of insert at one time; suitable for using in mass assembly, greatly improving the efficiency of the connection.