



PRODUCT OVERVIEW

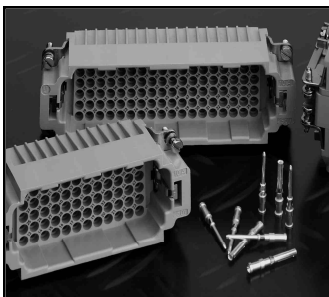


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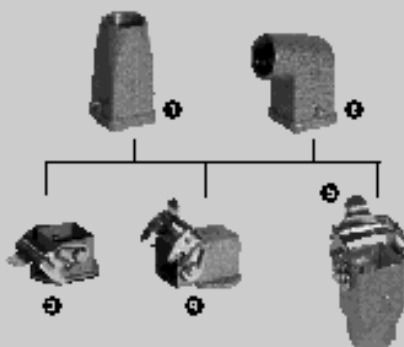
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Housings

Top of Housings
straight/angled

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



1.11Z

Description	Part 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
4 HA.3.AG D-LB	1-1102106-2	28.0	40.0	23.0
5 HA.3.SG-LB.1.11Z	1-1102109-2	40.0	40.0	25.0
6 HA.3.KDO-LB.1.11Z	1-1102112-2	24.0	24.0	46.0
7 HA.3.KDO D-LB.1.11Z	1-1102112-2	24.0	24.0	46.0

AG D = Surface mounted housing with lid

KDO D = Cable-to-cable housing with lid

Material: Zinc die-cast alloy

Protection: IP 44

Contact Inserts



Description	Part No.	Screw	Crimp
1 HA.3.S6iS	1-1103400-1	●	
2 HA.3.BuS	1-1103401-1	●	
3 HA.4.S6iS	1-1103402-1	●	
4 HA.4.BuS	1-1103403-1	●	
5 HE-Q.5.S6.C	0-1102195-1		●
6 HE-Q.5.Bu.C	0-1102194-1		●
7 H.N.D.7.S6iC	2-1103100-3		●
8 H.N.D.7.Bu.C	2-1103101-3		●

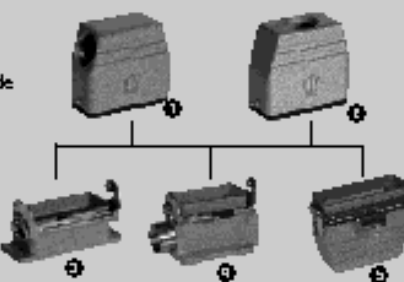
Material: Polycarbonate

Crimp Contacts: please see HA/HE & H.N.D

Housings

Top of Housings
cable entry from the side
straight cable entry

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



1.16G

Description	Part 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
4 HA.10.AG D-LB	1-1102122-2	29.0	81.0	28.0
5 HA.10.SG-LB.1.16Z	1-1102124-2	50.0	72.5	47.0
6 HA.10.SG D-LB.1.16Z	1-1102128-2	50.0	72.5	47.0
7 HA.10.KDO-LB.1.16G	1-1102112-2	29.0	75.5	52.5

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
4 HA.16.AG D-LB	1-1102142-2	29.0	96.0	28.0
5 HA.16.SG-LB.1.16Z	1-1102143-2	50.0	102.0	50.0
6 HA.16.SG D-LB.1.16Z	1-1102147-2	50.0	102.0	50.0
7 HA.16.KDO-LB.1.16G	1-1102152-2	29.0	92.0	52.0

AG D/SG D = Surface mounted-/socket housing with lid

Material: Aluminum die-cast alloy

Protection Class: IP 65

Contact Inserts



Description	Part No.	Screw	Crimp	Spring Clamp
1 HA.10.S6iS	1-1103414-1	●		
2 HA.10.BuS	1-1103415-1	●		
3 HA.10.S6.C	2-1103414-3		●	
4 HA.10.Bu.C	2-1103415-3		●	
5 HA.10.S6.SC	7-1103414-1			●
6 HA.10.Bu.SC	7-1103415-1			●
7 H.N.D.15.S6.C	2-1103106-3		●	
8 H.N.D.15.Bu.C	2-1103107-3		●	

1 HA.16.S6iS	1-1103416-1	●		
2 HA.16.BuS	1-1103417-1	●		
3 HA.16.S6.C	2-1103416-3		●	
4 HA.16.Bu.C	2-1103417-3		●	
5 HA.16.S6.SC	7-1103416-1			●
6 HA.16.Bu.SC	7-1103417-1			●
7 H.N.D.25.S6.C	2-1103109-3		●	
8 H.N.D.25.Bu.C	2-1103109-3		●	

Material: Polycarbonate

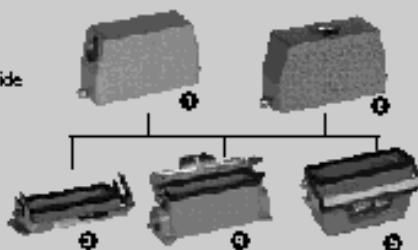
Crimp Contacts: please see HA/HE & H.N.D

Housings

Top of Housings
cable entry from the side
straight cable entry

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

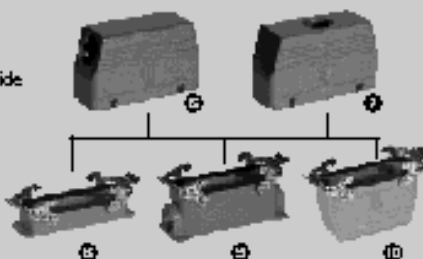
LB-System (side clip = 1 clip)



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



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



40+PE/64+PE
10 A/250 V
Crimp terminal



24+PE/42+PE
72+PE/108+PE
10 A/250 V
Crimp terminal



6+PE
35 A/400 V
Screw terminal



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Description	Part 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	90.0	28.5
4 HB.6.AGD ^M -LB	1-1102246-2	43.5	90.0	28.5
5 HB.6.SG-LB.1.16Z	1-1102249-2	52.0	93.0	49.5
6 HB.6.SGD ^M -LB.1.16Z	1-1102253-2	52.0	92.0	49.5
7 HB.6.KDO-LB.1.16G	1-1102258-2	43.0	60.0	50.0
1 HD.16.STS.1.21G	1-1102461-7 ^M	43.0	74.0	70.0
2 HD.16.STO.1.21G	1-1102467-7 ^M	43.0	74.0	70.0
3 HD.16.SG-LB.1.21Z	1-1102472-2 ^M	57.0	92.0	50.0
4 HD.16.SGD ^M -LB.1.21Z	1-1102480-2 ^M	57.0	92.0	73.5
5 HD.16.KDO-LB.1.21G	1-1102489-2 ^M	43.0	73.0	72.0

Description	Part No.	Screw	Crimp	Spring Clamp
1 HE.6.SLS	1-1103634-1	●		
HE.6.BuS	1-1103635-1	●		
HE.6.SLC	2-1103634-3		●	
HE.6.BuC	2-1103635-3		●	
HE.6.SLSC	7-1103634-1			●
HE.6.BuSC	7-1103635-1			●
2 HN.2.D.24.S6.C	2-1103200-3		●	
HN.2.D.24.Bu.C	2-1103202-3		●	

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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
4 HB.10.AGD ^M -LB	1-1102293-2	43.5	93.0	28.5
5 HB.10.SG-LB.1.16Z	1-1102274-2	52.0	94.0	53.5
6 HB.10.SGD ^M -LB.1.16Z	1-1102296-2	52.0	94.0	53.5
7 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 ^M	43.0	73.0	57.0
2 HD.24.STO-GR.1.21G	1-1102502-7 ^M	43.0	73.0	70.0
3 HD.24.SG-LB.1.21Z	1-1102507-2 ^M	57.0	94.0	73.5
4 HD.24.SGD ^M -LB.1.21Z	1-1102521-2 ^M	57.0	94.0	73.5
5 HD.24.KDO-LB.1.21G	1-1102519-2 ^M	43.0	73.0	72.0
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
1 HD.24.STS.1.21G	1-1102496-6 ^M	43.0	73.0	70.0
2 HD.24.STO.1.21G	1-1102502-6 ^M	43.0	73.0	70.0
3 HD.24.SG-VS.1.21Z	1-1102507-1 ^M	56.0	94.0	74.0
4 HD.24.KDO-VS.1.21G	1-1102515-1 ^M	57.0	73.0	55.5

1 HE.10.S6.S	1-1103636-1	●		
HE.10.BuS	1-1103637-1	●		
HE.10.S6.C	2-1103636-3		●	
HE.10.BuC	2-1103637-3		●	
HE.10.S6.SC	7-1103636-1			●
HE.10.BuSC	7-1103637-1			●
2 HN.2.D.42.S6.C	2-1103204-3		●	
HN.2.D.42.Bu.C	2-1103206-3		●	

Housings

Description	Part No.	Width	Length	Height
HB.16.STS-GR.121G	1-1102292-7	43.0	93.5	60.0
HB.16.STO-GR.121G	1-1102295-7	43.0	93.5	60.0
HB.16.0G-LB	1-1102296-2	43.5	113.0	28.5
HB.16.0G D*-LB	1-1102305-2	43.5	113.0	28.5
HB.16.SG-LB.121Z	1-1102299-2	57.0	117.0	55.5
HB.16.SG D*-LB.121Z	1-1102309-2	57.0	117.0	55.5
HB.16.KDO-LB.121G	1-1102304-2	43.0	73.0	55.5
HD.40.STS-GR.129G	1-1102567-7***	43.0	93.5	76.0
HD.40.STO-GR.129G	1-1102570-7***	43.0	93.5	76.0
HD.40.SG-LB.129Z	1-1102579-2***	57.0	117.0	76.5
HD.40.SG D*-LB.129Z	1-1102593-2***	57.0	117.0	76.5
HD.40.KDO-LB.129G	1-1102587-2***	43.0	93.5	79.5
HB.16.STS.121G	1-1102292-6	43.0	93.5	60.0
HB.16.STO.121G	1-1102295-6	43.0	93.5	60.0
HB.16.0G-VS	1-1102296-1	57.0	113.0	28.5
HB.16.SG-VS.121Z	1-1102299-1	57.0	117.0	55.5
HB.16.KDO-VS.121G	1-1102304-1	57.0	93.5	65.5
HD.40.STS.129G	1-1102567-6***	43.0	93.5	76.0
HD.40.STO.129G	1-1102573-6***	43.0	93.5	76.0
HD.40.SG-VS.129Z	1-1102579-1***	57.0	117.0	76.5
HD.40.KDO-VS.129G	1-1102587-1***	57.0	93.5	79.5

HB.24.STS-GR.121G	1-1102316-7	43.0	120.0	70.0
HB.24.STO-GR.121G	1-1102325-7	43.0	120.0	70.0
HB.24.0G-LB	1-1102291-2	43.5	140.0	28.5
HB.24.0G D*-LB	1-1102340-2	43.5	140.0	28.5
HB.24.SG-LB.121Z	1-1102331-2	57.0	144.0	55.5
HB.24.SG D*-LB.121Z	1-1102343-2	57.0	144.0	55.5
HB.24.KDO-LB.121G	1-1102336-2	43.0	120.0	55.5
HD.64.STS-GR.129G	1-1103339-7***	43.0	120.0	78.0
HD.64.STO-GR.129G	1-1103344-7***	43.0	120.0	78.0
HD.64.SG-LB.129Z	1-1103350-2***	57.0	144.0	78.5
HD.64.SG D*-LB.129Z	1-1103364-2***	57.0	144.0	78.5
HD.64.KDO-LB.129G	1-1103359-2***	42.75	120.0	81.5
HB.24.STS.121G	1-1102316-6	43.0	120.0	70.0
HB.24.STO.121G	1-1102325-6	43.0	120.0	70.0
HB.24.0G-VS	1-1102291-1	57.0	140.0	28.5
HB.24.SG-VS.121Z	1-1102331-1	57.0	144.0	55.5
HB.24.KDO-VS.121G	1-1102336-1	57.0	120.0	57.0
HD.64.STS.129G	1-1103339-6***	43.0	120.0	78.0
HD.64.STO.129G	1-1103344-6***	43.0	120.0	78.0
HD.64.SG-VS.129Z	1-1103350-1***	57.0	120.0	78.5
HD.64.KDO-VS.129G	1-1103359-1***	57.0	120.0	81.5

AG D/SG D Surface mounted /s-ocket housing with lid
***High Construction

Material: Aluminum die-cast alloy
Protection Class: IP 65

Contact Inserts

Description	Part No.	Screw	Crimp	Spring Clamp
HE.16.S6.S	1-1103639-1	●		
HE.16.Bu.S	1-1103639-1	●		
HE.16.S6.C	2-1103639-3		●	
HE.16.Bu.C	2-1103639-3		●	
HE.16.S6.SC	7-1103639-1			●
HE.16.Bu.SC	7-1103639-1			●
HN.D.40.S6.C	2-1103110-3		●	
HN.D.40.Bu.C	2-1103111-3		●	
HN.2.D.72.S6.C	2-1103209-3		●	
HN.2.D.72.Bu.C	2-1103212-3		●	
HSB.6/35.S6.S	1-1104204-1	●		
HSB.6/35.Bu.S	1-1104205-1	●		

HE.24.S6.S	1-1103640-1	●		
HE.24.Bu.S	1-1103641-1	●		
HE.24.S6.C	2-1103640-3		●	
HE.24.Bu.C	2-1103641-3		●	
HE.24.S6.SC	7-1103640-1			●
HE.24.Bu.SC	7-1103641-1			●
HN.D.64.S6.C	2-1103112-3		●	
HN.D.64.Bu.C	2-1103113-3		●	
HN.2.D.108.S6.C	2-1103216-3		●	
HN.2.D.108.Bu.C	2-1103220-3		●	

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

Tools



Crimping Tool

PSZ-HE-H.N.D.-HVT

1-110550-0



Extraction Tool

AWZG-H.N.D.-PSZ

0-110550-0 (for H.N.D.)



Insertion Tool

1-110560-0 (for H.N.D. and HE)

Cable Fittings and Accessories

Glue Fitting, Plastic



PG	D	D	SW
	min	max	
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

Part No.	Description	PG Size
1-110600-7	HUT.11.P	11.0
2-110600-7	HUT.13.P	13.5
3-110600-7	HUT.16.P	16.0
4-110600-7	HUT.21.P	21.0
5-110600-7	HUT.29.P	29.0
6-110600-7	HUT.36.P	36.0
7-110600-7	HUT.42.P	42.0

Protection: IP 68

Glue Fitting, Brass



PG	D	D	SW
	min	max	
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

Part No.	Description	PG Size
1-110600-9	HUT.11.MS	11.0
2-110600-9	HUT.13.MS	13.5
3-110600-9	HUT.16.MS	16.0
4-110600-9	HUT.21.MS	21.0
5-110600-9	HUT.29.MS	29.0
6-110600-9	HUT.36.MS	36.0
7-110600-9	HUT.42.MS	42.0

Protection: IP 68

Code Pin



Part No.
1-1106100-1

Description
SPB-M3

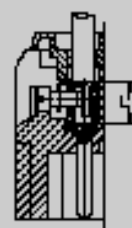


Coding with code pins
For housings with 1 contact insert



Guide pins and
bushes on request

Termination Information for Contact Inserts



Solder Terminal

- all versions with wire protection
- Wire cross section H.A. 2.5 mm²
- Wire cross section HE 2.5 mm²
- Wire cross section HS B 6 mm²



Crimp Terminal

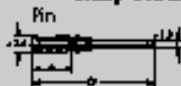
- Strip length H.N.D. - 8 mm
- Strip length HE/H.A. - 7.5 mm



Spring Clamp Terminal

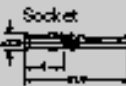
- Wire cross section max. 2.5 mm²
- Wire cross section with wire pin max. 1.5 mm²

Crimp Contacts—Series H.N.D.



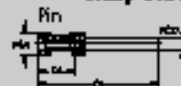
Part No.	Wire Cross Section
1-110500-1	0.14 - 0.37 mm ²
2-110500-1	0.50 mm ²
3-110500-1	0.75 - 1.00 mm ²
4-110500-1	1.50 mm ²
5-110500-1	2.50 mm ²

Part No.	Wire Cross Section
1-110500-2	0.14 - 0.37 mm ²
2-110500-2	0.50 mm ²
3-110500-2	0.75 - 1.00 mm ²
4-110500-2	1.50 mm ²
5-110500-2	2.50 mm ²



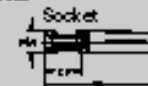
Part No.	Wire Cross Section
1-110500-1	0.14 - 0.37 mm ²
2-110500-1	0.50 mm ²
3-110500-1	0.75 - 1.00 mm ²
4-110500-1	1.50 mm ²
5-110500-1	2.50 mm ²

Crimp Contacts—Series H.A/HE



Part No.	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

Part No.	Wire Cross Section
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

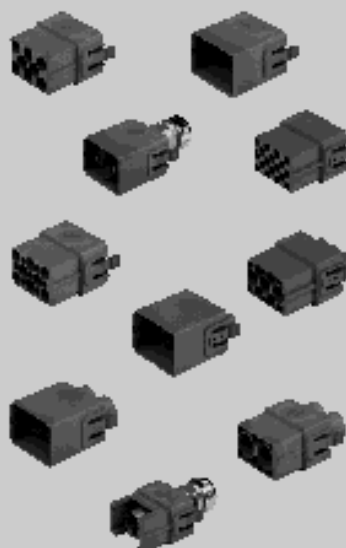


Part No.	Wire Cross Section
1-1105101-1	0.50 mm ²
2-1105101-1	0.75 - 1.00 mm ²
3-1105101-1	1.50 mm ²
4-1105101-1	2.50 mm ²
5-1105101-1	4.00 mm ²

Adapter Plates for SUB-D Inserts



for Housing	Style	for Bottom Parts	for Top Parts
H.A. 10	1 x 9	0-1107196-1	0-1107197-1
H.A. 10	1 x 15	0-1107196-2	0-1107197-2
H.A. 10	1 x 25	0-1107196-3	0-1107197-3
H.A. 16	1 x 37	0-1107202-1	0-1107203-1
H.A. 16	1 x 50	0-1107202-2	0-1107203-2
HB 06	2 x 9	0-1107199-1	0-1107199-1
HB 06	2 x 15	0-1107199-2	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 – 100 A/1000 V
 2 + 2 – 63 A/1000 V
 3 + 4 – 40 A/1000 V
 3 + 8 – 16 A/400 V

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

Twinsax/Konax
 4-pole screened
 1-pole PG 50/50
 6-pole PG 50/50

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

for Housing HB 06
 1 x MDL

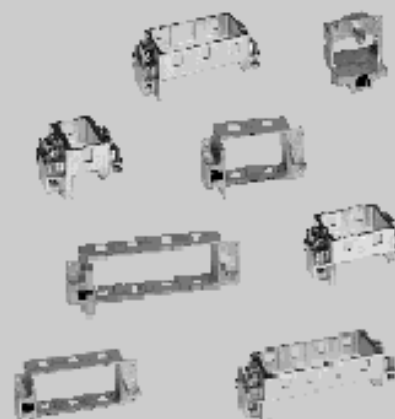
for Housing HB 10
 2 x MDL

for Housing HB 16
 3 x MDL

for Housing HB 24
 4 x MDL

for Housing HB 32
 6 x MDL

for Housing HB 40
 8 x MDL



Screen Termination and Grips



Application in surface mounted housings or in high construction housings only.

for contact insert size HB 06
 1-1106305-9

for contact insert size HB 10
 1-1106306-9

for contact insert size HB 16
 1-1106307-9

for contact insert size HB 24
 1-1106308-9

for contact insert size HB 16
 1-1106300-9

for contact insert size HB 24
 1-1106301-9



Assembly without housing

HP/EMV Housing IP 68



HP/EMV

- Press uretight up to 5 bar
- Aluminum 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
- Screwlocking system
- Tightening screws with sealing ring

Series HP-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

tyco

Electronics

TYCO ELECTRONICS CORPORATION
HARRISBURG, PA 17105

HTS



H T S

C O N N E C T O R S