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Han
AV

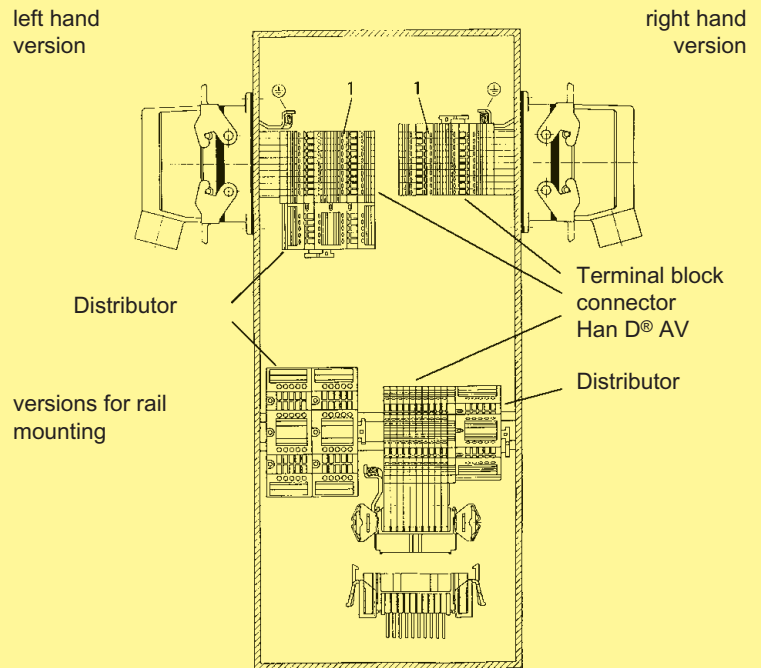
Possibilities in switch cabinet

Left or right hand mounting in the switch cabinet, therefore allows use of the same pre-prepared interface cable

Internal use on standard rails in the switch cabinet in conjunction with Han-Snap®

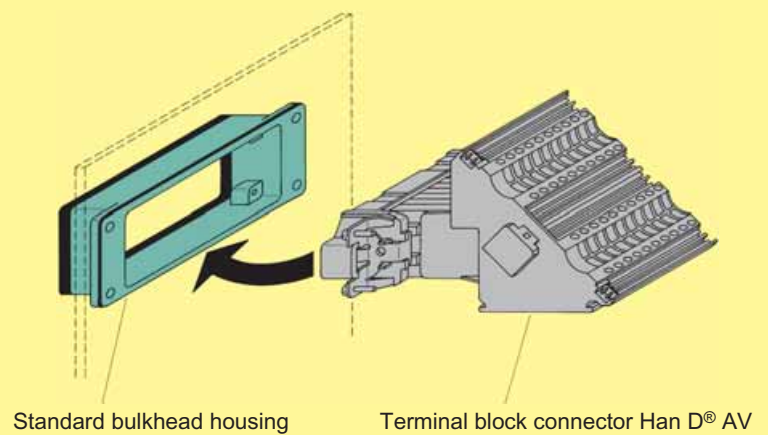
Distributor lockable on standard rails or mountable at terminal block connector Han D® AV

The terminal block connectors can be supplied for left hand or right hand applications. Hence the ground and connecting terminal for contact no. 1 will always be accessible from above in both types of installation.



Assembly of terminal block connectors

Terminal block connectors can be mounted from the inside of the switch cabinet into standard bulkhead housings. Therefore pre-assembly is possible.



Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

Counterparts

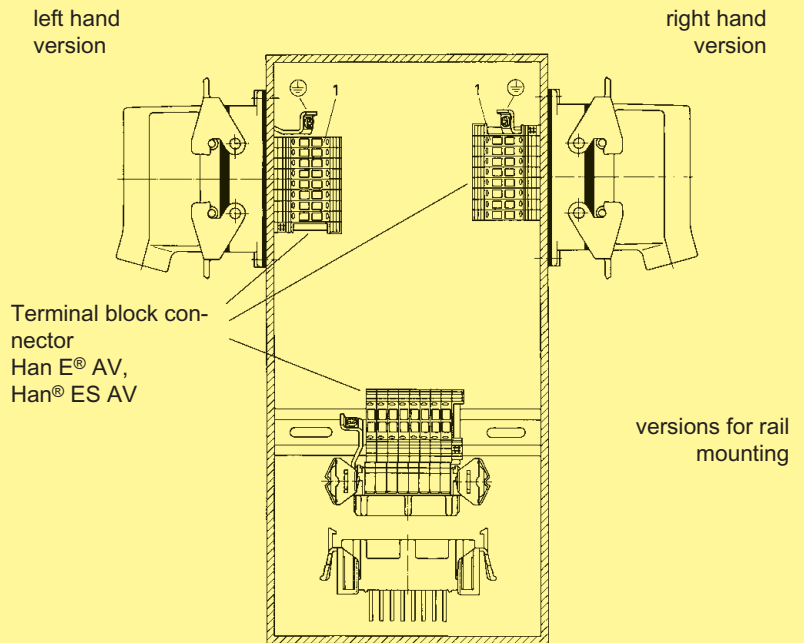
For suitable mating inserts of serie Han D® with crimp terminal please refer to the chapter 02.

Possibilities in switch cabinet

Left or right hand mounting in the switch cabinet, therefore allows use of the same pre-prepared interface cable

Internal use on standard rails in the switch cabinet in conjunction with Han-Snap®

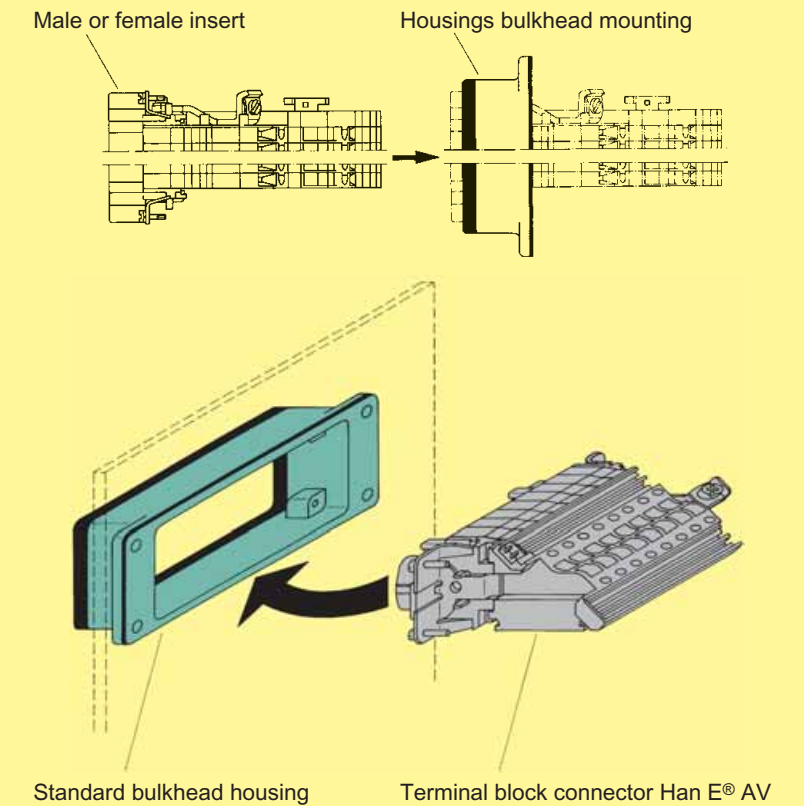
The terminal block connectors can be supplied for left hand or right hand applications. Hence the ground and connecting terminal for contact no. 1 will always be accessible from above in both types of installation.



Assembly of terminal block connectors

The terminal block connector is fixed in the standard bulkhead housing in the normal way.

Han E® AV and Han® ES AV with 16 and 24 pins can be mounted from the inside of the switch cabinet into standard bulkhead housings. Therefore pre-assembly is possible.



Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

Counterparts

For suitable mating inserts of series Han E® and Han® ES with screw, cage-clamp or crimp terminals please refer to the chapter 03.

Han AV

Features

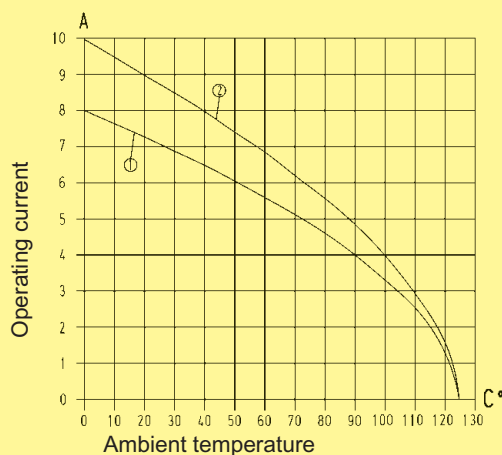
- For left hand or right hand applications available
- PE and connecting terminal for contact no.1 are at the top in both types of installation
- Mountable in standard bulkhead housing and on standard rails by using of fixing elements
- Screw terminal with integrated wire protection

Current carrying capacity

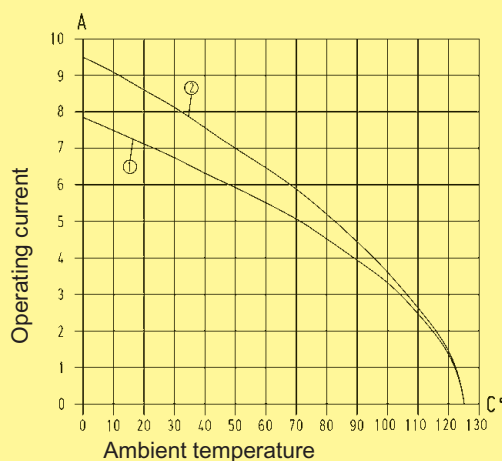
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5

Han[®] 40 D AV



Han[®] 64 D AV



① wire gauge: 0.75 mm²

② wire gauge: 1.5 mm²

Technical characteristics

Specifications **DIN EN 60 664-1**
DIN EN 61 984

Approvals **UL**, **CE**

Inserts

Number of contacts	40, 64 + PE
Electrical data acc. to EN 61 984	10 A 250 V 4 kV 3
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Pollution degree 2 also	10 A 230/400 V 4 kV 2
Rated voltage acc. to UL/CSA	600 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-40 °C ... +125 °C
Flammability acc. to UL 94	V 0
Mechanical working life - mating cycles	≥ 500

Contacts

Material	copper alloy
Surface	
- mating side	3 µm Ag
- termination side	tin plated
Contact resistance	≤ 4 mΩ
Screw terminal	
- Wire gauge ¹⁾	0.2 ... 2.5 mm ²
- AWG	24 ... 14
- Tightening/test torque	0.5 Nm

Hoods/Housings

see chapter 30 / 31

Identification strips

the following identification strips may be used			
Multi-Contour (MK)	HARTING	09 21 000 9971	
	Murrplastik	KPX 5/10-5	
	Weidmüller	DEK 5	
	Phoenix	4K-DST 5	
		DS 5	
		ZB 5	
WAGO	WSB 5		
Single-Contour (SK)	Murrplastik	KWI 5/10	
		KWI 5/10-5	
		KWI 8,6-5	
	Wieland	9705 A/5/10	
WAGO	Mini-WSB		

¹⁾ geometric wire gauge

Number of contacts

40, 64 +



Identification	Number of contacts	Part number		Drawing	Dimensions in mm
		Male insert	Female insert		
Left hand version Multi contour (MK)	40	09 21 040 4601	09 21 040 4701		
	64	09 21 064 4601	09 21 064 4701		
Left hand version Single contour (SK)	40	09 21 040 4602	09 21 040 4702		
	64	09 21 064 4602	09 21 064 4702		
Right hand version Multi contour (MK)	40	09 21 040 4611	09 21 040 4711		
	64	09 21 064 4611	09 21 064 4711		
Right hand version Single contour (SK)	40	09 21 040 4612	09 21 040 4712		
	64	09 21 064 4612	09 21 064 4712		

	a	b
Han [®] 40 D AV	51	77.5
Han [®] 64 D AV	81.5	104

Han AV

08
05

① Contact arrangement for male insert
② Contact arrangement for female insert

Stock items in bold type

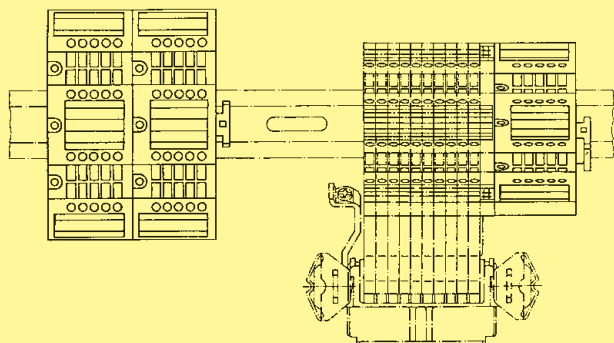
Features

- Easy mounting direct adjacent to terminal block connector Han D[®] AV
- By using of fixing elements mountable on standard rails
- Screw terminal with integrated wire protection

Mounting example

Distributor
on standard rail

Distributor
with terminal block connector
Han D[®] AV



Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

Technical characteristics

Specifications DIN EN 60 664-1
DIN EN 61 984

Approvals  

Distributor

Number of contacts 20, 2 x 10, 4 x 4

Electrical data
acc. to EN 61 984 **16 A 400/690 V 6 kV 3**

Rated current 16 A

Rated voltage conductor - ground 400 V

Rated voltage conductor - conductor 690 V

Rated impulse voltage 6 kV

Pollution degree 3

Pollution degree 2 also 16 A 480/830 V 6 kV 2

Rated voltage
acc. to UL/CSA 600 V

Insulation resistance $\geq 10^{10} \Omega$

Material polycarbonate

Limiting temperatures -40 °C ... +125 °C

Flammability acc. to UL 94 V 0

Mechanical working life
- mating cycles ≥ 500

Contacts

ContactsMaterial copper alloy

Surface
- termination side tin plated

Screw terminal
- Wire gauge¹⁾ 0.2 ... 2.5 mm²

- AWG 24 ... 14

- Tightening/test torque 0.5 Nm

Identification strips

the following identification strips may be used	
HARTING	09 21 000 9971
Murrplastik	KPX 5/10-5
Phoenix	4K-DST 5
	ZB 5
	DS 5

Number of contacts

20, 2x10, 4x4



Identification	Terminals	Part number	Drawing	Dimensions in mm
Distributor with screw terminals	20	09 42 020 0111	<p>Optionally mountable on terminal block connectors Han D® AV</p>	
	2x10	09 42 020 0121		
	4x4	09 42 020 0131		

Han AV

08
07

Stock items in bold type

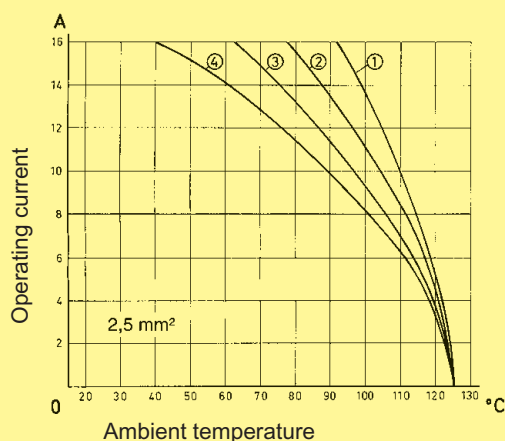
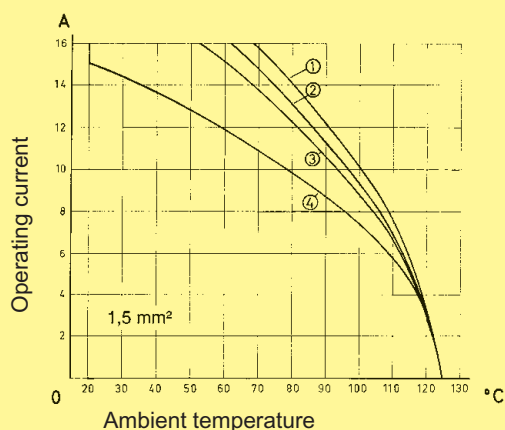
Features

- For left hand or right hand applications available
- PE and connecting terminal for contact no.1 are at the top in both types of installation
- Mountable in standard bulkhead housing and on standard rails by using of fixing elements
- Screw terminal with integrated wire protection at Han E[®] AV
- Cage-clamp terminal at Han[®] ES AV

Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques according to DIN EN 60 512-5



- ① Han[®] 6 E AV / Han[®] 6 ES AV
- ② Han[®] 10 E AV / Han[®] 10 ES AV
- ③ Han[®] 16 E AV / Han[®] 16 ES AV
- ④ Han[®] 24 E AV / Han[®] 24 ES AV

Technical characteristics

Specifications **DIN EN 60 664-1**
DIN EN 61 984

Approvals **UL, CE**

Inserts

Number of contacts **6, 10, 16, 24, 32 (2 x 16), 48 (2 x 24) + PE**

Electrical data
acc. to EN 61 984 **16 A 500 V 6 kV 3**
Rated current **16 A**
Rated voltage **500 V**
Rated impulse voltage **6 kV**
Pollution degree **3**

Pollution degree 2 also **16 A 400/690 V 6 kV 2**

Rated voltage
acc. to UL/CSA **600 V**
Rated current acc. to UL/CSA **12 A (only for Han[®] ES)**

Insulation resistance **≥ 10¹⁰ Ω**
Material **polycarbonate**
Limiting temperatures **-40 °C ... +125 °C**
Flammability acc. to UL 94 **V 0**
Mechanical working life
- mating cycles **≥ 500**

Contacts

Material **copper alloy**
Surface
- mating side **3 μm Ag**
- termination side **tin plated**
Contact resistance **≤ 4 mΩ**

Screw terminal
- Wire gauge¹⁾ **0.2 ... 2.5 mm²**
- AWG **24 ... 14**
- Tightening/test torque **0.5 Nm**

Cage clamp terminal
- Wire gauge¹⁾ **0.14 ... 2.5 mm²**
- AWG **26 ... 14**

Identification strips Han E[®] AV

the following identification strips may be used		
Multi contour (MK)	HARTING (6x10)	09 33 000 9971
	Murrplastik	KPX 6/10
	Weidmüller	DEK 6,5
	Phoenix	4K-DST 6
	WAGO	WSB
Single contour (SK)	Murrplastik	KWI 6/10
	Wieland	9705 A/6,7
	WAGO	Mini-WSB

Identification strips Han[®] ES AV

the following identification strips may be used		
Single contour (SK)	HARTING (6x15)	09 33 000 9973
	Murrplastik	KWI 6/15
	Wieland	9705 A/6.7
	WAGO	Mini-WSB

Number of contacts

6, 10, 16, 24 +



Identification	Number of contacts	Part number		Drawing	Dimensions in mm
		Male insert	Female insert		
Left hand version Multi contour (MK)	6	09 33 006 4625	09 33 006 4725		
	10	09 33 010 4625	09 33 010 4725		
	16	09 33 016 4625	09 33 016 4725		
	24	09 33 024 4625	09 33 024 4725		
Left hand version Single contour (SK)	6	09 33 006 4626	09 33 006 4726		
	10	09 33 010 4626	09 33 010 4726		
	16	09 33 016 4626	09 33 016 4726		
	24	09 33 024 4626	09 33 024 4726		
Right hand version Multi contour (MK)	6	09 33 006 4635	09 33 006 4735		
	10	09 33 010 4635	09 33 010 4735		
	16	09 33 016 4635	09 33 016 4735		
	24	09 33 024 4635	09 33 024 4735		
Right hand version Single contour (SK)	6	09 33 006 4636	09 33 006 4736		
	10	09 33 010 4636	09 33 010 4736		
	16	09 33 016 4636	09 33 016 4736		
	24	09 33 024 4636	09 33 024 4736		

	a	b
Han® 6 E AV	20	44
Han® 10 E AV	34	57
Han® 16 E AV	54	77.5
Han® 24 E AV	81	104

Han AV

① Contact arrangement for male insert
 ② Contact arrangement for female insert

Stock items in bold type

Number of contacts

6, 10, 16, 24 +



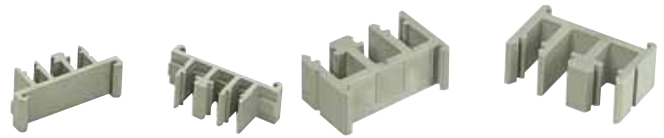
Han AV

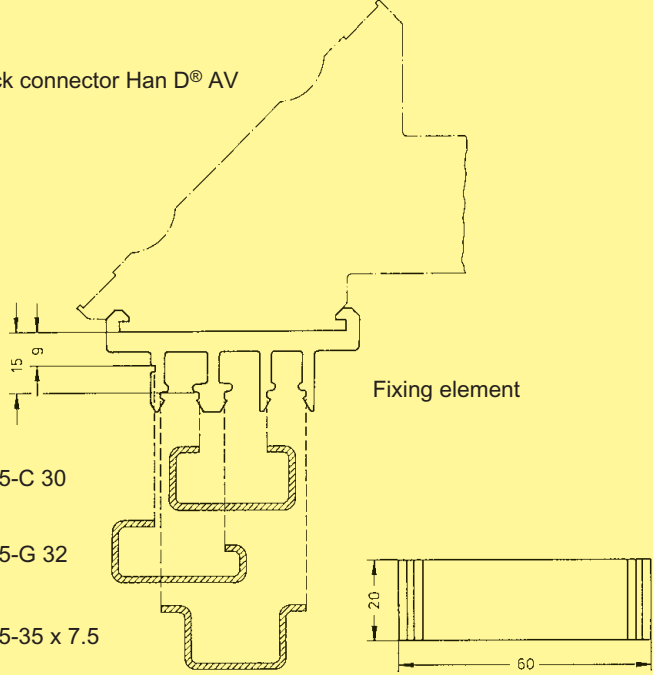
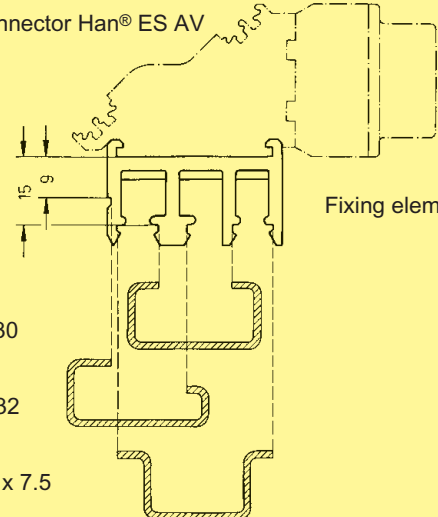
Identification	Number of contacts	Part number		Drawing	Dimensions in mm
		Male insert	Female insert		
Left hand version Single contour (SK)	6	09 33 006 4629	09 33 006 4729		
	10	09 33 010 4629	09 33 010 4729		
	16	09 33 016 4629	09 33 016 4729		
	24	09 33 024 4629	09 33 024 4729		
Right hand version Single contour (SK)	6	09 33 006 4639	09 33 006 4739		
	10	09 33 010 4639	09 33 010 4739		
	16	09 33 016 4639	09 33 016 4739		
	24	09 33 024 4639	09 33 024 4739		

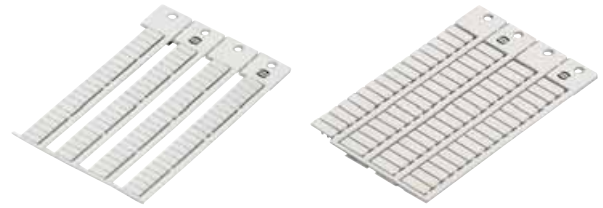
	a	b
Han® 6 ES AV	20	44
Han® 10 ES AV	34	57
Han® 16 ES AV	54	77.5
Han® 24 ES AV	81	104

① Contact arrangement for male insert
 ② Contact arrangement for female insert

Stock items in bold type



Identification	Part number	Drawing	Dimensions in mm
<p>Fixing element for Terminal block connector Han D[®] AV, Han E[®] AV, Distributor</p>	<p>09 33 000 9928</p>	<p>Terminal block connector Han D[®] AV</p>  <p>C-rail DIN EN 60 715-C 30</p> <p>G-rail DIN EN 60 715-G 32</p> <p>Rail DIN EN 60 715-35 x 7.5 or -35 x 15</p>	<p>Han AV</p>
<p>Fixing element for Terminal block connector Han[®] ES AV</p>	<p>09 33 000 9929</p>	<p>Terminal block connector Han[®] ES AV</p>  <p>C-rail DIN EN 60 715-C 30</p> <p>G-rail DIN EN 60 715-G 32</p> <p>Rail DIN EN 60 715-35 x 7.5 or -35 x 15</p> <p>There are moulded slots at the rear of the terminal block connectors and distributors to accept the fixing elements. When used these elements, for example, can be used to secure the connectors inside the switch cabinets on standard rails.</p> <p>For mounting Han[®] 6 E AV, Han[®] 6 ES AV = 1 fixing element Han[®] 10/16/24 E AV, Han[®] 10/16/24 ES AV = 2 fixing elements Han[®] 40/64 D AV = 2 fixing elements Distributor = 1 fixing element</p>	



Han
AV

Identification	Part number	Drawing	Dimensions in mm										
Identification strips 88 pieces in one block (MK-contour) 5 mm width 10 mm long	09 21 000 9971	for Terminal block connector Han D® AV and Distributor											
Identification strips 64 pieces in one block (MK-contour) 6 mm width 10 mm long 15 mm long	09 33 000 9971 09 33 000 9973	for Terminal block connector Han E® AV for Terminal block connector Han® ES AV											
Adapter for Han E® AV to fit identification strips (SK-contour) Han® 6 E AV Han® 10 E AV Han® 16 E AV Han® 24 E AV	09 33 000 9964 09 33 000 9965 09 33 000 9966 09 33 000 9967		<table border="1"> <thead> <tr> <th></th> <th>a</th> </tr> </thead> <tbody> <tr> <td>Han® 6 E AV</td> <td>26.8</td> </tr> <tr> <td>Han® 10 E AV</td> <td>40.2</td> </tr> <tr> <td>Han® 16 E AV</td> <td>60.3</td> </tr> <tr> <td>Han® 24 E AV</td> <td>87.4</td> </tr> </tbody> </table>		a	Han® 6 E AV	26.8	Han® 10 E AV	40.2	Han® 16 E AV	60.3	Han® 24 E AV	87.4
	a												
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