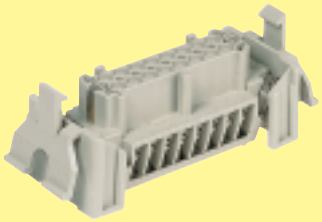
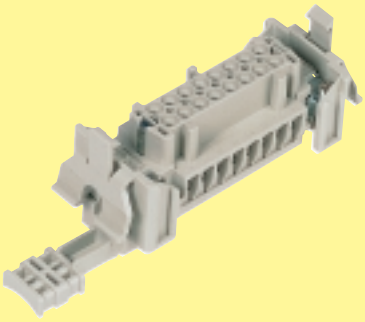
Contents

Han-Snap®

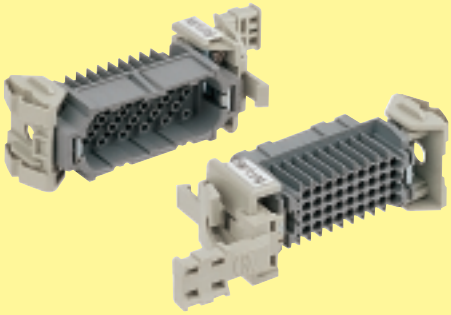
1 Latching parts
Free connector
mates with 4, 5, 6 and 7



2 Latching parts with strain relief
Free connector mates with
4 and 5, also with 6 and 7,
if the lateral clearance is sufficient.

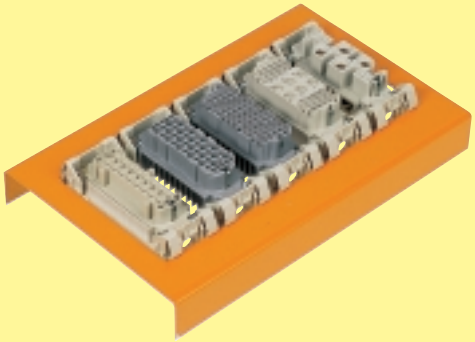


3 Latching part with strain relief
and panel mounting part
Male and female insert
for free coupling

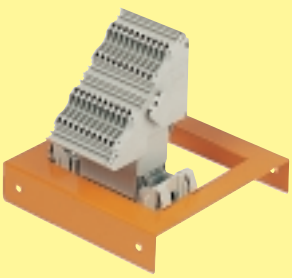


4 Panel mounting parts
with male insert

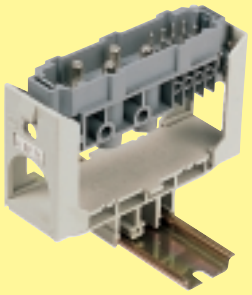
Panel mounting showing various
Han inserts in sheet metal panel



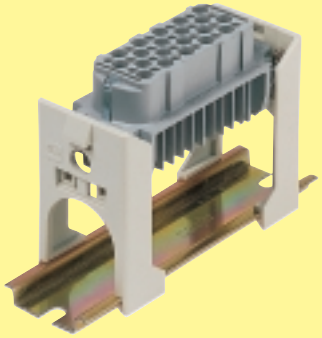
Panel mounting
showing terminal block connector
in sheet metal panel



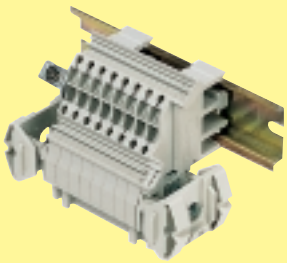
5 Insert mounting parts with carrier element
Han inserts on standard rail fixed,
cross direction



6 Insert mounting parts
Han inserts on standard rail fixed,
in line



7 Rail mounting parts
on terminal block connectors Han D
and Han E.
Terminal block connector with combi-fixing
element mounted on standard rail.



8 Plastic Hood
Free connector
mates with 4, 5, 6, 7

- The Han-Snap® system is ideal for connectors within closed electrical operating environments.
  These can be rooms, cabinets or termination boxes.

- The Han-Snap® components are an innovative design which offer the following advantages and characteristics:
  - reduction of material and assembly costs;
  - fast and easy installation;
  - preassembly of Han cable assemblies;
  - secure and rigid mounting of Han connectors;
  - frequent use of latching systems is possible (up to several thousand cycles).

- The Han-Snap® elements are compatible with the standard inserts and terminal block connectors of the following series (named series Han B as follows)
  - Han D, 40 and 64 pins
  - Han DD
  - Han E
  - Han EE
  - Han ES
  - Han HvE
  - Han HvES
  - Han HsB
  - Han HsC
  - Han Com
  - Han-Modular (only use standard frames)

- With the Han-Snap® adapter the following standard inserts are compatible (named series Han A as follows):
  - Han D, 15 and 25 pins
  - Han A, 10 and 16 pins

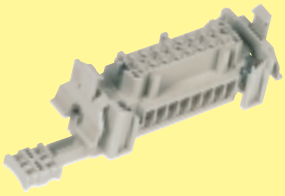
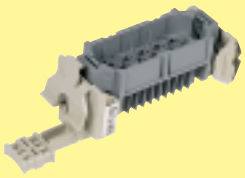
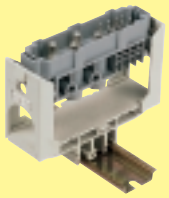
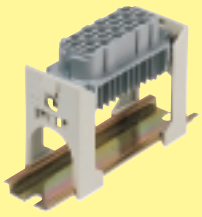
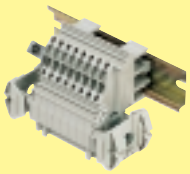
- The Han-Snap® elements are a mechanical system for the mounting assembly and security of Han connectors.

  Normally the elements are assembled to the connector insert using the standard insert fixing screws.

  If coding is required the standard fixing screws may be replaced by either code pins or guide pins and bushes.

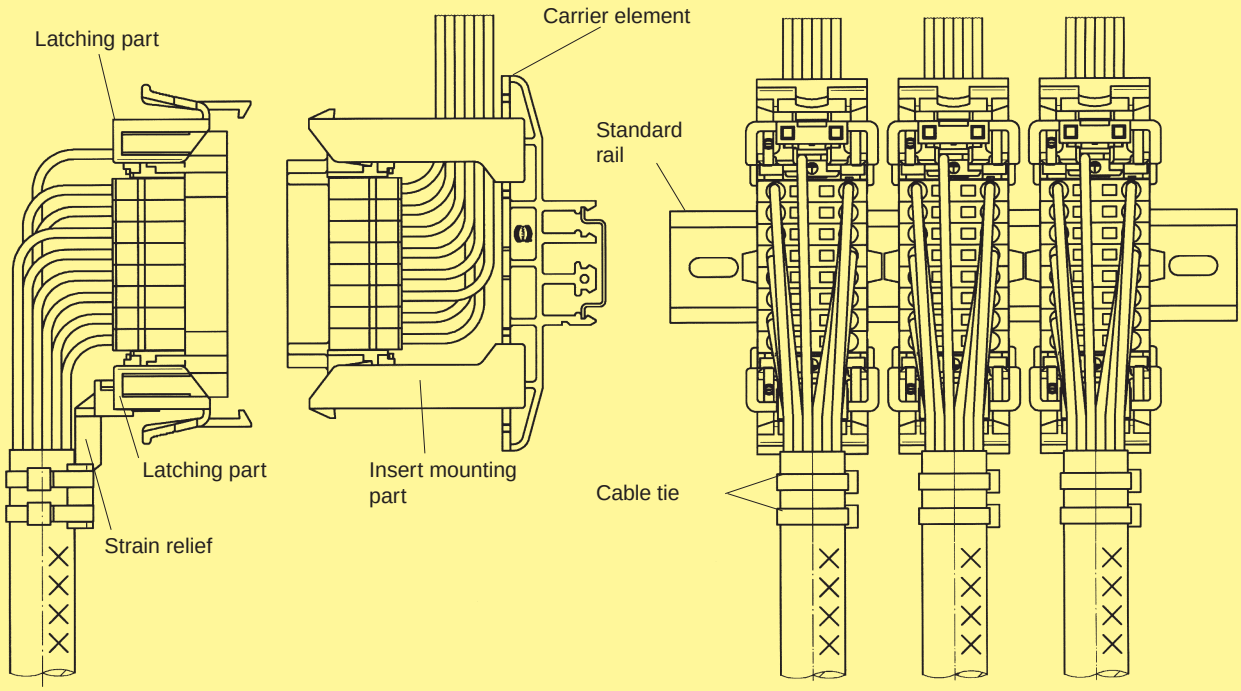
- On free connectors the wires or cables can be secured to the strain relief element with standard cable ties of 5 mm width maximum.

Component range

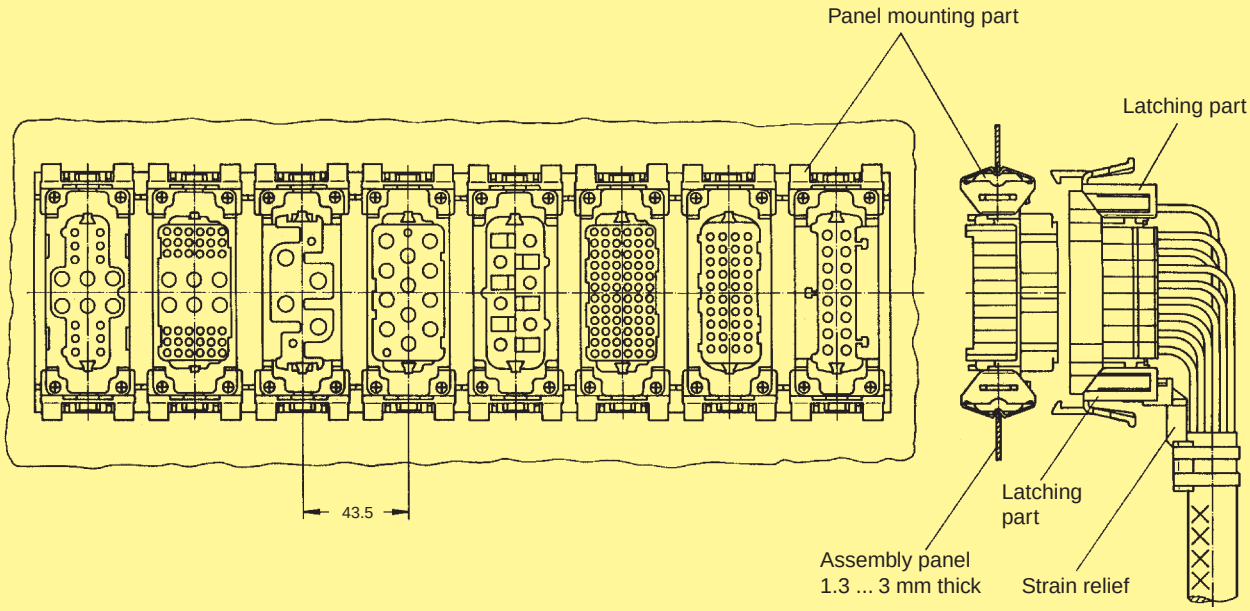
Figure	Han-Snap® Component	Application
	Latching parts	For free connector. Mates with applications 4, 5, 6, 7
	Latching parts with strain relief	For free connector. Mates with applications 4, 5, 6, 7
	Latching part with strain relief and panel mounting part	For free coupling of male and female inserts. Application 3
	Panel mounting parts	Fixing elements for fixed connectors, standard inserts or terminal block connectors, for fixing in sheet metal panel. Application 4
	Insert mountings with carrier element	For fixing of Han connectors on standard rails, cross direction. Application 5
	Insert mountings	For fixing of Han connectors on caprail, in line. Application 6
	Rail mounting	For mating of free connector with terminal block connector, whereby terminal block connector is fixed by means of the combi-fixing element on standard rail. Application 7
	Plastic housings	For free connector. Mates with applications 4, 5, 6, 7

Applications X page 11.02, 11.03

Han-Snap® on standard rail



Han-Snap® in panel cut out



Application photograph
by courtesy of IMA-Maschinenfabrik,
D-32312 Lübbecke, Germany

Characteristics

- ❏ The accessories are suitable for all Han inserts which fit the hoods and housings of series Han B; series Han A with corresponding adapter (see page 11.20)
- ❏ Practical and easy handling
- ❏ Reduction of material and assembly costs
- ❏ Cable to cable connections realisable through combination of strain relief and panel mounting part

Inserts can be mounted on the panel mounting part and the latching part with the standard insert mounting screws.

High mechanical security of the fixings.
No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han coding elements (code pins or guide pins and bushes) may be used.

The strain relief element can be fixed to the latching part without any special means.

Please note: The strain relief element should be assembled to the latching part at the end of the insert opposite to the ground screw.

Up to 2 cable ties with max. 5 mm width can be used on the strain relief.

Label 9 x 20 mm may be fitted in both sides of each latching element.

Label 7 x 20 mm may be fitted to the top of the latching part without the strain relief element.

(more information page 11.22)

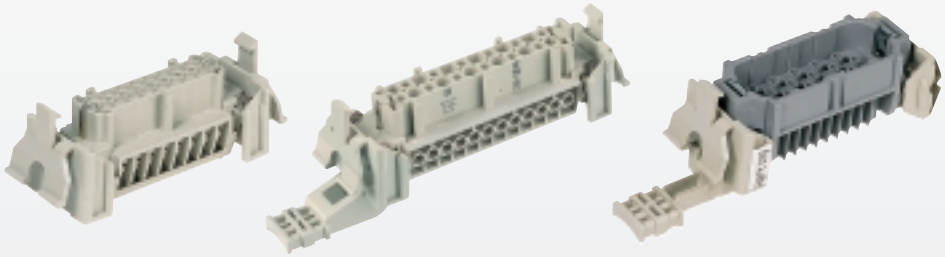
Technical Details

Min. cohesion on counter-part	without guiding system	with guiding system
	200 N	300 N
Vibration resistance	IEC 60 068, part 2-6/ BN 74018	
Resistance to shock	IEC 60 068, part 2-27/ BN 74018	
Torsional moment of fixing screws/ coding elements	0.8 Nm	
Material	Thermoplastic resin, polycarbonate, RAL 7032, grey	
Flammability	V0 acc. to UL 94	
Temperature range	– 40 °C … + 125 °C	

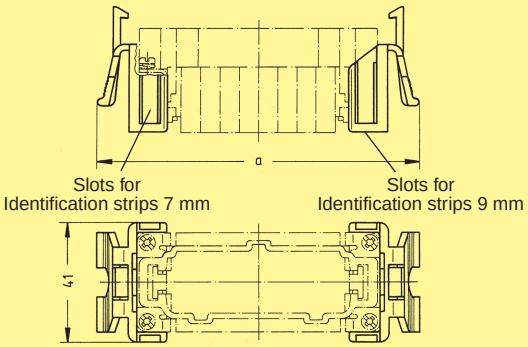
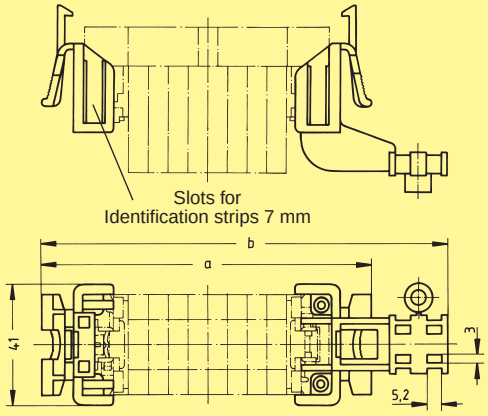
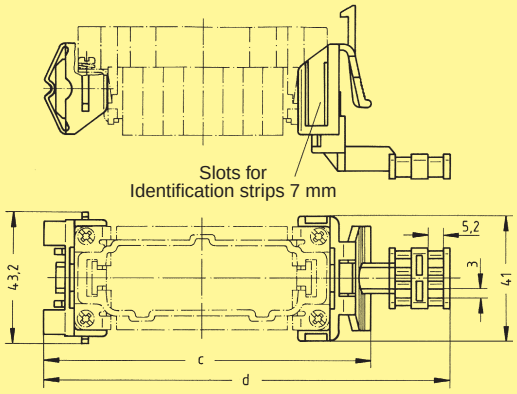
Pack Contents

Delivery comprises for one insert

09 33 000 9987	- 2 latching parts
09 33 000 9991	- 1 latching part with strain relief - 1 latching part
09 33 000 9990	- 1 latching part - 1 panel mounting part - 1 strain relief



Latching parts without/with strain relief

Identification	Part No.	Drawing	Dimensions in mm
Latching part	**09 33 000 9987**		
Latching part with strain relief	**09 33 000 9991**		
Latching part with strain relief and panel mounting part	**09 33 000 9990**		

Size	a	b
6 B	78.5	105
10 B	91.5	118
16 B	112	138.5
24 B	138.5	165

Size	c	d
6 B	75	101
10 B	88	114
16 B	108.5	134.5
24 B	135	161

Stock items in bold type

Plastic Panel Mounting

Features

- ❏ Accessories are suitable for all Han inserts compatible with hoods and housings of the Han B series and terminal blocks; Han A series with the relevant adaptor (see also page 11.20)
- ❏ Practical and easy handling
- ❏ Possible preassembly of cables
- ❏ Snap element for sheet-metal cut out
- ❏ Reduction of material and assembly costs

Connector inserts and terminal block connectors can be fixed on elements for panel mounting with standard insert mounting screws.

High mechanical security of the fixings. No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han coding elements (code pins or guide pins and bushes) may be used.

Connector assembly into the panel (sheet-metal) cut out or two parallel mounted rails is possible from mating or termination side.

Han Snap

Technical Details

Min. cohesion in sheet-metal cut out	Mating		Unmating	
	without guiding system	with guiding system	without guiding system	with guiding system
	250 N	400 N	400 N	500 N
Vibration resistance	IEC 60 068, part 2-6 / BN 411002			
Resistance to shock	IEC 60 068, part 2-27 / BN 74018			
Torsional moment of fixing screws/ coding elements	0.8 Nm			
Material	Thermoplastic resin, polycarbonate, RAL 7032, grey			
Flammability	V0 acc. to UL 94			
Temperature range	– 40 °C … + 125 °C			

Pack Contents

Delivery comprises

- 2 panel plastic mounting parts sufficient for one insert or terminal block connector

Metallic Panel Mounting

Features

- ❏ Accessories are suitable for all Han inserts compatible with hoods and housings of the Han B series and terminal blocks
- ❏ Practical and easy handling
- ❏ Possible preassembly of cables
- ❏ Screw element for sheet-metal cut out
- ❏ Reduction of material and assembly costs

Connector inserts and terminal block connectors can be fixed on elements for panel mounting with standard insert mounting screws.

High mechanical security of the fixings.

Alternatively, Han coding elements (code pins or guide pins and bushes) may be used.

Connector assembly into the panel (sheet-metal) cut out or two parallel mounted rails is possible from mating or termination side.

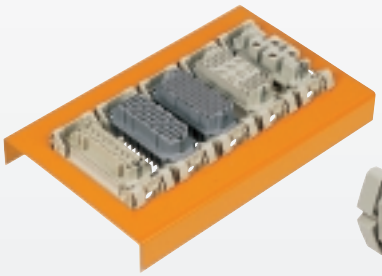
Technical Details

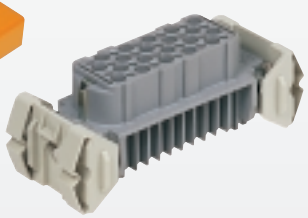
Min. cohesion in sheet-metal cut out	Mating		Unmating	
	without guiding system	with guiding system	without guiding system	with guiding system
	250 N	400 N	400 N	500 N
Vibration resistance with relevant security fixing for the screws	IEC 60 068, part 2- 6 / BN 74018			
Resistance to shock	IEC 60 068, part 2-27 / BN 74018			
Torsional moment of fixing screws/ coding elements	0.8 Nm			
Material	Die cast zinc alloy			
Temperature range	– 40 °C … + 125 °C			

Pack Contents

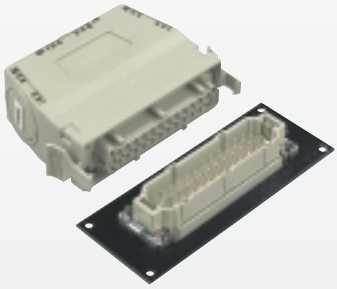
Delivery comprises

- 2 panel metallic mounting parts sufficient for one insert or terminal block connector





Plastic Panel Mounting

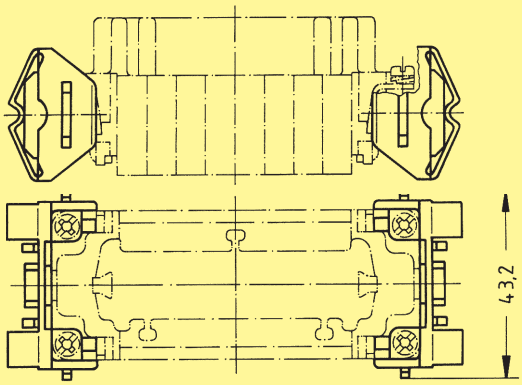


Metallic Panel Mounting

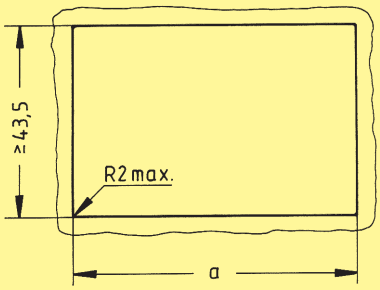
Identification	Part No.	Drawing	Dimensions in mm

Panel Mounting
Plastic

09 33 000 9985



Panel cut out
Sheet-metal thickness 1.3 - 3 mm

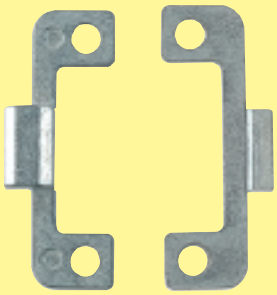


Size	a+0,5
6 B	65
10 B	78
16 B	98
24 B	125

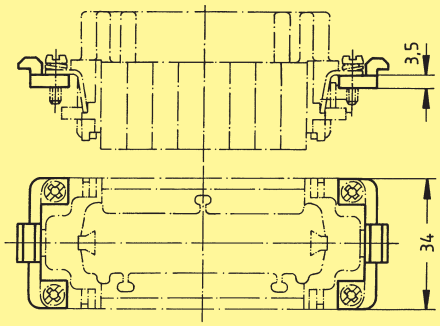
Size	a+0,5
10 A*	81.5
16 A*	98

* with corresponding adapter (see page 11.20)

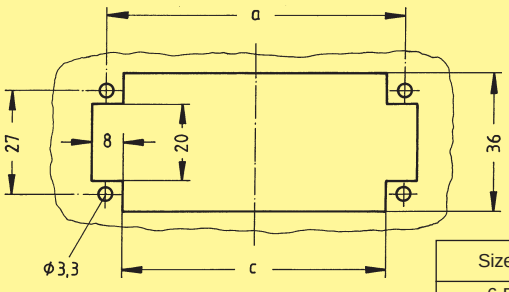
Panel mounting
Metal



09 33 000 9984



Panel cut out



Size	a	c
6 B	44	36
10 B	57	49
16 B	77.5	69.5
24 B	104	96

Stock items in bold type

Characteristics

- ❏ The accessories are compatible with inserts of series Han B; series Han A with corresponding adapter (see page 11.20)
- ❏ Carrier elements offer a practical method of mounting inserts on standard rails, which are commonly used in the market
- ❏ Reduction of assembly costs

The carrier element is the basic element to mount the inserts in the cross direction on standard rails, for example:

- Caprail, 35 x 7.5 or 35 x 15 acc. to EN 50022
- C-rail, C 30 acc. to EN 50024
- G-rail, G 32 acc. to EN 50035

Where vibration is likely to be encountered, use the 35 x 15 mounting rails. When using the large carrier element, the 35 x 15 mounting rails are recommended to give greater stability.

Insert mounting type 6/10 is suitable for inserts of sizes Han 6 B and Han 10 B.

Insert mounting type 6/24 is suitable for all insert sizes:
Han 6 B / 10 B / 16 B / 24 B,
Han 16 A with the corresponding adapter.

Inserts can be assembled to the insert mountings with the standard insert mounting screws.

High mechanical security of the fixings.
No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han coding elements (code pins or guide pins and bushes) may be used.

The following labels may be fitted to the insert mounting parts for circuit identification purposes.
label 7 x 20 mm
or
label 9 x 20 mm
(more information page 11.22)

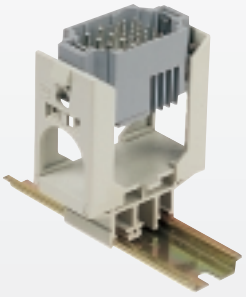
Technical Details

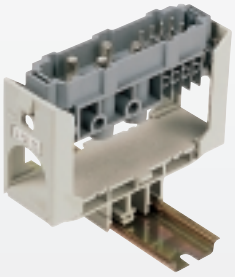
Min. cohesion on rail	450 N
Vibration resistance on rail (Caprail 35 x 15, EN 50022)	IEC 60 068, part 2-6/ BN 74018
Resistance to shock on rail (Caprail 35 x 15, EN 50022)	IEC 60 068, part 2-27/ BN 74018
Torsional moment of fixing screws/ coding elements	0.8 Nm
Material	Thermoplastic resin, polycarbonate, RAL 7032, grey
Flammability	V0 acc. to UL 94
Temperature range	– 40 °C … + 125 °C

Pack Contents

Delivery comprises

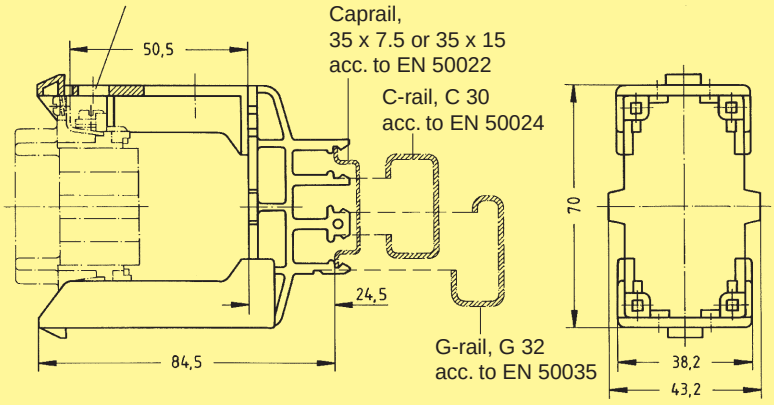
- 2 insert mounting parts
- 1 carrier element

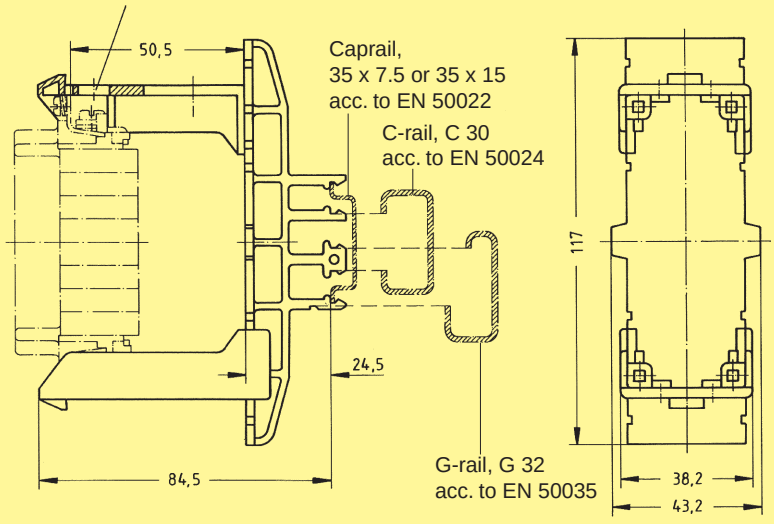




Insert mountings with carrier element

Identification	Part No.	Drawing	Dimensions in mm
Insert mounting with carrier element Type 6/10 for size 6 B, 10 B	**09 33 000 9988**	Slot for identification strip	
Type 6/24 for size 6 B, 10 B, 16 B, 24 B*	**09 33 000 9989**	Slot for identification strip	





* Han A-size 16 by using the corresponding adapter (see page 11.20)

Stock items in bold type

Characteristics

- ❏ The accessories are compatible with inserts of the series Han B; series Han A with corresponding; adapter (see page 11.20)
- ❏ A practical solution to fix the inserts directly in line on standard rails 35 x 15 or 35 x 7.5
- ❏ Reduction of assembly costs

The insert mounting locks directly on standard rail 35 x 15 or 35 x 7.5 mm.

Inserts can be assembled on the insert mounting with the standard insert fixing screws.

High mechanical security of the fixings.
No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han coding elements (code pins or guide pins and bushes) may be used.

The following labels may be fitted alternatively to the insert mounting parts for circuit identification purposes:

label 7 x 20 mm
or
label 9 x 20 mm
(more information page 11.22)

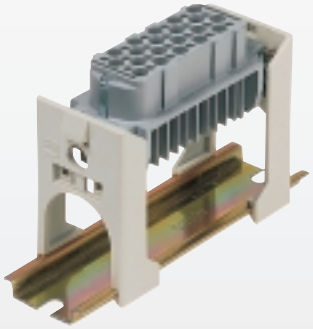
Technical Details

Min. cohesion on rail	
tension	300 N
pressure	1000 N
Torsional moment of fixing screws/ coding elements	0.8 Nm
Material	Thermoplastic resin, polycarbonate, RAL 7032, grey
Flammability	V0 acc. to UL 94
Temperature range	– 40 °C … + 125 °C

Pack Contents

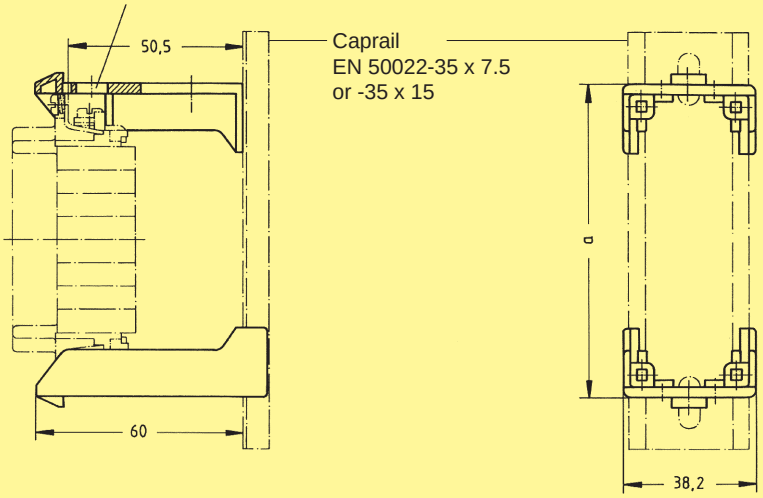
Delivery comprises

- 2 insert mounting parts



Insert mountings

Identification	Part No.	Drawing	Dimensions in mm
Insert mounting	**09 33 000 9980**	Slots for identification strips	



Size	a
6 B	57
10 B	70
16 B	90.5
24 B	117

Size	a
10 A*	74
16 A*	90.5

* with corresponding adapter (see page 11.20)

Characteristics

- ❏ Ideal for use within closed electrical operating environments
- ❏ Allows use of preassembled cables
- ❏ Thermoplastic resin, self-extinguishing with high impact resistance
- ❏ Optimised costs of material and assembly

2 identical half shells form a shell housing.

Each housing has 3 cable entries, one on top and one at each end. 2 x cable entries can be closed by enclosed blind plugs.

In the area of cable entries there are rectangular openings for mounting of cable ties up to max. 5 mm width.

In the mating area both housing shells are fixed by the standard insert fixing screws.

To release the half shells use screw driver (3.5 x 0.5), see drawing.

Alternatively, Han coding elements (code pins or guide pins and bushes) may be used.

High mechanical security of the fixings.
No functional impairment is caused by slight over tightening of the fixing screws.

The blind plugs have slots for identification strips.
The following labels can be fitted:
label 7 x 20 mm
or
label 9 x 20 mm
(more information page 11.22)

Technical Details

Min. cohesion, fixed	300 N
Vibration resistance	IEC 60 068, part 2-6/ BN 74018
Resistance to shock	IEC 60 068, part 2-27/ BN 74018
Torsional moment of fixing screws/ coding elements	0.8 Nm
Material	Thermoplastic resin, polycarbonate, RAL 7032, grey
Flammability	V0 acc. to UL 94
Temperature range	– 40 °C … + 125 °C

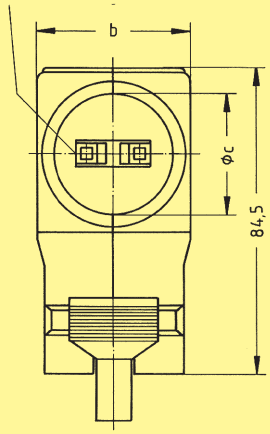
Pack Contents

Delivery comprises

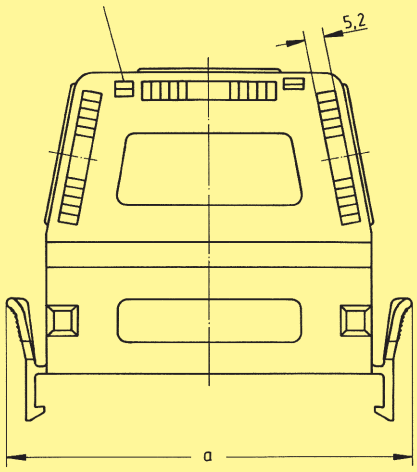
- 2 half shells with blind plugs

Plastic housings

Identification	Size	Part No.	Drawing	Dimensions in mm
Plastic housings	6 B	**09 33 006 0401**	Blind plug with slot for identification strips	
	10 B	**09 33 010 0401**		
	16 B*	**09 33 016 0401**		
	24 B	**09 33 024 0401**		



Opening for release

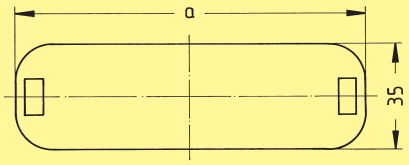


Size	a	b	c
6 B	78.5	39	24
10 B	91.5	43	30
16 B	112	43	34
24 B	138.5	43	34

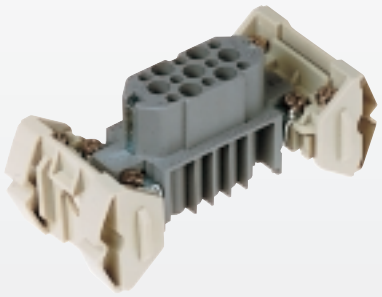
* compatible for size Han 16 A by using the corresponding adapter (see page 11.20)

Protection covers

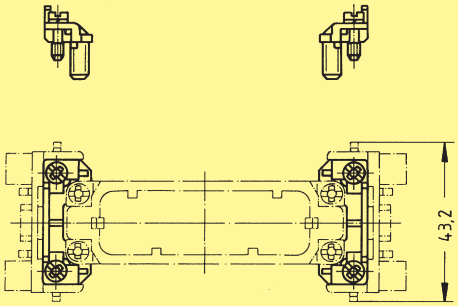
		a
6 B	09 33 006 5401	81.5
10 B	09 33 010 5401	94.5
16 B	09 33 016 5401	115
24 B	09 33 024 5401	141.5



Stock items in bold type



Adapter

Identification	Part No.	Drawing	Dimensions in mm
Adapter Han A	**09 20 000 9933**		

Characteristics

- ❏ Accessories compatible for all contact inserts series Han A, 10 and 16 pins; series Han D, 15 and 25 pins
- ❏ Practical and easy handling
- ❏ Reduction of material and assembly costs
- ❏ Compatible with Han-Snap® elements:
  - Panel mounting parts
  - Latching parts
  - Insert mountings
  - Plastic hood size 16

Inserts can be assembled to the adapters with the standard insert fixing screws.

With the included screws the adapter can be fixed to the selected Han-Snap® element.

Technical Details

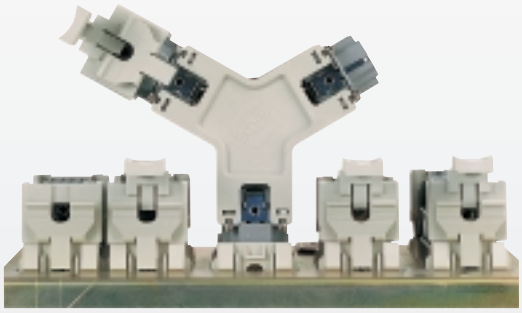
Material	Thermoplastic resin, polycarbonate, RAL 7032, grey
Flammability	V0 acc. to UL 94
Torsional moment of fixing screws/ coding elements	0.8 Nm
Temperature range	– 40 °C … + 125 °C

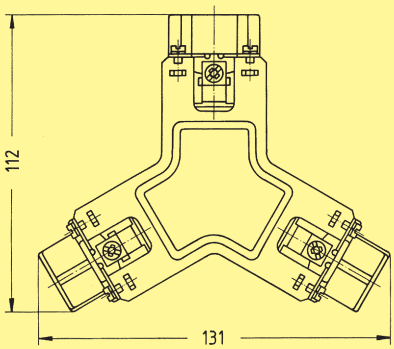
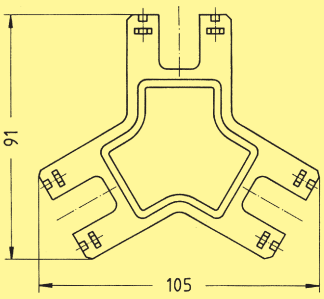
Pack Contents

Delivery comprises

- 2 adapters
- 4 fixing screws

Testing adapter



Identification	Series	Part No.	Drawing	Dimensions in mm
Testing adapter complete	Han 24 DD	09 16 000 9911		
	Han 42 DD	09 16 000 9912		
	Han 72 DD	09 16 000 9913		
	Han 108 DD	09 16 000 9914		
	Han 40 D	09 21 000 9913		
	Han 64 D	09 21 000 9914		
Assembly plates for customer testing adapters		09 38 000 9901		

Test connectors for intermediate test function are used in electrical installations for testing of equipments under electrical load. The test connector is a one piece male and two piece female insert, electrically and mechanically connected. After mating the test connector between the connectors of the installed equipment the electrical contact is made.

Characteristics

- ❏ Compact construction, Y-shape design
- ❏ Testing is possible for male and female inserts
- ❏ All connectors are accessible in both side by side arrangements in sheet metal panels or when connectors are mounted on standard rails
- ❏ Special versions are possible by using the assembly plates
- ❏ Assembly plates can be used for contact inserts size Han 6 B up to 24 B

Using customer special testing adapters the relevant regulations have to be observed.

Technical Details

Inserts

Working current	10 A
Working voltage	250 V
Pollution degree	3 (C)
Test voltage U_{rms}	2 kV
Material	Polyamide/Polycarbonate
Insulation resistance	≥ 10^{10} Ω
Temperature range	- 40 °C … + 125 °C
Mechanical working life	≥ 500

Contacts

Material	copper alloy
Contact surface	
- hard-silver plated	3 µm Ag
Contact resistance	≤ 3 mΩ

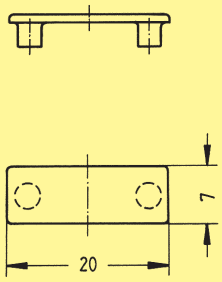
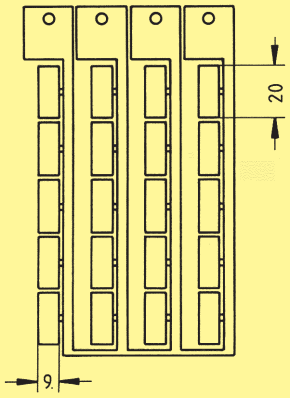
Assembly plates pack contents

Delivery comprises

- 2 assembly plates
- 12 nuts for insertion

Stock items in bold type

Identification strips

Identification	Part No.	Drawing	Dimensions in mm
Identification strips single 7 mm wide 20 mm long	**09 33 000 9981**		
Identification strips 20 pieces in one block 9 mm wide 20 mm long	**09 33 000 9982**		

Stock items in bold type