

HA SERIES

Compact standard connector

HA



HA SERIES The slim inserts

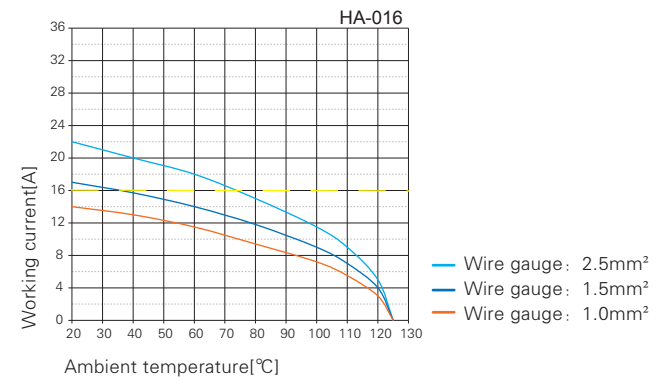
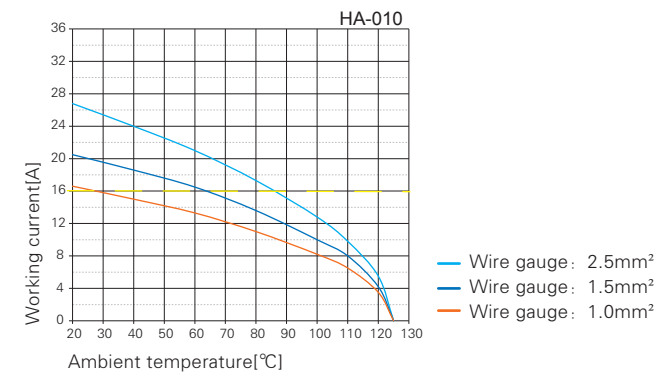
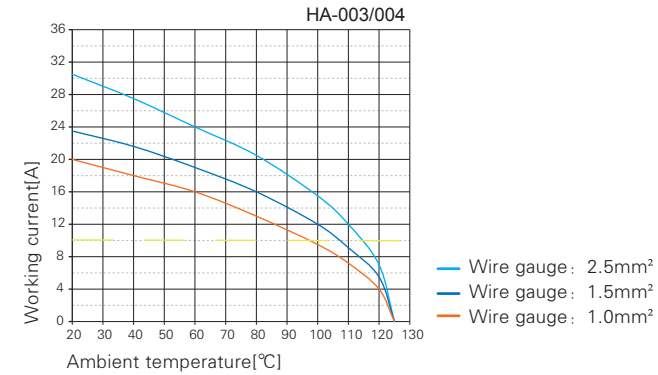
Technical characteristics

Specifications	DIN EN 60 664 DIN EN 61 984
Approvals	
Inserts	
Number of contacts	3,4,10,16,32(2X16)+PE
Electrical data acc. to EN 61 984	
HA-002/HA-003/HA-004	
-Rated current	10A
-Rated voltage conductor-ground	230V
-Rated voltage conductor-conductor	400V
-Rated impulse voltage	4kV
-Pollution degree	3
-or	10A 250V 4kV 3
HA-010/HA-016	
-Rated current	16A
-Rated voltage	250V
-Rated impulse voltage	4kV
-Pollution degree	3
-Pollution degree 2 also	16A 230/400V 4kV 2
Rated voltage acc. to UL	600V
Insulation resistance	≥ 10 ¹⁰ Ω
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	≤ 1mΩ
Screw terminal	
-Wrie gauge	0.75-1.5mm ² (HA-003/004) 0.75-2.5mm ² (HA-010/016)
-AWG	18-16 (HA-003/004) 18-14 (HA-010/016)
-Tightening/Test torque	0.25Nm (HA-003/004) or 0.5Nm (HA-010/016)
Crimp terminal	
-Wrie gauge	0.14-4.0mm ²
-AWG	26-12
Spring terminal	
-Wrie gauge	0.14-2.5mm ² (Not suitable for connecting terminal)
-AWG	26-14

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



HA

HA-016 The slim inserts

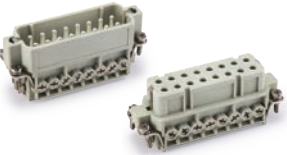
250V 16A 16+⊕



Inserts

Hoods/Housings: size 16A, please find the details on page 15-19~15-20.

Screw terminal



Insert	Designation	Order No.
Male	HA-016-M	121 016 011 0001
Female	HA-016-F	121 016 021 0001
Male	HA-016-M/B ¹⁾	121 016 011 0505
Female	HA-016-F/B ¹⁾	121 016 021 0505

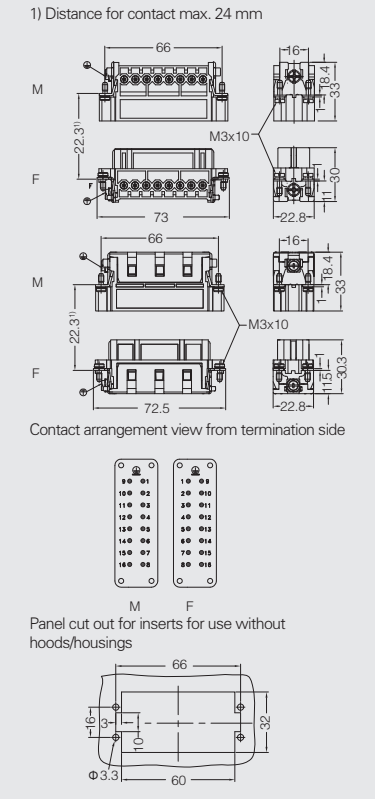
1). /B stands for wiring with cable protecting(details see page 00-30)

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HA-016-MC	121 016 010 0001
Female	HA-016-FC	121 016 020 0001



Crimp contacts

Crimp contacts 16A

Contact resistance ≤ 1m Ω
silver plated



gold plated



More crimp contacts 16A see P13-04.

Tools

Crimping tool



Contact removal tool



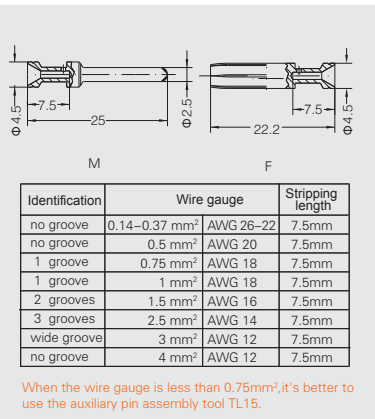
Male	Order No.	Female	Order No.
CESM-0.37	101 019 110 0301	CESF-0.37	101 019 120 0301
CESM-0.50	101 019 110 0401	CESF-0.50	101 019 120 0401
CESM-0.75	101 019 110 0601	CESF-0.75	101 019 120 0601
CESM-1.0	101 019 110 0801	CESF-1.0	101 019 120 0801
CESM-1.5	101 019 110 0901	CESF-1.5	101 019 120 0901
CESM-2.5	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 ²	TL02G	198 001 001 0011

Wire gauge: 0.14-0.37mm² 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 32-03-32-06.



When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

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

HA-032 The slim inserts

250V 16A 32+⊕



Inserts

Hoods/Housings: size 32A, please find the details on page 15-21~15-24.

Screw terminal

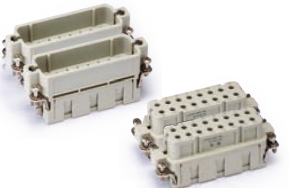


Insert	Designation	Order No.
Male	HA-016-M	121 016 011 0001
	HA-016-M(17-32)	121 016 011 0002
Female	HA-016-F	121 016 021 0001
	HA-016-F(17-32)	121 016 021 0002
Male	HA-016-M/B ¹⁾	121 016 011 0505
	HA-016-M/B(17-32) ¹⁾	121 016 011 0504
Female	HA-016-F/B ¹⁾	121 016 021 0505
	HA-016-F/B(17-32) ¹⁾	121 016 021 0504

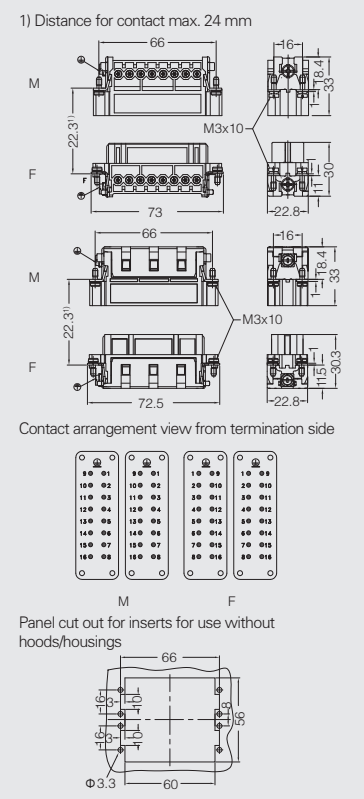
1). /B stands for wiring with cable protecting(details see page 00-30)

Crimp terminal

Order crimp contacts separately



Insert	Designation	Order No.
Male	HA-016-MC	121 016 010 0001
	HA-016-MC(17-32)	121 016 010 0002
Female	HA-016-FC	121 016 020 0001
	HA-016-FC(17-32)	121 016 020 0002



Crimp contacts

Crimp contacts 16A

Contact resistance ≤ 1m Ω
silver plated



gold plated



More crimp contacts 16A see P13-04.

Tools

Crimping tool



Contact removal tool



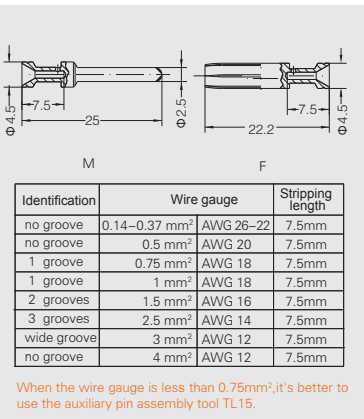
Male	Order No.	Female	Order No.
CESM-0.37	101 019 110 0301	CESF-0.37	101 019 120 0301
CESM-0.50	101 019 110 0401	CESF-0.50	101 019 120 0401
CESM-0.75	101 019 110 0601	CESF-0.75	101 019 120 0601
CESM-1.0	101 019 110 0801	CESF-1.0	101 019 120 0801
CESM-1.5	101 019 110 0901	CESF-1.5	101 019 120 0901
CESM-2.5	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 ²	TL02G	198 001 001 0011

Wire gauge: 0.14-0.37mm² 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 32-03-32-06.



When the wire gauge is less than 0.75mm², it's better to use the auxiliary pin assembly tool TL15.

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