



## WAIN Connector

HE-016 Standard inserts

500V 16A 16+



Inserts

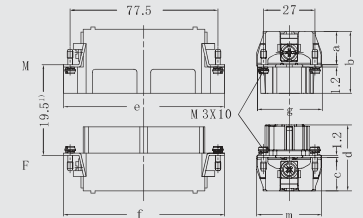
Hoods/Housings: size 16B, detail please find the page 15-48~15-64.

Screw terminal



Insert	Designation	Order No.
Male	HE-016-M	122 016 011 0001
Female	HE-016-F	122 016 021 0001

1) Distance for contact max. 21 mm



	a	b	e	g	c	d	f	m
M F	17	32.5	84.2	34	17	34.5	84.2	33.5
M C F C	18	33.5	84.5	34	18	35	84.5	34
M S F S	18	33.7	84.5	34	18.2	35.5	84.5	34
M S S F S S	34.3	49	84.5	34	32.2	49	84.5	34
M S B / F S B	19.6	34.7	84.3	34	18.6	36	84.5	34

Crimp terminal

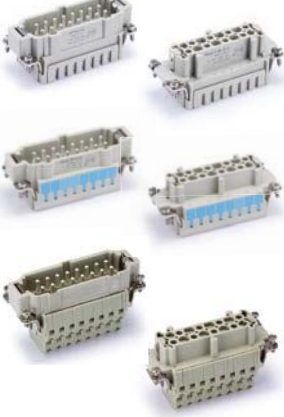
Order crimp contacts separately



Insert	Designation	Order No.
Male	HE-016-M C <sup>1)</sup>	122 016 010 0001
Female	HE-016-FC <sup>1)</sup>	122 016 020 0001

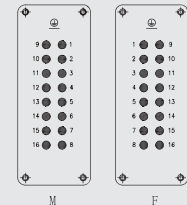
1) can match PCB adapter; see page 14-04~14-05.

Spring terminal See P00-32 for the structural characteristics of shrapnel

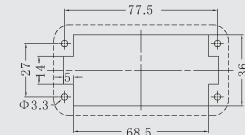


Insert	Designation	Order No.
Male	HE-016-M S	122 016 012 0001
Female	HE-016-F S	122 016 022 0001
Male	HE-016-M S B	122 016 012 0101
Female	HE-016-F S B	122 016 022 0101
Double spring connection (two terminals per contact)		
Male	HE-016-M S S	122 016 012 0201
Female	HE-016-F S S	122 016 022 0201

Contact arrangement view from termination side



Panel cut out for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

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

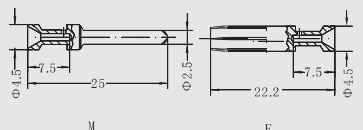


gold plated



More crimp contacts 16A see P13-04.

Male	Order No.	Female	Order No.
CESM -0.37	101 019 110 0301	CESF-0.37	101 019 120 0301
CESM -0.50	101 019 110 0401	CESF-0.50	101 019 120 0401
CESM -0.75	101 019 110 0601	CESF-0.75	101 019 120 0601
CESM -1.0	101 019 110 0801	CESF-1.0	101 019 120 0801
CESM -1.5	101 019 110 0901	CESF-1.5	101 019 120 0901
CESM -2.5	101 019 110 1001	CESF-2.5	101 019 120 1001
CESM -3.0	101 019 110 1101	CESF-3.0	101 019 120 1101
CESM -4.0	101 019 110 1201	CESF-4.0	101 019 120 1201
CEGM -0.37	101 019 210 0301	CEGF-0.37	101 019 220 0301
CEGM -0.50	101 019 210 0401	CEGF-0.50	101 019 220 0401
CEGM -0.75	101 019 210 0601	CEGF-0.75	101 019 220 0601
CEGM -1.0	101 019 210 0801	CEGF-1.0	101 019 220 0801
CEGM -1.5	101 019 210 0901	CEGF-1.5	101 019 220 0901
CEGM -2.5	101 019 210 1001	CEGF-2.5	101 019 220 1001
CEGM -3.0	101 019 210 1101	CEGF-3.0	101 019 220 1101
CEGM -4.0	101 019 210 1201	CEGF-4.0	101 019 220 1201



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

When the wire gauge is less than 0.75 mm<sup>2</sup>, it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.5-4 mm <sup>2</sup>	TL02G	198 001 001 0011

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

Contact removal tool



Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page 29-02~29-05.

Notes: The tools for crimp terminals may influence the product quality and stability. Please select the tools recognized by our company.

HE-024 Standard inserts

500V 16A 24+



Inserts

Hoods/Housings: size 24B, detail please find the page 15-72~15-87.

Screw terminal



Insert	Designation	Order No.
Male	HE-024-M	122 024 011 0001
Female	HE-024-F	122 024 021 0001

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE-024-M C <sup>1)</sup>	122 024 010 0001
Female	HE-024-F C <sup>1)</sup>	122 024 020 0001

1) can match PCB adapter, see page 14-04~14-05.

Spring terminal, See P00-32 for the structural characteristics of strip panel



Insert	Designation	Order No.
Male	HE-024-M S	122 024 012 0001
Female	HE-024-FS	122 024 022 0001
Male	HE-024-M S B	122 024 012 0101
Female	HE-024-FS B	122 024 022 0101
Double spring connection (two terminals per contact)		
Male	HE-024-M SS	122 024 012 0201
Female	HE-024-FSS	122 024 022 0201

Crimp contacts

Crimp contacts 16A

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



gold plated



More crimp contacts 16A see P13-04.

Male	Order No.	Female	Order No.
CESM-0.37	101 019 110 0301	CESF-0.37	101 019 120 0301
CESM-0.50	101 019 110 0401	CESF-0.50	101 019 120 0401
CESM-0.75	101 019 110 0601	CESF-0.75	101 019 120 0601
CESM-1.0	101 019 110 0801	CESF-1.0	101 019 120 0801
CESM-1.5	101 019 110 0901	CESF-1.5	101 019 120 0901
CESM-2.5	101 019 110 1001	CESF-2.5	101 019 120 1001
CESM-3.0	101 019 110 1101	CESF-3.0	101 019 120 1101
CESM-4.0	101 019 110 1201	CESF-4.0	101 019 120 1201
CEGM-0.37	101 019 210 0301	CEGF-0.37	101 019 220 0301
CEGM-0.50	101 019 210 0401	CEGF-0.50	101 019 220 0401
CEGM-0.75	101 019 210 0601	CEGF-0.75	101 019 220 0601
CEGM-1.0	101 019 210 0801	CEGF-1.0	101 019 220 0801
CEGM-1.5	101 019 210 0901	CEGF-1.5	101 019 220 0901
CEGM-2.5	101 019 210 1001	CEGF-2.5	101 019 220 1001
CEGM-3.0	101 019 210 1101	CEGF-3.0	101 019 220 1101
CEGM-4.0	101 019 210 1201	CEGF-4.0	101 019 220 1201

Tools

Crimping tool



Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	198 001 001 0011

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

Contact removal tool



Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page 29-02~29-05.

1) Distance for contact max. 21 mm

	a	b	e	g	c	d	f	m
M/F	17	32.5	111	33.5	17	34.5	111	33.5
M C/FC	18.3	33.5	111	34	18.3	35.5	111	34
M S/FS	18.5	33.6	111	34	18.5	35.6	111	34
M SS/FSS	34	49	110	34	32	49	110	34
M S B /FS B	19.6	34.7	111	34	19	36.2	111	34

Contact arrangement view from terminal side

Panel cutout for inserts for use without hoods/housings

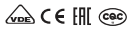
Identification	Wire gauge	Stripping length
no groove	0.14-0.37mm <sup>2</sup> AWG 26-22	7.5mm
no groove	0.5mm <sup>2</sup> AWG 20	7.5mm
1 groove	0.75mm <sup>2</sup> AWG 18	7.5mm
1 groove	1mm <sup>2</sup> AWG 18	7.5mm
2 grooves	1.5mm <sup>2</sup> AWG 16	7.5mm
3 grooves	2.5mm <sup>2</sup> AWG 14	7.5mm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

When the wire gauge is less than 0.75mm<sup>2</sup>, it's better to use the auxiliary ph assembly tool TL15.

Notes: The tools for crimp terminals may influence the product quality and stability. Please select the tools recognized by our company.

HE-032 Standard inserts

500V 16A 32+



Inserts

Hoods/Housings: size 32B, detail please find the page 15-95~15-97.

Screw terminal



Insert	Designation	Order No.
Male	HE-016-M	122 016 011 0001
	HE-016-M (17-32) <sup>1)</sup>	122 016 011 0002
Female	HE-016-F	122 016 021 0001
	HE-016-F (17-32)	122 016 021 0002

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE-016-M C	122 016 010 0001
	HE-016-M C (17-32) <sup>1)</sup>	122 016 010 0002
Female	HE-016-FC	122 016 020 0001
	HE-016-FC (17-32) <sup>1)</sup>	122 016 020 0002

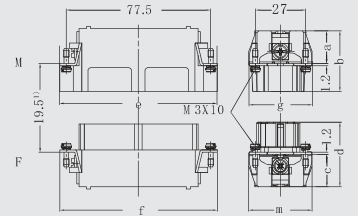
<sup>1)</sup>can match PCB adapter; see page 14-04~14-05.

Spring terminal See P00-32 for the structural characteristics of shrapnel



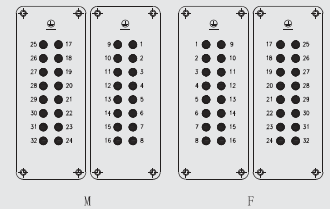
Insert	Designation	Order No.
Male	HE-016-M S	122 016 012 0001
	HE-016-M S (17-32)	122 016 012 0002
Female	HE-016-FS	122 016 022 0001
	HE-016-FS (17-32)	122 016 022 0002
Male	HE-016-M S B	122 016 012 0101
	HE-016-M S B (17-32)	122 016 012 0102
Female	HE-016-FS B	122 016 022 0101
	HE-016-FS B (17-32)	122 016 022 0102
Double spring connection (two terminals per contact)		
Male	HE-016-M SS	122 016 012 0201
	HE-016-M SS (17-32)	122 016 012 0202
Female	HE-016-FSS	122 016 022 0201
	HE-016-FSS (17-32)	122 016 022 0202

<sup>1)</sup>Distance for contact ax. 21 mm

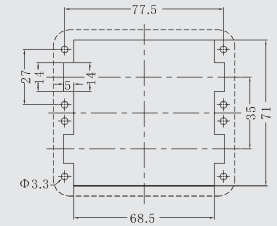


	a	b	e	g	c	d	f	m
M F	17	32.5	84.2	34	17	34.5	84.2	33.5
M C/FC	18	33.5	84.5	34	18	35	84.5	34
M S/FS	18	33.7	84.5	34	18.2	35.5	84.5	34
M SS/FSS	34.3	49	84.5	34	32.2	49	84.5	34
M S B /FS B	19.6	34.7	84.3	34	18.6	36	84.5	34

Contact arrangement view from terminal side



Panel cutout for inserts for use without hoods/housings



Crimp contacts

Crimp contacts 16A

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

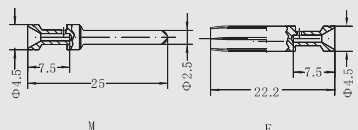


gold plated



More crimp contacts 16A see P13-04.

Male	Order No.	Female	Order No.
CESM -0.37	101 019 110 0301	CESF-0.37	101 019 120 0301
CESM -0.50	101 019 110 0401	CESF-0.50	101 019 120 0401
CESM -0.75	101 019 110 0601	CESF-0.75	101 019 120 0601
CESM -1.0	101 019 110 0801	CESF-1.0	101 019 120 0801
CESM -1.5	101 019 110 0901	CESF-1.5	101 019 120 0901
CESM -2.5	101 019 110 1001	CESF-2.5	101 019 120 1001
CESM -3.0	101 019 110 1101	CESF-3.0	101 019 120 1101
CESM -4.0	101 019 110 1201	CESF-4.0	101 019 120 1201
CEGM -0.37	101 019 210 0301	CEGF-0.37	101 019 220 0301
CEGM -0.50	101 019 210 0401	CEGF-0.50	101 019 220 0401
CEGM -0.75	101 019 210 0601	CEGF-0.75	101 019 220 0601
CEGM -1.0	101 019 210 0801	CEGF-1.0	101 019 220 0801
CEGM -1.5	101 019 210 0901	CEGF-1.5	101 019 220 0901
CEGM -2.5	101 019 210 1001	CEGF-2.5	101 019 220 1001
CEGM -3.0	101 019 210 1101	CEGF-3.0	101 019 220 1101
CEGM -4.0	101 019 210 1201	CEGF-4.0	101 019 220 1201



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

When the wire gauge is less than 0.75 mm<sup>2</sup>, it's better to use the auxiliary pin assembly tool TL15.

Tools

Crimping tool



Contact removal tool



Wire gauge	Designation	Order No.
0.5-4 mm <sup>2</sup>	TL02G	198 001 001 0011

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

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page 29-02~29-05.

Notes: The tools for crimp terminals may influence the product quality and stability. Please select the tools recognized by our company.

# HE-048 Standard inserts

500V 16A 48+



## Inserts

Hoods/Housings: size 48B, detail please find the page 15-100~15-101.

### Screw terminal



Insert	Designation	Order No.
Male	HE-024-M	122 024 011 0001
Female	HE-024-M (25-48)	122 024 011 0002
	HE-024-F	122 024 021 0001
	HE-024-F (25-48)	122 024 021 0002

### Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HE-024-M C	122 024 010 0001
	HE-024-M C (25-48) <sup>1)</sup>	122 024 010 0002
Female	HE-024-FC	122 024 020 0001
	HE-024-FC (25-48) <sup>1)</sup>	122 024 020 0002

<sup>1)</sup> can match PCB adapter, see page 14-04~14-05.

### Spring terminal

See P00-32 for the structural characteristics of shrapnel



Insert	Designation	Order No.
Male	HE-024-M S	122 024 012 0001
	HE-024-M S (25-48)	122 024 012 0002
	HE-024-FS	122 024 022 0001
Female	HE-024-FS (25-48)	122 024 022 0002
	HE-024-M S B	122 024 012 0101
	HE-024-M S B (25-48)	122 024 012 0102
Female	HE-024-FS B	122 024 022 0101
	HE-024-FS B (25-48)	122 024 022 0102
	Double spring connection (two terminals per contact)	
Male	HE-024-M SS	122 024 012 0201
	HE-024-M SS (25-48)	122 024 012 0202
Female	HE-024-FSS	122 024 022 0201
	HE-024-FSS (25-48)	122 024 022 0202

### Crimp contacts

#### Crimp contacts 16A

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



gold plated



More crimp contacts 16A see P13-04.

#### Tools

Crimping tool



Contact removal tool



Male	Order No.	Female	Order No.
CESM-0.37	101 019 110 0301	CESF-0.37	101 019 120 0301
CESM-0.50	101 019 110 0401	CESF-0.50	101 019 120 0401
CESM-0.75	101 019 110 0601	CESF-0.75	101 019 120 0601
CESM-1.0	101 019 110 0801	CESF-1.0	101 019 120 0801
CESM-1.5	101 019 110 0901	CESF-1.5	101 019 120 0901
CESM-2.5	101 019 110 1001	CESF-2.5	101 019 120 1001
CESM-3.0	101 019 110 1101	CESF-3.0	101 019 120 1101
CESM-4.0	101 019 110 1201	CESF-4.0	101 019 120 1201
CEGM-0.37	101 019 210 0301	CEGF-0.37	101 019 220 0301
CEGM-0.50	101 019 210 0401	CEGF-0.50	101 019 220 0401
CEGM-0.75	101 019 210 0601	CEGF-0.75	101 019 220 0601
CEGM-1.0	101 019 210 0801	CEGF-1.0	101 019 220 0801
CEGM-1.5	101 019 210 0901	CEGF-1.5	101 019 220 0901
CEGM-2.5	101 019 210 1001	CEGF-2.5	101 019 220 1001
CEGM-3.0	101 019 210 1101	CEGF-3.0	101 019 220 1101
CEGM-4.0	101 019 210 1201	CEGF-4.0	101 019 220 1201

Wire gauge	Designation	Order No.
0.5-4mm <sup>2</sup>	TL02G	198 001 001 0011

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

Application	Designation	Order No.
for crimp contacts 16A	TL01	198 001 000 0002

More tools detail please find the page 29-02~29-05.

1) Distance for contact max. 21 mm

	a	b	e	g	c	d	f	m
M/F	17	32.5	111	33.5	17	34.5	111	33.5
M C / FC	18.3	33.5	111	34	18.3	35.5	111	34
M S / FS	18.5	33.6	111	34	18.5	35.6	111	34
M SS / FSS	34	49	110	34	32	49	110	34
M S B / FS B	19.6	34.7	111	34	19	36.2	111	34

Contact arrangement view from terminal side

Panel cutout for inserts for use without hoods/housings

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

When the wire gauge is less than 0.75mm<sup>2</sup>, it's better to use the auxiliary ph assembly tool TL15.

Notes: The tools for crimp terminals may influence the product quality and stability. Please select the tools recognized by our company.