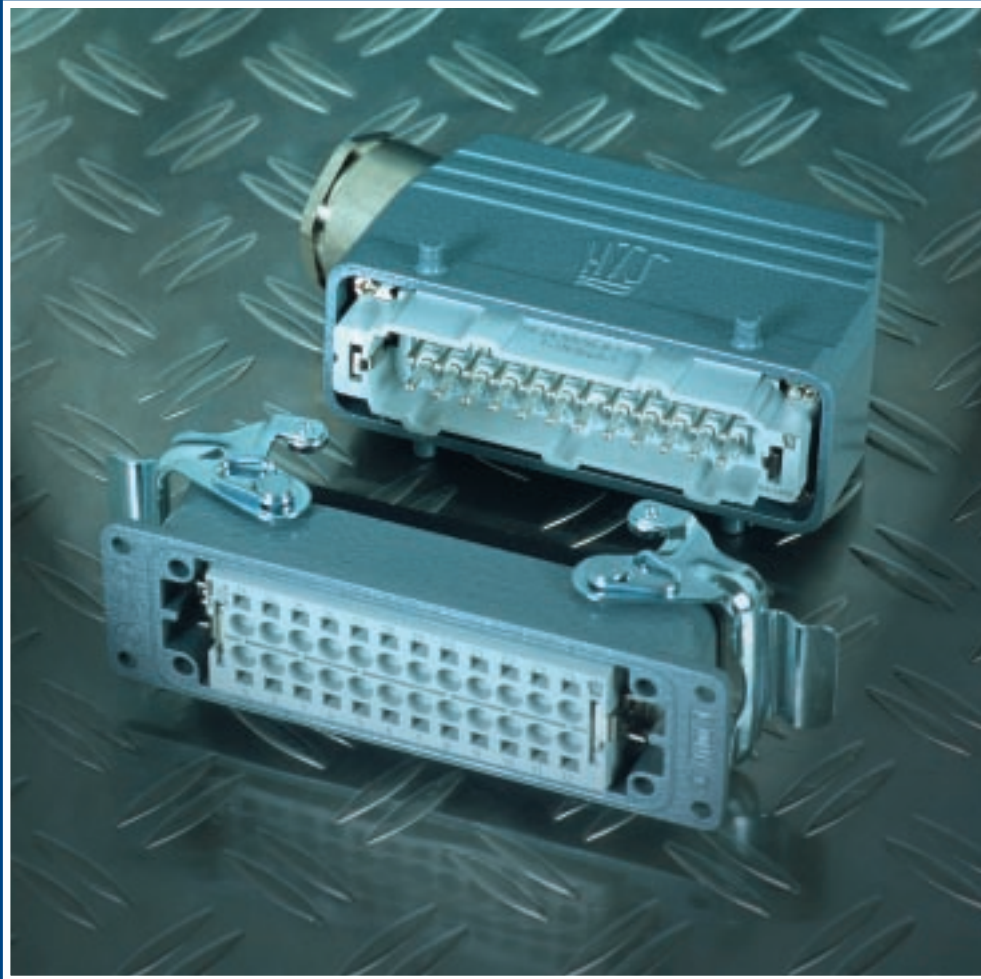


tyco / *Electronics*



AMP

HTS

Connectors

Information Overview

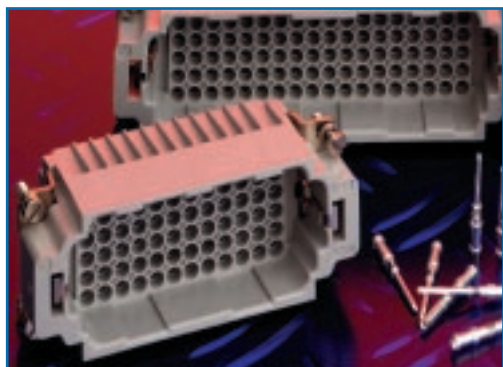


HTS worldwide

The structure of Tyco Electronics HTS Division follows the global market and concentrates on specific requirements of individual industrial areas.

With this global and complex structure, Tyco Electronics HTS Division complements a multitude of resources with concentration on specific industrial areas, focusing on worldwide customer support and local presence with the aim to offer optimum solutions at the highest level.

All of Tyco Electronics' Industry Units have direct access to our highly specialized Competency Centers, concentrating on the development and production of individual product groups.



This worldwide alliance of research and development, benefits our customers in bringing them innovative advantages.

Customer Service

Our service also supports you with regard to application tooling. Our application engineers will assist you

from the beginning of the planning stages through to the delivery of our optimally adjusted application technology, and a team of service engineers is available for your further assistance.

Product Information Center (PIC)

You can rely on the support of our PIC-Team.

Apart from the PIC Team which has been specially trained to answer any technical questions you might have, our experienced staff is an additional source of information:

Phone ++49-2247-305-147

Fax ++49-2247-305-122

Tyco Electronics HTS Division online, Internet homepage:

<http://www.amp.com>; <http://www.amp.com/deutsch>

Electronic Catalogue in the internet:

<http://connect.amp.com>

To be close to our customers worldwide is an essential part of our success.

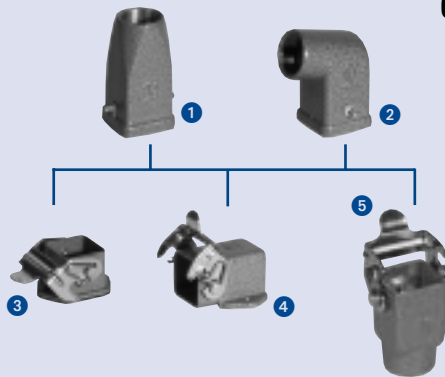
Our website is more than a mere internet guide. It is constantly expanded and is an innovative and interactive source for application tips, product updates and technical information of all kinds – and available in 8 languages. Our innovative StepSearch-Software, which is being improved continuously, makes surfing through all of our product lines easy.



Housings

Top of Housings
straight/angled

Bottom of Housings
surface mounted-/
socket-/cable-to-
cable housing

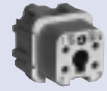


Contact inserts

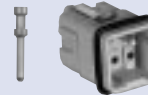
A



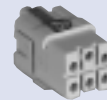
3+PE/4+PE
10 A/250 V
Screw terminal



B



5+PE
16 A/400 V
Crimp terminal



C



7+PE
10 A/250 V
Crimp terminal



HA.3

Description	Order No.	Width	Length	Height
1 HA.3.STO.1.11Z	1-1102101-7	26.5	26.5	52.0
2 HA.3.STW.1.11Z	1-1102103-7	26.5	40.0	49.0
3 HA.3.AG-LB	1-1102105-2	28.0	40.0	23.0
3 HA.3.AGD-LB	1-1102106-2	28.0	40.0	23.0
4 HA.3.SG-LB.1.11Z	1-1102109-2	40.0	40.0	25.0
5 HA.3.KDO-LB.1.11Z	1-1102112-2	24.0	24.0	46.0
5 HA.3.KDOD-LB.1.11Z	1-1108759-2	24.0	24.0	46.0

AGD = surface mounted housing with lid

KDOD = cable-to-cable housing with lid

Material: Zinc die-cast alloy

Protection: IP 44

Description	Order No.	Screw	Crimp
A HA.3.Sti.S	1-1103400-1	●	
HA.3.Bu.S	1-1103401-1	●	
HA.4.Sti.S	1-1103402-1	●	
HA.4.Bu.S	1-1103403-1	●	
B HE-Q.5.Sti.C	0-1102195-1		●
HE-Q.5.Bu.C	0-1102194-1		●
C HN.D.7.Sti.C	2-1103100-3		●
HN.D.7.Bu.C	2-1103101-3		●

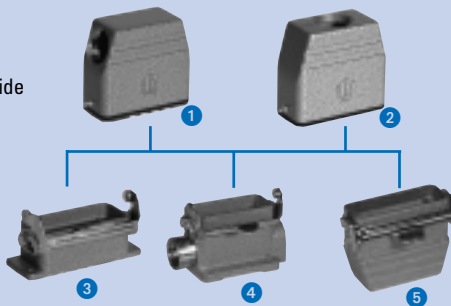
Material: Polycarbonate

Crimp contacts: please see HA/HE & HN.D

Housings

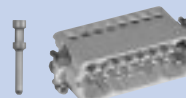
Top of Housings
cable entry from the side
straight cable entry

Bottom of Housings
surface mounted-/
socket-/cable-to-
cable housing

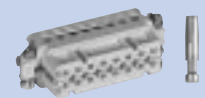


Contact inserts

A



10+PE/16+PE
10 A/250 V
Screw terminal
Crimp terminal
Spring clamp terminal



B



15+PE/25+PE
10 A/250 V
Crimp terminal



HA.10

Description	Order No.	Width	Length	Height
1 HA.10.STS.1.16G	1-1102117-7	29.0	63.0	57.0
2 HA.10.STO.1.16G	1-1102120-7	29.0	63.0	57.0
3 HA.10.AG-LB	1-1102121-2	29.0	81.0	28.0
3 HA.10.AGD*-LB	1-1102122-2	29.0	81.0	28.0
4 HA.10.SG-LB.1.16Z	1-1102124-2	50.0	72.5	47.0
4 HA.10.SGD*-LB.1.16Z	1-1102128-2	50.0	72.5	47.0
5 HA.10.KDO-LB.1.16G	1-1102112-2	29.0	75.5	52.5

Description	Order No.	Screw	Crimp	Spring clamp
A HA.10.Sti.S	1-1103414-1	●		
HA.10.Bu.S	1-1103415-1	●		
HA.10.Sti.C	2-1103414-3		●	
HA.10.Bu.C	2-1103415-3		●	
HA.10.Sti.SC	7-1103414-1			●
HA.10.Bu.SC	7-1103415-1			●
B HN.D.15.Sti.C	2-1103106-3		●	
HN.D.15.Bu.C	2-1103107-3		●	

HA.16

1 HA.16.STS.1.16G	1-1102136-7	29.0	79.5	57.0
2 HA.16.STO.1.16G	1-1102139-7	29.0	79.5	57.0
3 HA.16.AG-LB	1-1102140-2	29.0	96.0	28.0
3 HA.16.AGD*-LB	1-1102142-2	29.0	96.0	28.0
4 HA.16.SG-LB.1.16Z	1-1102143-2	50.0	102.0	50.0
4 HA.16.SGD*-LB.1.16Z	1-1102147-2	50.0	102.0	50.0
5 HA.16.KDO-LB.1.16G	1-1102152-2	29.0	92.0	52.0

A HA.16.Sti.S	1-1103416-1	●		
HA.16.Bu.S	1-1103417-1	●		
HA.16.Sti.C	2-1103416-3		●	
HA.16.Bu.C	2-1103417-3		●	
HA.16.Sti.SC	7-1103416-1			●
HA.16.Bu.SC	7-1103417-1			●
B HN.D.25.Sti.C	2-1103108-3		●	
HN.D.25.Bu.C	2-1103109-3		●	

AGD*/SGD* Surface mounted-/socket housing with lid

Material: Aluminium die-cast alloy

Protection class: IP 65

Material: Polycarbonate

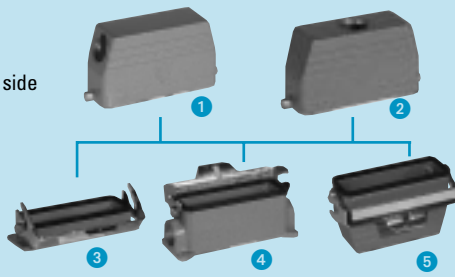
Crimp contacts: please see HA/HE & HN.D

Housings

LB-System (side clip = 1 clip)

Top of Housings

cable entry from the side
straight cable entry



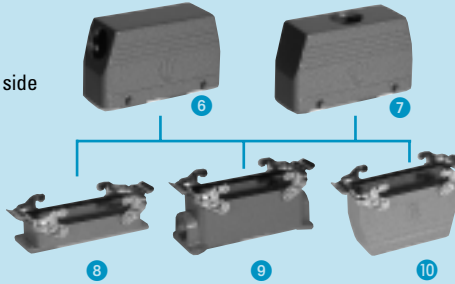
Bottom of Housings

surface mounted-/
socket-/cable-to-
cable housing

VS-System (locking system = 2 clips)

Top of Housings

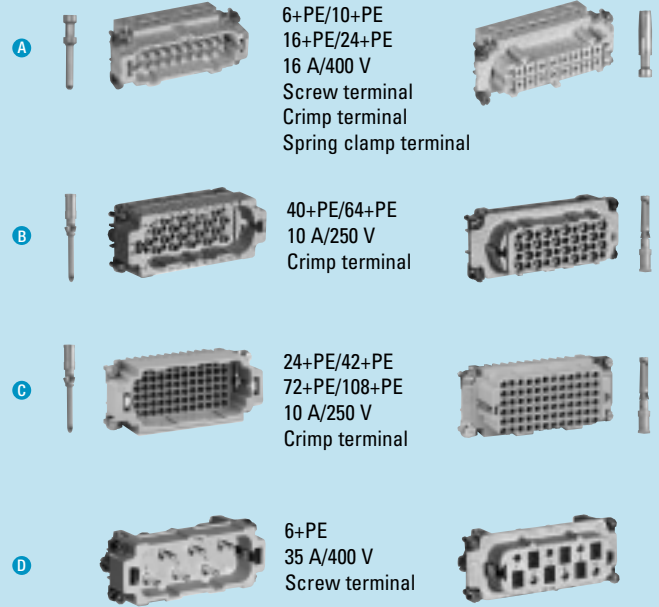
cable entry from the side
straight cable entry



Bottom of Housings

surface mounted-/
socket-/cable-to-
cable housing

Contact inserts



Description	Order No.	Width	Length	Height
1 HB.6.STS.1.16G	1-1102240-7	43.0	60.0	48.0
2 HB.6.STO.1.16G	1-1102243-7	43.0	60.0	48.0
3 HB.6.AG-LB	1-1102244-2	43.5	80.0	28.5
3 HB.6.AGD*-LB	1-1102246-2	43.5	80.0	28.5
4 HB.6.SG-LB.1.16Z	1-1102249-2	52.0	83.0	49.5
4 HB.6.SGD*-LB.1.16Z	1-1102253-2	52.0	82.0	49.5
5 HB.6.KDO-LB.1.16G	1-1102258-2	43.0	60.0	50.0
1 HD.16.STS.1.21G	1-1102461-7	43.0	74.0	70.0
2 HD.16.STO.1.21G	1-1102467-7	43.0	74.0	70.0
3 HD.16.SG-LB.1.21Z	1-1102472-2	57.0	82.0	50.0
4 HD.16.SGD*-LB.1.21Z	1-1102480-2	57.0	82.0	73.5
5 HD.16.KDO-LB.1.21G	1-1102489-2	43.0	73.0	72.0

Description	Order No.	Screw	Crimp	Spring clamp
A HE.6.Sti.S	1-1103634-1	●		
HE.6.Bu.S	1-1103635-1	●		
HE.6.Sti.C	2-1103634-3		●	
HE.6.Bu.C	2-1103635-3		●	
HE.6.Sti.SC	7-1103634-1			●
HE.6.Bu.SC	7-1103635-1			●
C HN.2D.24.Sti.C	2-1103200-3		●	
HN.2D.24.Bu.C	2-1103200-3		●	

1 HB.10.STS-GR.1.16G	1-1102261-7	43.0	73.0	50.0
2 HB.10.STO-GR.1.16G	1-1102267-7	43.0	73.0	50.0
3 HB.10.AG-LB	1-1102271-2	43.5	93.0	28.5
3 HB.10.AGD*-LB	1-1102283-2	43.5	93.0	28.5
4 HB.10.SG-LB.1.16Z	1-1102274-2	52.0	94.0	53.5
4 HB.10.SGD*-LB.1.16Z	1-1102286-2	52.0	94.0	53.5
5 HB.10.KDO-LB.1.16G	1-1102279-2	43.0	73.0	55.5
1 HD.24.STS-GR.1.21G	1-1102496-7	43.0	73.0	57.0
2 HD.24.STO-GR.1.21G	1-1102502-7	43.0	73.0	70.0
3 HD.24.SG-LB.1.21Z	1-1102507-2	57.0	94.0	73.5
4 HD.24.SGD*-LB.1.21Z	1-1102521-2	57.0	94.0	73.5
5 HD.24.KDO-LB.1.21G	1-1102519-2	43.0	73.0	72.0

A HE.10.Sti.S	1-1103636-1	●		
HE.10.Bu.S	1-1103637-1	●		
HE.10.Sti.C	2-1103636-3		●	
HE.10.Bu.C	2-1103637-3		●	
HE.10.Sti.SC	7-1103636-1			●
HE.10.Bu.SC	7-1103637-1			●
C HN.2D.42.Sti.C	2-1103204-3		●	
HN.2D.42.Bu.C	2-1103206-3		●	

6 HB.10.STS.1.16G	1-1102261-6	43.0	73.0	50.0
7 HB.10.STO.1.16G	1-1102267-6	43.0	73.0	50.0
8 HB.10.AG-VS	1-1102271-1	57.0	93.0	28.5
9 HB.10.SG-VS.1.16Z	1-1102276-1	57.0	94.0	55.5
10 HB.10.KDO-VS.1.16G	1-1102279-1	57.0	73.0	55.5
6 HD.24.STS.1.21G	1-1102496-6	43.0	73.0	70.0
7 HD.24.STO.1.21G	1-1102502-6	43.0	73.0	70.0
9 HD.24.SG-VS.1.21Z	1-1102507-1	56.0	94.0	74.0
10 HD.24.KDO-VS.1.21G	1-1102515-1	57.0	73.0	55.5

Housings

Description	Order No.	Width	Length	Height
1 HB.16.STS-GR.1.21G	1-1102292-7	43.0	93.5	60.0
2 HB.16.STO-GR.1.21G	1-1102295-7	43.0	93.5	60.0
3 HB.16.AG-LB	1-1102296-2	43.5	113.0	28.5
3 HB.16.AGD*-LB	1-1102305-2	43.5	113.0	28.5
4 HB.16.SG-LB.1.21Z	1-1102299-2	57.0	117.0	55.5
4 HB.16.SGD*-LB.1.21Z	1-1102308-2	57.0	117.0	55.5
5 HB.16.KDO-LB.1.21G	1-1102304-2	43.0	73.0	55.5
1 HD.40.STS-GR.1.29G	1-1102567-7	43.0	93.5	76.0
2 HD.40.STO-GR.1.29G	1-1102570-7	43.0	93.5	76.0
3 HD.40.SG-LB.1.29Z	1-1102579-2	57.0	117.0	76.5
4 HD.40.SGD*-LB.1.29Z	1-1102593-2	57.0	117.0	76.5
5 HD.40.KDO-LB.1.29G	1-1102587-2	43.0	93.5	79.5
6 HB.16.STS.1.21G	1-1102292-6	43.0	93.5	60.0
7 HB.16.STO.1.21G	1-1102295-6	43.0	93.5	60.0
8 HB.16.AG-VS	1-1102296-1	57.0	113.0	4.5
9 HB.16.SG-VS.1.21Z	1-1102299-1	57.0	117.0	55.5
10 HB.16.KDO-VS.1.21G	1-1102304-1	57.0	93.5	65.5
6 HD.40.STS.1.29G	1-1102567-6	43.0	93.5	76.0
7 HD.40.STO.1.29G	1-1102573-6	43.0	93.5	76.0
9 HD.40.SG-VS.1.29Z	1-1102579-1	57.0	117.0	76.5
10 HD.40.KDO-VS.1.29G	1-1102587-1	57.0	93.5	79.5

HB.16

1 HB.24.STS-GR.1.21G	1-1102316-7	43.0	120.0	70.0
2 HB.24.STO-GR.1.21G	1-1102325-7	43.0	120.0	70.0
3 HB.24.AG-LB	1-1102291-2	43.5	140.0	28.5
3 HB.24.AGD*-LB	1-1102340-2	43.5	140.0	28.5
4 HB.24.SG-LB.1.21Z	1-1102331-2	57.0	144.0	55.5
4 HB.24.SGD*-LB.1.21Z	1-1102343-2	57.0	144.0	55.5
5 HB.24.KDO-LB.1.21G	1-1102336-2	43.0	120.0	55.5
1 HD.64.STS-GR.1.29G	1-1103338-7	43.0	120.0	78.0
2 HD.64.STO-GR.1.29G	1-1103344-7	43.0	120.0	78.0
3 HD.64.SG-LB.1.29Z	1-1103350-2	57.0	144.0	78.5
4 HD.64.SGD*-LB.1.29Z	1-1103364-2	57.0	144.0	78.5
5 HD.64.KDO-LB.1.29G	1-1103358-2	42.75	120.0	81.5
6 HB.24.STS.1.21G	1-1102316-6	43.0	120.0	70.0
7 HB.24.STO.1.21G	1-1102325-6	43.0	120.0	70.0
8 HB.24.AG-VS	1-1102291-1	57.0	140.0	28.5
9 HB.24.SG-VS.1.21Z	1-1102331-1	57.0	144.0	55.5
10 HB.24.KDO-VS.1.21G	1-1102336-1	57.0	120.0	57.0
6 HD.64.STS.1.29G	1-1103338-6	43.0	120.0	78.0
7 HD.64.STO.1.29G	1-1103344-6	43.0	120.0	78.0
9 HD.64.SG-VS.1.29Z	1-1103350-1	57.0	120.0	78.5
10 HD.64.KDO-VS.1.29G	1-1103358-1	57.0	120.0	81.5

HB.24

AGD*/SGD* Surface mounted-/socket housing with lid

Material: Aluminium die-cast alloy

Protection class: IP 65

High construction:

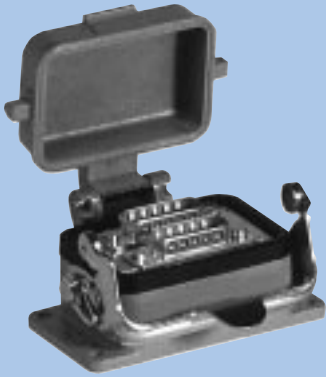
Contact inserts

Description	Order No.	Screw	Crimp	Spring clamp
A HE.16.Sti.S	1-1103638-1	●		
HE.16.Bu.S	1-1103639-1	●		
HE.16.Sti.C	2-1103638-3		●	
HE.16.Bu.C	2-1103639-3		●	
HE.16.Sti.SC	7-1103638-1			●
HE.16.Bu.SC	7-1103639-1			●
B HN.D.40.Sti.C	2-1103110-3		●	
HN.D.40.Bu.C	2-1103111-3		●	
C HN.2D.72.Sti.C	2-1103204-3		●	
HN.2D.72.Bu.C	2-1103206-3		●	
D HSB.6/35.Sti.S	1-1104204-1	●		
HSB.6/35.Bu.S	1-1104205-1	●		
A HE.24.Sti.S	1-1103640-1	●		
HE.24.Bu.S	1-1103641-1	●		
HE.24.Sti.C	2-1103640-3		●	
HE.24.Bu.C	2-1103641-3		●	
HE.24.Sti.SC	7-1103640-1			●
HE.24.Bu.SC	7-1103641-1			●
B HN.D.64.Sti.C	2-1103112-3		●	
HN.D.64.Bu.C	2-1103113-3		●	
C HN.2D.108.Sti.C	2-1103204-3		●	
HN.2D.108.Bu.C	2-1103206-3		●	

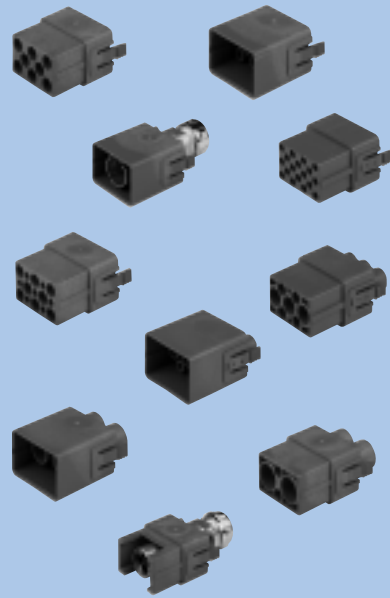
Material: Polycarbonate

Crimp contacts: please see HA/HE & HN.D

Adapter plates for SUB-D-Inserts



for housing	style	for bottom parts	for top parts
HA 10	1 x 9	0-1107196-1	0-1107197-1
HA 10	1 x 15	0-1107196-2	0-1107197-2
HA 10	1 x 25	0-1107196-3	0-1107197-3
HA 16	1 x 37	0-1107202-1	0-1107203-1
HA 16	1 x 50	0-1107202-2	0-1107203-2
HB 06	2 x 9	0-1107198-1	0-1107199-1
HB 06	2 x 15	0-1107198-2	0-1107199-2
HB 10	1 x 15 + 25	0-1107200-2	0-1107201-2
HB 10	2 x 25	0-1107200-1	0-1107201-1
HB 16	1 x 25 + 37	0-1107204-2	0-1107205-2
HB 16	2 x 37	0-1107204-3	0-1107205-3
HB 16	2 x 50	0-1107204-4	0-1107205-4
HB 16	1 x 9 + 15 + 25	0-1107204-1	0-1107205-1



Power
 1 + 2 – 100A/1000V
 2 + 2 – 63A/1000V
 3 + 4 – 40A/1000V
 8 – 16A/ 400V

Signal
 15 – 10A/ 250V
 18 – 10A/ 250V

Twinax/Coax
 4-pole screened
 1-pole RG 58/59
 6-pole RG 58/59

LWL/Pneumatic
 18 x Optical transmission
 2 x Pneumatic 10bar/NW4

for housing HB 06
 1 x MDL

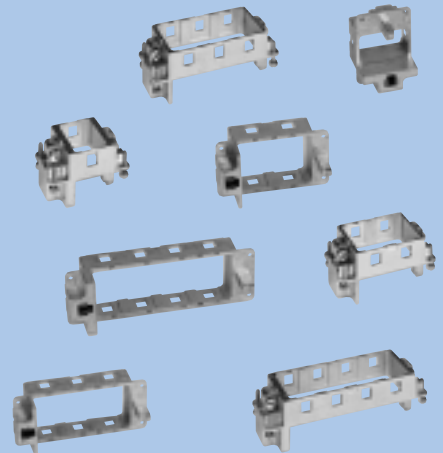
for housing HB 10
 2 x MDL

for housing HB 16
 3 x MDL

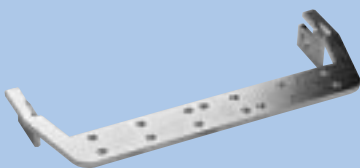
for housing HB 24
 4 x MDL

for housing HB 32
 6 x MDL

for housing HB 48
 8 x MDL



Screen termination and grips



for contact insert size HB06
 1-1106305-9

for contact insert size HB10
 1-1106306-9

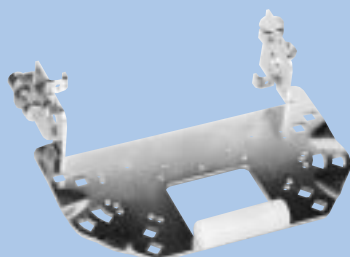
for contact insert size HB16
 1-1106307-9

for contact insert size HB24
 1-1106308-9

Application only in surface mounted housings or in high construction housings

for contact insert size HB16
 1-1106300-9

for contact insert size HB24
 1-1106301-9



Assembly without housing

HIP/EMV Housing IP 68



HIP/EMV

- Pressure tight up to 5 bar
- Aluminium die-cast alloy
- Integrated all-around protective metal collar at the hood
- Internal O-seal or all-around flange seal at the surface mounted housing
- Screw locking system
- Tightening screws with sealing ring

Series HIP-K

- Corrosion protection guaranteed, even in extremely adverse environmental influences
- No contact corrosion

Series EMV/EMV-K

- Protection against electro-magnetic influence
- Adequate interference resistance

Tools



Crimping tool
RSZ.HE-HN.D-HVT 1-1105851-8



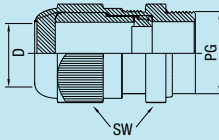
Extraction tool
AWZG-HN.D-RSZ 0-1102855-2 (für HN.D)
AWZG-HEQ5-RSZ 0-1102855-7 (für HE-Q5)



Insertion tool (for small diameters)
EWZG-RSZ 0-1102855-6

Cable fittings and accessories

Gland fitting, plastic

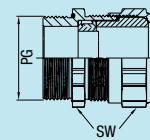


PG	D min	D max	SW
11	5	10	22
13,5	6	12	24
16	10	14	27
21	13	18	33
29	18	25	42
36	22	32	53
42	32	38	60

Order No.	Designation	PG-size
1-1106005-7	HUT.11.P	11
2-1106005-7	HUT.13.P	13,5
3-1106005-7	HUT.16.P	16
4-1106005-7	HUT.21.P	21
5-1106005-7	HUT.29.P	29
6-1106005-7	HUT.36.P	36
7-1106005-7	HUT.42.P	42

Protection: IP 68

Gland fitting, brass

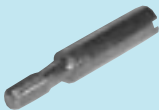


PG	D min	D max	SW
11	5	10	20
13,5	6	12	22
16	10	14	24
21	13	18	30
29	18	25	40
36	22	32	50
42	30	38	57

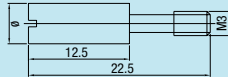
Order No.	Designation	PG-size
1-1106006-9	HUT.11.MS	11
2-1106006-9	HUT.13.MS	13,5
3-1106006-9	HUT.16.MS	16
4-1106006-9	HUT.21.MS	21
5-1106006-9	HUT.29.MS	29
6-1106006-9	HUT.36.MS	36
7-1106006-9	HUT.42.MS	42

Protection: IP 68

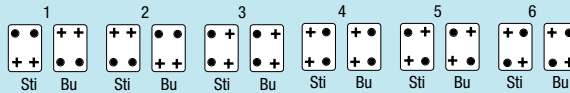
Code pin



Order No. 1-1106100-1
Designation SPB-M3

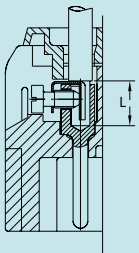


Coding with code pins
For housings with 1 contact insert



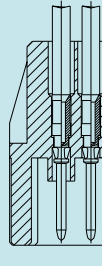
Guide pins and bushes on request

Termination information for contact inserts



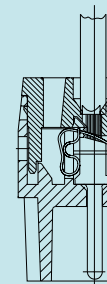
Screw terminal

- all versions with wire protection
- Wire cross section HA 2,5mm²
- Wire cross section HE 2,5mm²
- Wire cross section HSB 6mm²



Crimp terminal

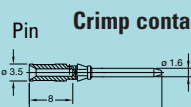
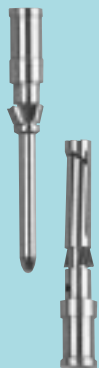
- Strip length HN.D – 8mm
- Strip length HE /HA – 7,5mm



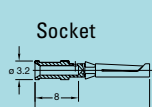
Spring clamp terminal

- Wire cross section max. 2,5mm²
- Wire cross section with wire pin max. 1,5mm²

Pin Crimp contacts – series HN.D

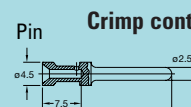
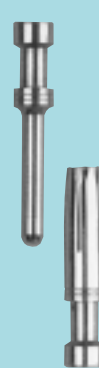


Designation	Wire cross section
1-1105050-1	0,14 – 0,37 mm ²
2-1105050-1	0,50 mm ²
3-1105050-1	0,75 – 1,00 mm ²
4-1105050-1	1,50 mm ²
5-1105050-1	2,50 mm ²
1-1105050-2	0,14 – 0,37 mm ²
2-1105050-2	0,50 mm ²
3-1105050-2	0,75 – 1,00 mm ²
4-1105050-2	1,50 mm ²
5-1105050-2	2,50 mm ²

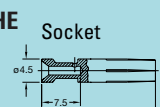


Designation	Wire cross section
1-1105051-1	0,14 – 0,37 mm ²
2-1105051-1	0,50 mm ²
3-1105051-1	0,75 – 1,00 mm ²
4-1105051-1	1,50 mm ²
5-1105051-1	2,50 mm ²
1-1105051-2	0,14 – 0,37 mm ²
2-1105051-2	0,50 mm ²
3-1105051-2	0,75 – 1,00 mm ²
4-1105051-2	1,50 mm ²
5-1105051-2	2,50 mm ²

Pin Crimp contacts – series HA/HE



Designation	Wire cross section
1-1105100-1	0,50 mm ²
2-1105100-1	0,75 – 1,00 mm ²
3-1105100-1	1,50 mm ²
4-1105100-1	2,50 mm ²
5-1105100-1	4,00 mm ²
1-1105100-2	0,50 mm ²
2-1105100-2	0,75 – 1,00 mm ²
3-1105100-2	1,50 mm ²
4-1105100-2	2,50 mm ²
5-1105100-2	4,00 mm ²



Designation	Wire cross section
1-1105101-1	0,50 mm ²
2-1105101-1	0,75 – 1,00 mm ²
3-1105101-1	1,50 mm ²
4-1105101-1	2,50 mm ²
5-1105101-1	4,00 mm ²
1-1105101-2	0,50 mm ²
2-1105101-2	0,75 – 1,00 mm ²
3-1105101-2	1,50 mm ²
4-1105101-2	2,50 mm ²
5-1105101-2	4,00 mm ²

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ISO 14000 certification is in preparation**