

- **Screw terminal inserts, crimp contact carriers, contacts**
A 3 connectors with insulation displacement connection; 3-pole + PE up to 32-pole + PE, rated current 16 A max.; 10 A with 40° C ambient temperature, rated voltage 250 and 400 V
5-pole compact insert for housing series A3 / A4
- **Screw terminal and crimp contact carriers, contacts, inserts with IDC and push-in connection, wiring adapters**
6-pole + PE up to 48-pole + PE, rated current 16 A max.; 16 A with 40° C ambient temperature
rated voltage 500 V; series BB: 10-pole + PE to 92-pole + PE
- **Screw terminal inserts**
6-pole + PE and 12-pole + PE
rated current 35 A
rated voltage 690 V
- **Crimp contact carriers, contacts, wiring adapters**
7-pole + PE up to 128-pole + PE, optical waveguide
rated current 10 A max.; rated voltage 42 V and 250 V,
high contact density, modified contact arrangement
- **Crimp contact carriers, contacts**
24-pole + PE up to 216-pole + PE, optical waveguide,
rated current 10 A max.; rated voltage 250 V,
very high contact density, modified contact arrangement
- **Frames, crimp contact carriers, contacts, tools, blind modules**
Frames with PE terminal, lock-in contact modules 3 to 280 poles, coax, optical waveguide,
rated current 5 A - 50 A, rated voltage 63 V - 1000 V, tools
RJ45 and pneumatic modules

- **Housings for inserts of series A 3, A 4, A 5, D 7 and D 8**
Wall mount housings, panel housings, coupler hoods and hoods made of plastic and aluminium,
protective plastic caps

- **Housings for inserts of series A 10 and D 15**
Wall mount housings, panel housings, coupler hoods and hoods made of aluminium,
snap-on mounting adapters, protective plastic caps,
adapter plates for contact inserts, cover plates for switch cabinets

- **Housings for inserts of series A 16 and D 25**
Wall mount housings, panel housings, coupler hoods and hoods made of aluminium,
snap-on mounting adapters, protective plastic caps,
adapter plates for contact inserts, cover plates for switch cabinets

- **Housings for inserts of series A 32 and D 50**
Wall mount housings, panel housings and hoods made of aluminium,
protective caps made of plastic

- **Housings for inserts of series B 6, BB 10, DD 24 and MOB 6**
Wall mount and panel housings, coupler hoods and hoods, housings with central locking system,
snap-on mounting adapters, protective caps made of plastic or aluminium,
adapter plates for contact inserts, cover plates for switch cabinets

- **Housings for inserts of series B 10, BB 18, DD 42 and MOB 10**
Wall mount and panel housings, coupler hoods and hoods, housings with central locking system,
snap-on mounting adapters, protective caps made of plastic or aluminium,
adapter plates for contact inserts, cover plates for switch cabinets

- **Housings for inserts of series B 16, BB 32, BA 6, D 40, DD 72 and MOB 16**
Wall mount and panel housings, coupler hoods and hoods, housings with central locking system
snap-on mounting adapters, protective caps made of plastic or aluminium,
adapter plates for contact inserts, cover plates for switch cabinets

- **Housings for inserts of series B 24, BB 46, D 64, DD 108, MOB 24**
Wall mount and panel housings, coupler hoods and hoods, housings with central locking system,
snap-on mounting adapters, protective caps made of plastic or aluminium,
adapter plates for contact inserts, cover plates for switch cabinets

- **Housings for inserts of series B 32, BB 64, BA 12, D 80, DD 144, 2 x MOB 16**
Wall mount housings, panel housings, coupler hoods and hoods.
housings with spring cover, protective plastic caps

- **Housings for inserts of series B 48, BB 92, BV 20, BV 26, BV 32, D 128, DD 216, 2 x MOB 24**
Wall mount housings, panel housings and hoods.

- **Screw-mountable hoods for inserts of series B, BB, BA, BHT, D, DD, MOB**
Screw-mountable hoods, hoods with bayonet lock,
flange set, protective caps for screw-mountable hoods

- **Series BHT**
Contact inserts 6-pole + PE up to 24-pole + PE
rated current 16 A max.; 16 A with 180° C ambient temperature, incl. contact heating,
rated voltage 400 V

- **Series BV**
Contact inserts 3-pole + PE up to 32-pole + PE
rated current 16 A max.; rated voltage 660 V,
electrical interlocking by shortened switch contact pins, mechanical coding for insertion/assembly

- **Special versions:** Suggestions for individual

- **Accessories:** Cable glands, (NPT)adapters, labels, coding accessories,
accessories for POF conductors, thermo crimp contacts, connection with POF cable,
crimping tools, tools, wire-through housings, protective caps

- Sockets, 16 and 32 A
- Plugs, 16 and 32 A
- Appliance plugs, 16 and 32 A
- Couplers, 16 and 32 A
- Panel sockets, 16 and 32 A
- Contacts for control section
- Tools and coding parts
- Accessories for POF connection
- CEPro cables

- **Information**
• PROCON system • Regulations and approvals • Advantages • Application areas • Housings
• Locking systems • Termination methods • Index • Part numbers • Certificates • General Conditions

Inserts

Housings

With new housing design

Series A

Inserts with 3 to 32 poles



1

Series B

Inserts / contacts
6, 10, 16, 24, 32, 48-pole

Series BB

Inserts / contacts
10, 18, 32, 46, 64, 92-pole



2

Series BA

Inserts and contacts
6- and 12-pole



3

Series D

Inserts and contacts
7-, 8-, 15-, 25-, 40-, 50-, 64-, 80-, 128-pole



4

Series DD

Inserts and contacts
24-, 42-, 72-, 108-, 144- and 216-pole



5

Series MO

Frames, contact carriers / contacts,
tools, RJ-, pneumatic + blind modules



6

Housings for inserts of series A 3, A 4, A 5, D 7, D 8



7

Housings for inserts of series A 10, D 15



8

Housings for inserts of series A 16, D 25



9

Housings for inserts of series A 32, D 50



10

Housings for inserts of series B 6, BB 10, DD 24, MOB 6



11

Housings for inserts of series B 10, BB 18, DD 42, MOB 10



12

Housings for inserts of series B 16, BB 32, BA 6, D 40, DD 72, MOB 16



13

Housings for inserts of series B 24, BB 46, D 64, DD 108, MOB 24



14

Housings for inserts of series B 32, BB 64, BA 12, D 80, DD 144, 2 x MOB 16



15

Housings for inserts of series B 48, BB 92, BV 20, BV 26, BV 32, D 128, DD 216, 2 x MOB 24



16

Screw-mountable hoods / hoods with bayonet lock, for inserts of series B, BB, BA, BHT, D, DD, MOB



17

Series BHT

Inserts and housings
6-, 10-, 16-, 24-pole



18

Series BV (short overview)

inserts and housings
3-, 6-, 10-, 16-, 20-, 26-, 32-pole



19

Special versions, Accessories



20

CEPro - Plugs and sockets

Power and control in one unit



21

Information

sales@dynamicrep.com



22

Housings

A3 A10 A16 A32 B6 B10 B16 B24 B32 B48

possible in all locking systems listed below

Wall mount housings without flap lid											
Wall mount housings with flap lid											
Panel housings without flap lid											
Panel housings with flap lid											
Hoods without lever											
Hoods with lever											
Coupler hoods											
Screw-locked hoods											
Hoods with bayonet lock											

Material

Plastic

Zinc

Standard Aluminium

Sea water aluminium

Locking systems

Double locking system	Single locking system	Central locking system	Screw locking	Bayonet locking

Cable glands

Pressure gland, with multiple seal, with pressure rings	Complete cable gland brass, nickel-plated	Special cable assembly brass, nickel-plated	Pressure gland with strain relief, brass, nickel-plated	Blanking plug brass, nickel-plated	EMC cable gland brass, nickel-plated

Inserts

	3-pole to 280-pole	Ampere	Volt AC	No. of poles	Termination method	Terminal cross section in mm²
Series	Female Male					
A		10 10 16	250/400 V 230/400 V 250/400 V	3 - 32 3 5 - 32	Screw IDC Crimp	0,5 - 1,5 0,75 - 1,5 0,14 - 2,5
B		16 16 16 16	500 V 500 V 500 V 500 V	6 - 48 6 - 48 6 - 48 6 - 48	Screw Push-In IDC Crimp	0,5 - 2,5 0,5 - 2,5 0,5 - 2,5 0,14 - 4,0
BB		16	500 V	10 - 92	Crimp	0,14 - 4,0
BHT		16	500 V	6 - 24	Screw	0,5 - 2,5
BA		35	690 V	6 - 12	Screw	0,5 - 6,0
BV		16 16	690 V 690 V	3 - 32 3 - 32	Screw Crimp	0,5 - 2,5 0,14 - 4,0
D		10	250 V	7 - 128	Crimp	0,14 - 2,5
DD		10	250 V	24 - 216	Crimp	0,14 - 2,5
MO		max. 80	max. 1000 V	3 - 280	Screw Crimp	0,09 - 10,0

Termination methods

Contact carrier for crimp termination 0,5 - 4 mm²	Screw terminal connection 0,5 - 2,5 mm² Screw drive: Pozidrive PZ 0 (series A) Pozidrive PZ 1 (series B)	Screwless termination method (IDC - insulation displacement connection) 0,5 - 2,5 mm²	Push in termination method (spring clamp connection) 0,5 - 2,5 mm²
Contact carrier Material: Temperature range: Flame class rating: Mechanical operating life:	Standard Glassfibre reinforced polyamide -40 °C to +125 °C V0 ≥ 500 mating cycles Special version High temperature resistant polyamide up to +180 °C ≥ 500 mating cycles		
Contacts Material: Surface:	Standard Copper alloy, hard silver-plated 3 µm Ag, hard gold plated 2 µm Au over 3 µm Ni		

Series A 3 - A 32



Housings of **series A 3 to A 16** are provided with a **single locking lever**.

Housings of **series A 32** have **two locking levers**.



Series **A 3** housings are available either in **plastic** or **zinc die-casting** - according to your requirements.



Series **A 3** connectors are available both with **screw** and **IDC terminals**.

Series **A 4** connectors, however, are **only available with screw terminals**.

Series **A 5** is equipped with **crimp contacts** of series B for 16 A. The use of a coding pin prevents incorrect mating of connectors.



This applies also for the series **A 10, A 16** and **A 32**, which are **additionally available with screw contact carriers**.

Screw terminal inserts are equipped with a wire protection. This **wire protection** saves the time-consuming crimping of wire-end ferrules.



Of course, all **WALTHER** contacts are provided with **open, captive screws**.

The **convenience of IDC connection** is now also available with a classic square connector – a 4-pole (3+PE) industrial plug connector of series A.

Male and female versions are available in hoods and coupler hoods made of plastic.



Thanks to **insulation displacement connection**, it now only takes a few seconds to connect the 4-pole round conductor: Only the sleeve nut has to be slid over the conductor – since splicing ring, seal and strain relief are included in the sleeve nut.

Snap-on mounting adapters

are ideal for mounting into switch cabinets.



The *clearly arranged swing-type insertion plate* allows easy wiring.

When installing several mounting plates side-by-side, an additional cable duct can be built up inside

the switch cabinet, which then enables the installation of printed circuit boards.

Mounting is made by snapping connectors onto DIN-rails in transverse direction



Series A

Specifications

Regulations: DIN VDE 0627, DIN VDE 0110, DIN EN 61 984

Approvals: UR, CSA, MEIE, EZÚ

Number of poles: 3, 4, 5, 10, 16, 32 (2 x 16) + PE

Electrical data acc. to DIN EN 61 984:

Series A3/A4 10 A 230 / 400 V 4 kV 3
 Rated current
 Rated voltage conductor - earth
 Rated voltage conductor - conductor
 Rated surge
 Pollution degree
 or 10 A 250 V 4 kV 3

Series A5 16 A 230 / 400 V 4 kV 3
 Rated current
 Rated voltage conductor - earth
 Rated voltage conductor - conductor
 Rated surge
 Pollution degree
 Pollution degree 2 also 16 A 320/500 V 4 kV 2

Series A 10 / A 16 16 A 250 V 4 kV 3
 Rated current
 Rated voltage
 Rated surge
 Pollution degree
 Pollution degree 2 also 16 A 230 / 400 V 4 kV 2

Rated voltage acc. to UL/CSA: 600 V
 (Table with rated surges see chapter "Information")

Material: Glass-fibre reinforced polyamide
 Temperature range: - 40 °C up to + 125 °C
 Flame class rating acc. to UL 94: V 0
 Mechanical operating life: ≥ 500 mating cycles

Contacts

Material: Copper alloy
 Surface: • hard silver plated: 3 µm Ag
 • hard gold plated: 2 µm Au over 3 µm Ni

Contact resistance: < 1 m Ω

Series A 10 / A 16:

Crimp type terminal mm² (AWG): 0,14 - 4,0 mm² (26-12 AWG)
 Screw type terminal mm² (AWG): 0,5 - 2,5 mm² (14 AWG)

Series A 3 / A 4:

only screw type mm² (AWG): 0,5 - 1,5 mm² (16 AWG)
 Torque/testing torque: A 3 and A 4: 0,25 Nm
 A 10 and A 16: 0,5 Nm

Series A 5:

only crimp terminal mm² (AWG): 0,14 - 2,5 mm² (26-14 AWG)

Wire stripping length:

Series A 3 and A 4: 5 mm
 Series A 5, A 10 and A 16: 7 mm with screw and crimping contacts

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

Page

A 3-pole + ⊕

Inserts 18

- Short overview see page 104 -
 - Matching housings see page 105 - 104 -



A 4-pole + ⊕

Inserts 19

- Short overview see page 104 -
 - Matching housings see page 105 - 106 -



A 5-pole + ⊕

Inserts 19

- Short overview see page 104 -
 - Matching housings see page 105 - 106 -



A 10-pole + ⊕

Inserts 20

- Short overview see page 108 -
 - Matching housings see page 109 - 110 -



A 16-pole + ⊕

Inserts 21

- Short overview see page 112 -
 - Matching housings see page 113 - 114 -



A 32-pole + ⊕

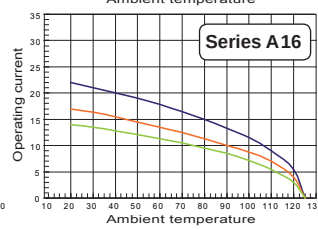
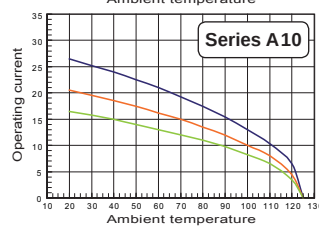
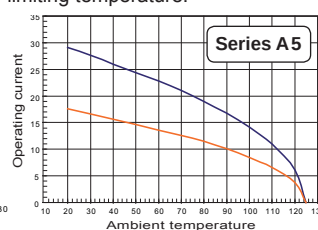
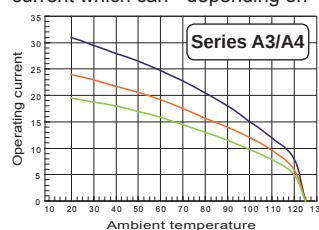
Inserts 22

- Short overview see page 116 -
 - Matching housings see page 117 - 119 -

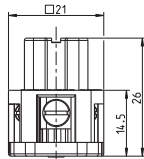
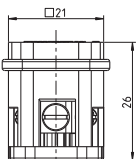
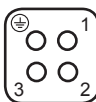
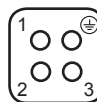
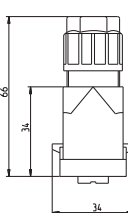
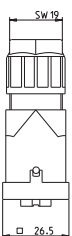
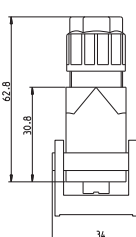
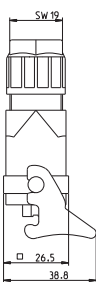


The derating diagram (corrected current capacity curve) acc. to DIN IEC 60 512 applies to such current which can - depending on

ambient temperature and conductor size - circulate through each contact without exceeding the upper limiting temperature.



— 2.5 mm² — 1.5 mm² — 1.0 mm²

Description	Part no.		Series A 3 P + $\oplus$ 10 A / 230/400 V UL/CSA: 600 V	
Screw terminal inserts			   	10 14
Female insert Screw terminal without wire protection 0,5-1,5 mm ² (20-16 AWG)	700 103	ex stock		
Male insert Screw terminal without wire protection 0,5-1,5 mm ² (20-16 AWG)	700 203	ex stock		10 14
Contact arrangement			View from termination side Female insert  Male insert 	
Connectors with insulation displacement connection (IDC)			     	10 25 10 25 10 28 10 28
Hood with female insert Height 66 mm for single locking lever	700 724			
Hood with male insert Height 66 mm for single locking lever	700 725			
Coupler hood with female insert Height 63 mm with single locking lever	700 726			
Coupler hood with male insert Height 63 mm with single locking lever	700 727			

Specifications of connectors with insulation displacement connection:

General specifications:

Key width of sleeve nut	19 mm
Torque of sleeve nut	3 Nm
Mating cycles	≤ 500

Cable specifications for IDC connection:

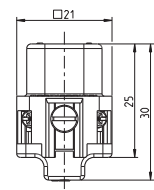
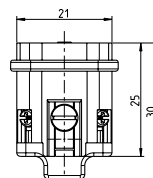
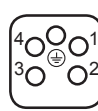
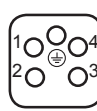
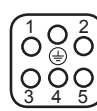
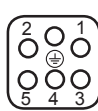
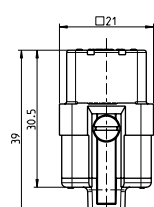
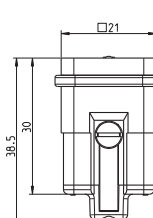
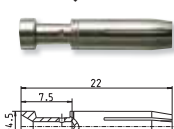
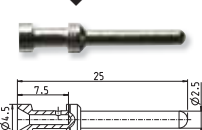
Conductor cross section area:	0,75 - 1,5 mm ² / 18 -16 AWG
Stranded cable / smallest wire diameter:	VDE 0295 class 2 up to 5/0,2 mm
Core insulating material:	PVC/PE
External cable diameter:	6 - 12 mm
Wire diameter (including insulation)	≤ 3 mm

Mechanical specifications:

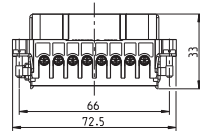
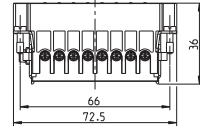
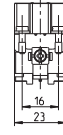
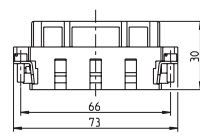
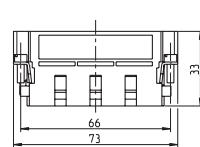
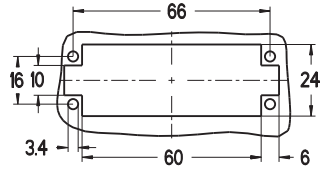
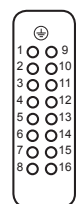
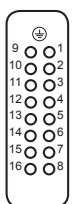
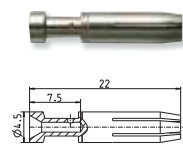
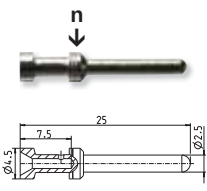
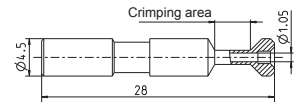
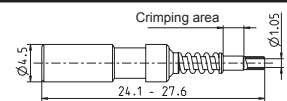
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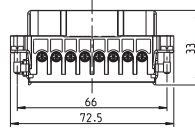
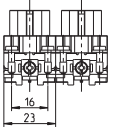
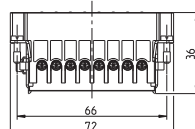
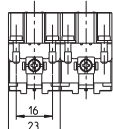
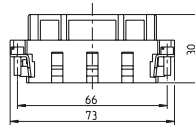
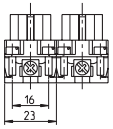
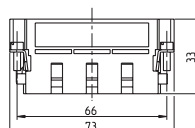
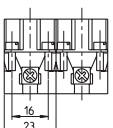
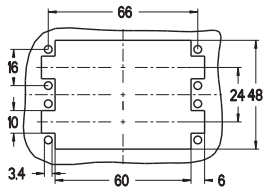
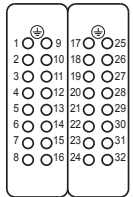
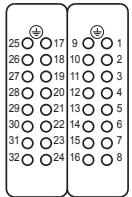
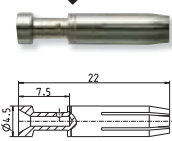
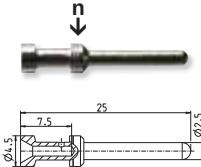
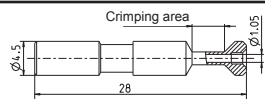
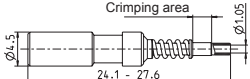
Material specifications:

Contact material / contact surface:	Copper alloy / nickel base coat, silver-plated
Insulating material / flammability acc. to UL 94:	PA / V0
Approvals:	UL/CSA

			Series A 4 P + 	  9																								
Description	Part no.																											
Screw terminal inserts																												
Female insert Screw terminal without wire protection 0,5-1,5 mm² (20-16 AWG)	700 104	ex stock	   	10 17																								
Male insert Screw terminal without wire protection 0,5-1,5 mm² (20-16 AWG)	700 204	ex stock		10 18																								
Contact arrangement																												
			Series A 4 Female insert  Male insert  Series A 5 Female insert  Male insert  - View from termination side -																									
Description	Part no.		Series A 5 P + 	  9																								
Crimp contact carriers																												
Contact carrier for sleeve contacts	700 105	Please order crimp contacts separately	   	10 18																								
Contact carrier for pin contacts	700 205			10 14																								
Coding pin	700 734	 The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.	10 1																									
Contacts for crimp contact carriers																												
Sleeve contacts for series A 5 crimp-type, solid, turned, weight per 100	silver-plated 710 508 710 504 710 509 710 500 710 501 710 502	gold-plated 710 916 710 842 710 917 710 843 710 844 710 845	Number of grooves = n ↓  Termination cross section indicated by grooves <table><tr><td>n</td><td>0</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>n</td><td>0</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>n</td><td>1</td><td>0,75 mm²</td><td>18 AWG</td></tr><tr><td>n</td><td>1</td><td>1 mm²</td><td>18 AWG</td></tr><tr><td>n</td><td>2</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>n</td><td>3</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>	n	0	0,14-0,37 mm²	26-22 AWG	n	0	0,5 mm²	20 AWG	n	1	0,75 mm²	18 AWG	n	1	1 mm²	18 AWG	n	2	1,5 mm²	16 AWG	n	3	2,5 mm²	14 AWG	100 162 160 148 148 150 154
n	0	0,14-0,37 mm²	26-22 AWG																									
n	0	0,5 mm²	20 AWG																									
n	1	0,75 mm²	18 AWG																									
n	1	1 mm²	18 AWG																									
n	2	1,5 mm²	16 AWG																									
n	3	2,5 mm²	14 AWG																									
Pin contacts for series A 5 crimp-type, solid, turned, weight per 100	silver-plated 710 518 710 514 710 519 710 510 710 511 710 512	gold-plated 710 918 710 847 710 919 710 848 710 849 710 850	n ↓  Termination cross section indicated by grooves <table><tr><td>n</td><td>0</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>n</td><td>0</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>n</td><td>1</td><td>0,75 mm²</td><td>18 AWG</td></tr><tr><td>n</td><td>1</td><td>1 mm²</td><td>18 AWG</td></tr><tr><td>n</td><td>2</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>n</td><td>3</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>	n	0	0,14-0,37 mm²	26-22 AWG	n	0	0,5 mm²	20 AWG	n	1	0,75 mm²	18 AWG	n	1	1 mm²	18 AWG	n	2	1,5 mm²	16 AWG	n	3	2,5 mm²	14 AWG	100 125 124 128 128 132 132
n	0	0,14-0,37 mm²	26-22 AWG																									
n	0	0,5 mm²	20 AWG																									
n	1	0,75 mm²	18 AWG																									
n	1	1 mm²	18 AWG																									
n	2	1,5 mm²	16 AWG																									
n	3	2,5 mm²	14 AWG																									

Description		Part no.	Series A 10 P +		16 A / 250 V UL/CSA: 600 V			
Screw terminal inserts								
Female insert Screw terminal with wire protection 0,5-2,5 mm² (20-14 AWG)		700 110	ex stock		 		10 46	
Male insert Screw terminal with wire protection 0,5-2,5 mm² (20-14 AWG)		700 210	ex stock		 		10 47	
Crimp contact carriers								
Contact carrier for sleeve contacts		700 310	Please order crimp contacts separately		 		10 26	
Contact carrier for pin contacts		700 410			 		10 27	
Contact arrangement								
			Panel cutout 		View from termination side Female insert Male insert 			
Contacts for crimp contact carriers								
Sleeve contacts for series A 10 crimp-type, solid, turned, weight per 100		silver-plated 710 508 710 504 710 509 710 500 710 501 710 502 710 503	gold-plated 710 916 710 842 710 917 710 843 710 844 710 845 710 846	Number of grooves = n 		Termination cross section indicated by grooves n 0 0,14-0,37 mm² 26-22 AWG 0 0,5 mm² 20 AWG 1 0,75 mm² 18 AWG 1 1 mm² 18 AWG 2 1,5 mm² 16 AWG 3 2,5 mm² 14 AWG 0 4,0 mm² 12 AWG		100 162 160 148 148 150 154 165
Pin contacts for series A 10 crimp-type, solid, turned, weight per 100		silver-plated 710 518 710 514 710 519 710 510 710 511 710 512 710 513	gold-plated 710 918 710 847 710 919 710 848 710 849 710 850 710 851	n 		n 0 0,14-0,37 mm² 26-22 AWG 0 0,5 mm² 20 AWG 1 0,75 mm² 18 AWG 1 1 mm² 18 AWG 2 1,5 mm² 16 AWG 3 2,5 mm² 14 AWG 0 4,0 mm² 12 AWG		100 125 124 128 128 132 132 134
Sleeve contact Optical waveguide for POF, solid, turned		710 521	Weight per 100			Crimping area POF* Ø 1 mm		100 89
Pin contact Optical waveguide for POF, solid, turned		710 531	Weight per 100			Crimping area POF* Ø 1 mm		100 74
Coding pin		700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.			10 1

			Series A 16 P + 		  g		
Description		Part no.	16 A / 250 V UL/CSA: 600 V				
Screw terminal inserts							
Female insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	700 116	ex stock	  		10 65		
Male insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	700 216	ex stock	  		10 63		
Crimp contact carriers							
Contact carrier for sleeve contacts	700 316	Please order crimp contacts separately	  		10 32		
Contact carrier for pin contacts	700 416		  		10 31		
Contact arrangement			Panel cutout View from termination side Female insert Male insert				
			  				
Contacts for crimp contact carriers			Number of grooves = Termination cross section indicated by grooves				
Sleeve contacts for series A 16 crimp-type, solid, turned, weight per 100	silver-plated	gold-plated		n		100	
	710 508	710 916		0	0,14-0,37 mm ² 26-22 AWG		162
	710 504	710 842		0	0,5 mm ² 20 AWG		160
	710 509	710 917		1	0,75 mm ² 18 AWG		148
	710 500	710 843		1	1 mm ² 18 AWG		148
	710 501	710 844		2	1,5 mm ² 16 AWG		150
	710 502	710 845		3	2,5 mm ² 14 AWG		154
	710 503	710 846		0	4,0 mm ² 12 AWG		165
Pin contacts for series A 16 crimp-type, solid, turned, weight per 100	silver-plated	gold-plated		n		100	
	710 518	710 918		0	0,14-0,37 mm ² 26-22 AWG		125
	710 514	710 847		0	0,5 mm ² 20 AWG		124
	710 519	710 919		1	0,75 mm ² 18 AWG		128
	710 510	710 848		1	1 mm ² 18 AWG		128
	710 511	710 849		2	1,5 mm ² 16 AWG		132
	710 512	710 850		3	2,5 mm ² 14 AWG		132
	710 513	710 851		0	4,0 mm ² 12 AWG		134
Sleeve contact Optical waveguide for POF, solid, turned	710 521	Weight per 100	 POF* Ø 1 mm			100 89	
Pin contact Optical waveguide for POF, solid, turned	710 531	Weight per 100	 POF* Ø 1 mm			100 74	
Coding pin	700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.		10 1	

Description		Part no.	Series A 32 P +  16 A / 250 V UL/CSA: 600 V		 
Screw terminal inserts					
Female insert Screw terminal, 0,5-2,5 mm ² (20-14 AWG) with wire protection 1 - 16 with wire protection 17 - 32	700 116 700 132		  		10 69 69
Male insert Screw terminal, 0,5-2,5 mm ² (20-14 AWG) with wire protection 1 - 16 with wire protection 17 - 32	700 216 700 232		  		10 64 64
Crimp contact carriers					
Contact carriers for sleeve contacts 1 - 16 for sleeve contacts 17 - 32	700 316 700 332	Please order crimp contacts separately	  		10 38 38
Contact carriers for pin contacts 1 - 16 for pin contacts 17 - 32	700 416 700 432		  		10 36 36
Contact arrangement			Panel cutout 		View from termination side Female insert  Male insert 
Contacts for crimp contact carriers					
Sleeve contacts for series A 10 crimp-type, solid, turned, weight per 100	silver-plated 710 508 710 504 710 509 710 500 710 501 710 502 710 503	gold-plated 710 916 710 842 710 917 710 843 710 844 710 845 710 846	Number of grooves = n 	Termination cross section indicated by grooves n 0 0,14-0,37 mm ² 26-22 AWG 0 0,5 mm ² 20 AWG 1 0,75 mm ² 18 AWG 1 1 mm ² 18 AWG 2 1,5 mm ² 16 AWG 3 2,5 mm ² 14 AWG 0 4,0 mm ² 12 AWG	100 162 160 148 148 150 154 165
Pin contacts for series A 10 crimp-type, solid, turned, weight per 100	silver-plated 710 518 710 514 710 519 710 510 710 511 710 512 710 513	gold-plated 710 918 710 847 710 919 710 848 710 849 710 850 710 851	n 	n 0 0,14-0,37 mm ² 26-22 AWG 0 0,5 mm ² 20 AWG 1 0,75 mm ² 18 AWG 1 1 mm ² 18 AWG 2 1,5 mm ² 16 AWG 3 2,5 mm ² 14 AWG 0 4,0 mm ² 12 AWG	100 125 124 128 128 132 132 134
Sleeve contact Optical waveguide for POF, solid, turned	710 521	Weight per 100	 POF* Ø 1 mm		100 89
Pin contact Optical waveguide for POF, solid, turned	710 531	Weight per 100	 POF* Ø 1 mm		100 74
Coding pin	700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.	10 1

Series B 6 - B 48 and BB 10 - BB 92

Series B 6 - B 24 with new housing design



Series B 6 - B 48 with push-in terminals



Termination methods available with series B

- Screw terminal inserts
- Contact carriers for crimp contacts
- Inserts with insulation displacement connection (IDC) for considerable time saving during installation
- Push-In terminals

Screw terminal inserts

are available either with or without **wire protection**. This wire protection **saves the time-consuming crimping of wire-end ferrules**.



Of course, all WALTHER contacts are provided with **open, captive screws**.

Locking systems:

- Series **B 6** and **B 48**: only with **single locking system**
- Series **B 32**: only with **double locking system**
- Series **B 10**, **B 16**, **B 24**: both locking systems possible



Housing size 5 with single locking system



Housing size 9 with double locking system



Housing sizes 6-7-8 with both locking systems



Housing size 10 with single locking system

Housings of series B 6 - B 24: More possibilities with exchangeable locking levers

Easy and cost-saving exchange of single and double locking levers in case of damage or material fatigue.

Just press replacement lever in axial direction onto the bolts until they lock in place.



Series BB 10 - BB 92



Series BB has only contact carriers for crimp contacts

Attachable rubber flange gasket for series B 6, B 10, B 16, B 24

- reduced mounting time
- optimum handling
- quick switch cabinet mounting



Series B 6 - B 24

If connectors have to be disconnected frequently, wall-mount or panel housings with hinged spring cover and single locking system should be used.



Thus also data connectors are protected against harsh industrial environments. Mounting of data connectors in aluminium housings is made possible by adapter plates.

Wiring adapters

are mounted directly into the panel housing - as cost-saving switch cabinet feed-through and space-saving connection element. With screw terminals



Series B

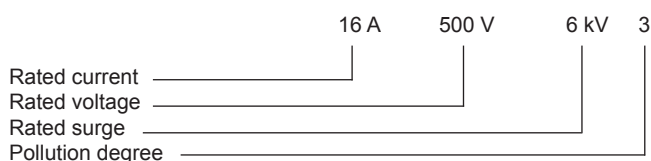
Specifications

Regulations: DIN VDE 0627,
DIN VDE 0110,
DIN EN 61 984

Approvals: UR, CSA, SEV, MEIE, EZÚ

Number of poles: 6, 10, 16, 24, 32 (2 x 16),
48 (2 x 24) + PE

Electrical data acc. to DIN EN 61 984:



Rated voltage acc. to UL/CSA: 600 V
(Table with rated surges see chapter "Information")

Material: Glass-fibre reinforced polyamide
Temperature range: - 40 °C up to + 125 °C
Flame class rating acc. to UL 94: V 0
Mechanical operating life: ≥ 500 mating cycles

Contacts

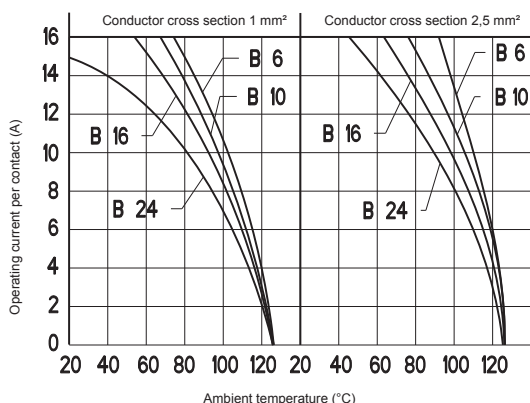
Material: Copper alloy
Surface: hard silver plated: 3 µm Ag
hard gold plated: 2 µm Au over 3 µm Ni

Contact resistance: < 1 m Ω
Screw type terminal with wire protection: 2,5 mm² (14 AWG)
Screw type terminal without wire protection: 4 mm² (12 AWG)
Torque / testing torque: 0,5 Nm
Crimp type terminal: 0,5 - 4 mm² (20 - 12) AWG
Wire stripping length: 7 mm with screw + crimp contacts
IDC terminals: 0,5 - 2,5 mm² (20 - 14 AWG)

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

The derating diagram (corrected current capacity curve) acc. to DIN IEC 60 512 applies to such current which can - depending on ambient temperature and conductor size - circulate through each contact without exceeding the upper limiting temperature.



Page

B 6-pole + ⊕

Inserts 26 - 27

- Short overview see page 120 -
- Matching housings see page 121 - 123 -



B 10-pole + ⊕

Inserts 28 - 29

- Short overview see page 124 -
- Matching housings see page 125 - 131 -



B 16-pole + ⊕

Inserts 30 - 31

- Short overview see page 132 -
- Matching housings see page 133 - 140 -



B 24-pole + ⊕

Inserts 32 - 33

- Short overview see page 142 -
- Matching housings see page 143 - 149 -



B 32-pole + ⊕

Inserts 34 - 35

- Short overview see page 150 -
- Matching housings see page 151 - 152 -



B 48-pole + ⊕

Inserts 36 - 37

- Short overview see page 154 -
- Matching housings see page 155 -



Series BB

Specifications

Regulations:	DIN VDE 0627, DIN VDE 0110, DIN EN 61 984
Approvals:	UR, CSA, SEV, MEIE, EZÚ
Number of poles:	10, 18, 32, 46, 64, 92

Electrical data acc. to DIN EN 61 984:

	16 A	500 V	6 kV	3
Rated current	_____	_____	_____	_____
Rated voltage	_____	_____	_____	_____
Rated surge	_____	_____	_____	_____
Pollution degree	_____	_____	_____	_____

Rated voltage acc. to UL/CSA: 600 V
(Table with rated surges see chapter "Information")

Material:	Glass-fibre reinforced polyamide
Temperature range:	- 40 °C up to + 125 °C
Flame class rating acc. to UL 94:	V 0
Mechanical operating life:	≥ 500 mating cycles

Contacts

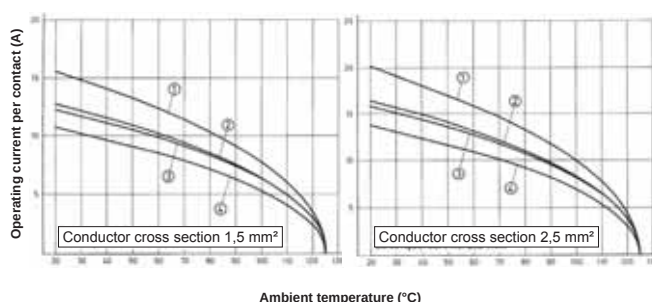
Material:	copper alloy
Surface:	- hard silver plated: 3 µm Ag - hard gold plated: 2 µm Au over 3 µm Ni

Contact resistance:	≤ 1 m Ω
Crimp type terminal:	0,5 - 4 mm ² (20 - 12) AWG
Wire stripping length:	7 mm

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

The derating diagram (corrected current capacity curve) acc. to DIN IEC 60 512 applies to such current which can - depending on ambient temperature and conductor size - circulate through each contact without exceeding the upper limiting temperature.



Page

BB 10-pole + ⊕

Inserts 27

- Short overview see page 120 -
- Matching housings see page 121 - 123 -



BB 18-pole + ⊕

Inserts 29

- Short overview see page 124 -
- Matching housings see page 125 - 131 -



BB 32-pole + ⊕

Inserts 31

- Short overview see page 132 -
- Matching housings see page 133 - 140 -



BB 46-pole + ⊕

Inserts 33

- Short overview see page 142 -
- Matching housings see page 143 - 149 -



BB 64-pole + ⊕

Inserts 35

- Short overview see page 150 -
- Matching housings see page 151 - 152 -



BB 92-pole + ⊕

Inserts 37

- Short overview see page 154 -
- Matching housings see page 155 -



Series B

6 P +

16 A / 500 V

UL/CSA: 600 V



Description

Part no.

Terminal
cross section

Screw terminal inserts

Female insert

Screw terminals

with wire protection

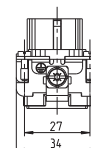
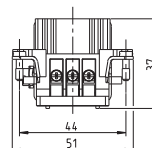
710 106

0,5-2,5 mm² (20-14 AWG)

without wire protection

710 769

0,5-4 mm² (20-12 AWG)



10
52
49

Male insert

Screw terminals

with wire protection

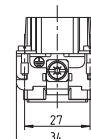
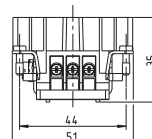
710 206

0,5-2,5 mm² (20-14 AWG)

without wire protection

710 773

0,5-4 mm² (20-12 AWG)



10
50
47

Wiring adapters

Female insert

Screw terminals

Earth pin on the right

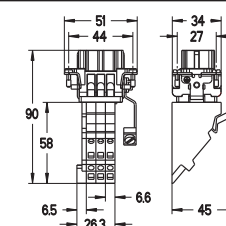
710 657

0,5-2,5 mm² (20-14 AWG)

Earth pin on the left

710 661

Similar to picture



10
84
84

Male insert

Screw terminals

Earth pin on the right

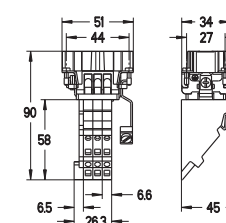
710 665

0,5-2,5 mm² (20-14 AWG)

Earth pin on the left

710 669

Similar to picture



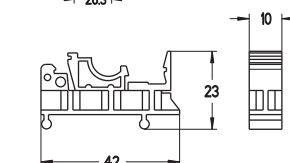
10
85
85

Combi snap element

for DIN-rail mounting

710 807

1 piece required per adapter



10
4

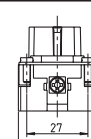
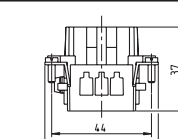
IDC terminal inserts

Female insert

IDC terminals

710 106 01

0,5-2,5 mm² (20-14 AWG)



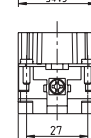
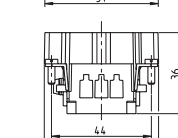
10
56

Male insert

IDC terminals

710 206 01

0,5-2,5 mm² (20-14 AWG)



10
56

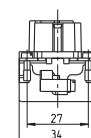
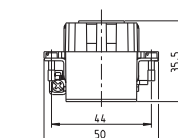
Push-in terminal inserts

Female insert

Push-in terminals

710 106 04

0,5-2,5 mm² (20-14 AWG)



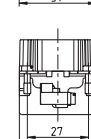
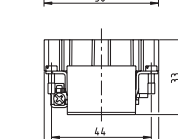
10
51

Male insert

Push-in terminals

710 206 04

0,5-2,5 mm² (20-14 AWG)



10
50

Coding pin

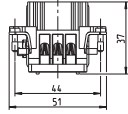
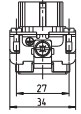
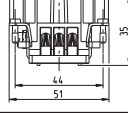
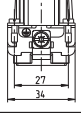
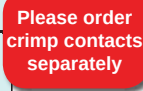
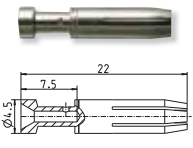
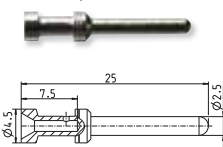
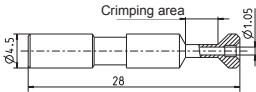
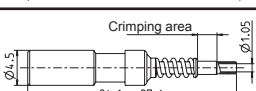
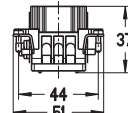
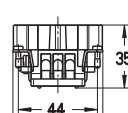
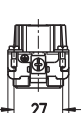
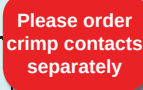
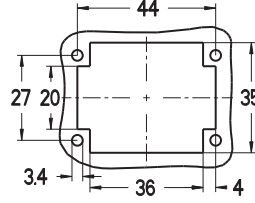
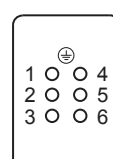
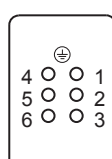
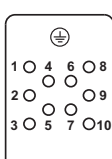
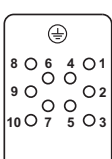
for insertion into
the coding grooves

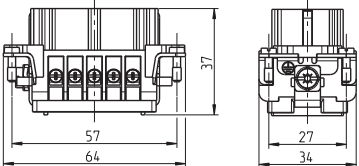
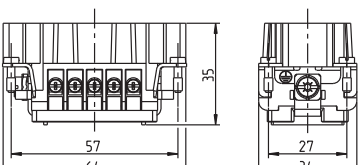
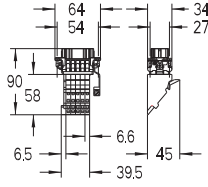
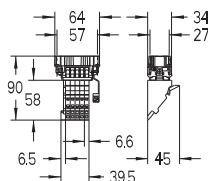
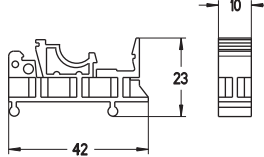
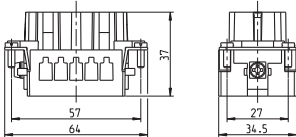
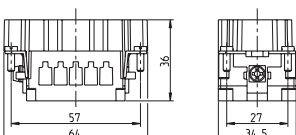
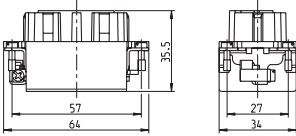
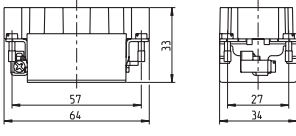
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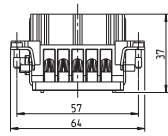
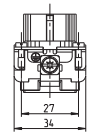
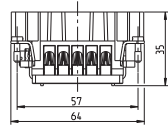
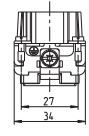
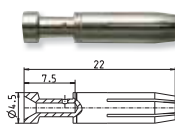
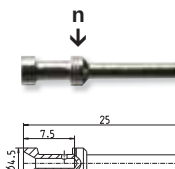
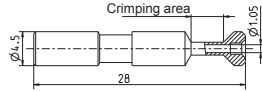
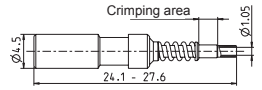
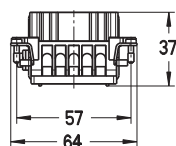
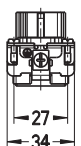
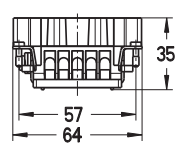
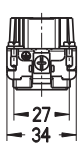
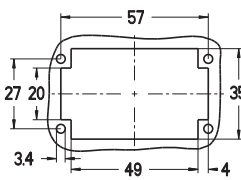
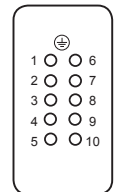
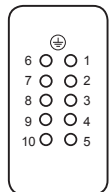
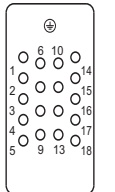
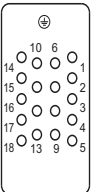
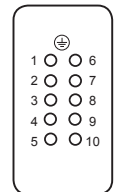
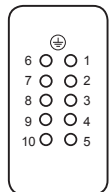
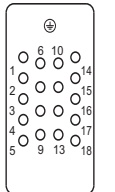
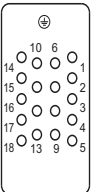
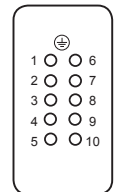
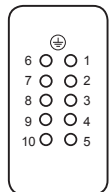
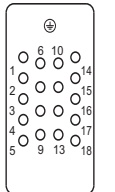
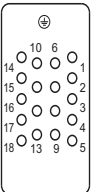


B 6 inserts can be equipped
with max. 2 coding pins

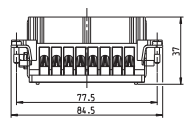
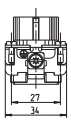
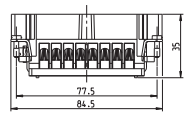
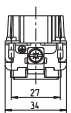
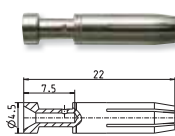
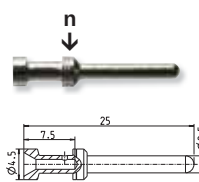
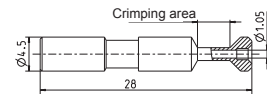
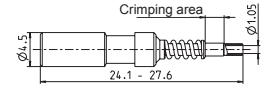
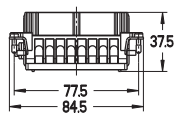
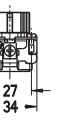
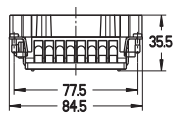
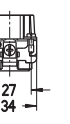
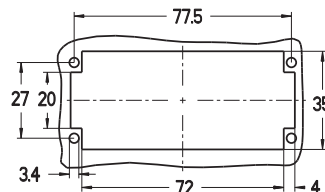
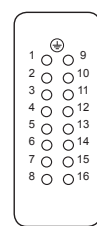
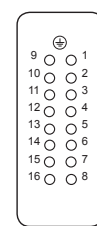
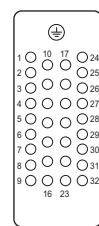
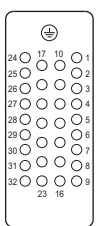
10
1

Description		Part no.	Series B 6 P + $\oplus$		16 A / 500 V UL/CSA: 600 V	 
Crimp contact carriers			    			10 40
Contact carrier for sleeve contacts		710 306				10 38
Contact carrier for pin contacts		710 406				
Contacts for crimp contact carriers			Number of grooves = n Terminal cross sections indicated by grooves			
Sleeve contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated	gold-plated		n		
	710 508	710 916		0	0,14-0,37 mm ²	26-22 AWG
	710 504	710 842		0	0,5 mm ²	20 AWG
	710 509	710 917		1	0,75 mm ²	18 AWG
	710 500	710 843		1	1 mm ²	18 AWG
	710 501	710 844		2	1,5 mm ²	16 AWG
	710 502	710 845		3	2,5 mm ²	14 AWG
	710 503	710 846		0	4,0 mm ²	12 AWG
Pin contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated	gold-plated		n		
	710 518	710 918		0	0,14-0,37 mm ²	26-22 AWG
	710 514	710 847		0	0,5 mm ²	20 AWG
	710 519	710 919		1	0,75 mm ²	18 AWG
	710 510	710 848		1	1 mm ²	18 AWG
	710 511	710 849		2	1,5 mm ²	16 AWG
	710 512	710 850		3	2,5 mm ²	14 AWG
	710 513	710 851		0	4,0 mm ²	12 AWG
Sleeve contact Optical waveguide for POF, solid, turned	710 521	Weight per 100				100 89
Male contact Optical waveguide for POF, solid, turned	710 531	Weight per 100				100 74
Coding pin	700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.		10 1
Description		Part no.	Series BB 10 P + $\oplus$		16 A / 500 V UL/CSA: 600 V	 
Crimp contact carriers			     			10 42
Contact carrier for sleeve contacts		710 311				10 40
Contact carrier for pin contacts		710 411				
Contact arrangement			 Panel cutout: Series B6  Female insert Series BB 10  Male insert Series B6  Female insert Series BB 10  Male insert View from termination side			

Description	Part no.	Terminal cross section	Series B 10 P +  16 A / 500 V UL/CSA: 600 V	  9
Screw terminal inserts			   	10 69 65 10 65 60
Female insert Screw terminals with wire protection  710 110 without wire protection 710 770		0,5-2,5 mm ² (20-14 AWG) 0,5-4 mm ² (20-12 AWG)		
Male insert Screw terminals with wire protection  710 210 without wire protection 710 774		0,5-2,5 mm ² (20-14 AWG) 0,5-4 mm ² (20-12 AWG)		
Wiring adapters			  <i>Similar to picture</i>   <i>Similar to picture</i>  	10 122 122 10 124 124 10 4
Female insert Screw terminals Earth pin on the right 710 658 Earth pin on the left 710 662		0,5-2,5 mm ² (20-14 AWG)		
Male insert Screw terminals Earth pin on the right 710 666 Earth pin on the left 710 670		0,5-2,5 mm ² (20-14 AWG)		
Combi snap element for DIN-rail mounting 1 piece required per adapter 710 807				
IDC terminal inserts			   	10 74 10 74
Female insert IDC terminals 710 110 01		0,5-2,5 mm ² (20-14 AWG)		
Male insert IDC terminals 710 210 01		0,5-2,5 mm ² (20-14 AWG)		
Push-in terminal inserts			   	10 66 10 64
Female insert Push-in terminals 710 110 04		0,5-2,5 mm ² (20-14 AWG)		
Male insert Push-in terminals 710 210 04		0,5-2,5 mm ² (20-14 AWG)		
Coding pin for insertion into the coding grooves 710 607			 <i>B 10 inserts can be equipped with max. 2 coding pins</i>	10 1

Description		Part no.	Series B 10 P + 		 																								
Description		Part no.	16 A / 500 V UL/CSA: 600 V																										
Crimp contact carriers			    		10 49																								
Contact carrier for sleeve contacts		710 310																											
Contact carrier for pin contacts	ex stock	710 410	Please order crimp contacts separately		10 46																								
Contacts for crimp contact carriers																													
Sleeve contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated	gold-plated		<table><tr><th>n</th><th colspan="2">Terminal cross sections indicated by grooves</th></tr><tr><td>0</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>0</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>1</td><td>0,75 mm²</td><td>18 AWG</td></tr><tr><td>1</td><td>1 mm²</td><td>18 AWG</td></tr><tr><td>2</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>3</td><td>2,5 mm²</td><td>14 AWG</td></tr><tr><td>0</td><td>4,0 mm²</td><td>12 AWG</td></tr></table>	n	Terminal cross sections indicated by grooves		0	0,14-0,37 mm ²	26-22 AWG	0	0,5 mm ²	20 AWG	1	0,75 mm ²	18 AWG	1	1 mm ²	18 AWG	2	1,5 mm ²	16 AWG	3	2,5 mm ²	14 AWG	0	4,0 mm ²	12 AWG	100
	n	Terminal cross sections indicated by grooves																											
	0	0,14-0,37 mm ²			26-22 AWG																								
	0	0,5 mm ²			20 AWG																								
	1	0,75 mm ²			18 AWG																								
	1	1 mm ²			18 AWG																								
	2	1,5 mm ²			16 AWG																								
	3	2,5 mm ²			14 AWG																								
0	4,0 mm ²	12 AWG																											
710 508	710 916	162																											
710 504	710 842	160																											
710 509	710 917	148																											
710 500	710 843	148																											
710 501	710 844	150																											
710 502	710 845	154																											
710 503	710 846	165																											
Pin contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated	gold-plated		<table><tr><th>n</th><th colspan="2">Terminal cross sections indicated by grooves</th></tr><tr><td>0</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>0</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>1</td><td>0,75 mm²</td><td>18 AWG</td></tr><tr><td>1</td><td>1 mm²</td><td>18 AWG</td></tr><tr><td>2</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>3</td><td>2,5 mm²</td><td>14 AWG</td></tr><tr><td>0</td><td>4,0 mm²</td><td>12 AWG</td></tr></table>	n	Terminal cross sections indicated by grooves		0	0,14-0,37 mm ²	26-22 AWG	0	0,5 mm ²	20 AWG	1	0,75 mm ²	18 AWG	1	1 mm ²	18 AWG	2	1,5 mm ²	16 AWG	3	2,5 mm ²	14 AWG	0	4,0 mm ²	12 AWG	100
	n	Terminal cross sections indicated by grooves																											
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710 518	710 918	125																											
710 514	710 847	124																											
710 519	710 919	128																											
710 510	710 848	128																											
710 511	710 849	132																											
710 512	710 850	132																											
710 513	710 851	134																											
Sleeve contact Optical waveguide for POF, solid, turned	710 521	Weight per 100	 POF* Ø 1 mm		100 89																								
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Coding pin	700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.	10 1																								
Description		Part no.	Series BB 18 P + 		 																								
Description		Part no.	16 A / 500 V UL/CSA: 600 V																										
Crimp contact carriers			    		10 53																								
Contact carrier for sleeve contacts		710 318																											
Contact carrier for pin contacts		710 418	Please order crimp contacts separately		10 47																								
Contact arrangement																													
Panel cutout:																													
			<table><tr><th colspan="2">Series B 10</th><th colspan="2">Series BB 18</th></tr><tr><td>Female insert</td><td>Male insert</td><td>Female insert</td><td>Male insert</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td colspan="4">View from termination side</td></tr></table>		Series B 10		Series BB 18		Female insert	Male insert	Female insert	Male insert					View from termination side												
Series B 10		Series BB 18																											
Female insert	Male insert	Female insert	Male insert																										
																													
View from termination side																													

Description	Part no.	Terminal cross section	Series B 16 P + 16 A / 500 V UL/CSA: 600 V	 9
Screw terminal inserts				
Female insert Screw terminals with wire protection 710 116 without wire protection 710 771		0,5-2,5 mm ² (20-14 AWG) 0,5-4 mm ² (20-12 AWG)	 	10 94 90
Male insert Screw terminals with wire protection 710 216 without wire protection 710 775		0,5-2,5 mm ² (20-14 AWG) 0,5-4 mm ² (20-12 AWG)	 	10 94 90
Wiring adapters				
Female insert Screw terminals Earth pin on the right 710 659 Earth pin on the left 710 663		0,5-2,5 mm ² (20-14 AWG)	 <i>Similar to picture</i> 	10 136 136
Male insert Screw terminals Earth pin on the right 710 667 Earth pin on the left 710 671		0,5-2,5 mm ² (20-14 AWG)	 <i>Similar to picture</i> 	10 135 135
Combi snap element for DIN-rail mounting 710 807 1 piece required per adapter			 	10 4
IDC terminal inserts				
Female insert IDC terminals 710 116 01		0,5-2,5 mm ² (20-14 AWG)	 	10 102
Male insert IDC terminals 710 216 01		0,5-2,5 mm ² (20-14 AWG)	 	10 102
Push-in terminal inserts				
Female insert Push-in terminals 710 116 04		0,5-2,5 mm ² (20-14 AWG)	 	10 89
Male insert Push-in terminals 710 216 04		0,5-2,5 mm ² (20-14 AWG)	 	10 84
Coding pin for insertion into the coding grooves 710 607			 <i>B 16 inserts can be equipped with max. 4 coding pins</i>	10 1

Description		Part no.	Series B 16 P + 		 			
			16 A / 500 V UL/CSA: 600 V					
Crimp contact carriers			     		10 68			
Contact carrier for sleeve contacts	710 316	Please order crimp contacts separately						
Contact carrier for pin contacts	710 416				10 63			
Contacts for crimp contact carriers			Number of grooves = n		Terminal cross sections indicated by grooves	100		
Sleeve contacts for series B and BB	silver-plated 710 508 710 504 710 509 710 500 710 501 710 502 710 503	gold-plated 710 916 710 842 710 917 710 843 710 844 710 845 710 846		n 0 0 1 1 2 3 0			0,14-0,37 mm ² 0,5 mm ² 0,75 mm ² 1 mm ² 1,5 mm ² 2,5 mm ² 4,0 mm ²	26-22 AWG 20 AWG 18 AWG 18 AWG 16 AWG 14 AWG 12 AWG
crimp type, solid, turned, weight per 100								
Pin contacts for series B and BB	silver-plated 710 518 710 514 710 519 710 510 710 511 710 512 710 513	gold-plated 710 918 710 847 710 919 710 848 710 849 710 850 710 851		n 0 0 1 1 2 3 0	0,14-0,37 mm ² 0,5 mm ² 0,75 mm ² 1 mm ² 1,5 mm ² 2,5 mm ² 4,0 mm ²	26-22 AWG 20 AWG 18 AWG 18 AWG 16 AWG 14 AWG 12 AWG	125 124 128 128 132 132 134	
crimp type, solid, turned, weight per 100								
Sleeve contact	710 521	Weight per 100	 POF* Ø 1 mm		100 89			
Pin contact	710 531	Weight per 100	 POF* Ø 1 mm		100 74			
Optical waveguide for POF, solid, turned								
Coding pin	700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.		10 1		
			Series BB 32 P + 		 			
			16 A / 500 V UL/CSA: 600 V					
Crimp contact carriers			     		10 68			
Contact carrier for sleeve contacts	710 333	Please order crimp contacts separately						
Contact carrier for pin contacts	710 433				10 58			
Contact arrangement			Series B 16		Series BB 32			
 Panel cutout:			 Female insert		 Male insert		View from termination side	
			 Female insert		 Male insert			

Series B

24 P +

16 A / 500 V

UL/CSA: 600 V



Description

Part no.

Terminal
cross section

Screw terminal inserts

Female insert

Screw terminals

with wire protection ex stock

710 124

0,5-2,5 mm² (20-14 AWG)

without wire protection

710 772

0,5-4 mm² (20-12 AWG)

Male insert

Screw terminals

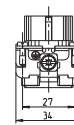
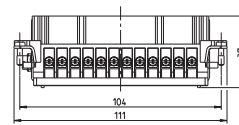
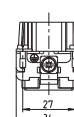
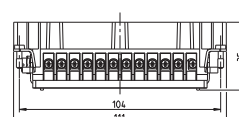
with wire protection ex stock

710 224

0,5-2,5 mm² (20-14 AWG)

without wire protection

710 776

0,5-4 mm² (20-12 AWG)

10
138
134

10
118
114

Wiring adapters

Female insert

Screw terminals

Earth pin on the right

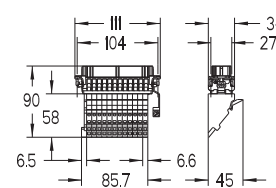
710 660

0,5-2,5 mm² (20-14 AWG)

Earth pin on the left

710 664

Similar to picture


10
140
140

Male insert

Screw terminals

Earth pin on the right

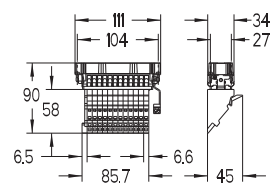
710 668

0,5-2,5 mm² (20-14 AWG)

Earth pin on the left

710 672

Similar to picture

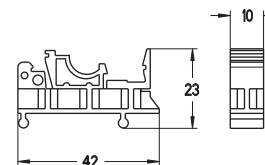

10
241
241

Combi snap element

for DIN-rail mounting

710 807

1 piece required per adapter

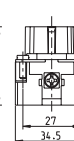
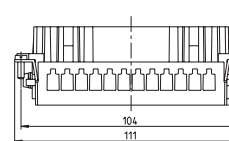

10
4

IDC terminal inserts

Female insert

IDC terminals

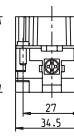
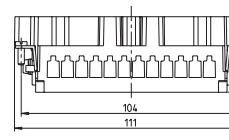
710 124 01

0,5-2,5 mm² (20-14 AWG)

10
135

Male insert

IDC terminals

710 224 01

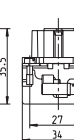
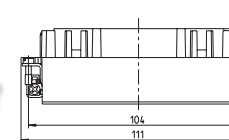
0,5-2,5 mm² (20-14 AWG)

10
135

Push-in terminal inserts

Female insert

Push-in terminals

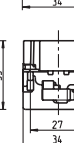
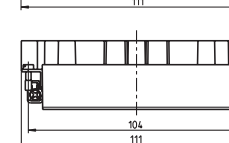
710 124 04

0,5-2,5 mm² (20-14 AWG)

10
119

Male insert

Push-in terminals

710 224 04

0,5-2,5 mm² (20-14 AWG)

10
113

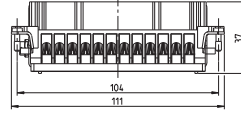
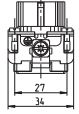
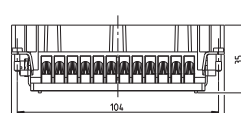
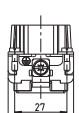
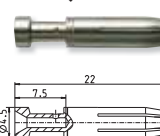
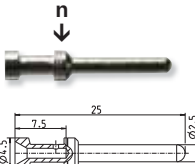
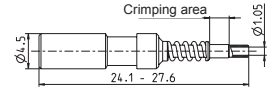
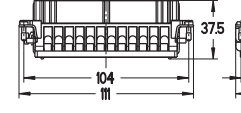
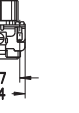
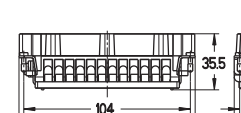
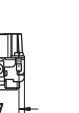
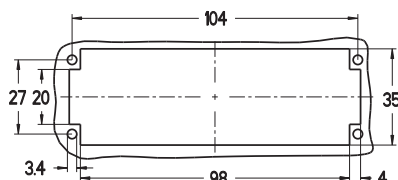
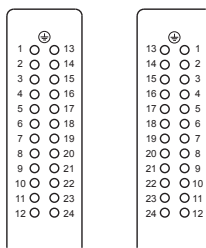
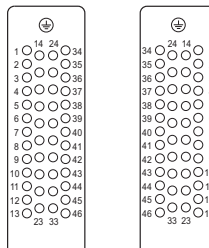
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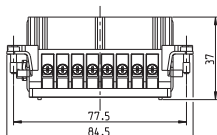
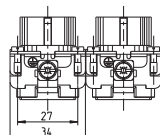
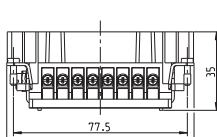
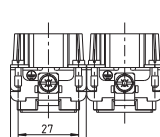
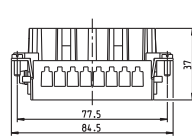
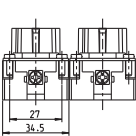
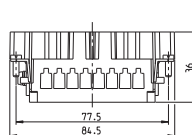
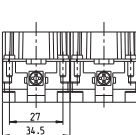
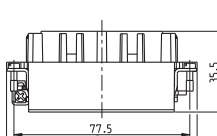
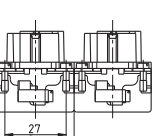
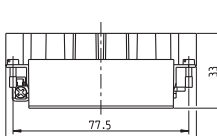
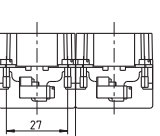
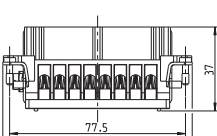
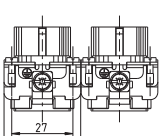
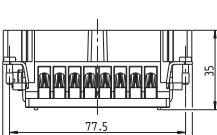
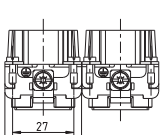
for insertion into
the coding grooves

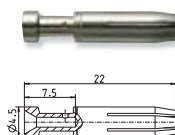
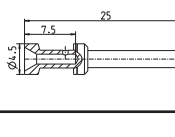
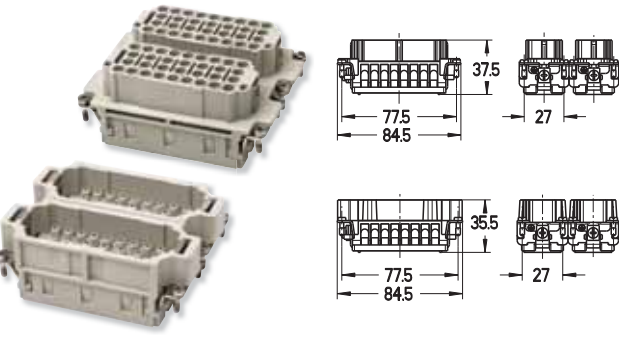
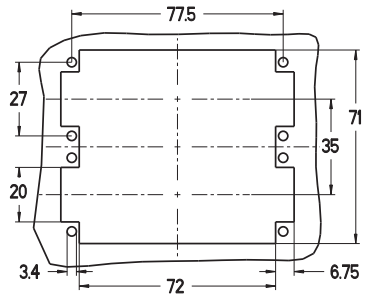
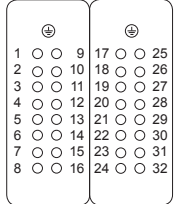
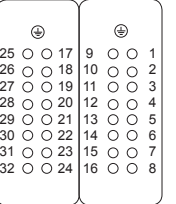
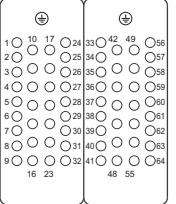
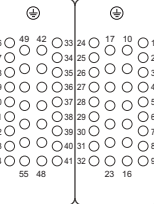
710 607


B 24 inserts can be equipped
with max. 4 coding pins

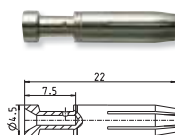
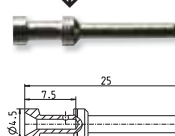
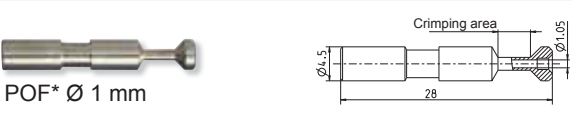
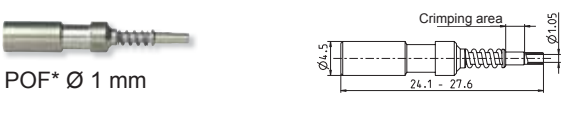
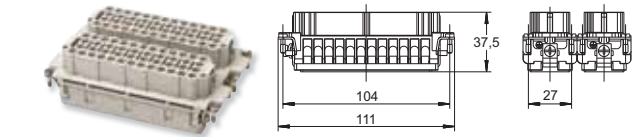
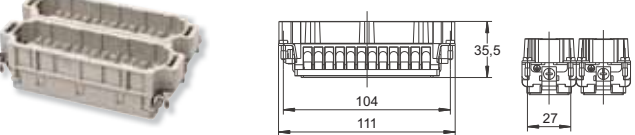
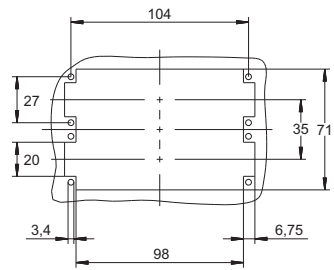
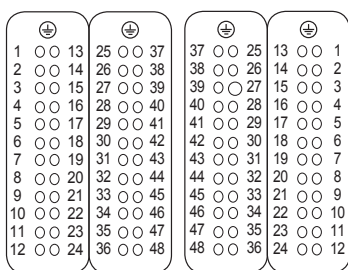
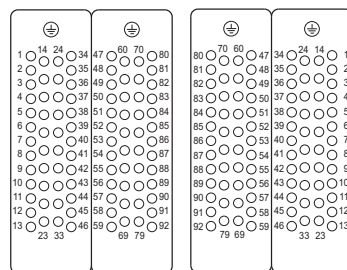
10
1

Description		Part no.	Series B 24 P + 		 		
			16 A / 500 V UL/CSA: 600 V				
Crimp contact carriers			     		10 88		
Contact carrier for sleeve contacts	710 324	Please order crimp contacts separately					
Contact carrier for pin contacts ex stock	710 424				10 80		
Contacts for crimp contact carriers			Number of grooves = n		Terminal cross sections indicated by grooves		
Sleeve contacts for series B and BB			n ↓ 	n 0 0 1 1 2 3 0			0,14-0,37 mm ² 0,5 mm ² 0,75 mm ² 1 mm ² 1,5 mm ² 2,5 mm ² 4,0 mm ²
Pin contacts for series B and BB			n ↓ 	n 0 0 1 1 2 3 0	0,14-0,37 mm ² 0,5 mm ² 0,75 mm ² 1 mm ² 1,5 mm ² 2,5 mm ² 4,0 mm ²	26-22 AWG 20 AWG 18 AWG 18 AWG 16 AWG 14 AWG 12 AWG	100 125 124 128 128 132 132 134
Sleeve contact Optical waveguide for POF, solid, turned		710 521	Weight per 100	 POF* Ø 1 mm	 Crimping area Ø 1,05 28	100 89	
Male contact Optical waveguide for POF, solid, turned		710 531	Weight per 100	 POF* Ø 1 mm	 Crimping area Ø 1,05 24,1 - 27,6	100 74	
Coding pin		700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.	10 1	
Description		Part no.	Series BB 46 P + 		 		
			16 A / 500 V UL/CSA: 600 V				
Crimp contact carriers			     		10 90		
Contact carrier for sleeve contacts	710 346	Please order crimp contacts separately					
Contact carrier for pin contacts	710 446				10 74		
Contact arrangement			Series B 24		Series BB 46		
							
			Female insert Male insert		Female insert Male insert		
			View from termination side				

Description		Part no.	Terminal cross section	Series B	32 P + 	16 A / 500 V UL/CSA: 600 V	  9
Screw terminal inserts							
Female insert Screw terminals				  			10 94 90
with wire protection 1-16 ex stock		710 116	0,5-2,5 mm²/20-14 AWG				
without wire protection		710 771	0,5-4 mm²/20-12 AWG				
with wire protection 17-32 ex stock		710 132	0,5-2,5 mm²/20-14 AWG				
without wire protection		710 859	0,5-4 mm²/20-12 AWG				94 90
Male insert Screw terminals				  			10 94 90
with wire protection 1-16 ex stock		710 216	0,5-2,5 mm²/20-14 AWG				
without wire protection		710 775	0,5-4 mm²/20-12 AWG				
with wire protection 17-32 ex stock		710 232	0,5-2,5 mm²/20-14 AWG				
without wire protection		710 860	0,5-4 mm²/20-12 AWG				94 90
IDC terminal inserts							
Female insert				  			10 102 102
1 - 16		710 116 01	0,5-2,5 mm²/20-14 AWG				
17 - 32		710 132 01					
Male insert				  			10 102 102
1 - 16		710 216 01	0,5-2,5 mm²/20-14 AWG				
17 - 32		710 232 01					
Push-in terminal inserts							
Female insert Push-in terminals				  			10 89
for sleeve contacts 1 - 16		710 116 04	0,5-2,5 mm²/20-14 AWG				
for sleeve contacts 17 - 32		710 132 04					
Male insert Push-in terminals				  			10 84
for pin contacts 1 - 16		710 216 04	0,5-2,5 mm²/20-14 AWG				
for pin contacts 17 - 32		710 232 04					
Coding pin for insertion into the coding grooves		710 607		 B 32 inserts can be equipped with max. 8 coding pins			10 1
Crimp contact carriers							
Contact carrier				  			10 68 68
for sleeve contacts 1 - 16		710 316	Please order crimp contacts separately				
for sleeve contacts 17 - 32		710 332					
Contact carrier				  			10 63 63
for pin contacts 1 - 16		710 416					
for pin contacts 17 - 32		710 432					

			Series B 32 P + 		  g
Description	Part no.		16 A / 500 V UL/CSA: 600 V		
Contacts for crimp contact carriers					
Sleeve contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated 710 508 710 504 710 509 710 500 710 501 710 502 710 503	gold-plated 710 916 710 842 710 917 710 843 710 844 710 845 710 846	Number of grooves = n ↓  n 0 0 1 1 2 3 0 Terminal cross sections indicated by grooves 0,14-0,37 mm² 0,5 mm² 0,75 mm² 1 mm² 1,5 mm² 2,5 mm² 4,0 mm² 26-22 AWG 20 AWG 18 AWG 18 AWG 16 AWG 14 AWG 12 AWG		100 162 160 148 148 150 154 165
Pin contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated 710 518 710 514 710 519 710 510 710 511 710 512 710 513	gold-plated 710 918 710 847 710 919 710 848 710 849 710 850 710 851	n ↓  n 0 0 1 1 2 3 0 0,14-0,37 mm² 0,5 mm² 0,75 mm² 1 mm² 1,5 mm² 2,5 mm² 4,0 mm² 26-22 AWG 20 AWG 18 AWG 18 AWG 16 AWG 14 AWG 12 AWG		100 125 124 128 128 132 132 134
Sleeve contact Optical waveguide for POF, solid, turned	710 521	Weight per 100		POF* Ø 1 mm	100 89
Male contact Optical waveguide for POF, solid, turned	710 531	Weight per 100		POF* Ø 1 mm	100 74
Coding pin	700 734			The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.	10 1
			Series BB 64 P + 		  g
Description	Part no.		16 A / 500 V UL/CSA: 600 V		
Crimp contact carriers					
Contact carrier for sleeve contacts 1 - 32 for sleeve contacts 33 - 64	710 333 710 364	Please order crimp contacts separately			10 68 68
Contact carrier for pin contacts 1 - 32 for pin contacts 33 - 64	710 433 710 464				10 58 58
Contact arrangement					
Panel cutout: 					
			Series B 32  Female insert  Male insert		Series BB 64  Female insert  Male insert
			View from termination side		

Description		Part no.	Terminal cross section	Series B 48 P + 16 A / 500 V UL/CSA: 600 V	 9
Screw terminal inserts					 9
Female insert Screw terminals					
with wire protection 1-24	710 124	0,5-2,5 mm ² /20-14 AWG			 9
without wire protection	710 772	0,5-4 mm ² /20-12 AWG			
with wire protection 25-48	710 148	0,5-2,5 mm ² /20-14 AWG			 9
without wire protection	710 861	0,5-4 mm ² /20-12 AWG			
Male insert Screw terminals					 9
with wire protection 1-24	710 224	0,5-2,5 mm ² /20-14 AWG			
without wire protection	710 776	0,5-4 mm ² /20-12 AWG			 9
with wire protection 25-48	710 248	0,5-2,5 mm ² /20-14 AWG			
without wire protection	710 862	0,5-4 mm ² /20-12 AWG			
IDC terminal inserts					 9
Female insert 1 - 24 25 - 48					
	710 124 01 710 148 01	0,5-2,5 mm ² /20-14 AWG			 9
Male insert 1 - 24 25 - 48					 9
	710 224 01 710 248 01	0,5-2,5 mm ² /20-14 AWG			
Push-in terminal inserts					 9
Female insert Push-in terminals					
for sleeve contacts 1 - 24	710 124 04	0,5-2,5 mm ² /20-14 AWG			 9
for sleeve contacts 25 - 48	710 148 04				
Male insert Push-in terminals					 9
for pin contacts 1 - 24	710 224 04	0,5-2,5 mm ² /20-14 AWG			
for pin contacts 25 - 48	710 248 04				
Coding pin for insertion into the coding grooves				 B 48 inserts can be equipped with max. 8 coding pins	 9
Coding pin		710 607			
Crimp contact carriers					 9
Contact carrier					
for sleeve contacts 1 - 24	710 324				 9
for sleeve contacts 25 - 48	710 348				
Contact carrier					 9
for pin contacts 1 - 24	710 424				
for pin contacts 25 - 48	710 448				

Description		Part no.	Series B 48 P +  16 A / 500 V UL/CSA: 600 V		 
Contacts for crimp contact carriers			Number of grooves = n 		Terminal cross sections indicated by grooves n 0 0,14-0,37 mm ² 26-22 AWG 0 0,5 mm ² 20 AWG 1 0,75 mm ² 18 AWG 1 1 mm ² 18 AWG 2 1,5 mm ² 16 AWG 3 2,5 mm ² 14 AWG 0 4,0 mm ² 12 AWG
Sleeve contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated 710 508 710 504 710 509 710 500 710 501 710 502 710 503	gold-plated 710 916 710 842 710 917 710 843 710 844 710 845 710 846			100 162 160 148 148 150 154 165
Pin contacts for series B and BB crimp type, solid, turned, weight per 100	silver-plated 710 518 710 514 710 519 710 510 710 511 710 512 710 513	gold-plated 710 918 710 847 710 919 710 848 710 849 710 850 710 851	n 		100 125 124 128 128 132 132 134
Sleeve contact Optical waveguide for POF, solid, turned	710 521	Weight per 100	 POF* Ø 1 mm		100 89
Male contact Optical waveguide for POF, solid, turned	710 531	Weight per 100	 POF* Ø 1 mm		100 74
Coding pin	700 734		 The use of a coding pin prevents confusion of equal connectors. The pin contact opposite to the coding pin is not equipped.		10 1
Description		Part no.	Series BB 92 P +  16 A / 500 V UL/CSA: 600 V		 
Crimp contact carriers					10 90 90
Contact carrier for sleeve contacts 1 - 46 for sleeve contacts 47 - 92	710 346 710 392	Please order crimp contacts separately			10 74 74
Contact carrier for pin contacts 1 - 46 for pin contacts 47 - 92	710 446 710 492				
Contact arrangement			Series B 48 Series BB 92		
Panel cutout: 					
			Female insert Male insert Female insert Male insert		
			View from termination side		

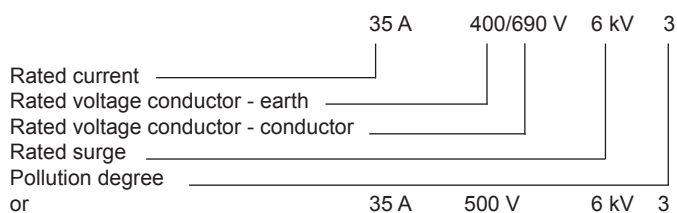


Series BA

Technical Specifications

Regulations:	DIN VDE 0627, DIN VDE 0110, DIN EN 61 984
Approvals:	UR, SEV, MEIE, EZÚ
Number of poles:	6, 12 (2 x 6) + PE

Electrical data acc. to DIN EN 61 984:



Rated voltage acc. to UL/CSA: 600 V
(Table with rated surges see chapter "Information")

Material:	Glass-fibre reinforced polyamide
Temperature range:	- 40 °C up to + 125 °C
Flame class rating acc. to UL 94:	V 0
Mechanical operating life:	
Mating cycles:	≥ 500

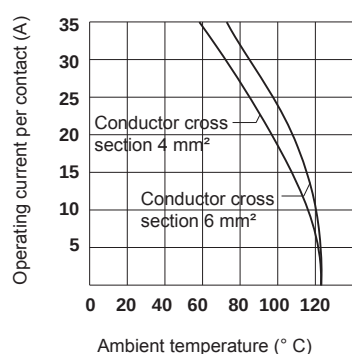
Contacts

Material:	copper alloy
Surface - hard silver plated:	3 µm Ag
Contact resistance:	≤ 0,5 m Ω
Screw terminal with wire protection:	6 mm ² (10 AWG)
Torque/testing torque:	1,2 Nm
Wire stripping length:	10 mm

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

The derating diagram (corrected current capacity curve) acc. to DIN IEC 60 512 applies to such current which can - depending on ambient temperature and conductor size - circulate through each contact without exceeding the upper limiting temperature.



Page

3

BA 6-pole + ⚡

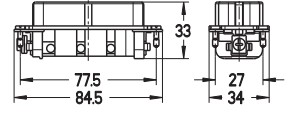
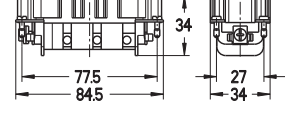
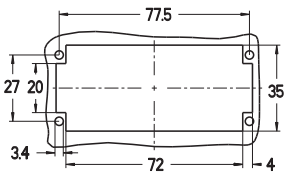
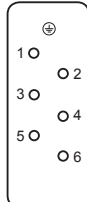
Inserts	40
- Short overview see page 132 -	
- Matching housings see page 133 - 140 -	

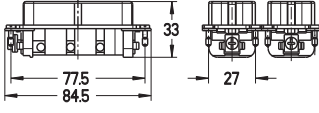
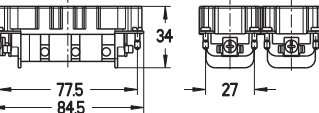
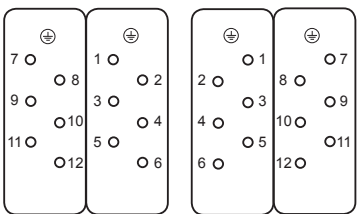
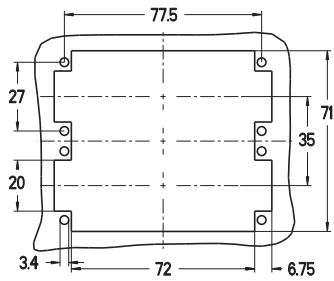


BA 12-pole + ⚡

Inserts	41
- Short overview see page 150 -	
- Matching housings see page 151 - 152 -	



Description	Part no.		Series BA 6 P +  35 A / 400/690 V UL/CSA: 600 V	 
Screw terminal inserts				
Female insert Screw terminals with wire protection 0,5-6 mm ² (20-10 AWG)	710 620	ex stock	 	10 88
Male insert Screw terminals with wire protection 0,5-6 mm ² (20-10 AWG)	710 621	ex stock	 	10 86
Contact arrangement			Panel cutout  View from termination side   Female insert Male insert	

Description	Part no.		Series BA 12 P +  35 A / 400/690 V UL/CSA: 600 V	  3
Screw terminal inserts				
Female insert Screw terminals with wire protection 1 - 6 0,5 - 6 mm ² (20-10 AWG) with wire protection 7 - 12 0,5 - 6 mm ² (20-10 AWG)	710 620 710 692		 	10 88 88
Male insert Screw terminals with wire protection 1 - 6 0,5 - 6 mm ² (20-10 AWG) with wire protection 7 - 12 0,5 - 6 mm ² (20-10 AWG)	710 621 710 693		 	10 86 86
Contact arrangement			View from termination side  Female insert Male insert Panel cutout 	

Series D7 - D128

4



Due to the large number of conductors, the higher series B housings are very advantageous, since they offer enough space and easy mounting.

D7 inserts may only be installed in plastic housings, as no connection between protective earth conductor and housing can be established.



If connectors have to be disconnected frequently, wall-mount or panel housings with hinged spring cover and single locking system should be used.



Locking systems:

- Housings for series **D7, D8, D15, D25 and D128:** only with **single locking system**
- Housings for series **D50 and D80:** only with **double locking system**
- Housings for series **D40 and D64:** **both locking systems** possible



Housing sizes 1-2-3 with single locking system



Housing sizes 4 + 9 with double locking system



Housing sizes 7 + 8 with both locking systems

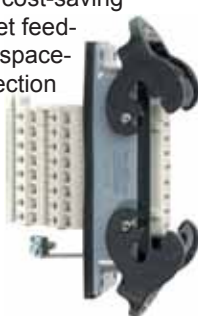


Housing size 10 with single locking system

Wiring adapters

mounted directly into the panel housing - as cost-saving switch cabinet feed-through and space-saving connection element.

With screw terminals.



Optical waveguide

Instead of silver or gold-plated brass contacts for copper wires, also contacts for optical waveguide made of polymer optical fibre (POF) fit into the contact cavities of series D contact carriers.



The millionfold proven crimp-type contacts guarantee a safe connection.



Series D contact carriers can only be equipped with crimp contacts, which have to be ordered separately according to the relevant conductor cross section. The contacts are crimped with a special crimping tool and then snapped into the contact carrier by means of an insertion tool. If required, they can be released with a special removal tool.



Snap-on mounting adapters

are ideal for mounting into switch cabinets.



The clearly arranged swing-type insertion plate allows easy wiring.



When installing several mounting plates side by side, an additional cable duct can be built up inside the switch cabinet, which then enables the installation of printed circuit boards.

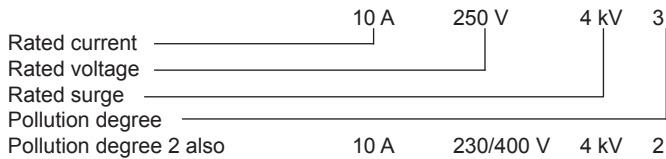
Mounting is made by snapping connectors onto DIN-rails in transverse direction.

Series D

Specifications

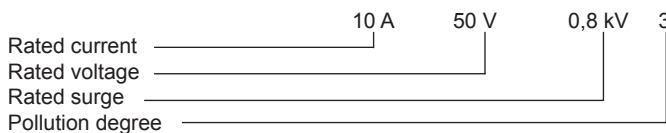
Regulations: DIN VDE 0627,
DIN VDE 0110,
DIN EN 61 984
Approvals: UR, CSA, SEV, MEIE, EZÚ
Standards: DIN EN 175 301-801
Number of poles: 7, 15, 25, 40, 50 (2 x 25),
64, 80 (2 x 40), 128 (2 x 64) + PE

Electrical data acc. to DIN EN 61 984 for series D7, D15, D25, D40, D50, D64, D80 and D128:



Rated voltage acc. to UL/CSA: 300 V

Electrical data acc. to DIN EN 61 984 for series D 8:



Rated voltage acc. to UL/CSA: 50 V
(Table with rated surges see chapter "Information")

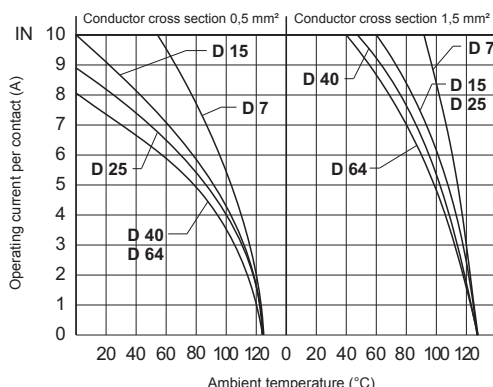
Material: Glass-fibre reinforced polyamide
Temperature range: - 40 °C to + 125 °C
Flame class rating acc. to UL 94: V 0
Mechanical operating life:
Mating cycles: ≥ 500

Contacts:
Material: Copper alloy
Surface: - hard silver plated: 3 µm Ag
- hard gold plated: 2 µm Au over 3 µm Ni
Contact resistance: < 3 m Ω
Crimp type terminal: 0,14 - 2,5 mm² (26 - 14) AWG
Wire stripping length: 7 mm

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

The derating diagram (corrected current capacity curve) acc. to DIN IEC 60512 applies to such kind of current which can - depending on ambient temperature and conductor size) circulate through each contact without exceeding the upper limiting temperature.



Page

Inserts

D 7-pole + ⊕, D 7 modified, D 3-pole + ⊕ 44

- Short overview see page 104
- Matching housings see page 105



Inserts

D 8-pole 45

- Short overview see page 104
- Matching housings see page 105 - 106



Inserts

D 15-pole + ⊕, D 15 modified, D 7.1-pole + ⊕, D 5-pole + ⊕ 46 - 47

- Short overview see page 108
- Matching housings see page 109 - 110



Inserts

D 25-pole + ⊕, D 25 modified, D 11-pole + ⊕ 48 - 49

- Short overview see page 112
- Matching housings see page 113 - 114



Inserts

D 40-pole + ⊕, D 40 modified, D 20-pole + ⊕, D 16-pole + ⊕ 50 - 51

- Short overview see page 132
- Matching housings see page 133 - 140



Inserts

D 50-pole + ⊕, D 50 modified, D 22-pole + ⊕ 52

- Short overview see page 116
- Matching housings see page 117 - 119



Inserts

D 64-pole + ⊕, D 64 modified, D 32-pole + ⊕, D 28-pole + ⊕ 53 - 54

- Short overview see page 142
- Matching housings see page 143 - 149



Inserts

D 80-pole + ⊕, D 80 modified, D 40.1-pole + ⊕, D 32.1-pole + ⊕ 55 - 56

- Short overview see page 150
- Matching housings see page 151 - 152



Inserts

D 128-pole + ⊕, D 128 modified, D 64.1-pole + ⊕, D 56-pole + ⊕ 57 - 58

- Short overview see page 154
- Matching housings see page 155



Series D 7 P +

10 A / 250 V
UL/CSA: 300 V



Description

Part no.

4

Crimp contact carriers

Contact carrier

only for plastic housings
for sleeve contacts

720 307

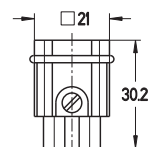
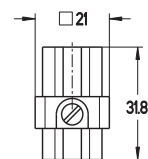
Please order crimp and glass
fibre cable contacts separately

Contact carrier

only for plastic housings
for pin contacts

720 407

Please order crimp and glass
fibre cable contacts separately


10
8

10
7

Contact arrangement

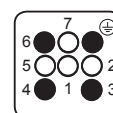
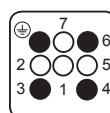
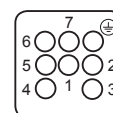
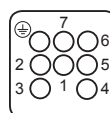
D 7 completely equipped with 7 + PE contacts
Rated voltage: 250 V

D 7 modified: **D 3-pole + PE**

D 7 equipped with 3 + PE contacts
Rated voltage: 500 V

View from termination side

Female
insert

Male
insert


● working contact ○ without contact

Contacts

Sleeve contacts D

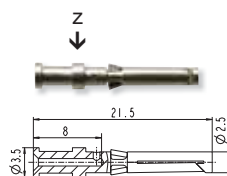
crimp-type,
solid, turned,
weight per 100

silver-plated

720 506
720 507
720 508
720 509
720 502

gold-plated

720 686
720 687
720 688
720 689
720 690


Terminal cross section
marked by z

z	1	2	3	4	5
	0,14 - 0,37 mm ²	0,5 mm ²	0,75 - 1 mm ²	1,5 mm ²	2,5 mm ²
	26 - 22 AWG	20 AWG	19 - 18 AWG	16 AWG	14 AWG

100

65
68
70
72
62

Pin contacts D

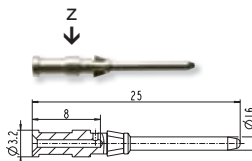
crimp-type,
solid, turned,
weight per 100

silver-plated

720 516
720 517
720 518
720 519
720 512

gold-plated

720 691
720 692
720 693
720 694
720 695



z	1	2	3	4	5
	0,14 - 0,37 mm ²	0,5 mm ²	0,75 - 1 mm ²	1,5 mm ²	2,5 mm ²
	26 - 22 AWG	20 AWG	19 - 18 AWG	16 AWG	14 AWG

100

60
63
65
67
70

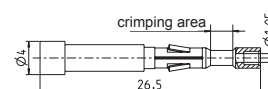
Sleeve contact

Optical waveguide for POF,
solid, turned,
weight per 100

720 520



POF* Ø 1 mm



100

89

Pin contact

Optical waveguide for POF,
solid, turned,
weight per 100

720 530



POF* Ø 1 mm



100

74

Dummy contact sleeve

for coding,
with loss of one contact

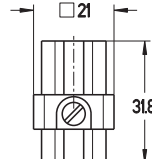
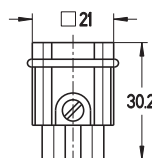
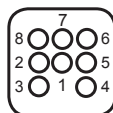
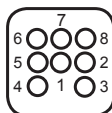
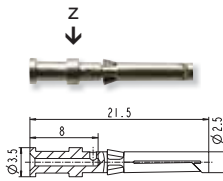
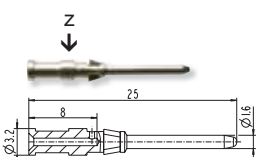
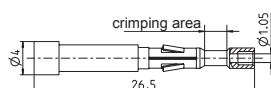
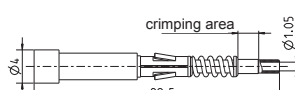
720 696



To avoid wrong plugging of similar contact inserts,
a coding system is required. Coding is achieved by
inserting the dummy contact sleeve into a selected
contact cavity of the female insert. The opposite
male insert must not be equipped at this position.

100

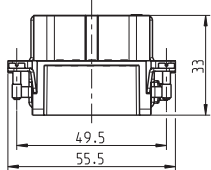
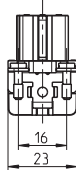
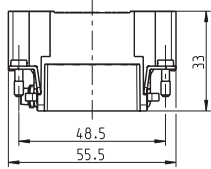
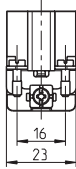
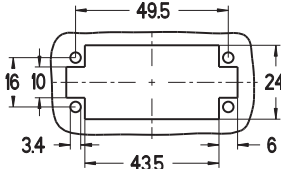
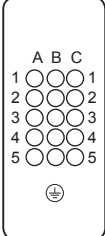
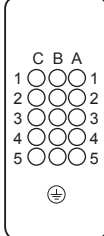
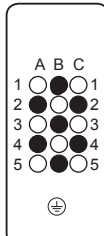
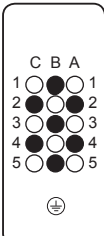
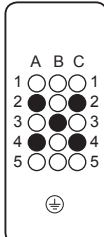
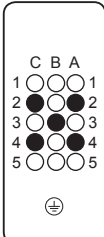
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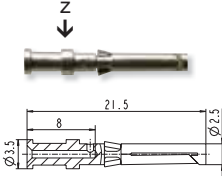
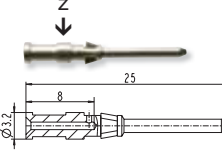
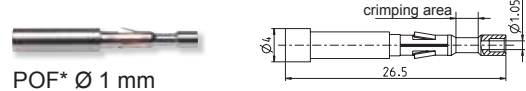
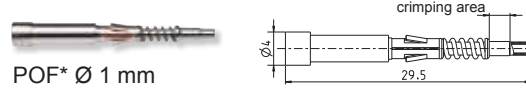
Description		Part no.	Series D 8 P 10 A / 50 V UL/CSA:50 V		  9															
Crimp contact carriers																				
Contact carrier for sleeve contacts <i>Please order crimp and glass fibre cable contacts separately</i>	720 308		 		10 8															
Contact carrier for pin contacts <i>Please order crimp and glass fibre cable contacts separately</i>	720 408		 		10 7															
Contact arrangement			View from termination side																	
D 8 completely equipped with 8 contacts Rated voltage: 42 V			Female insert  Male insert 																	
Contacts			Terminal cross section marked by z																	
Sleeve contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690	 z <table><tr><td>1</td><td>0,14 - 0,37 mm²</td><td>26 - 22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75 - 1 mm²</td><td>19 - 18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>		1	0,14 - 0,37 mm ²	26 - 22 AWG	2	0,5 mm ²	20 AWG	3	0,75 - 1 mm ²	19 - 18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	100 65 68 70 72 62
1	0,14 - 0,37 mm ²	26 - 22 AWG																		
2	0,5 mm ²	20 AWG																		
3	0,75 - 1 mm ²	19 - 18 AWG																		
4	1,5 mm ²	16 AWG																		
5	2,5 mm ²	14 AWG																		
Pin contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695	 z <table><tr><td>1</td><td>0,14 - 0,37 mm²</td><td>26 - 22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75 - 1 mm²</td><td>19 - 18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>		1	0,14 - 0,37 mm ²	26 - 22 AWG	2	0,5 mm ²	20 AWG	3	0,75 - 1 mm ²	19 - 18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	100 60 63 65 67 70
1	0,14 - 0,37 mm ²	26 - 22 AWG																		
2	0,5 mm ²	20 AWG																		
3	0,75 - 1 mm ²	19 - 18 AWG																		
4	1,5 mm ²	16 AWG																		
5	2,5 mm ²	14 AWG																		
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520		 POF* Ø 1 mm 		100 89															
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530		 POF* Ø 1 mm 		100 74															
Dummy contact sleeve for coding, with loss of one contact	720 696		 <i>To avoid wrong plugging of similar contact inserts, a coding system is required. Coding is achieved by inserting the dummy contact sleeve into a selected contact cavity of the female insert. The opposite male insert must not be equipped at this position.</i>		100 1															

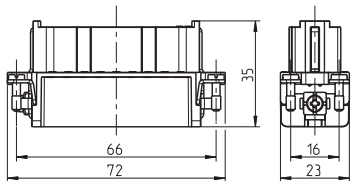
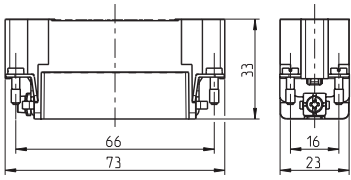
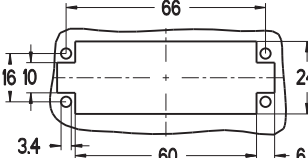
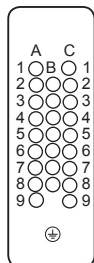
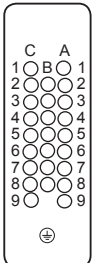
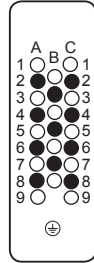
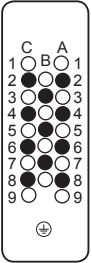
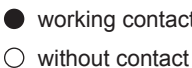
*POF= Polymer Optical Fibre

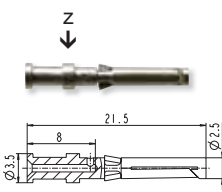
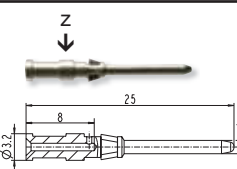
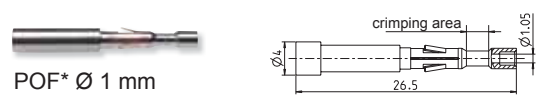
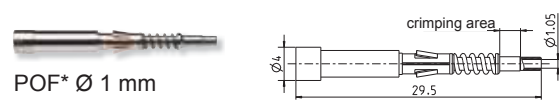
► Matching housings see page 105 - 106

45

			Series D	15 P + 	  g
Description	Part no.				
Crimp contact carriers					
Contact carrier for sleeve contacts	720 315		     		
<i>Please order crimp and glass fibre cable contacts separately</i>					
Contact carrier for pin contacts	720 415				
<i>Please order crimp and glass fibre cable contacts separately</i>					
Contact arrangement					
D 15 completely equipped with 15 contacts Rated voltage: 250 V			Panel cutout 		
D 15 modified: D 7.1-pole + 			View from termination side Female insert  		
D 15 equipped with 7 contacts Rated voltage: 400 V			Female insert  		
D 15 modified: D 5-pole + 			Female insert  		
D 15 equipped with 5 contacts Rated voltage: 500 V					
			 working contact  without contact		

			Series D	15 P + 																
				10 A / 250 V UL/CSA: 300 V	 9															
Description	Part no.																			
Contacts																				
Sleeve contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690		Terminal cross section marked by z z <table><tr><td>1</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75-1 mm²</td><td>19-18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>	1	0,14-0,37 mm ²	26-22 AWG	2	0,5 mm ²	20 AWG	3	0,75-1 mm ²	19-18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	100 65 68 70 72 62
1	0,14-0,37 mm ²	26-22 AWG																		
2	0,5 mm ²	20 AWG																		
3	0,75-1 mm ²	19-18 AWG																		
4	1,5 mm ²	16 AWG																		
5	2,5 mm ²	14 AWG																		
Pin contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695		<table><tr><td>1</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75-1 mm²</td><td>19-18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>	1	0,14-0,37 mm ²	26-22 AWG	2	0,5 mm ²	20 AWG	3	0,75-1 mm ²	19-18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	100 60 63 65 67 70
1	0,14-0,37 mm ²	26-22 AWG																		
2	0,5 mm ²	20 AWG																		
3	0,75-1 mm ²	19-18 AWG																		
4	1,5 mm ²	16 AWG																		
5	2,5 mm ²	14 AWG																		
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520			100 89																
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530			100 74																

			Series D	25 P + 	 	
Description	Part no.		10 A / 250 V UL/CSA: 300 V			
Crimp contact carriers			   			
Contact carrier for sleeve contacts	720 325					10 36
Contact carrier for pin contacts	720 425					
<i>Please order crimp and glass fibre cable contacts separately</i>						
Contact carrier for pin contacts	720 425		10 34			
<i>Please order crimp and glass fibre cable contacts separately</i>						
Contact arrangement						
D 25 completely equipped with 25 contacts Rated voltage: 250 V						
			Panel cutout	View from termination side		
				Female insert	Male insert	
						
						
D 25 modified: D 11-pole + 						
D 25 equipped with 11 contacts Rated voltage: 500 V						
						

Description		Part no.	Series D 25 P + 		  9
Contacts				Terminal cross section marked by z z 1 0,14 - 0,37 mm ² 26-22 AWG 2 0,5 mm ² 20 AWG 3 0,75 - 1 mm ² 19-18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG	100 65 68 70 72 62
Sleeve contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690			
Pin contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695		1 0,14 - 0,37 mm ² 26-22 AWG 2 0,5 mm ² 20 AWG 3 0,75 - 1 mm ² 19-18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG	100 60 63 65 67 70
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520				100 89
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530				100 74

Series D 40 P +

10 A / 250 V
UL/CSA: 300 V



Description

Part no.

Crimp contact carriers

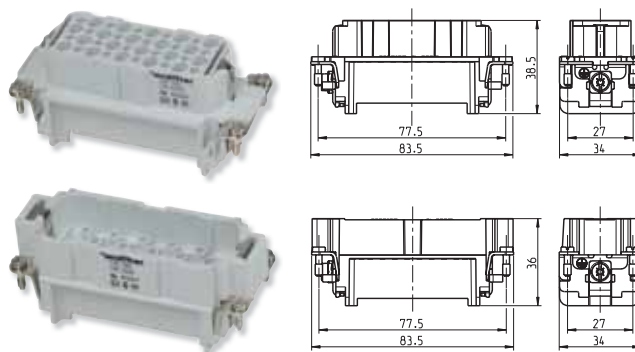
Contact carrier
for sleeve contacts

720 340

Please order crimp and glass
fibre cable contacts separately

Contact carrier
for pin contacts

720 440

Please order crimp and glass
fibre cable contacts separately

10
64

10
57

Contact arrangement

D 40 completely equipped with 40 contacts
Rated voltage: 250 V

D 40 modified: **D 20-pole** +

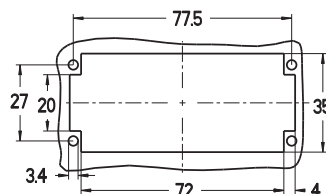
D 40 equipped with 20 contacts
Rated voltage: 400 V

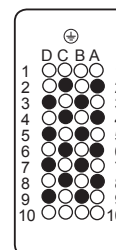
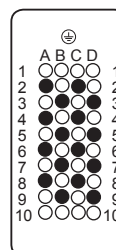
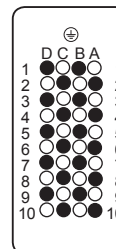
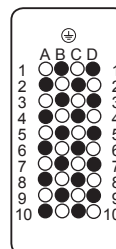
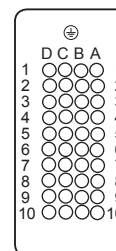
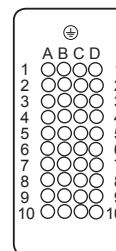
D 40 modified: **D 16-pole** +

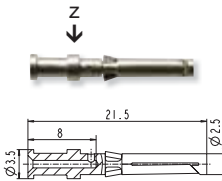
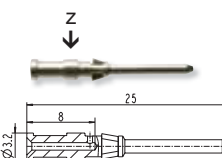
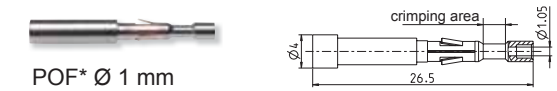
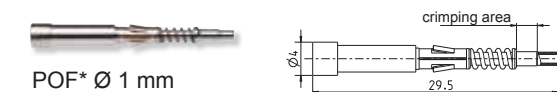
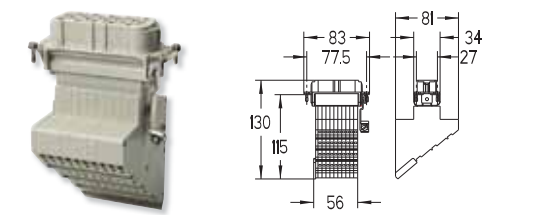
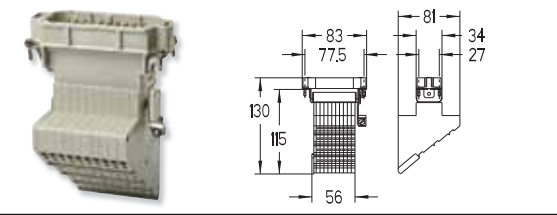
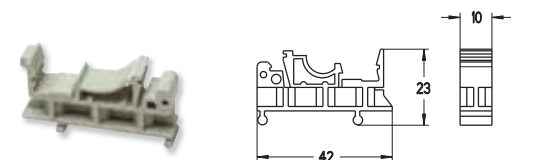
D 40 equipped with 16 contacts
Rated voltage: 500 V

Panel cutout

View from termination side


Female
insert

Male
insert

● working contact
○ without contact

Description		Part no.	Series D 40 P + 		10 A / 250 V UL/CSA: 300 V		  9																					
Contacts							Terminal cross section marked by z																					
Sleeve contacts D crimp-type, solid, turned, weight per 100		silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690			<table><tr><td>1</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75-1 mm²</td><td>19-18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>	1	0,14-0,37 mm ²	26-22 AWG	2	0,5 mm ²	20 AWG	3	0,75-1 mm ²	19-18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	<table><tr><td>100</td></tr><tr><td>65</td></tr><tr><td>68</td></tr><tr><td>70</td></tr><tr><td>72</td></tr><tr><td>62</td></tr></table>	100	65	68	70	72	62
1	0,14-0,37 mm ²	26-22 AWG																										
2	0,5 mm ²	20 AWG																										
3	0,75-1 mm ²	19-18 AWG																										
4	1,5 mm ²	16 AWG																										
5	2,5 mm ²	14 AWG																										
100																												
65																												
68																												
70																												
72																												
62																												
Pin contacts D crimp-type, solid, turned, weight per 100		silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695			<table><tr><td>1</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75-1 mm²</td><td>19-18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></table>	1	0,14-0,37 mm ²	26-22 AWG	2	0,5 mm ²	20 AWG	3	0,75-1 mm ²	19-18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	<table><tr><td>100</td></tr><tr><td>60</td></tr><tr><td>63</td></tr><tr><td>65</td></tr><tr><td>67</td></tr><tr><td>70</td></tr></table>	100	60	63	65	67	70
1	0,14-0,37 mm ²	26-22 AWG																										
2	0,5 mm ²	20 AWG																										
3	0,75-1 mm ²	19-18 AWG																										
4	1,5 mm ²	16 AWG																										
5	2,5 mm ²	14 AWG																										
100																												
60																												
63																												
65																												
67																												
70																												
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100		720 520				<table><tr><td>100</td></tr><tr><td>89</td></tr></table>	100	89																				
100																												
89																												
Pin contact Optical waveguide for POF, solid, turned, weight per 100		720 530				<table><tr><td>100</td></tr><tr><td>74</td></tr></table>	100	74																				
100																												
74																												
Wiring adapters			*POF= Polymer Optical Fibre																									
Female insert Earth pin on the left 0,2 - 2,5 mm ² (26-14 AWG)		720 633				<table><tr><td>10</td></tr><tr><td>64</td></tr></table>	10	64																				
10																												
64																												
Male insert Earth pin on the left 0,2 - 2,5 mm ² (26-14 AWG)		720 632				<table><tr><td>10</td></tr><tr><td>54</td></tr></table>	10	54																				
10																												
54																												
Combi snap element for DIN-rail mounting 2 pieces required per adapter		710 807				<table><tr><td>10</td></tr><tr><td>4</td></tr></table>	10	4																				
10																												
4																												

Series D 50 P + 10 A / 250 V UL/CSA: 300 V



Description

Part no.

4

Crimp contact carriers

Contact carrier

for sleeve contacts

2 x

720 325

Please order crimp and glass fibre cable contacts separately

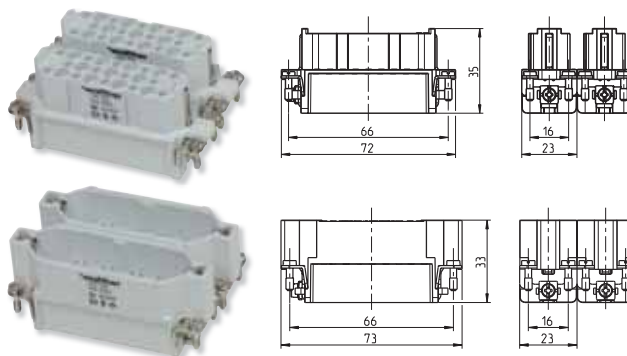
Contact carrier

for pin contacts

2 x

720 425

Please order crimp and glass fibre cable contacts separately



10
36

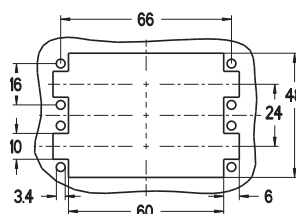
10
34

Contact arrangement

D 50 completely equipped with 50 contacts
Rated voltage: 250 V

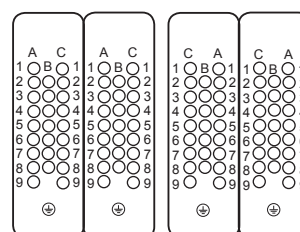
Panel cutout

View from termination side



Female insert

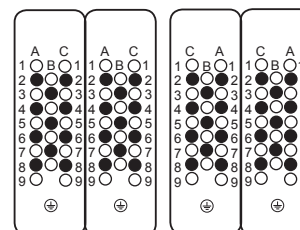
Male insert



D 50 modified: **D 22-pole +**

D 50 equipped with 2 x 11 contacts
Rated voltage: 500 V

● working contact
○ without contact



Contacts

Sleeve contacts D

crimp-type,
solid, turned,
weight per 100

silver-plated

720 506

720 507

720 508

720 509

720 502

gold-plated

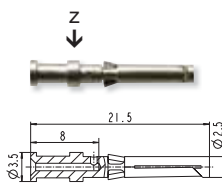
720 686

720 687

720 688

720 689

720 690



Terminal cross section
marked by z

z		
1	0,14 - 0,37 mm ²	26 - 22 AWG
2	0,5 mm ²	20 AWG
3	0,75 - 1 mm ²	19 - 18 AWG
4	1,5 mm ²	16 AWG
5	2,5 mm ²	14 AWG

100

65

68

70

72

62

Pin contacts D

crimp-type,
solid, turned,
weight per 100

silver-plated

720 516

720 517

720 518

720 519

720 512

gold-plated

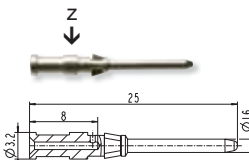
720 691

720 692

720 693

720 694

720 695



z		
1	0,14 - 0,37 mm ²	26 - 22 AWG
2	0,5 mm ²	20 AWG
3	0,75 - 1 mm ²	19 - 18 AWG
4	1,5 mm ²	16 AWG
5	2,5 mm ²	14 AWG

100

60

63

65

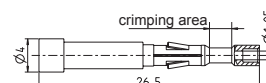
67

70

Sleeve contact

Optical waveguide for POF,
solid, turned,
weight per 100

720 520



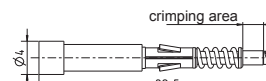
100

89

Pin contact

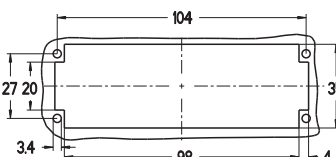
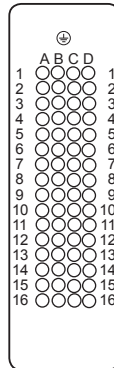
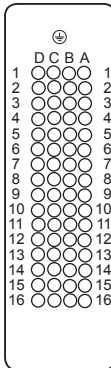
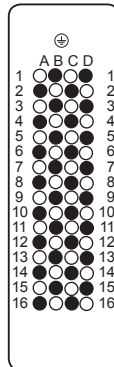
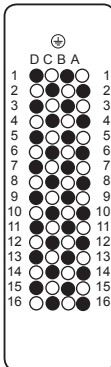
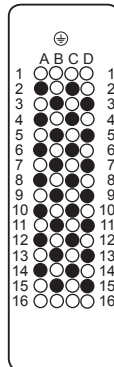
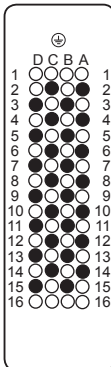
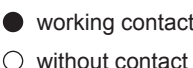
Optical waveguide for POF,
solid, turned,
weight per 100

720 530



100

74

			Series D	64 P + 	
				10 A / 250 V UL/CSA: 300 V	 9
Description			Part no.		
Crimp contact carriers					
Contact carrier for sleeve contacts		720 364			10 83
<i>Please order crimp and glass fibre cable contacts separately</i>					
Contact carrier for pin contacts		720 464			10 68
<i>Please order crimp and glass fibre cable contacts separately</i>					
Contact arrangement					
D 64 completely equipped with 64 contacts Rated voltage: 250 V			Panel cutout		
			View from termination side		
			Female insert		
			Male insert		
					
					
					
D 64 modified: D 32-pole + 					
D 64 equipped with 32 contacts Rated voltage: 400 V					
D 64 modified: D 28-pole + 					
D 64 equipped with 28 contacts Rated voltage: 500 V					
					

Series D 64 P +

10 A / 250 V

UL/CSA: 300 V



Description

Part no.

4

Contacts
Sleeve contacts D

crimp-type,
solid, turned,
weight per 100

silver-plated

720 506
720 507
720 508
720 509
720 502

gold-plated

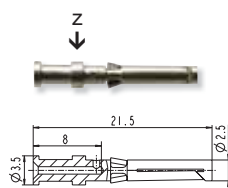
720 686

720 687

720 688

720 689

720 690


Terminal cross section
marked by z

z	Terminal cross section	marked by z
1	0,14-0,37 mm ²	26-22 AWG
2	0,5 mm ²	20 AWG
3	0,75-1 mm ²	19-18 AWG
4	1,5 mm ²	16 AWG
5	2,5 mm ²	14 AWG

100

65

68

70

72

62

Pin contacts D

crimp-type,
solid, turned,
weight per 100

silver-plated

720 516
720 517
720 518
720 519
720 512

gold-plated

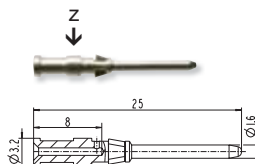
720 691

720 692

720 693

720 694

720 695



1	0,14-0,37 mm ²	26-22 AWG
2	0,5 mm ²	20 AWG
3	0,75-1 mm ²	19-18 AWG
4	1,5 mm ²	16 AWG
5	2,5 mm ²	14 AWG

100

60

63

65

67

70

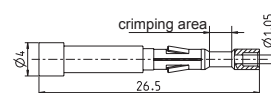
Sleeve contact

Optical waveguide for POF,
solid, turned,
weight per 100

720 520



POF* Ø 1 mm



100

89

Pin contact

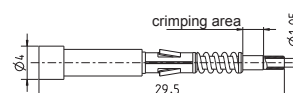
Optical waveguide for POF,
solid, turned,
weight per 100

720 530



POF* Ø 1 mm

*POF= Polymer Optical Fibre



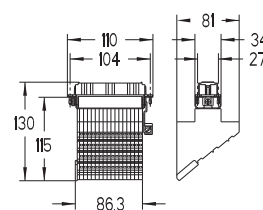
100

74

Wiring adapters
Female insert

Earth pin on the left
0,2 - 2,5 mm² (26-14 AWG)

720 635



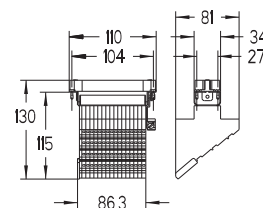
10

82

Male insert

Earth pin on the left
0,2 - 2,5 mm² (26-14 AWG)

720 634



10

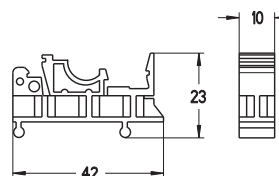
67

Combi snap element

for DIN-rail mounting

2 pieces required per adapter

710 807



10

4

4

Series D 80 P +

10 A / 250 V

UL/CSA: 300 V



Description

Part no.

4

Contacts
Sleeve contacts D

crimp-type,
solid, turned,
weight per 100

silver-plated

720 506
720 507
720 508
720 509
720 502

gold-plated

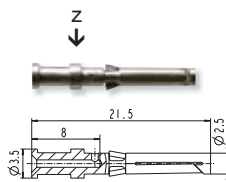
720 686

720 687

720 688

720 689

720 690


Terminal cross section
marked by z

z	Terminal cross section marked by z
1	0,14-0,37 mm ² 26-22 AWG
2	0,5 mm ² 20 AWG
3	0,75-1 mm ² 19-18 AWG
4	1,5 mm ² 16 AWG
5	2,5 mm ² 14 AWG

100

65

68

70

72

62

Pin contacts D

crimp-type,
solid, turned,
weight per 100

silver-plated

720 516
720 517
720 518
720 519
720 512

gold-plated

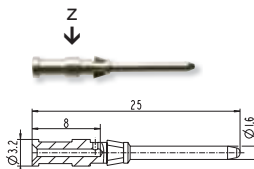
720 691

720 692

720 693

720 694

720 695



1	0,14-0,37 mm ² 26-22 AWG
2	0,5 mm ² 20 AWG
3	0,75-1 mm ² 19-18 AWG
4	1,5 mm ² 16 AWG
5	2,5 mm ² 14 AWG

100

60

63

65

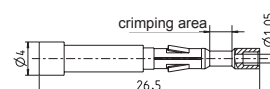
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70

Sleeve contact

Optical waveguide for POF,
solid, turned,
weight per 100

720 520



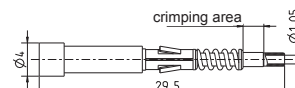
100

89

Pin contact

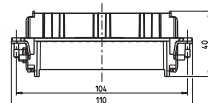
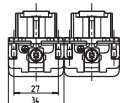
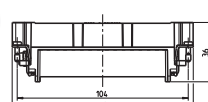
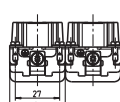
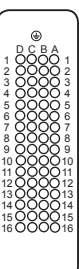
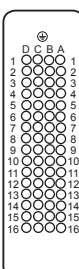
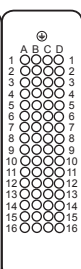
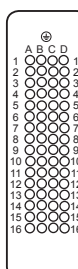
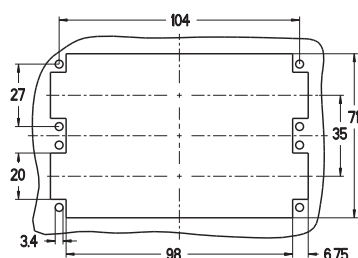
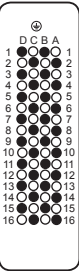
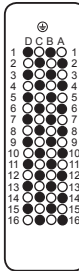
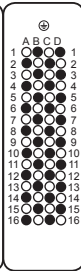
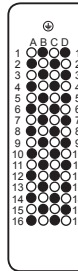
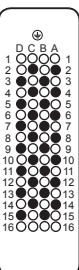
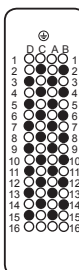
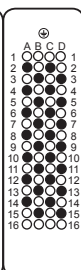
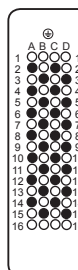
Optical waveguide for POF,
solid, turned,
weight per 100

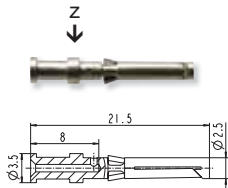
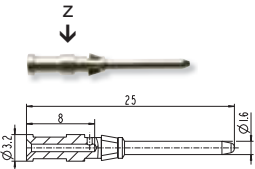
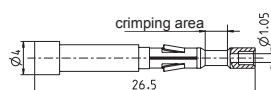
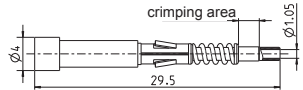
720 530



100

74

			Series D	128 P + 	
				10 A / 250 V UL/CSA: 300 V	 9
Description			Part no.		
Crimp contact carriers					
Contact carrier for sleeve contacts			2 x	720 364	     
<i>Please order crimp and glass fibre cable contacts separately</i>					
Contact carrier for pin contacts			2 x	720 464	
<i>Please order crimp and glass fibre cable contacts separately</i>					
Contact arrangement					
D 128 (2 x D 64), completely equipped with 128 contacts Rated voltage: 250 V					
View from termination side Female insert Male insert  Panel cutout    ● working contact ○ without contact					
D 128 modified: D 64.1-pole + 					
D 128 equipped with 2 x 32 contacts Rated voltage: 400 V					
D 128 modified: D 56-pole + 					
D 128 equipped with 2 x 28 contacts Rated voltage: 500 V					

Description		Part no.	Series D 128 P +  10 A / 250 V UL/CSA: 300 V		 
Contacts					
Sleeve contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690	Terminal cross section marked by z		
			1	0,14-0,37 mm ² 26-22 AWG	100 65
			2	0,5 mm ² 20 AWG	68
			3	0,75-1 mm ² 19-18 AWG	70
			4	1,5 mm ² 16 AWG	72
			5	2,5 mm ² 14 AWG	62
Pin contacts D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695			
			1	0,14-0,37 mm ² 26-22 AWG	100 60
			2	0,5 mm ² 20 AWG	63
			3	0,75-1 mm ² 19-18 AWG	65
			4	1,5 mm ² 16 AWG	67
			5	2,5 mm ² 14 AWG	70
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520				100 89
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530				100 74



Series DD 24 - DD 216

Housings of series B6-B24 with new design



Series DD is the economic and space-saving solution for applications in which high contact density is needed. Up to **216 contacts** can be fitted.



The high contact density requires a high wiring density. To ensure comfortable termination, maximum conductor sizes and optimum wiring space, WALTHER offers housings in higher version. Of course these housings can also be used with the other series.



Locking systems:

- Series DD 24 & DD 216: only with **single locking system**
- Series DD 144: only with **double locking system**
- Series DD 42, DD 72 and DD 108: **both locking systems** possible



Housing size 5 with single locking system



Housing size 9 with double locking system



Housing size 6-7-8 with both locking systems



Housing size 10 with single locking system

Housings of series B6-B24: More possibilities with exchangeable locking levers

Easy and cost-saving exchange of single and double locking levers in case of damage or material fatigue.

Just press replacement lever in axial direction onto the bolts until they lock in place.



Series DD contact carriers can only be equipped with crimp contacts, which have to be ordered separately according to the relevant conductor cross section. The contacts are crimped with a special crimping tool and then snapped into the contact carrier by means of an insertion tool. If required, they can be released with a special removal tool.



The millionfold proven crimp-type contacts guarantee a safe connection.



Optical waveguide

Instead of silver or gold-plated brass contacts for copper wires, also contacts for optical waveguide made of polymer optical fibre (POF) fit into the contact cavities of series DD contact carriers.

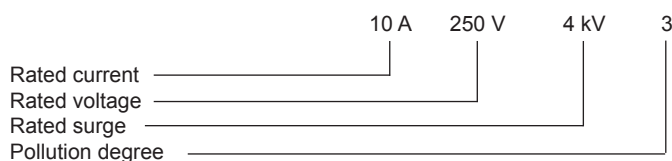


Series DD

Specifications

Regulations:	DIN VDE 0627, DIN VDE 0110, DIN EN 61 984
Approvals:	UR, EZÚ
Number of poles:	24, 42, 72, 108, 144 (2 x 72), 216 (2 x 108) + PE

Electrical data acc. to DIN EN 61 984:



Rated voltage acc. to UL: 600 V
(Table with rated surges see chapter "Information")

Material:	Glass-fibre reinforced polyamide
Temperature range:	- 40 °C up to + 125 °C
Flame class rating acc. to UL 94:	V 0
Mechanical operating life:	> 500
Mating cycles:	> 500

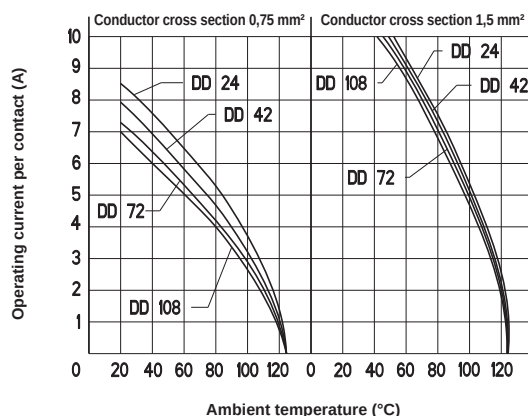
Contacts:

Material:	copper alloy
Surface	- hard silver plated: 3 µm Ag - hard gold plated: 2 µm Au over 3 µm Ni
Contact resistance:	≤ 3 m Ω
Crimp-type terminal:	0,14 - 2,5 mm² (26 - 14) AWG
Wire stripping length:	7 mm

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

The derating diagram (corrected current capacity curve) acc. to DIN IEC 60512 applies to such kind of current which can - depending on ambient temperature and conductor size) circulate through each contact without exceeding the upper limiting temperature.



Page

Inserts

DD 24-pole + Ⓢ DD 24 modified
DD 12-pole + Ⓢ
DD 5-pole + Ⓢ

62

- Short overview see page 120
- Matching housings see page 121 - 123



Inserts

DD 42-pole + Ⓢ DD 42 modified
DD 21-pole + Ⓢ
DD 11-pole + Ⓢ

63

- Short overview see page 124
- Matching housings see page 125 - 131



Inserts

DD 72-pole + Ⓢ DD 72 modified
DD 34-pole + Ⓢ
DD 17-pole + Ⓢ

64

- Short overview see page 132
- Matching housings see page 133 - 140



Inserts

DD 108-pole + Ⓢ DD 108 modified
DD 52-pole + Ⓢ
DD 26-pole + Ⓢ

66

- Short overview see page 142
- Matching housings see page 143 - 149



Inserts

DD 144-pole + Ⓢ DD 144 modified
DD 68-pole + Ⓢ
DD 34.1-pole + Ⓢ

68

- Short overview see page 150
- Matching housings see page 151 - 152



Inserts

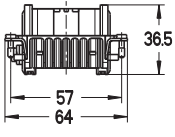
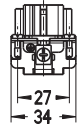
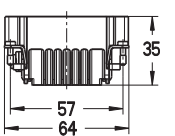
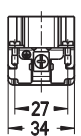
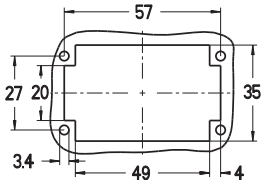
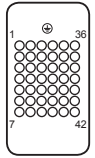
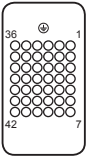
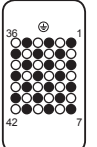
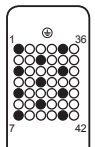
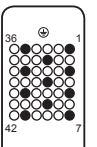
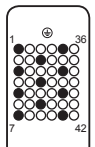
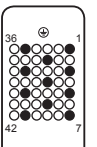
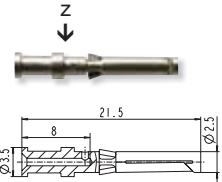
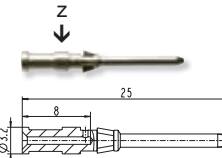
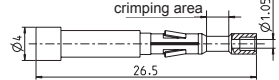
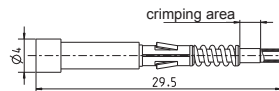
DD 216-pole + Ⓢ DD 216 modified
DD 104-pole + Ⓢ
DD 52.1-pole + Ⓢ

70

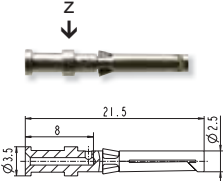
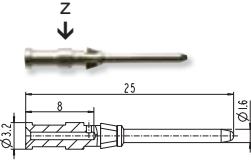
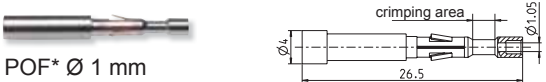
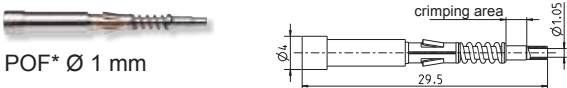
- Short overview see page 144
- Matching housings see page 145



Description			Part no.		Series DD 24 P +		10 A / 250 V UL/CSA: 600 V		 	
Crimp contact carriers										
Contact carrier for sleeve contacts			750 124				 		10 40	
<i>Please order crimp and glass fibre cable contacts separately</i>										
Contact carrier for pin contacts			750 224				 		10 39	
<i>Please order crimp and glass fibre cable contacts separately</i>										
Contact arrangement										
DD 24 completely equipped with 24 contacts Rated voltage: 250 V										
DD 24 modified: DD 12-pole + 							View from termination side Female insert Male insert 			
DD 24 equipped with 12 contacts Rated voltage: 400 V										
DD 24 modified: DD 5-pole + 										
DD 24 equipped with 5 contacts Rated voltage: 500 V										
									● working contact ○ without contact	
Contacts										
Sleeve contact D crimp-type, solid, turned, weight per 100			silver-plated 720 506 720 507 720 508 720 509 720 502		gold-plated 720 686 720 687 720 688 720 689 720 690		 z 		Terminal cross section marked by Z 1 0,14-0,37 mm ² 26-22 AWG 2 0,5 mm ² 20 AWG 3 0,75-1 mm ² 19-18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG	
Pin contact D crimp-type, solid, turned, weight per 100			silver-plated 720 516 720 517 720 518 720 519 720 512		gold-plated 720 691 720 692 720 693 720 694 720 695		 z 		1 0,14-0,37 mm ² 26-22 AWG 2 0,5 mm ² 20 AWG 3 0,75-1 mm ² 19-18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG	
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100			720 520				 POF* Ø 1 mm 		100 89	
Pin contact Optical waveguide for POF, solid, turned, weight per 100			720 530				 POF* Ø 1 mm 		100 74	
							*POF = Polymer Optical Fibre			

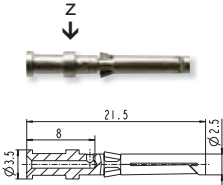
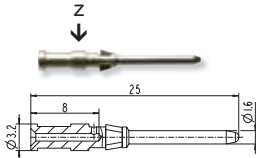
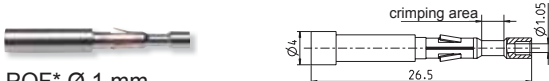
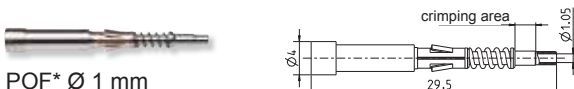
Description		Part no.	Series DD 42 P + 	  9
Crimp contact carriers				
Contact carrier for sleeve contacts <i>Please order crimp and glass fibre cable contacts separately</i>	750 142		  	10 51
Contact carrier for pin contacts <i>Please order crimp and glass fibre cable contacts separately</i>	750 242		  	10 47
Contact arrangement				
DD 42 completely equipped with 42 contacts Rated voltage: 250 V			Panel cutout 	View from termination side Female insert  Male insert 
DD 42 modified: DD 21-pole + 			 	
DD 42 equipped with 21 contacts Rated voltage: 400 V			 	
DD 42 modified: DD 11-pole + 			 	
DD 42 equipped with 11 contacts Rated voltage: 500 V			● working contact ○ without contact	
Contacts				
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690		Terminal cross section marked by Z 1 0,14 - 0,37 mm ² 26-22 AWG 2 0,5 mm ² 20 AWG 3 0,75 - 1 mm ² 19-18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG
Pin contact D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695		1 0,14 - 0,37 mm ² 26-22 AWG 2 0,5 mm ² 20 AWG 3 0,75 - 1 mm ² 19-18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520		 POF* Ø 1 mm	 crimping area Ø 1,05 26,5
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530		 POF* Ø 1 mm *POF = Polymer Optical Fibre	 crimping area Ø 1,05 29,5

Description	Part no.	Series DD 72 P + 10 A / 250 V UL/CSA: 600 V	
Crimp contact carriers			
Contact carrier for sleeve contacts <i>Please order crimp and glass fibre cable contacts separately</i>	750 172	 	10 64
Contact carrier for pin contacts <i>Please order crimp and glass fibre cable contacts separately</i>	750 272	 	10 58
Contact arrangement		Panel cutout View from termination side	
DD 72 completely equipped with 72 contacts Rated voltage: 250 V		 	
DD 72 modified: DD 34-pole + DD 72 equipped with 34 contacts Rated voltage: 400 V		 	
DD 72 modified: DD 17-pole + DD 72 equipped with 17 contacts Rated voltage: 500 V		 	

			Series DD	72 P + 	 
Description	Part no.			10 A / 250 V UL/CSA: 600 V	
Contacts					
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690		Terminal cross section marked by Z z 1 0,14 - 0,37 mm ² 26 - 22 AWG 2 0,5 mm ² 20 AWG 3 0,75 - 1 mm ² 19 - 18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG	100 65 68 70 72 62
Pin contact D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695		 z 1 0,14 - 0,37 mm ² 26 - 22 AWG 2 0,5 mm ² 20 AWG 3 0,75 - 1 mm ² 19 - 18 AWG 4 1,5 mm ² 16 AWG 5 2,5 mm ² 14 AWG	100 60 63 65 67 70
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520				100 89
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530				100 74
			*POF = Polymer Optical Fibre		

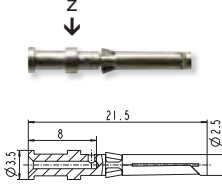
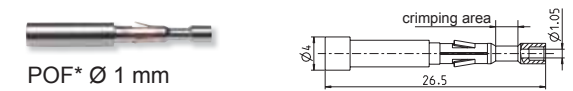
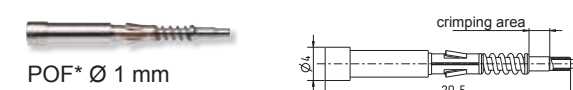
*POF = Polymer Optical Fibre

Description	Part no.	Series DD 108 P + 10 A / 250 V UL/CSA: 600 V	
Crimp contact carriers			10 83 10 73
Contact carrier for sleeve contacts <i>Please order crimp and glass fibre cable contacts separately</i>	750 108		
Contact carrier for pin contacts <i>Please order crimp and glass fibre cable contacts separately</i>	750 208		
Contact arrangement DD 108 completely equipped with 108 contacts Rated voltage: 250 V		Panel cutout View from termination side Female insert Male insert	
DD 108 modified: DD 52-pole + DD 108 equipped with 52 contacts Rated voltage: 400 V		Female insert Male insert	
DD 108 modified: DD 26-pole + DD 108 equipped with 26 contacts Rated voltage: 500 V		Female insert Male insert working contact without contact	

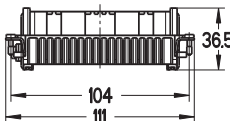
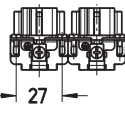
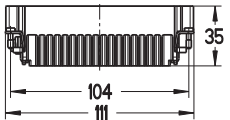
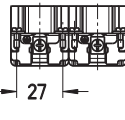
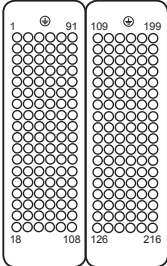
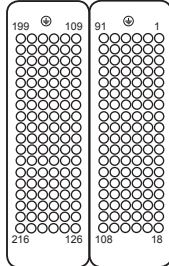
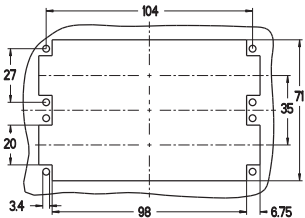
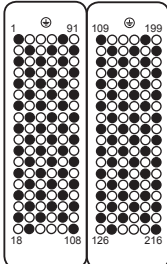
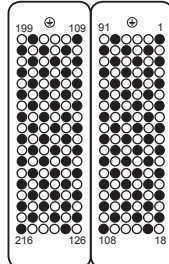
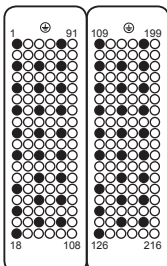
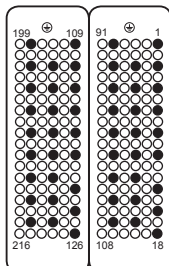
			Series DD 108 P + 		 																		
Description	Part no.		10 A / 250 V UL/CSA: 600 V																				
Contacts																							
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690	 <table><thead><tr><th>Z</th><th colspan="2">Terminal cross section marked by Z</th></tr></thead><tbody><tr><td>1</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75-1 mm²</td><td>19-18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></tbody></table>		Z	Terminal cross section marked by Z		1	0,14-0,37 mm ²	26-22 AWG	2	0,5 mm ²	20 AWG	3	0,75-1 mm ²	19-18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	100 65 68 70 72 62
Z	Terminal cross section marked by Z																						
1	0,14-0,37 mm ²	26-22 AWG																					
2	0,5 mm ²	20 AWG																					
3	0,75-1 mm ²	19-18 AWG																					
4	1,5 mm ²	16 AWG																					
5	2,5 mm ²	14 AWG																					
Pin contact D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695	 <table><thead><tr><th>Z</th><th colspan="2">Terminal cross section marked by Z</th></tr></thead><tbody><tr><td>1</td><td>0,14-0,37 mm²</td><td>26-22 AWG</td></tr><tr><td>2</td><td>0,5 mm²</td><td>20 AWG</td></tr><tr><td>3</td><td>0,75-1 mm²</td><td>19-18 AWG</td></tr><tr><td>4</td><td>1,5 mm²</td><td>16 AWG</td></tr><tr><td>5</td><td>2,5 mm²</td><td>14 AWG</td></tr></tbody></table>		Z	Terminal cross section marked by Z		1	0,14-0,37 mm ²	26-22 AWG	2	0,5 mm ²	20 AWG	3	0,75-1 mm ²	19-18 AWG	4	1,5 mm ²	16 AWG	5	2,5 mm ²	14 AWG	100 60 63 65 67 70
Z	Terminal cross section marked by Z																						
1	0,14-0,37 mm ²	26-22 AWG																					
2	0,5 mm ²	20 AWG																					
3	0,75-1 mm ²	19-18 AWG																					
4	1,5 mm ²	16 AWG																					
5	2,5 mm ²	14 AWG																					
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520		 POF* Ø 1 mm		100 89																		
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530		 POF* Ø 1 mm *POF = Polymer Optical Fibre		100 74																		

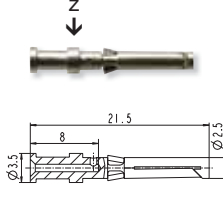
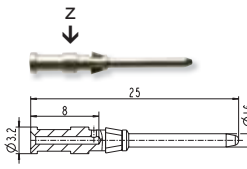
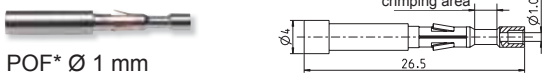
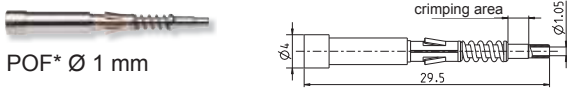
Description	Part no.	Series DD 144 P + 10 A / 250 V UL/CSA: 600 V	 10 83 83
Crimp contact carriers			
Contact carriers for sleeve contacts 1 - 72 for sleeve contacts 73 - 144 <i>Please order crimp and glass fibre cable contacts separately</i>	750 172 750 144	 	10 83 83
Contact carriers for pin contacts 1 - 72 for pin contacts 73 - 144 <i>Please order crimp and glass fibre cable contacts separately</i>	750 272 750 244	 	10 73 73
Contact arrangement DD 144 completely equipped with 144 contacts Rated voltage: 250 V		View from termination side Female insert Male insert Panel cutout 	
DD 144 modified: DD 68-pole + DD 144 equipped with 2 x 34 contacts Rated voltage: 400 V		 	
DD 144 modified: DD 34-pole + DD 144 equipped with 2 x 17 contacts Rated voltage: 500 V		 	

● working contact ○ without contact

Description		Part no.	Series DD		144 P + 		  9	
					10 A / 250 V UL/CSA: 600 V			
Contacts					Terminal cross section marked by Z			
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690	z					
			1		0,14 - 0,37 mm ²	26 - 22 AWG	100	
			2		0,5 mm ²	20 AWG	65	
			3		0,75 - 1 mm ²	19 - 18 AWG	68	
			4		1,5 mm ²	16 AWG	70	
			5		2,5 mm ²	14 AWG	72	
Pin contact D crimp-type, solid, turned, weight per 100	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695	z					
			1		0,14 - 0,37 mm ²	26 - 22 AWG	100	
			2		0,5 mm ²	20 AWG	60	
			3		0,75 - 1 mm ²	19 - 18 AWG	63	
			4		1,5 mm ²	16 AWG	65	
			5		2,5 mm ²	14 AWG	67	
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520				POF* Ø 1 mm		100 89	
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530				POF* Ø 1 mm		100 74	
			*POF = Polymer Optical Fibre					

*POF = Polymer Optical Fibre

			Series DD	216 P + 	 
Description	Part no.				
Crimp contact carriers					
Contact carriers for sleeve contacts 1-108 for sleeve contacts 109-216 <i>Please order crimp and glass fibre cable contacts separately</i>	750 108 750 116		     		
Contact carriers for pin contacts 1 - 108 for pin contacts 109 - 216 <i>Please order crimp and glass fibre cable contacts separately</i>	750 208 750 216				
Contact arrangement					
DD 216 completely equipped with 216 contacts Rated voltage: 250 V			View from termination side Female insert Male insert   Panel cutout 		
DD 216 modified: DD 104-pole + 			 		
DD 216 equipped with 2 x 52 contacts, Rated voltage: 400 V					
DD 216 modified: DD 52.1-pole + 			 		
DD 216 equipped with 2 x 26 contacts, Rated voltage: 500 V			● working contact ○ without contact		

Description	Part no.		Series DD	216 P + 	 
Contacts					
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated	gold-plated	Terminal cross section marked by Z		100
	720 506	720 686	1	0,14-0,37 mm ² 26-22 AWG	65
	720 507	720 687	2	0,5 mm ² 20 AWG	68
	720 508	720 688	3	0,75-1 mm ² 19-18 AWG	70
	720 509	720 689	4	1,5 mm ² 16 AWG	72
	720 502	720 690	5	2,5 mm ² 14 AWG	62
Pin contact D crimp-type, solid, turned, weight per 100	silver-plated	gold-plated			100
	720 516	720 691	1	0,14-0,37 mm ² 26-22 AWG	60
	720 517	720 692	2	0,5 mm ² 20 AWG	63
	720 518	720 693	3	0,75-1 mm ² 19-18 AWG	65
	720 519	720 694	4	1,5 mm ² 16 AWG	67
	720 512	720 695	5	2,5 mm ² 14 AWG	70
Sleeve contact Optical waveguide for POF, solid, turned, weight per 100	720 520				100 89
			POF* Ø 1 mm		
Pin contact Optical waveguide for POF, solid, turned, weight per 100	720 530				100 74
			POF* Ø 1 mm		
			*POF = Polymer Optical Fibre		



The different modules are inserted into the appropriate retaining frames (which vary according to the different housing sizes). There they snap in easily and safely. A special removal tool ensures quick and easy customisation of the connector to meet any change in the users' requirements.



The modular MO series is an extension of the PROCON range of industrial connectors. The advantage is the modularisation of inserts. The known division into male and female inserts does not apply here anymore. The user has the possibility of inverse equipment, i.e. in the modular system, a retaining frame can accommodate contact carriers for both pin and sleeve contacts.

In combination with the proven series B standard housings, the MO series allows the synthesis of electrical and optical contacts in inserts with different amperages and voltages inside one retaining frame.

The modular construction of inserts leaves the decision on the specific arrangement in individual applications to the user.



Due to the extensive range of different available housing sizes, the user can implement combinations of 2 up to max. 2 x 7 contact carriers per housing - and thus realise any pole number from 3 to 280.

The following regulations apply to the combination of several circuits in one cable and/or for example a connector:

VDE 0100/1.97 § 411.1.3.2
and
DIN EN 60 204/11.98 § 14.1.3.

Series MO

Specifications

Regulations: DIN VDE 0627,
DIN VDE 0110,
DIN EN 61 984

Approvals: UR, CSA, SEV

Number of poles: 3 - 280 + PE

Electrical data:

See individual series.

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

Delivery information:

Retaining frames and modules are available in grey or black. We will supply the colour version which is currently available at the time of ordering - no colour can be reserved!

Page

Retaining frames
MOB 6 up to MOB 24

75



MO 2-pole (1 + PE)
82 A / 1000 V

76 - 77



MO 2-pole
82 A / 1000 V

78 - 79

MO 3-pole coax

80 - 81



MO 3-pole
50 A / 630 V

82 - 83

MO 3.1-pole
50 A / 1000 V

84 - 85



MO 4-pole
25 A / 630 V

86 - 87

MO 4-pole + ⚡
16 A / 1000 V

88 - 89



MO Universal bus
4-pole + shielding
1 A / 30 V

90 - 91

MO Profibus DP
2-pole + shielding
1 A / 30 V

92 - 93



MO 5.1-pole
16 A / 1000 V

88 - 89

MO 5-pole
20 A / 400 V

94 - 95



MO 10-pole
10 A / 250 V

96 - 97



MO 20-pole
5 A / 63 V

98 - 99



MO RJ45
13 A / 400 V AC

100 - 101



MO pneumatic
Air pressure

102



Blind module MO 0

102



MO modules overview

Series	Specifications	5*	6*	7*	8*	9*	10*	Starting on page: Inserts Housings
MO	Retaining frame: No. of contact carriers:	MO B6 2	MO B10 3	MO B16 5	MO B24 7	2 x MO B16 2 x 5	2 x MO B24 2 x 7	
MO 2	$\frac{80 \text{ A}}{100 \text{ V}}$							
MO 3 _{coax}	250 V							
MO 3	$\frac{50 \text{ A}}{630 \text{ V}}$							
MO 3.1	$\frac{50 \text{ A}}{1000 \text{ V}}$							
MO 4 MO 5.1	$\frac{16 \text{ A}}{1000 \text{ V}}$							
MO 5	$\frac{20 \text{ A}}{400 \text{ V}}$							
MO 10	$\frac{10 \text{ A}}{250 \text{ V}}$							
MO 20	$\frac{5 \text{ A}}{63 \text{ V}}$							
MO Pneumatic								
MO Universal bus								
MO Profibus DP								
MO RJ45								
MO Blind module								

71
121

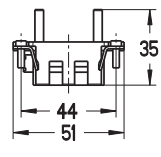
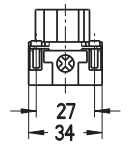
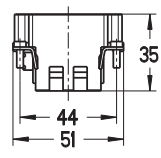
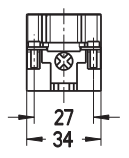
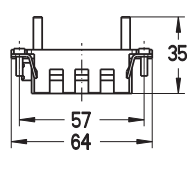
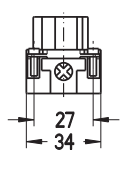
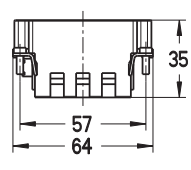
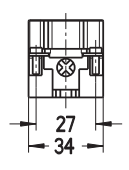
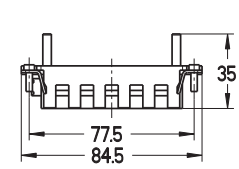
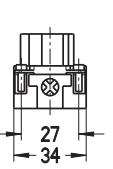
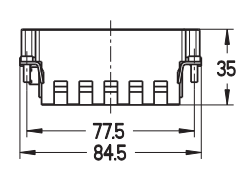
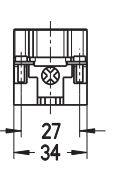
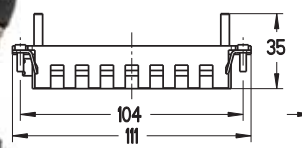
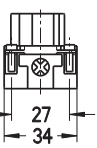
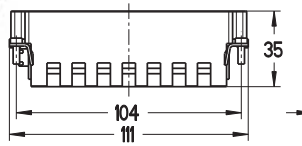
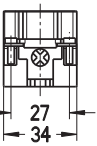
*Vertical columns: identical housing sizes and fixing dimensions for the different series and numbers of poles

$\frac{\text{S} | \text{SK}}{\text{C} | \text{LWL}}$ = $\frac{\text{Screw} | \text{Insulation Displacement Connection}}{\text{Crimp} | \text{Polymer Optical Fibre}}$

Note for users

The following regulations apply to the combination of several circuits in one cable and/or for example a connector:

VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3

Description	Part no.	Frame coding	Series MO B	 
Retaining frames				
Female frames MO B 6 for 2 contact carriers for pin and sleeve contacts mountable in series B 6	770 006 770 406 (2xPE)	A - B	  	10 29 31
Male frames MO B 6 for 2 contact carriers for pin and sleeve contacts mountable in series B 6	770 106 770 506 (2xPE)	A - B	  	10 33 35
Female frames MO B 10 for 3 contact carriers for pin and sleeve contacts mountable in series B 10	770 010 770 410 (2xPE)	A - C	  	10 33 35
Male frames MO B 10 for 3 contact carriers for pin and sleeve contacts mountable in series B 10	770 110 770 510 (2xPE)	A - C	  	10 39 41
Female frames MO B 16 for 5 contact carriers for pin and sleeve contacts mountable in series B 16 with additional female frame mountable in series B 32	770 016 770 416 (2xPE) 770 216 770 616 (2xPE)	A - E V - Z	  	10 33 35 33 35
Male frames MO B 16 for 5 contact carriers for pin and sleeve contacts mountable in series B 16 with additional male frame mountable in series B 32	770 116 770 516 (2xPE) 770 316 770 716 (2xPE)	A - E V - Z	  	10 42 44 42 44
Female frames MO B 24 for 7 contact carriers for pin and sleeve contacts mountable in series B 24 with additional female frame mountable in series B 48	770 024 770 424 (2xPE) 770 224 770 624 (2xPE)	A - G T - Z	  	10 40 42 40 42
Male frames MO B 24 for 7 contact carriers for pin and sleeve contacts mountable in series B 24 with additional male frame mountable in series B 48	770 124 770 524 (2xPE) 770 324 770 724 (2xPE)	A - G T - Z	  	10 49 51 49 51

Series MO 2-pole (1 + PE)

Specifications

Number of poles

1 + PE

Termination method

Screw

Contacts

solid, turned, copper alloy,
silver-plated,
contact diameter 3,6 mm

Terminal cross section

10 - 25 mm² (8 - 4 AWG)

Mating cycles

100

Rated current

82 A

Contact resistance

< 2 mOhm

Rated voltage

IEC: 1000 V

UL: 600 V

CSA: 600 V

Test voltage

5,7 kV

Temperature range

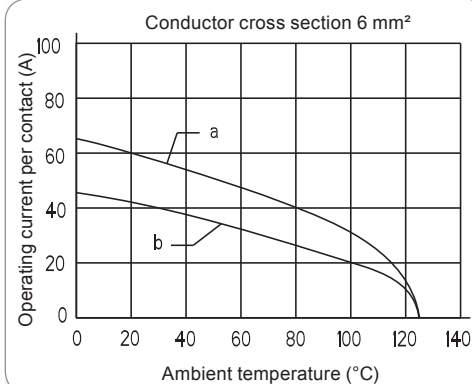
-40 °C up to +100 °C, temporarily up to + 125 °C

Pollution degree

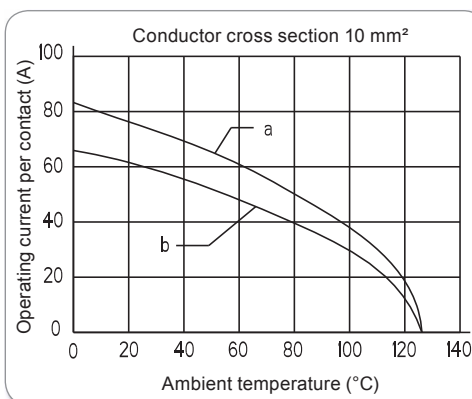
3

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient temperature and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature



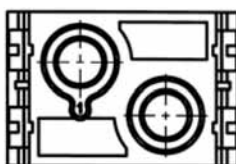
Curve	Poles	Retaining frame
a	2	MO B 6
a	9	MO B 10
b	4	MO B 16
b	4	MO B 24



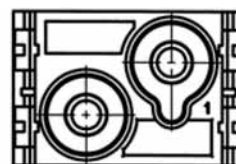
Contact arrangement

View from termination side

Female
insert



Male
insert



Description	Part no.		Series MO 2 P (1 + PE) 82 A / 1000 V	
High current MC modules			- Occupies 2 slots in the module frame - Power and signal modules can be combined in one housing. This mixed equipment guarantees high flexibility. Application areas: • Industrial machinery and plant engineering • Printing machines • Control engineering	10 10
Female insert	771 401			
Male insert	771 501			
Tools				1 30
Removal tool for contact carriers	779 300			

Series MO 2-pole

Specifications

Number of poles
2

Termination method
Screw

Contacts
solid, turned, copper alloy
silver-plated,
contact diameter 3,6 mm

Terminal cross section
10 - 25 mm² (8 - 4 AWG)

Mating cycles
100

Rated current
82 A

Contact resistance
< 2 mOhm

Rated voltage
IEC: 1000 V
UL: 600 V
CSA: 600 V

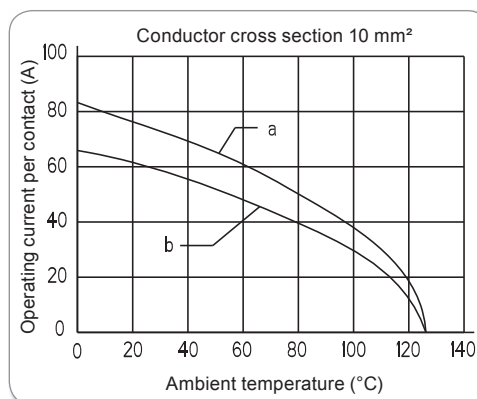
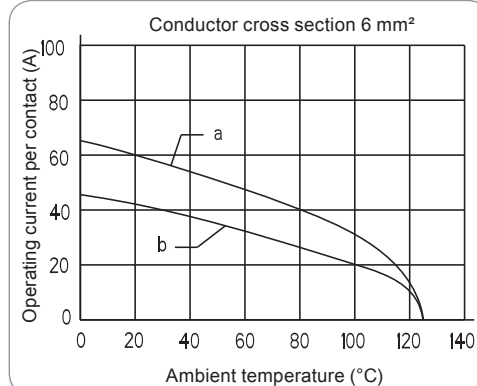
Test voltage
5,7 kV

Temperature range
-40 °C up to +100 °C,
temporarily up to + 125 °C

Pollution degree
3

The derating diagram
(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient tempera-
ture and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

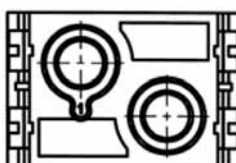
Curve	Poles	Retaining frame
a	2	MO B 6
a	2	MO B 10
b	4	MO B 16
b	6	MO B 24



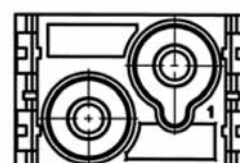
Contact arrangement

View from termination side

Female
insert



Male
insert



Series MO 3-pole coax

Specifications

Number of poles

3

Termination method

Crimp, solder-type

Contacts

solid, turned, copper alloy
gold-plated,
contact diameter 3,6 mm coax

Rated voltage

250 V

Contact resistance

< 5 mΩ

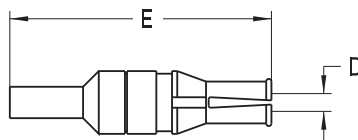
Wave impedance

50 Ω

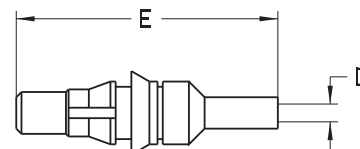
Frequency range

2 GHz

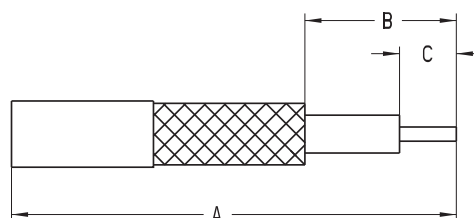
Sleeve contact



Pin contact



Stripping / contact dimensions



Cable size

RG 174, 179, 316 A = 9,9

B = 3,6
C = 2

D = 1,7

E = 23,6

D = 1,7

E = 23,6

RG 58

A = 11,5

D = 3,2
B = 3,6
C = 2

D = 3,2

E = 23,6

E = 23,6

Contact arrangement

View from termination side

Female insert



Male insert



Description		Part no.	Series MO 3 P coax	
Crimp contact carriers				
Contact carrier MO 3 K for sleeve contacts <i>Please order crimp contacts separately</i>	771 203			10 8
Contact carrier MO 3 K for pin contacts <i>Please order crimp contacts separately</i>	771 303			10 6
Contacts				
Sleeve contact MO 3 K for crimp or solder-type terminals, for cable size RG 174, 179, 316 for cable size RG 58	gold-plated 772 400 772 410			1 3 3
Pin contact MO 3 K for crimp or solder-type terminals, for cable size RG 174, 179, 316 for cable size RG 58	gold-plated 772 500 772 510			1 3 3
Tools				
Removal tool for contacts MO 3	779 000			1 28
Crimping tool for single contacts Crimping dies cable size RG 174, 179, 316 cable size RG 58	779 700 779 710 779 720			1 420
Removal tool for contact carriers	779 300			1 30

Series MO 3-pole

Specifications

Number of poles

3

Termination method

Crimp

Contacts

solid, turned, copper alloy
silver-plated,
contact diameter 3,6 mm

Terminal cross section

1,5 - 10 mm² (16 - 8 AWG)

Rated current

max. 50 A, see derating diagram

Rated voltage

630 V

Rated surge

8,0 kV

Test voltage

4 kV

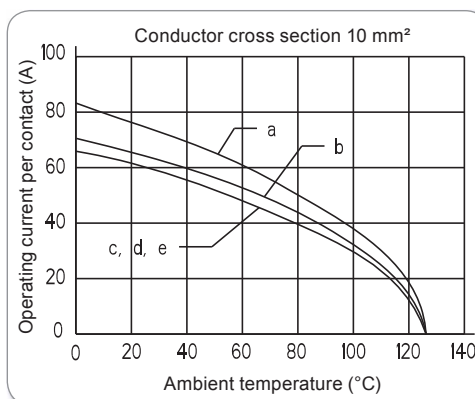
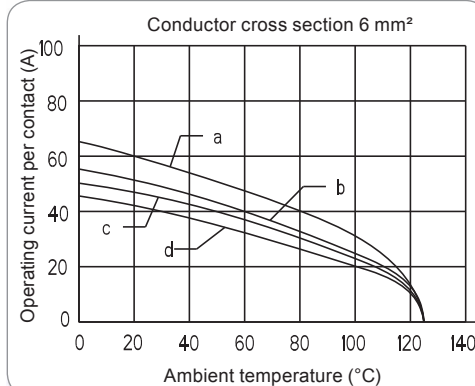
Contact resistance

≤ 1 mΩ

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient tempera-
ture and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

Curve	Poles	Retaining frame
a	3	MO B 6
b	6	MO B 6
c	9	MO B 10
d	15	MO B 16
e	21	MO B 24



Contact arrangement

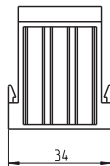
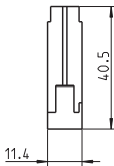
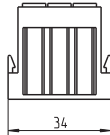
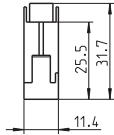
View from termination side

Female
insert



Male
insert



			Series MO	3 P	
				50 A / 630 V	
Description	Part no.				
Crimp contact carriers					
Contact carrier MO 3 for sleeve contacts	771 003			 	10 8
<i>Please order crimp contacts separately</i>					
Contact carrier MO 3 for pin contacts	771 103			 	10 6
<i>Please order crimp contacts separately</i>					
Contacts					
Sleeve contact MO 3 crimp-type, weight per 100	silver-plated 772 030 772 040 772 050 772 060 772 070		Terminal cross section		
				1,5 mm ² 2,5 mm ² 4 mm ² 6 mm ² 10 mm ²	16 AWG 14 AWG 12 AWG 10 AWG 8 AWG
					100 300 300 300 300
Pin contact MO 3 crimp-type, weight per 100, pin Ø 3,6 mm ²	silver-plated 772 130 772 140 772 150 772 160 772 170			1,5 mm ² 2,5 mm ² 4 mm ² 6 mm ² 10 mm ²	16 AWG 14 AWG 12 AWG 10 AWG 8 AWG
					100 300 300 300 300 300
Tools					
Removal tool for contacts MO 3	779 000				
Crimping tool for turned contacts 1,5-10 mm ² or 16-8 AWG 4 indent crimping tool	710 610				
Removal tool for contact carriers	779 300				

Series MO 3.1-pole

Specifications

All contacts 2 mm first-to-mate to other contact carriers

Number of poles

3

Termination method

Crimp

Contacts

solid, turned, copper alloy
silver-plated,
contact diameter 3,6 mm

Terminal cross section

1,5 - 10 mm² (16 - 8 AWG)

Rated current

max. 50 A, see derating diagram

Rated voltage

1000 V

Rated surge

8,0 kV

Test voltage

5,7 kV

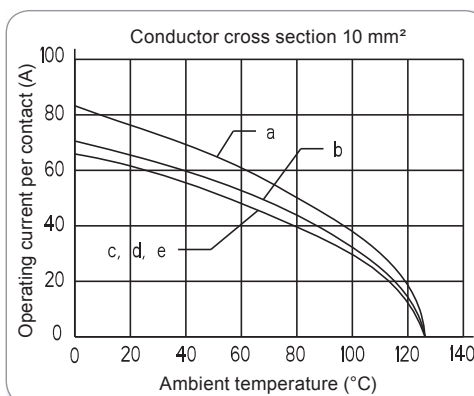
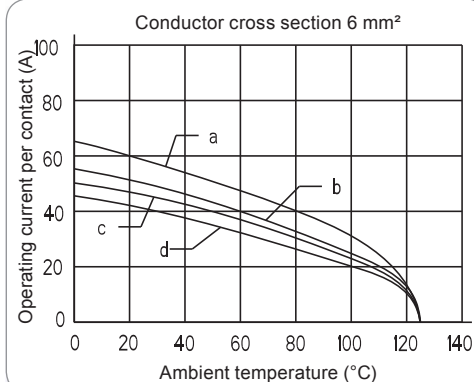
Contact resistance

1 m

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient tempera-
ture and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

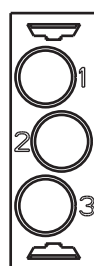
Curve	Poles	Retaining frame
a	3	MO B 6
b	6	MO B 6
c	9	MO B 10
d	15	MO B 16
e	21	MO B 24



Contact arrangement

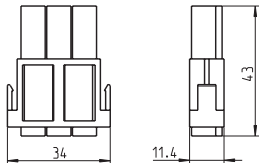
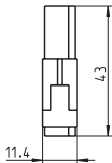
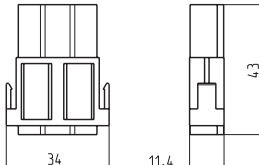
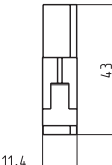
View from termination side:

Female insert



Male insert



Description		Part no.	Series MO	3.1 P	50 A / 1000 V	 
Crimp contact carriers			  			10 6
Contact carrier MO 3.1 for sleeve contacts <i>Please order crimp contacts separately</i>	771 403					
Contact carrier MO 3.1 for pin contacts <i>Please order crimp contacts separately</i>	771 503		  			10 7
Contacts			Terminal cross section			100 300 300 300 300 300
Sleeve contact MO 3 crimp-type, weight per 100	silver-plated 772 030 772 040 772 050 772 060 772 070			1,5 mm ² 2,5 mm ² 4 mm ² 6 mm ² 10 mm ²	16 AWG 14 AWG 12 AWG 10 AWG 8 AWG	
Pin contact MO 3 crimp-type, weight per 100, pin Ø 3,6 mm ²	silver-plated 772 130 772 140 772 150 772 160 772 170			1,5 mm ² 2,5 mm ² 4 mm ² 6 mm ² 10 mm ²	16 AWG 14 AWG 12 AWG 10 AWG 8 AWG	100 300 300 300 300 300
Tools						
Removal tool for contacts MO 3	779 000					1 28
Crimping tool for turned contacts 1,5 - 10 mm ² or 16 - 8 AWG 4 indent crimping tool	710 610					1 663
Removal tool for contact carriers	779 300					1 30

Series MO 4-pole

Specifications

Number of poles

4

Termination method

Crimp

Contacts

solid, turned, copper alloy
silver-plated,
contact diameter 3,6 mm

Terminal cross section

0,5 - 4 mm² (20 - 12 AWG)

Mating cycles

100

Rated current

25 A

Contact resistance

< 2 mOhm

Rated voltage

630 V

Test voltage

4 kV

Temperature range

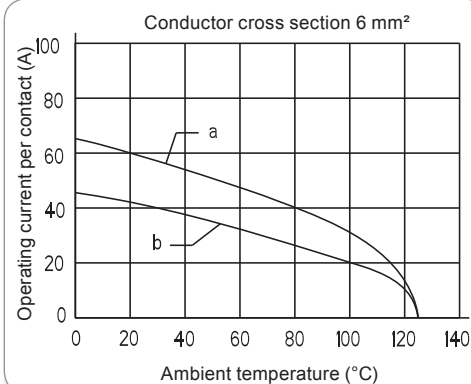
-40 °C up to +100 °C,
temporarily up to + 125 °C

Pollution degree

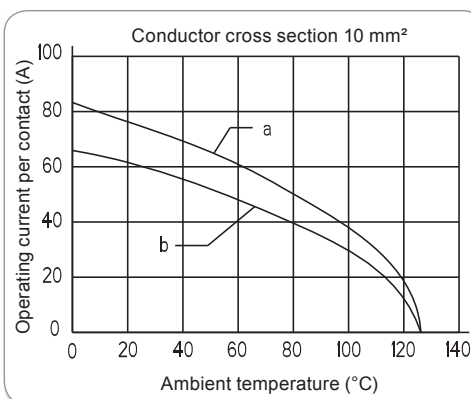
3

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient temperature and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature



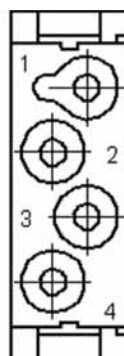
Curve	Poles	Retaining frame
a	4	MO B 6
b	8	MO B 6
c	12	MO B 10
d	20	MO B 16
e	28	MO B 24



Contact arrangement

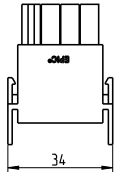
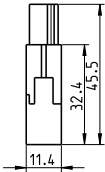
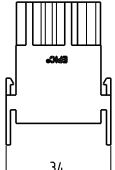
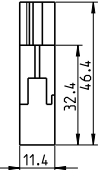
View from termination side

Female
insert



Male
insert



Description		Part no.	Series MO 4 P 25 A / 630 V	  9
Crimp contact carriers			      Power and signal modules can be combined in one housing. This mixed equipment guarantees high flexibility. Application areas: • Industrial machinery and plant engineering • Printing machines • Control engineering	10

Series MO 4-pole + $\oplus$ / 5.1-pole

Specifications

With pin contact carrier MO 4 P + $\oplus$ the PE contact is 2 mm first-to-mate

Number of poles

4 + $\oplus$

5

Termination method

Crimp

Contacts

stamped, copper alloy
silver-plated,
contact diameter 2,5 mm

Terminal cross section

0,5 - 4 mm² (20 - 12 AWG)

Rated current

max. 16 A, see derating diagram

Rated voltage

1000 V

Rated surge

8,0 kV

Test voltage

5,7 kV

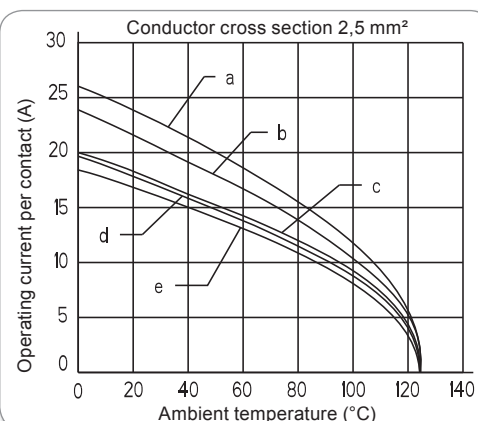
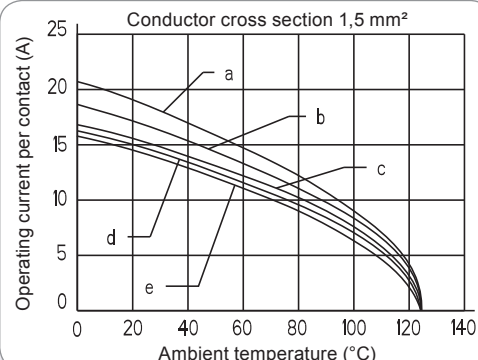
Contact resistance

5 m

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient temperature and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

Curve	Poles	Retaining frame
a	5	MO B 6
b	10	MO B 6
c	15	MO B 10
d	25	MO B 16
e	35	MO B 24



Contact arrangement

View from termination side:

4-pole + $\oplus$

5-pole

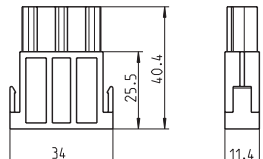
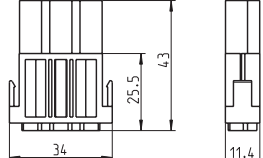
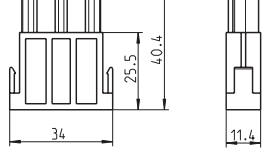
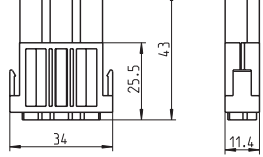
Female insert

Male insert

Female insert

Male insert



Description		Part no.	Series MO 4 P + $\oplus$ / 5.1 P 16 A / 1000 V		  9
Crimp contact carriers					
Contact carrier MO 4 + $\oplus$ for sleeve contacts <i>Please order crimp contacts separately</i>		771 610			10 6
Contact carrier MO 4 + $\oplus$ for pin contacts PE contact 2 mm first-to-mate <i>Please order crimp contacts separately</i>		771 710			10 7
Crimp contact carriers					
Contact carrier MO 5.1 for sleeve contacts <i>Please order crimp contacts separately</i>		771 620			10 6
Contact carrier MO 5.1 for pin contacts <i>Please order crimp contacts separately</i>		771 720			10 7
Contacts					
Sleeve contact MO 5.1 crimp-type, stamped, single contact weight per 100 - strip contacts on request -		silver-plated 773 200 773 230 773 260	 Terminal cross section 0,5 - 1,5 mm ² 20 - 16 AWG 1,5 - 2,5 mm ² 16 - 14 AWG 2,5 - 4 mm ² 12 AWG		100 30 30 30
Pin contact MO 5.1 crimp-type, stamped, single contact, pin Ø 2,5 mm ² weight per 100 - strip contacts on request -		silver-plated 773 300 773 330 773 360	 0,5 - 1,5 mm ² 20 - 16 AWG 1,5 - 2,5 mm ² 16 - 14 AWG 2,5 - 4 mm ² 12 AWG		100 60 60 60
Tools (Crimping tools and machines for strip contacts on request)					
Removal tool for contacts MO 5.1		779 800			1 26
Crimping tool for single contacts Crimping dies Contact locators		779 700 779 730 779 740 774 010 774 020	 Conductor cross section (mm ²) (AWG) 0,5-1,5 20-16 1,5-2,5 16-14 0,5-1,5 20-16 1,5-2,5 16-14		1 420
Removal tool for contact carriers		779 300			1 30

Series MO universal bus 4-pole + shield

Specifications

Number of poles

4 + shield

Termination method

Screw

Contacts

copper alloy,
gold-plated

Terminal cross section

0,08 - 1,5 mm² (20 - 16 AWG)

Mating cycles

100

Rated current

1 A

Contact resistance

< 2 mOhm

Rated voltage

30 V

Temperature range

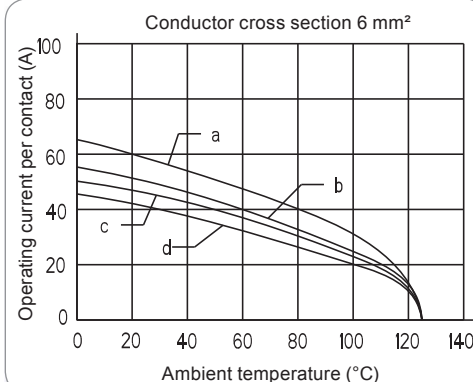
-20 °C up to +85 °C

Pollution degree

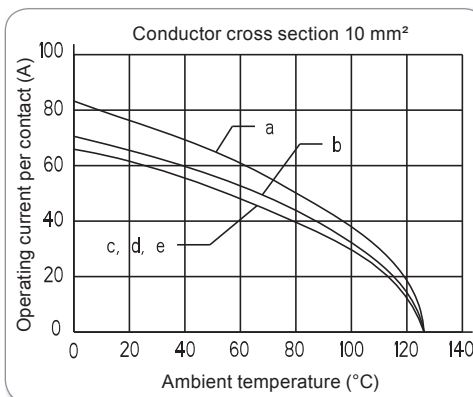
3

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient tempera-
ture and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature



Curve	Poles	Retaining frame
a	3	MO B 6
b	6	MO B 6
c	9	MO B 10
d	15	MO B 16
e	21	MO B 24

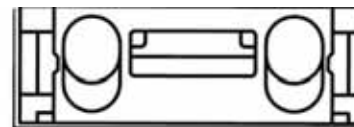
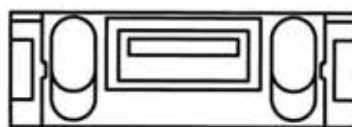


Contact arrangement

View from termination side

Female insert

Male insert





Series MO Profibus DP 2-pole + shield

Specifications

Number of poles

2 + shield

Termination method

Screw, for Profibus cable

Contacts

copper alloy,
gold-plated

Terminal cross section

0,08 - 1,5 mm² (20 - 16 AWG)

Mating cycles

100

Rated current

1 A

Contact resistance

< 2 mOhm

Rated voltage

30 V

Test voltage

4 kV

Temperature range

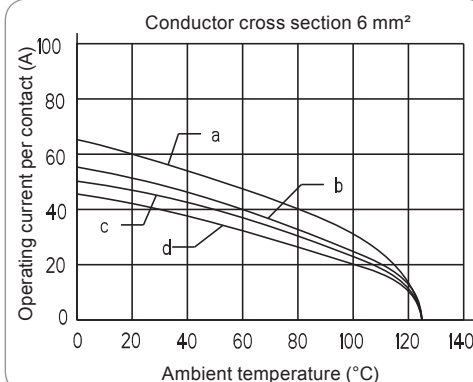
-20 °C up to +85 °C

Pollution degree

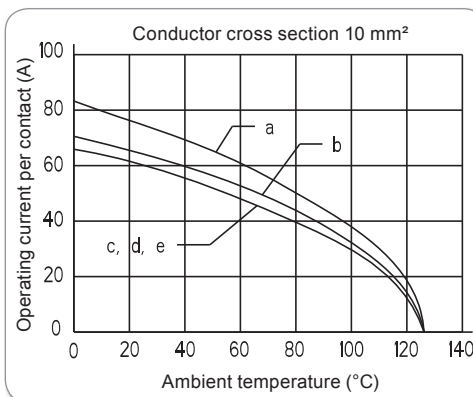
3

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient temperature and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature



Curve	Poles	Retaining frame
a	3	MO B 6
b	6	MO B 6
c	9	MO B 10
d	15	MO B 16
e	21	MO B 24

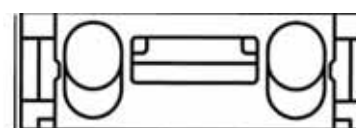
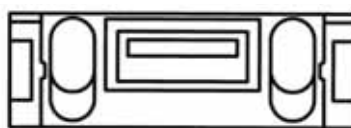


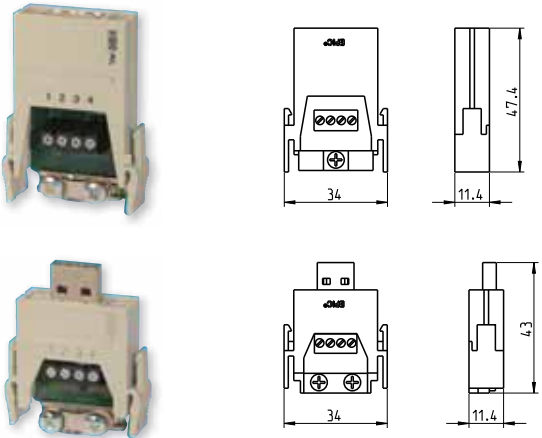
Contact arrangement

View from termination side

Female insert

Male insert



Description	Part no.	MO Profibus DP 2P + shield 1 A / 30 V	
Profibus modules		 Power and signal modules can be combined in one housing. This mixed equipment guarantees high flexibility. Application areas: • Plant engineering • Control engineering	10 10
Female insert	775 020		
Male insert	775 120		
Tools			1 30
Removal tool for contact carriers	779 300		

Module MO 5-pole

Specifications

Number of poles

5

Termination method

Crimp

Contacts

solid, turned, copper alloy
silver-plated,
contact diameter 2,5 mm

Terminal cross section

0,5 - 4 mm² (20 - 12 AWG)

Rated current

max. 20 A, see derating diagram

Rated voltage

400 V

Rated surge

6,0 kV

Test voltage

3,5 kV

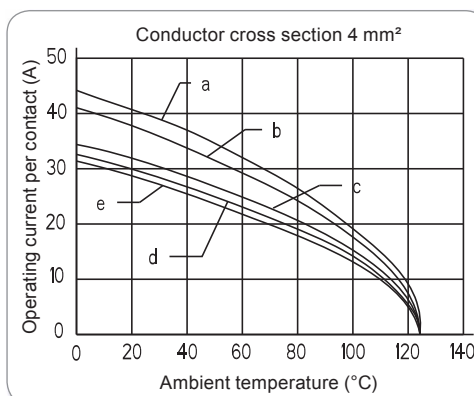
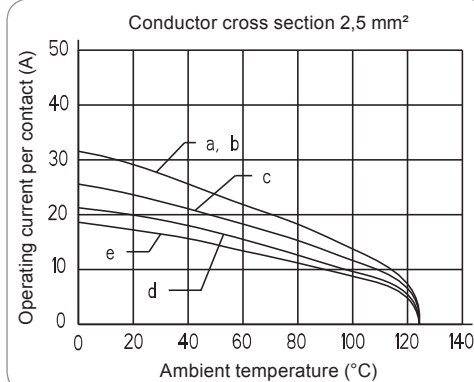
Contact resistance

≤ 2 mΩ

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient tempera-
ture and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

Curve	Poles	Retaining frame
a	5	MO B 6
b	10	MO B 6
c	15	MO B 10
d	25	MO B 16
e	35	MO B 24



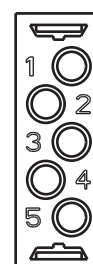
Contact arrangement

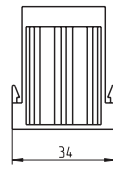
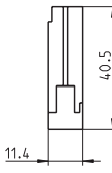
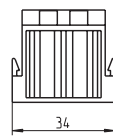
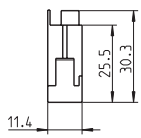
View from termination side:

Female insert



Male insert



			Series MO 20 A / 400 V	 
Description	Part no.			
Crimp contact carriers				
Contact carrier MO 5 for sleeve contacts <i>Please order crimp contacts separately</i>	771 005		  	10 8
Contact carrier MO 5 for pin contacts <i>Please order crimp contacts separately</i>	771 105		  	10 6
Contacts				
Sleeve contact MO 5 crimp-type, weight per 100	silver-plated 772 210 772 220 772 230 772 240 772 250		 Terminal cross section 0,5 mm ² 20 AWG 0,75 - 1 mm ² 19 - 18 AWG 1,5 mm ² 16 AWG 2,5 mm ² 14 - 12 AWG 4 mm ² 12 AWG	100 152 163 170 200 240
Pin contact MO 5 crimp-type, weight per 100, pin Ø 2,5 mm ²	silver-plated 772 310 772 320 772 330 772 340 772 350		 0,5 mm ² 20 AWG 0,75 - 1 mm ² 19 - 18 AWG 1,5 mm ² 16 AWG 2,5 mm ² 14 - 12 AWG 4 mm ² 12 AWG	100 58 65 70 100 140
Tools				
Removal tool for contacts MO 5	779 100			1 26
Walther crimping tool for conductor cross sections of 0,14 - 4,0 mm ² or 26 - 12 AWG only for turned contacts	710 611			1 510
Removal tool for contact carriers	779 300			1 30

Series MO 10-pole

Specifications

Number of poles

10

Termination method

Crimp

LWL

Contacts

solid, turned, copper alloy
silver-plated,
contact diameter 1,6 mm

Terminal cross section

0,14 - 2,5 mm² (26 - 14 AWG)

Rated current

max. 10 A, see derating diagram

Rated voltage

250 V

Rated surge

4,0 kV

Test voltage

2,2 kV

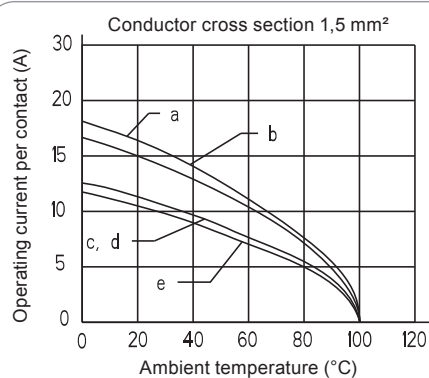
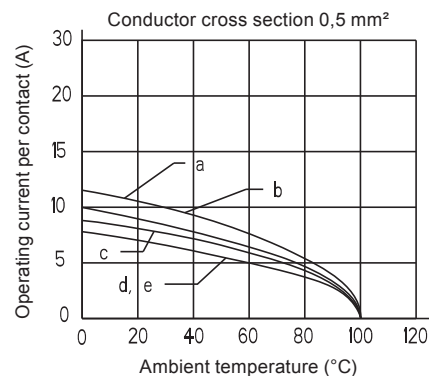
Contact resistance

3 m

The derating diagram

(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient temperature and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

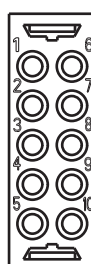
Curve	Poles	Retaining frame
a	10	MO B 6
b	20	MO B 6
c	30	MO B 10
d	50	MO B 16
e	70	MO B 24



Contact arrangement

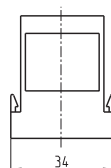
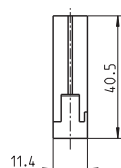
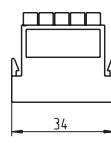
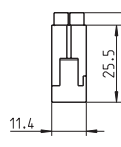
View from termination side

Female
insert



Male
insert



Description		Part no.	Series MO 10 P 10 A / 250 V		 	
Crimp contact carriers			  		10 11	
Contact carrier MO 10 for sleeve contacts	771 010					
Please order crimp contacts and contacts for optical waveguide separately						
Contact carrier MO 10 for pin contacts	771 110		  		10 7	
Please order crimp contacts and contacts for optical waveguide separately						
Contacts			Terminal cross section marked by z			
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated	gold-plated		z		
	720 506	720 686		1	0,14 - 0,37 mm ²	26 - 22 AWG
	720 507	720 687		2	0,5 mm ²	20 AWG
	720 508	720 688		3	0,75 - 1 mm ²	19 - 18 AWG
	720 509	720 689		4	1,5 mm ²	16 AWG
720 502	720 690	5	2,5 mm ²	14 AWG		
Pin contact D crimp-type, solid, turned, weight per 100, pin Ø 1,6 mm ²	silver-plated	gold-plated		z		
	720 516	720 691		1	0,14 - 0,37 mm ²	26 - 22 AWG
	720 517	720 692		2	0,5 mm ²	20 AWG
	720 518	720 693		3	0,75 - 1 mm ²	19 - 18 AWG
	720 519	720 694		4	1,5 mm ²	16 AWG
720 512	720 695	5	2,5 mm ²	14 AWG		
Sleeve contact Optical waveguide for POF solid, turned, weight per 100	720 520			POF* Ø 1 mm	100 89	
Pin contact Optical waveguide for POF solid, turned, weight per 100	720 530			POF* Ø 1 mm	100 74	
Tools						
Removal tool for contacts D	710 614				1 7	
Removal tool for contact carriers	779 300				1 30	
Walther crimping tool for conductor cross sections of 0,14 - 4,0 mm ² only for turned contacts	710 611				1 510	
Replacement crimping dies	710 873				57	

Tools and connection of glass fibre cables see page 186

► Matching housings see page 121 - 175 / screw-mountable hoods see page 159 - 165

Series MO 20-pole

Specifications

Number of poles
20

Termination method
Crimp

Contacts
stamped, copper alloy
gold-plated,
contact diameter 1,0 mm

Terminal cross section
0,09 - 0,5 mm² (28 - 20 AWG)

Rated current
max. 5 A, see derating diagram

Rated voltage
63 V

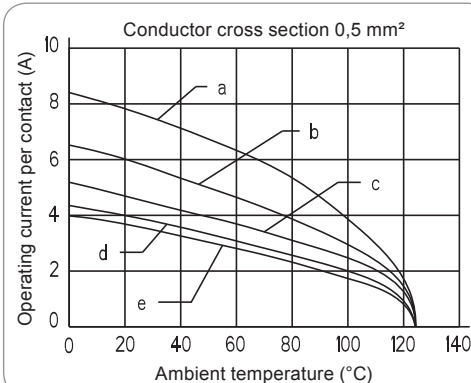
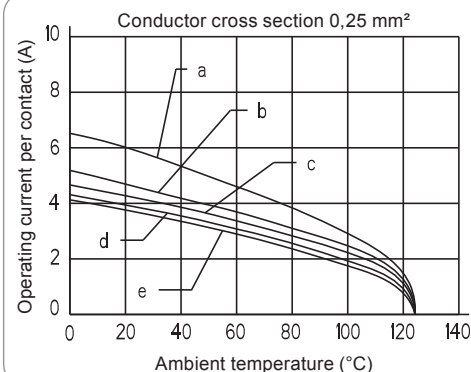
Rated surge
4,0 kV

Test voltage
1,68 kV

Contact resistance
≤ 5 mΩ

The derating diagram
(corrected current capacity curve)
acc. to DIN/IEC 512 applies to
such kind of current which can
(depending on ambient temperature and conductor size) circulate
through each contact without
exceeding the upper limiting
temperature

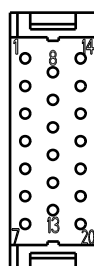
Curve	Poles	Retaining frame
a	20	MO B 6
b	40	MO B 6
c	60	MO B 10
d	100	MO B 16
e	140	MO B 24



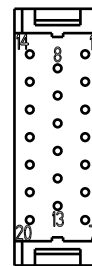
Contact arrangement

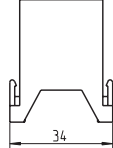
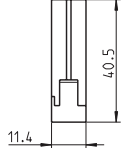
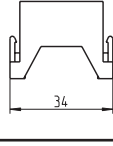
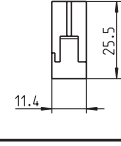
View from termination side

Female
insert



Male
insert



Description	Part no.		Series MO 20 P 5 A / 63 V	
Crimp contact carriers			     	10 6 10 4
Contact carrier MO 20 for sleeve contacts Please order crimp contacts separately	771 020			
Contact carrier MO 20 for pin contacts Please order crimp contacts separately	771 120			
Contacts			Terminal cross section  0,09 - 0,25 mm² 28 - 24 AWG 0,25 - 0,5 mm² 24 - 20 AWG  0,09 - 0,25 mm² 28 - 24 AWG 0,25 - 0,5 mm² 24 - 20 AWG	100 45 45 100 45 45
Sleeve contact MO 20 crimp-type, stamped, single contact, weight per 100, - strip contacts on request -	gold-plated 773 000 773 001			
Pin contact MO 20 crimp-type, stamped, single contact, weight per 100, - strip contacts on request - pin Ø 1 mm ²	gold-plated 773 100 773 101			
Tools			  	1 20 1 486 1 30
Removal tool for contacts MO 20	779 200			
Crimping tool for stamped contacts MO 20	779 500			
Removal tool for contact carriers	779 300			

Crimping tools and crimping machines for strip contacts on request.

Series MO RJ45

Specifications

6

General characteristics

Number of poles
Termination method
Terminal cross section
Flame class rating

value crimp contact

4
crimping
0,14 - 2,5 mm²
V0

value RJ45

8
plugging / crimping
V0

Electrical data

Rated voltage
Rated surge voltage
Voltage sustaining capability
Current-carrying capacity
Contact resistance
Insulation resistance

400 V AC
6,0 kV
3,51 kV
13 A¹⁾
≤ 5 mΩ
10¹⁰ Ω

125 V AC
1,8 kV
1,0 kV
1,5 A
≤ 20 mΩ
5⁸ Ω

Climatic characteristics

Upper limit temperature
Lower limit temperature

+ 100 °C / 1000 h

+ 80 °C / 1000 h
- 20 °C / 16 h

Mechanical characteristics

Plugging and withdrawing force
Mechanical operating life

15 - 20 N
≥ 500 mating cycles

max. 20 N
≥ 100 mating cycles

Materials:

Contact insert
Colour
Contacts pin / sleeve
Contact surface

PA 6.6 GF
black
CuZn
Ag (silver)

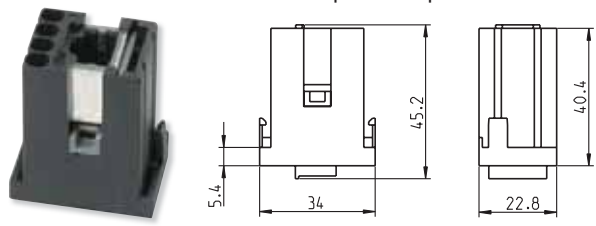
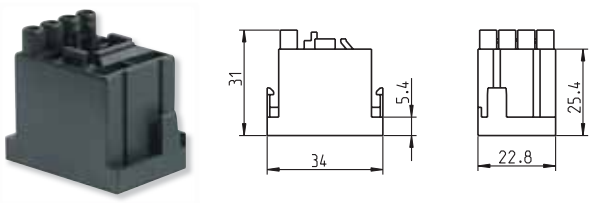
black
CuSn
Au (gold)

1) 2 modules, 40 °C ambient temperature, 1,5 mm² terminal cross section

RJ modules

For integration of standard RJ45 components

- Worldwide real-time access to machines and facilities
- Very easy wiring by using standard RJ45 components
- One connector for power, signals and data transmission
- 4 D crimp contacts additionally
- Time and cost savings due to active and passive components
- Homogeneous transmission protocol both in office and production areas
- Achieves CAT 5 for Ethernet acc. to ISO/IEC 11801

Description		Part no.	Series MO RJ45 13 A / 400 V AC	 9																				
RJ modules			Attention: 2 module spaces required in the frame																					
Female module <i>Please order crimp contacts and contacts for optical waveguide separately</i>	775 000			10 24,5																				
Male module <i>Please order crimp contacts and contacts for optical waveguide separately</i>	775 100			10 10,3																				
Contacts			Terminal cross section marked by z																					
Sleeve contact D crimp-type, solid, turned, weight per 100	silver-plated 720 506 720 507 720 508 720 509 720 502	gold-plated 720 686 720 687 720 688 720 689 720 690	 <table><tr><th>z</th><th>1</th><th>0,14 - 0,37 mm²</th><th>26 - 22 AWG</th></tr><tr><th>2</th><th>0,5 mm²</th><th>20 AWG</th><td></td></tr><tr><th>3</th><th>0,75 - 1 mm²</th><th>19 - 18 AWG</th><td></td></tr><tr><th>4</th><th>1,5 mm²</th><th>16 AWG</th><td></td></tr><tr><th>5</th><th>2,5 mm²</th><th>14 AWG</th><td></td></tr></table>	z	1	0,14 - 0,37 mm²	26 - 22 AWG	2	0,5 mm²	20 AWG		3	0,75 - 1 mm²	19 - 18 AWG		4	1,5 mm²	16 AWG		5	2,5 mm²	14 AWG		100 65 68 70 72 62
z	1	0,14 - 0,37 mm²	26 - 22 AWG																					
2	0,5 mm²	20 AWG																						
3	0,75 - 1 mm²	19 - 18 AWG																						
4	1,5 mm²	16 AWG																						
5	2,5 mm²	14 AWG																						
Pin contact D crimp-type, solid, turned, weight per 100, pin Ø 1,6 mm²	silver-plated 720 516 720 517 720 518 720 519 720 512	gold-plated 720 691 720 692 720 693 720 694 720 695	 <table><tr><th>z</th><th>1</th><th>0,14 - 0,37 mm²</th><th>26 - 22 AWG</th></tr><tr><th>2</th><th>0,5 mm²</th><th>20 AWG</th><td></td></tr><tr><th>3</th><th>0,75 - 1 mm²</th><th>19 - 18 AWG</th><td></td></tr><tr><th>4</th><th>1,5 mm²</th><th>16 AWG</th><td></td></tr><tr><th>5</th><th>2,5 mm²</th><th>14 AWG</th><td></td></tr></table>	z	1	0,14 - 0,37 mm²	26 - 22 AWG	2	0,5 mm²	20 AWG		3	0,75 - 1 mm²	19 - 18 AWG		4	1,5 mm²	16 AWG		5	2,5 mm²	14 AWG		100 60 63 65 67 70
z	1	0,14 - 0,37 mm²	26 - 22 AWG																					
2	0,5 mm²	20 AWG																						
3	0,75 - 1 mm²	19 - 18 AWG																						
4	1,5 mm²	16 AWG																						
5	2,5 mm²	14 AWG																						
Sleeve contact Optical waveguide for POF solid, turned, weight per 100	720 520		 POF* Ø 1 mm	100 89																				
Pin contact Optical waveguide for POF solid, turned, weight per 100	720 530		 POF* Ø 1 mm	100 74																				
Pin contact RJ 45 crimp-type, Cat 5	720 545		 24 - 26 AWG	10 8																				
Tools																								
Removal tool for contacts D	710 614			1 7																				
Removal tool for contact carriers	779 300			1 30																				

Crimping tool 710 611 see page 97 / 188

Tools and connection of glass fibre cables see page 186

Description		Part no.	Series MO 1P + 2P pneumatic		
Pneumatic					
Pneumatic module Female insert with contacts	771 001 771 002 771 004 771 006	1P hose Ø 2,5 mm 2P hose Ø 2,5 mm 1P hose Ø 4,0 mm 2P hose Ø 4,0 mm	 1 pole contact concentric		10 10 12 9 11
Pneumatic module Male insert with contacts	771 101 771 102 771 104 771 106	1P hose Ø 2,5 mm 2P hose Ø 2,5 mm 1P hose Ø 4,0 mm 2P hose Ø 4,0 mm	 1 pole contact concentric		10 9 10 8 9
Specifications					
Number of poles:		1 and 2			
Material:		glass-fibre reinforced PA			
Temperature range:		- 20 °C up to + 100 °C			
Flame class rating:		V0 acc. to UL 94			
Mechanical operating life:		5000 mating cycles			
Termination method:		hose connection, only PTFE			
Operating pressure:		8 bar			
Switched path:		4,0 mm			
Shut off:		unidirectional			
Contacts (mounted):		brass MS 58			
Description		Part no.	Series MO 0		
Blind modules					
Blind module for female frames without contact cavities	771 000		 		10 5
Blind module for male frames without contact cavities	771 100		 		3
			Use of blind modules: • to fill gaps in retaining frames • as dummy for future upgrading		
Tools					
Removal tool for contact carriers and blind modules	779 300				1 30

Housings

	Page	
Housings for inserts		
A3, A4, A5, D7, D8, plastic	105	
A3, A4, A5, D8, zinc die casting	106	
A3 IDC connectors	107	Housing size 1
Housings for inserts		
A10 and D15	109 - 110	Housing size 2
Housings for inserts		
A16 and D25	113 - 114	Housing size 3
Housings for inserts		
A32 and D50	117 - 119	Housing size 4
Housings for inserts		
B6, BB10, DD24, MOB6	121 - 123	Housing size 5
Housings for inserts		
B10, BB18, DD42, MOB10	125 - 131	Housing size 6
Housings for inserts		
B16, BB32, BA6, D40, DD72, MOB16	133 - 140	Housing size 7
Housings for inserts		
B24, BB46, D64, DD108, MOB24	143 - 149	Housing size 8
Housings for inserts		
B32, BB64, BA12, D80, DD144, 2xMOB16	151 - 152	Housing size 9
Housings for inserts		
B48, BB92, BV20, BV26, BV32, D128, DD216, 2xMOB24	155	Housing size 10

Specifications of „size 1” housings and short overview of installation possibilities for series A3, A4, A5, D7 and D8 inserts

Plastic housings

Material:	Glass-fibre reinforced polyamide
Locking levers:	Polyamide
Flame class rating acc. to UL 94:	V 0
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

D7 inserts are only suitable for plastic housings !

Metal housings

Material:	Zinc die casting
Surface:	Powder coated
Locking levers:	Zinc-plated steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

7

The housings shown on the following pages can be equipped with the inserts listed below:

	Screw terminal inserts		Crimp contact carriers	
A3	Female insert, screw terminal,  Part no. 700 103	Male insert, screw terminal,  Part no. 700 203		
▶ p. 18				
A4	Female insert, screw terminal,  Part no. 700 104	Male insert, screw terminal,  Part no. 700 204		
▶ p. 19				
A5			Female insert  Part no. 700 105	Male insert  Part no. 700 205
▶ p. 19				
D7			Crimp contact carrier for sleeve contacts,  Part no. 720 307 - only for plastic housings -	Crimp contact carrier for pin contacts,  Part no. 720 407 - only for plastic housings -
▶ p. 44				
D8			Crimp contact carrier for sleeve contacts,  Part no. 720 308	Crimp contact carrier for pin contacts,  Part no. 720 408
▶ p. 45				

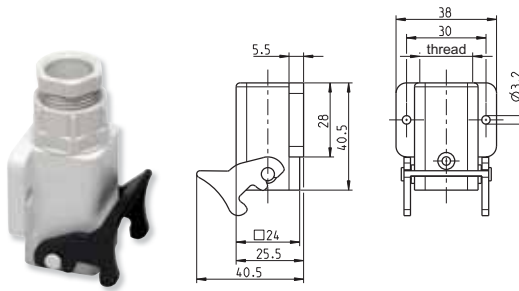
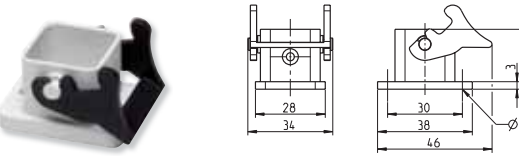
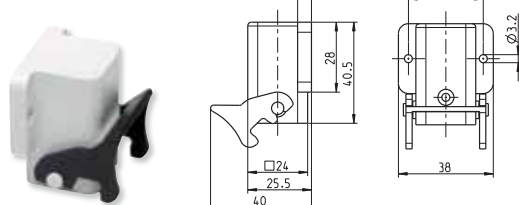
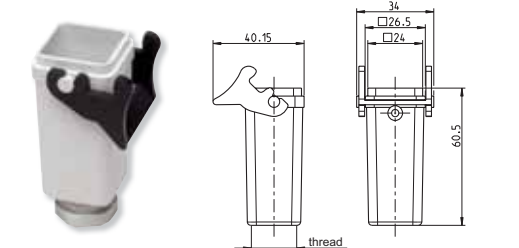
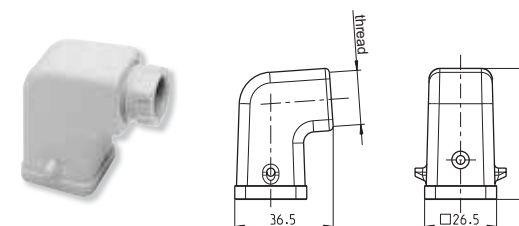
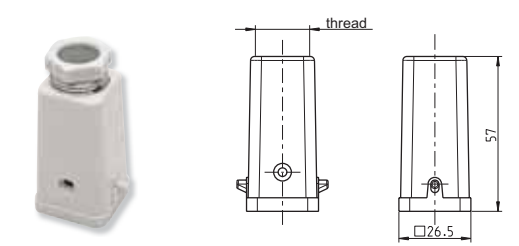
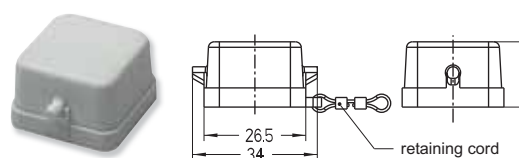
▶ The page reference at the left of the table guides you to the detailed overview of inserts.

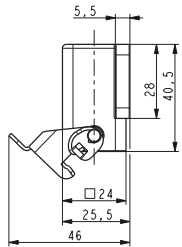
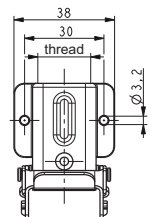
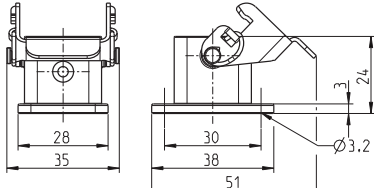
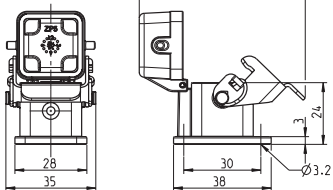
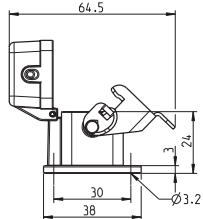
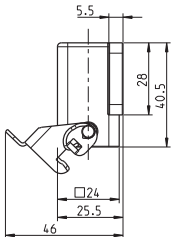
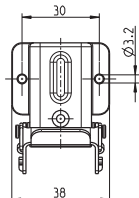
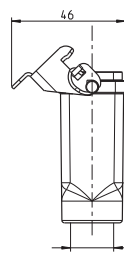
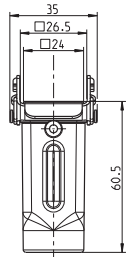
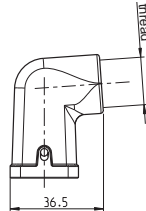
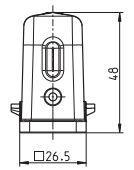
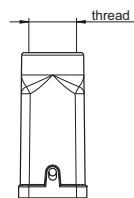
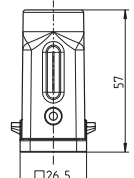
Contacts for crimp contact carriers of series ...

A 5: see page 19

D 7: see page 44

D 8: see page 45

Description		Part no.	M	Housings for series A 3, A 4, A 5, D 7, D 8	
Housing: plastic					10 20 25 29
Wall mount housing, height 25,5 mm with single locking system					
<i>light grey (RAL 7035)</i> with threaded hole with collar with cable gland	T 700 620 T 700 620 MS T 700 620 MV ex stock	1 x M 20	Housings open at flange		
<i>black</i> with threaded hole with collar with cable gland	T 700 671 T 700 671 MS T 700 671 MV				20 25 29
Panel housings, height 24 mm with single locking system, straight					10 18 18
<i>light grey (RAL 7035)</i> <i>black</i>	700 621 700 672 ex stock	Panel cutout 21x21 mm			
Panel housings, height 25,5 mm with single locking system, angled					10 23 23
<i>light grey (RAL 7035)</i> <i>black</i>	700 622 700 673	Panel cutout 21x21 mm			
Coupler hoods, height 60,5 mm with single locking system, top cable entry					10 23 27 23 27
<i>light grey (RAL 7035)</i> with collar with cable gland	T 700 623 MS ex stock T 700 623 MV	1 x M 20			
<i>black</i> with collar with cable gland	T 700 674 MS T 700 674 MV				
Hoods, height 48 mm for single locking system, side cable entry					10 13 17 13 17
<i>light grey (RAL 7035)</i> with collar with cable gland	T 700 624 MS ex stock T 700 624 MV	1 x M 20			
<i>black</i> with collar with cable gland	T 700 675 MS T 700 675 MV				
Hoods, height 57 mm for single locking system, top cable entry					10 18 22 18 22
<i>light grey (RAL 7035)</i> with collar with cable gland	T 700 625 MS ex stock T 700 625 MV	1 x M 20			
<i>black</i> with collar with cable gland	T 700 676 MS T 700 676 MV				
Protective covers: plastic					10 5 5
with retaining cord, for housings with single locking system, <i>light grey (RAL 7035)</i> for housing with female insert for housing with male insert	700 631 MD 700 631				

Description		Part no.	M	Housings for series A 3, A 4, A 5, D 8	
Housings: zinc die casting					
Wall mount housing, height 25,5 mm with single locking system					
with open bottom with threaded hole with collar with cable gland	T 701 403 ex stock T 701 403 MS ex stock T 701 403 MV ex stock	1 x M 20		  	10 57 72 85
with closed bottom with threaded hole with collar with cable gland	T 701 003 T 701 003 MS T 701 003 MV	1 x M 20			64 79 92
Panel housing, height 24 mm with single locking system, straight					
Panel cutout 21 x 21 mm	704 303 ex stock			 	10 22
Panel housings, height 24 mm with single locking system, straight					
with zinc flap lid, for female insert	704 403 ex stock	Panel cutout 21 x 21 mm		  	10 27
with aluminium flap lid, for male insert	704 403 OD				
Panel housing, height 25,5 mm with single locking system, angled					
Panel cutout 21 x 21 mm	704 503 ex stock			  	10 67
Coupler hoods, height 60,5 mm with single locking system, top cable entry					
with collar with cable gland	T 703 803 MS ex stock T 703 803 MV ex stock	1 x M 20		  	10 80 92,5
Hoods, height 48 mm for single locking system, side cable entry					
with collar with cable gland	T 702 603 MS ex stock T 702 603 MV ex stock	1 x M 20		  	10 56 68,5
Hoods, height 57 mm for single locking system, top cable entry					
with collar with cable gland	T 702 803 MS ex stock T 702 803 MV ex stock	1 x M 20		  	10 63 75,5

Series A3 connectors with insulation displacement connection

The convenience of insulation displacement connection can now be utilized with a classic square connector - a 4-pole (3 + PE) industrial plug connector, series A.

Male and female versions are available in hood and coupler hoods made of plastic.



Thanks to insulation displacement connection it now only takes a few seconds to connect the 4-pole round conductor: Only the sleeve nut has to be slid onto the conductor - since splicing ring, seal and strain relief are included in the sleeve nut.

Assembly

Slide the sleeve nut of the insulation displacement connection onto the stripped conductor.



Screw the sleeve nut onto the plug connector - and the round conductor connection is ready.



Lead the cores into the marked core entries and cut off the projecting core ends flush, i.e. so that there is no overhang.

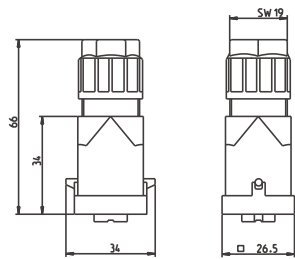
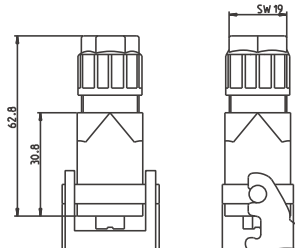
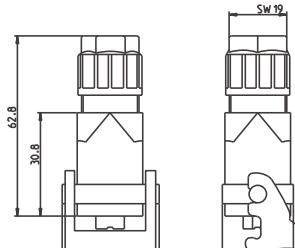
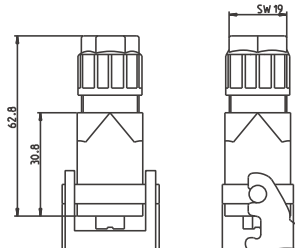


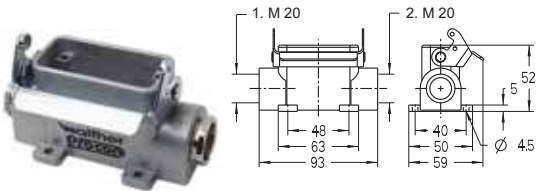
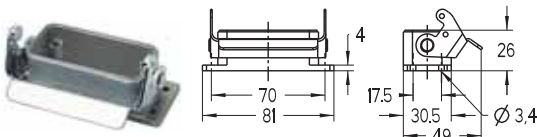
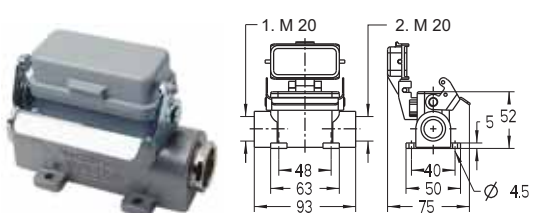
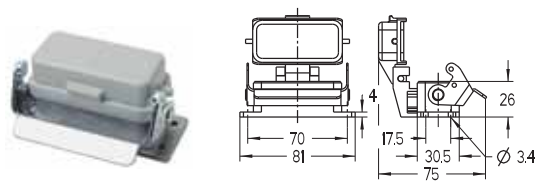
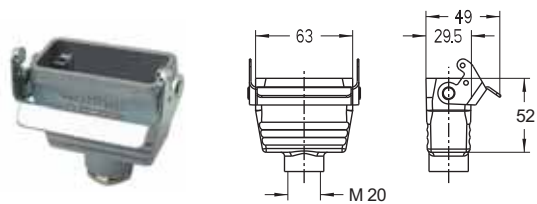
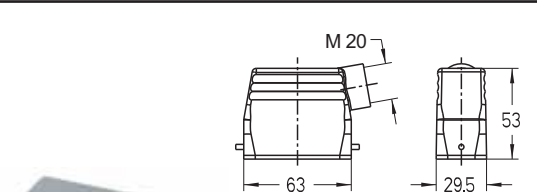
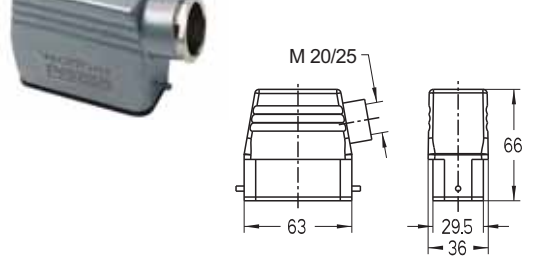
If you need to undo the connection, then just unscrew the sleeve nut.

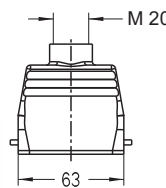
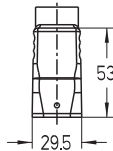
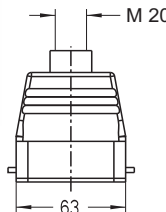
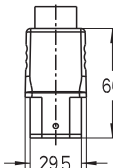
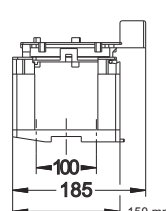
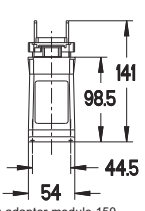
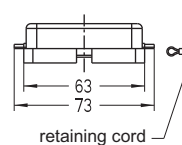
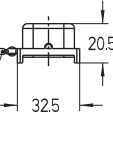
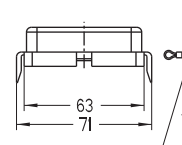
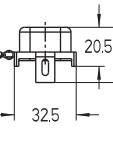
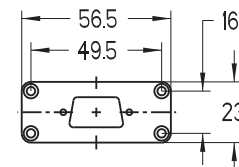
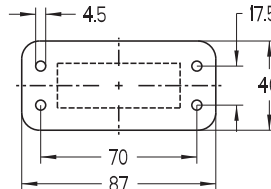


IDC technique is tested on basis of:

- **EN 60 352-4:** Solder-free and inaccessible IDC terminal blocks
- **EN 50 262:** Entries for cables and conductors
- **DIN EN 60 998-2-3:** Equipment for IDC terminal points
- **DIN VDE 0627:** Connectors and plug-in socket devices

Description	Part no.	Series A3 connectors with insulation displacement connection	
A 3 connectors with insulation displacement connection			
Hoods with female insert Height 66 mm for single locking system	700 724	 	10 25
Hoods with male insert Height 66 mm for single locking system	700 725	 	10 25
Coupler hood with female insert Height 63 mm with single locking system	700 726	 	10 28
Coupler hood with male insert Height 63 mm with single locking system	700 727	 	10 28

Description	Part no.	M	Housings for series A 10 and D 15	
Housings: single locking system				
Wall mount housing, height 52 mm with single locking system				10 197 210 195 222
with collar with cable gland	T 701 410 MS ex stock T 701 410 MV	1 x M 20		
with collar with cable gland	T 701 510 MS ex stock T 701 510 MV	2 x M 20		
Panel housing, height 26 mm with single locking system				10 76
Panel cutout 57,5 x 24 mm	704 310 ex stock			
Wall mount housing, height 52 mm with single locking system, with hinged cover				10 219 232 217 244
with collar with cable gland	T 701 610 MS ex stock T 701 610 MV ex stock	1 x M 20		
with collar with cable gland	T 701 710 MS T 701 710 MV	2 x M 20		
Panel housing, height 26 mm with single locking system, with hinged cover				10 98
Panel cutout 57,5 x 24 mm	704 410			
Coupler hoods, height 52 mm with single locking system, top cable entry				10 108 121
with collar with cable gland	T 703 810 MS ex stock T 703 810 MV ex stock	1 x M 20		
Hoods, height 53 mm for single locking system, side cable entry				10 78 92
with collar with cable gland	T 702 610 MS ex stock T 702 610 MV ex stock	1 x M 20		
Hoods, height 66 mm for single locking system, side cable entry				10 139 154 168
with threaded hole with collar with cable gland	T 708 610 T 708 610 MS T 708 610 MV	1 x M 20		
with threaded hole with collar with cable gland	T 708 710 ex stock T 708 710 MS T 708 710 MV	1 x M 25		

Description		Part no.	M	Housings for series A 10 and D 15	 9
Housings: single locking system					
Hoods, height 53 mm for single locking system, top cable entry					
with collar with cable gland	T 702 810 MS ex stock T 702 810 MV	1 x M 20		 	10 80 94
Hoods, height 66 mm for single locking system, top cable entry					
with threaded hole with collar with cable gland	T 708 810 T 708 810 MS T 708 810 MV	1 x M 20		 	10 139 154 167
with threaded hole with collar with cable gland	T 708 910 ex stock T 708 910 MS T 708 910 MV	1 x M 25			137 161 182
Snap-on mounting adapter, swing-type					
Snap-on mounting adapter Adapter module 150 mountable on DIN-rails, top can be screwed with bottom	760 115			  150 mm: adapter module 150	5 213
Protective cover: plastic					
for housings with single locking system with retaining cord	700 633			  retaining cord	10 11
for hoods without single locking system with retaining cord	700 637			  retaining cord	10 10
Adapter plates for contact inserts					
for installation in A 10 housings Sub miniature single 9-pole 15-pole 25-pole	700 681 700 677 700 678				10 3 3,5 3,5
Cover plates for switch cabinets					
for A 10 panel housings grey orange	700 684 700 686				10 12 12



Specifications of „size 3” and short overview of installation possibilities for series A 16 and D 25 inserts

Housings

Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Zinc-plated steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

The housings shown on the following pages can be equipped with the inserts listed below:

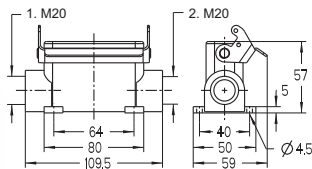
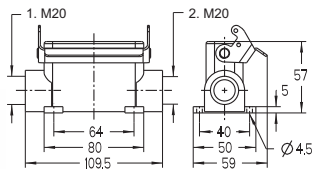
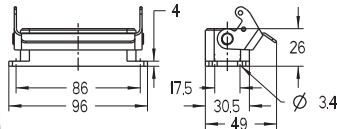
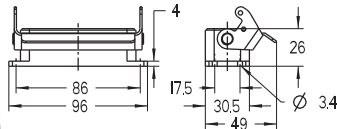
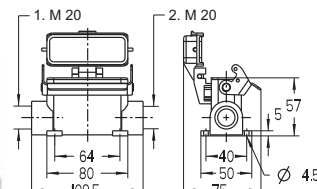
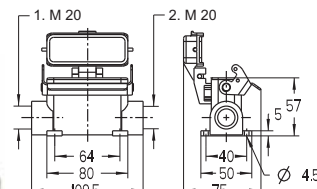
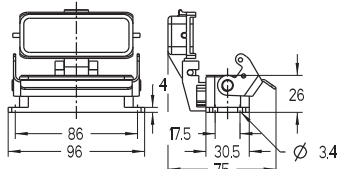
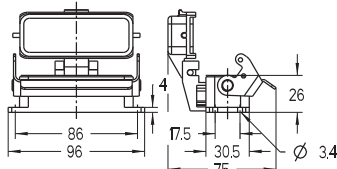
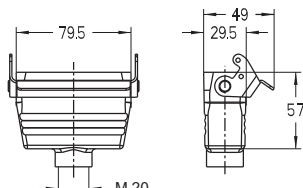
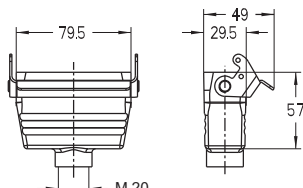
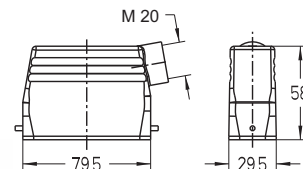
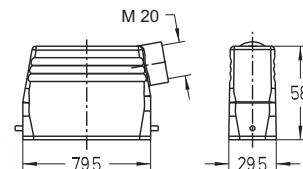
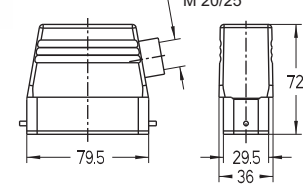
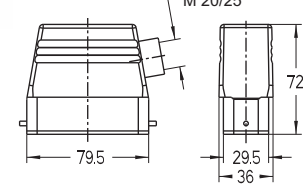
	Screw terminal inserts		Crimp contact carriers	
A 16	Female insert, screw terminal,  Part no. 700 116	Male insert, screw terminal,  Part no. 700 216	Crimp contact carrier for sleeve contacts,  Part no. 700 316	Crimp contact carrier for pin contacts,  Part no. 700 416
D 25			Crimp contact carrier for sleeve contacts,  Part no. 720 325	Crimp contact carrier for pin contacts,  Part no. 720 425

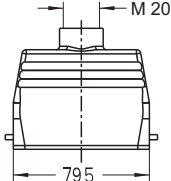
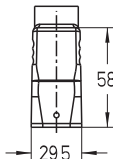
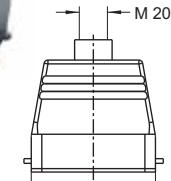
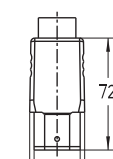
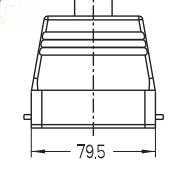
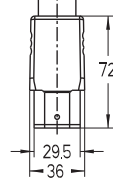
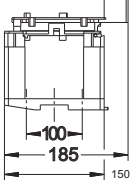
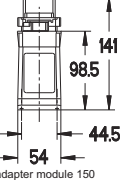
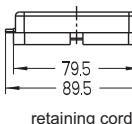
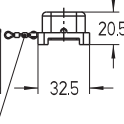
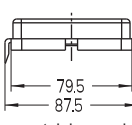
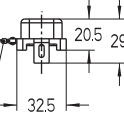
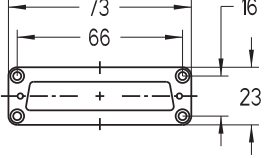
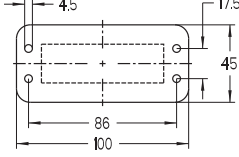
► The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series ...

A 16: see page 21

D 25: see page 49

Description		Part no.	M	Housings for series A 16 and D 25	  9
Housings: single locking system					
Wall mount housings, height 57 mm with single locking system					
with collar with cable gland	T 701 416 MS ex stock T 701 416 MV	1 x M 20	 		10 233 246
with collar with cable gland	T 701 516 MS T 701 516 MV	2 x M 20			233 260
Panel housing, height 26 mm with single locking system					
Panel cutout 74 x 24 mm	704 316 ex stock		 		10 88
Wall mount housings, height 57 mm with single locking system, with hinged cover					
with collar with cable gland	T 701 616 MS T 701 616 MV	1 x M 20	 		10 252 270
with collar with cable gland	T 701 716 MS T 701 716 MV	2 x M 20			252 285
Panel housing, height 26 mm with single locking system, with hinged cover					
Panel cutout 74 x 24 mm	704 416 ex stock		 		10 112
Coupler hoods, height 57 mm with single locking system, top cable entry					
with collar with cable gland	T 703 816 MS ex stock T 703 816 MV	1 x M 20	 		10 134 147
Hoods, height 58 mm for single locking system, side cable entry					
with collar with cable gland	T 702 616 MS ex stock T 702 616 MV ex stock	1 x M 20	 		10 96 110
Hoods, height 72 mm for single locking system, side cable entry					
with threaded hole with collar with cable gland	T 708 616 T 708 616 MS T 708 616 MV	1 x M 20	 		10 189 204 225
with threaded hole with collar with cable gland	T 708 716 ex stock T 708 716 MS T 708 716 MV	1 x M 25			166 190 228

Description	Part no.	M	Housings for series A 16 and D 25	 
Housings: single locking system				
Hoods, height 58 mm for single locking system, top cable entry				
with collar with cable gland	T 702 816 MS ex stock T 702 816 MV	1 x M 20	  	10 110 114
Hoods, height 72 mm for single locking system, top cable entry				
with threaded hole with collar with cable gland	T 708 816 T 708 816 MS T 708 816 MV	1 x M 20	  	10 192 207 221
with threaded hole with collar with cable gland	T 708 916 ex stock T 708 916 MS T 708 916 MV	1 x M 25	 	189 213 235
Snap-on mounting adapter, swing-type				
Snap-on mounting adapter Adapter module 150 mountable on DIN-rails, top can be screwed with bottom	760 125		  	5 211
Protective covers: plastic				
for housings with single locking lever with retaining cord	700 635		  	10 15
for hoods without single locking lever with retaining cord	700 639		  	10 14
Adapter plates for contact inserts				
for installation in A 16 housings Sub miniature, single 37-pole 50-pole	700 682 700 683		 	10 4 4
Cover plates for switch cabinets				
for A 16 panel housings grey orange	700 685 700 687		 	10 15 15



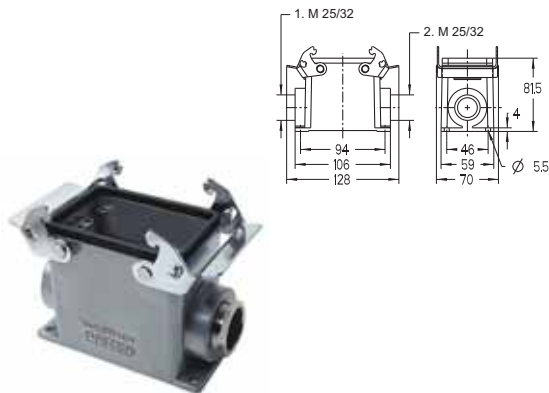
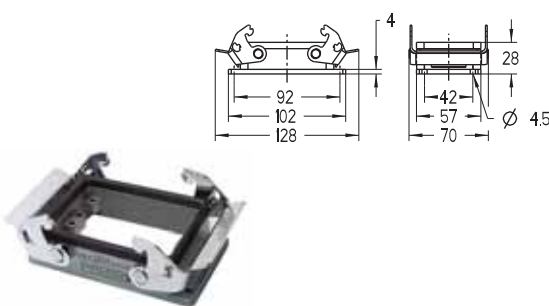
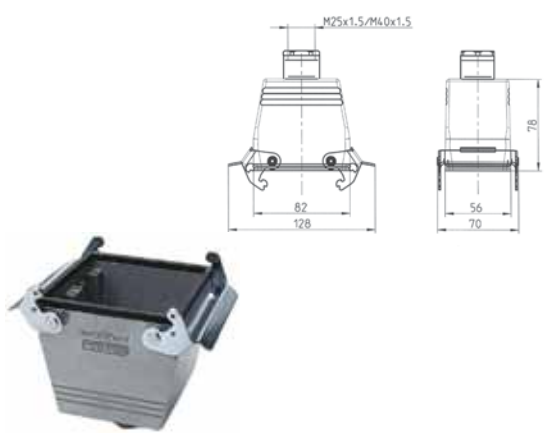
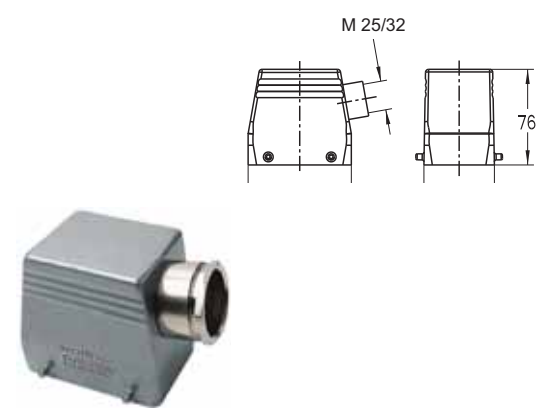
Specifications of „size 4” housings and short overview of installation possibilities for series A 32 and D 50

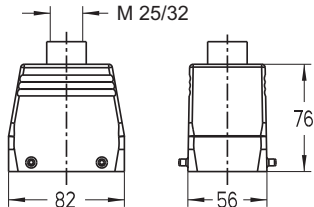
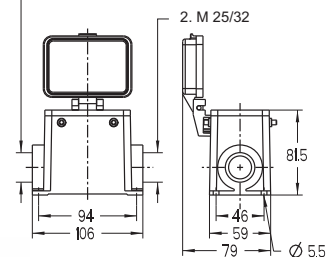
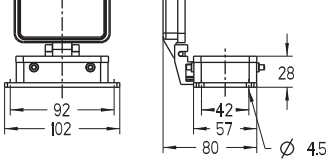
Housings

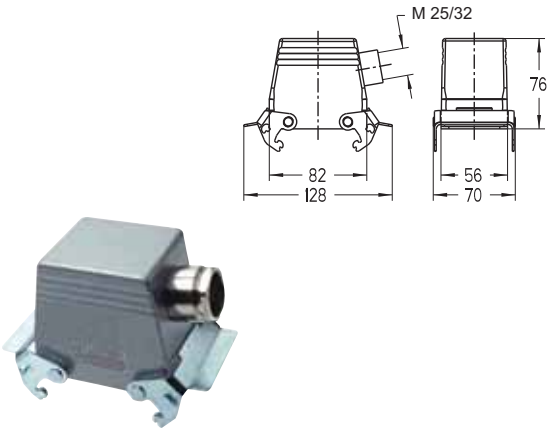
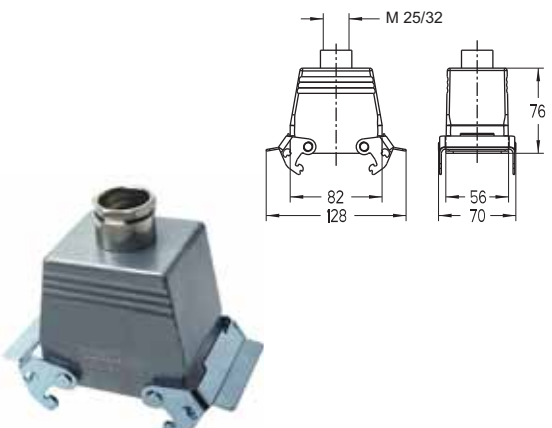
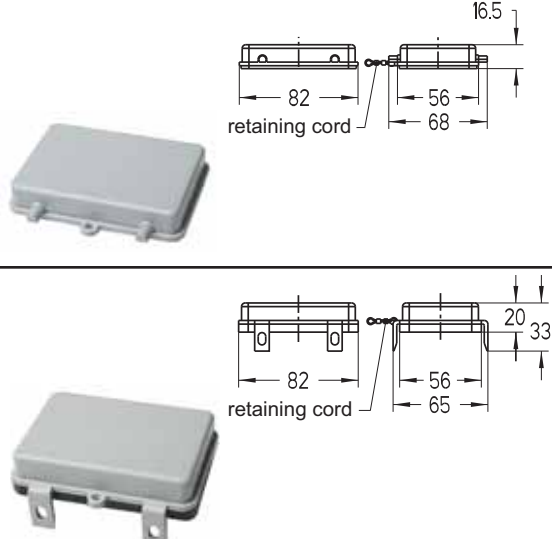
Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Zinc-plated steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

The housings shown on the following pages can be equipped with the inserts listed below:

	Screw terminal inserts				Crimp contact carriers			
A 32	Female insert, screw terminal, wire protection 1-16 Part no. 700 116	Female insert, screw terminal, wire protection 17-32 Part no. 700 132	Male insert, screw terminal, wire protection 1-16 Part no. 700 216	Male insert, screw terminal, wire protection 17-32 Part no. 700 232	Crimp contact carrier for sleeve contacts 1-16 Part no. 700 316	Crimp contact carrier for sleeve contacts 17-32 Part no. 700 332	Crimp contact carrier for pin contacts 1-16 Part no. 700 416	Crimp contact carrier for pin contacts 17-32 Part no. 700 432
▶ p. 22								
D 50					Crimp contact carrier for sleeve contacts, Part no. 2 x 720 325		Crimp contact carrier for pin contacts, Part no. 2 x 720 425	
▶ p. 52								

Description		Part no.	M	Housings for series A 32 and D 50	
Housings: double locking system					10 483 505 479 522 459 495 474 517
Wall mount housings, height 81,5 mm with double locking system					
with collar with cable gland	T 701 032 MS T 701 032 MV	1 x M 25			
with two collars with two cable glands	T 701 132 MS T 701 132 MV	2 x M 25			
with collar with cable gland	T 701 832 MS T 701 832 MV	1 x M 32			
with two collars with two cable glands	T 707 132 MS T 707 132 MV	2 x M 32			
Panel housing, height 28 mm with double locking system					10 156
Panel cutout 76 x 48 mm	704 132				
Coupler hoods, height 78 mm with double locking system, top cable entry					10 280 300 320 276 396 316 275 320 340 270 315 335
with threaded hole with collar with cable gland	T 703 632 T 703 632 MS T 703 632 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	T 703 632 00 T 703 632 00 MS T 703 632 00 MV	2 x M 25			
with threaded hole with collar with cable gland	T 703 732 T 703 732 MS T 703 732 MV	1 x M 32			
with two threaded holes with two collars with two cable glands	T 703 732 00 T 703 732 00 MS T 703 732 00 MV	2 x M 32			
Hoods, height 76 mm for double locking system, side cable entry					10 244 268 290 240 264 286 242 276 313 237 271 308
with threaded hole with collar with cable gland	T 708 032 T 708 032 MS T 708 032 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	T 708 032 00 T 708 032 00 MS T 708 032 00 MV	2 x M 25			
with threaded hole with collar with cable gland	T 708 132 T 708 132 MS T 708 132 MV	1 x M 32			
with two threaded holes with two collars with two cable glands	T 708 132 00 T 708 132 00 MS T 708 132 00 MV	2 x M 32			

Description	Part no.	M	Housings for series A 32 and D 50	
Housings: double locking system				
Hoods, height 76 mm for double locking system, top cable entry				
with threaded hole with collar with cable gland	T 708 232 T 708 232 MS T 708 232 MV	1 x M 25	 	10 251 275 297
with two threaded holes with two collars with two cable glands	T 708 232 00 T 708 232 00 MS T 708 232 00 MV	2 x M 25		247 271 293
with threaded hole with collar with cable gland	T 708 332 T 708 332 MS T 708 332 MV	1 x M 32		247 281 316
with two threaded holes with two collars with two cable glands	T 708 332 00 T 708 332 00 MS T 708 332 00 MV	2 x M 32		242 276 311
Wall mount housings, height 81,5 mm for double locking system, with hinged cover				
with collar with cable gland	T 701 232 MS T 701 232 MV	1 x M 25	 	10 444 465
with two collars with two cable glands	T 701 332 MS T 701 332 MV	2 x M 25		463 486
with collar with cable gland	T 707 232 MS T 707 232 MV	1 x M 32		439 461
with two collars with two cable glands	T 707 332 MS T 707 332 MV	2 x M 32		458 483
Panel housing, height 28 mm for double locking system, with hinged cover				
Panel cutout 76 x 48 mm	704 232		 	10 121

Description		Part no.	M	Housings for series A 32 and D 50	
Housings: double locking system					
Hoods, height 76 mm with double locking system, side cable entry					
with threaded hole with collar with cable gland	T 703 032 T 703 032 MS T 703 032 MV	1 x M 25	10 316 340 361		
with two threaded holes with two collars with two cable glands	T 703 032 00 T 703 032 00 MS T 703 032 00 MV	2 x M 25	312 336 357		
with threaded hole with collar with cable gland	T 703 132 T 703 132 MS T 703 132 MV	1 x M 32	321 355 391		
Hoods, height 76 mm with double locking system, top cable entry					
with threaded hole with collar with cable gland	T 703 232 T 703 232 MS T 703 232 MV	1 x M 25	10 315 339 360		
with two threaded holes with two collars with two cable glands	T 703 232 00 T 703 232 00 MS T 703 232 00 MV	2 x M 25	311 335 356		
with threaded hole with collar with cable gland	T 703 332 T 703 332 MS T 703 332 MV	1 x M 32	320 354 390		
with two threaded holes with two collars with two cable glands	T 703 332 00 T 703 332 00 MS T 703 332 00 MV	2 x M 32	315 349 385		
Protective covers: plastic					
without gasket for housings with double locking levers with retaining cord	700 627		10 17		
with gasket for hoods without double locking levers with retaining cord	700 629		10 23		

Specifications of „size 5” housings and short overview of installation possibilities for series B 6, BB 10, DD 24 and MOB 6

Housings

Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Plastic; locking elements made of stainless steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

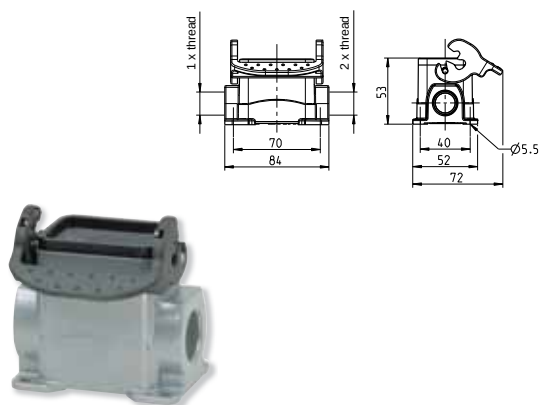
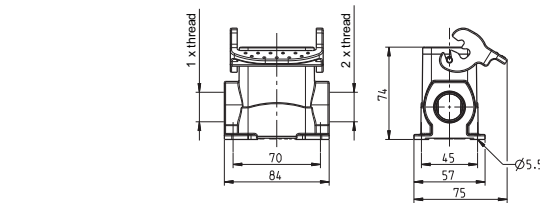
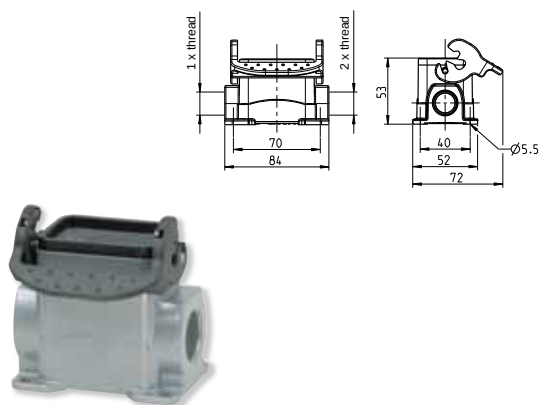
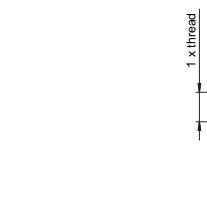
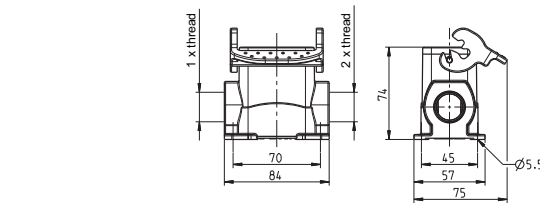
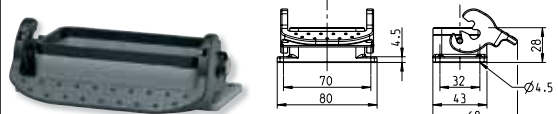
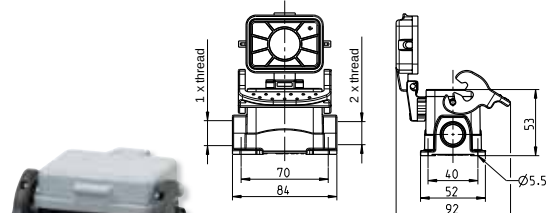
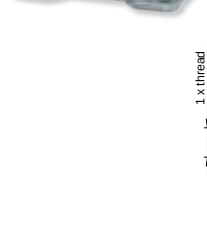
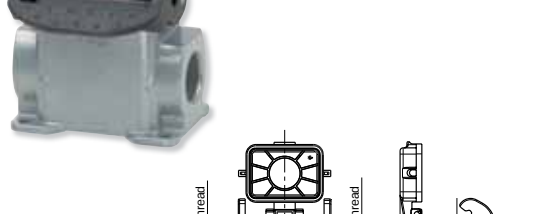
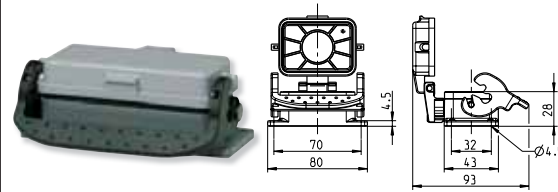
The housings shown on the following pages can be equipped with the inserts listed below:

	Screw terminal inserts		Crimp contact carriers		IDC inserts		Push-in inserts		Wiring adapters for panel housings	
B 6 ▶ p. 26	Female insert, screw terminal, with wire protection, Part no. 710 106 	Male insert, screw terminal, with wire protection, Part no. 710 206 	Crimp contact carrier for sleeve contacts Part no. 710 306 	Crimp contact carrier for pin contacts Part no. 710 406 	Female insert, IDC terminal Part no. 710 106 01 	Male insert, IDC terminal Part no. 710 206 01 	Female insert, push-in terminal no. 710 106 04 	Male insert, push-in terminal no. 710 206 04 	Wiring adapter, female insert, earth pin on the right Part no. 710 657 	Wiring adapter, male insert, earth pin on the right Part no. 710 665 
BB 10 ▶ p. 27			Crimp contact carrier for sleeve contacts Part no. 710 311 	Crimp contact carrier for pin contacts Part no. 710 411 						
DD 24 ▶ p. 62			Crimp contact carrier for sleeve contacts Part no. 750 124 	Crimp contact carrier for pin contacts Part no. 750 224 						
MOB 6 ▶ p. 75	Female frame MO B6 for 2 contact carriers for pin and sleeve contacts (frame coding A-B) for pin and sleeve contacts (2 x PE)		Part no. 770 006 Part no. 770 406		Male frame MO B6 for 2 contact carriers for pin and sleeve contacts (frame coding A-B) for pin and sleeve contacts (2 x PE)		Part no. 770 106 Part no. 770 506			

▶ The page reference at the left of the table guides you to the detailed overview of inserts.

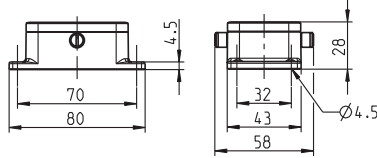
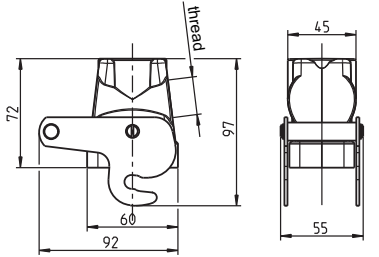
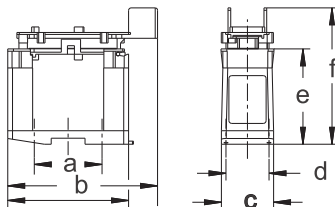
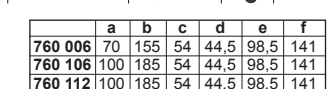
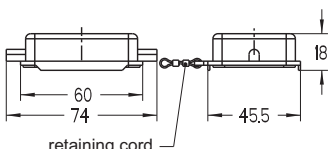
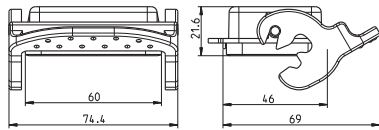
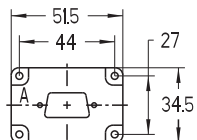
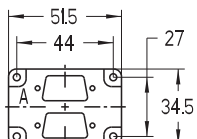
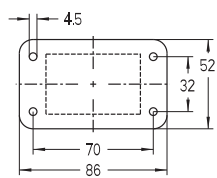
Contacts for crimp contact carriers of series ...

B 6:	see page 27
BB 10:	
DD 24:	see page 62
MO:	see page 77, 79, 81, 84, 85, 87, 89, 91, 93, 95, 97, 99, 101

Description		Part no.	M	Housings for series B 6, BB 10, DD 24 and MOB 6	
Housings: single locking system					
Wall mount housings, height 53 mm with single locking system					
with collar with cable gland	P 711 406 MS ex stock P 711 406 MV ex stock	1 x M 20			10 196 208
with collar with cable gland	P 711 506 MS ex stock P 711 506 MV	2 x M 20			195 219
Wall mount housings, height 74 mm with single locking system					
with collar with cable gland	P 751 424 MS P 751 424 MV	1 x M 25	10 296 315		
with collar with cable gland	P 751 524 MS P 751 524 MV	2 x M 25			294 332
with collar with cable gland	P 757 424 MS P 757 424 MV	1 x M 32			279 306
with collar with cable gland	P 757 524 MS P 757 524 MV	2 x M 32			262 316
Panel housing, height 28 mm with single locking system					
Panel cutout 52 x 35 mm	714 306 ex stock		10 109		
Wall mount housings, height 53 mm with single locking system, with hinged cover					
with collar with cable gland	*P 711 606 MS ex stock *P 711 606 MV ex stock	1 x M 20	10 230 242		
with collar with cable gland	*P 711 706 MS ex stock *P 711 706 MV	2 x M 20			229 253
Wall mount housings, height 74 mm with single locking system, with hinged cover					
with collar with cable gland	*P 751 624 MS *P 751 624 MV	1 x M 25	10 331 350		
with collar with cable gland	*P 751 724 MS *P 751 724 MV	2 x M 25			329 367
with collar with cable gland	*P 757 624 MS *P 757 624 MV	1 x M 32			314 341
with collar with cable gland	*P 757 724 MS *P 757 724 MV	2 x M 32			297 351
Panel housing, height 28 mm with single locking system, with hinged cover					
Panel cutout 52 x 35 mm	*714 406 ex stock		10 135		

* Other cover version required? Simply add the corresponding letters at the end of the part number:

Description	Part no.	M	Housings for series B 6, BB 10, DD 24 and MOB 6	
Housings: single locking system				
Coupler hoods, height 61,5 mm with single locking system, top cable entry				
with threaded hole with collar with cable gland	P 713 806 ex stock P 713 806 MS P 713 806 MV ex stock	1 x M 20		10 138 153 166
with two threaded holes with two collars with two cable glands	P 713 806 00 P 713 806 00 MS P 713 806 00 MV	2 x M 20		135 150 163
Coupler hoods, height 77,5 mm with single locking system, top cable entry				
with threaded hole with collar with cable gland	P 753 824 ex stock P 753 824 MS P 753 824 MV	1 x M 25		10 162 184 203
with threaded hole with collar with cable gland	P 753 924 P 753 924 MS P 753 924 MV	1 x M 32		159 192 220
Hoods, height 56 mm for single locking system, side cable entry				
with threaded hole with collar with cable gland	P 712 606 ex stock P 712 606 MS ex stock P 712 606 MV ex stock	1 x M 20		10 112 127 140
Hoods, height 72 mm for single locking system, side cable entry				
with threaded hole with collar with cable gland	P 758 624 ex stock P 758 624 MS P 758 624 MV	1 x M 25		10 138 160 179
with threaded hole with collar with cable gland	P 758 724 P 758 724 MS P 758 724 MV	1 x M 32		134 167 195
Hoods, height 56 mm for single locking system, top cable entry				
with threaded hole with collar with cable gland	P 712 806 ex stock P 712 806 MS P 712 806 MV ex stock	1 x M 20		10 112 127 140
with two threaded holes with two collars with two cable glands	P 712 806 00 P 712 806 00 MS P 712 806 00 MV	2 x M 20		108 123 136
Hoods, height 72 mm for single locking system, top cable entry				
with threaded hole with collar with cable gland	P 758 824 ex stock P 758 824 MS P 758 824 MV	1 x M 25		10 143 165 206
with threaded hole with collar with cable gland	P 758 924 P 758 924 MS P 758 924 MV	1 x M 32		140 173 201

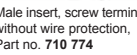
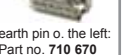
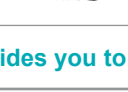
Description		Part no.	M	Housings for series B 6, BB 10, DD 24 and MOB 6																														
Housings: central locking system				 		10 70																												
Panel housing, height 28 mm for central locking system																																		
Panel cutout 52 x 35 mm	770 650			 		10 273 295 314																												
Hoods, height 72 mm with central locking system, side cable entry																																		
with threaded hole with collar with cable gland	P 770 651 P 770 651 MS P 770 651 MV	M 25																																
Snap-on mounting adapters				   <table><thead><tr><th></th><th>a</th><th>b</th><th>c</th><th>d</th><th>e</th><th>f</th></tr></thead><tbody><tr><td>760 006</td><td>70</td><td>155</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr><tr><td>760 106</td><td>100</td><td>185</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr><tr><td>760 112</td><td>100</td><td>185</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr></tbody></table>			a	b	c	d	e	f	760 006	70	155	54	44,5	98,5	141	760 106	100	185	54	44,5	98,5	141	760 112	100	185	54	44,5	98,5	141	5 191 211 205
	a	b	c			d	e	f																										
760 006	70	155	54	44,5	98,5	141																												
760 106	100	185	54	44,5	98,5	141																												
760 112	100	185	54	44,5	98,5	141																												
swing-type																																		
adapter module 125 for 1 insert adapter module 150 for 1 insert adapter module 150 for 2 insert	760 006 760 106 760 112																																	
mountable on DIN-rails, top can be screwed with bottom																																		
Protective covers				 		10 13 48																												
with retaining cord, for housings with single locking system																																		
Plastic Aluminium	710 630 710 630 AL																																	
with single locking system, gasket and retaining cord, for hoods with latch pins for single locking system				 		10 54 96																												
Plastic Aluminium	710 762 710 762 AL																																	
Adapter plates for contact inserts				  Installation possibilities: Front and reverse side of the plate are marked with "A" or "T". If installed in a panel housing, the A must be readable, if installed in a hood, the T must be readable. The corresponding fixing screws are included in the scope of delivery.  		10 14 14																												
for installation in series B 6 housings																																		
Sub miniature, single 9-pole 15-pole	710 796 710 797					10 14 14																												
Sub miniature, double 9-pole 15-pole	710 802 710 803					10 9 8																												
Cover plates for switch cabinets				 		10 18 18																												
for panel housing B 6 grey orange	720 638 720 642																																	

Specifications of „size 6” housings and short overview of installation possibilities for series B 10, BB 18, DD 42 and MOB 10 inserts

Housings

Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Plastic; locking elements made of stainless steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

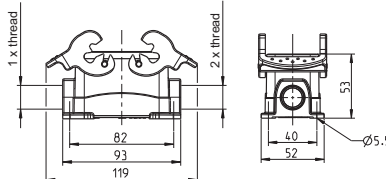
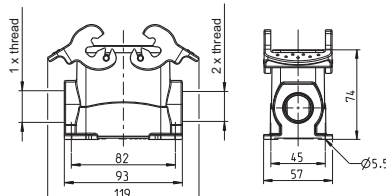
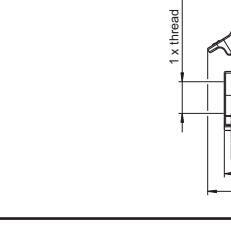
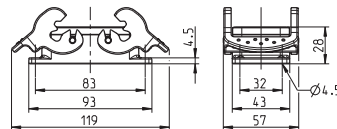
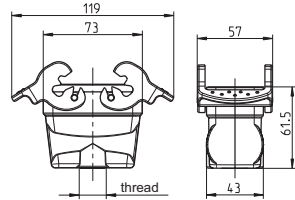
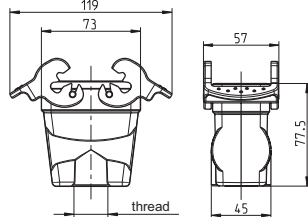
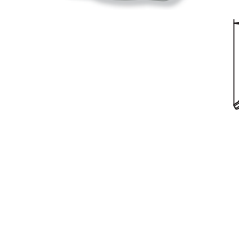
The housings shown on the following pages can be equipped with the inserts listed below:

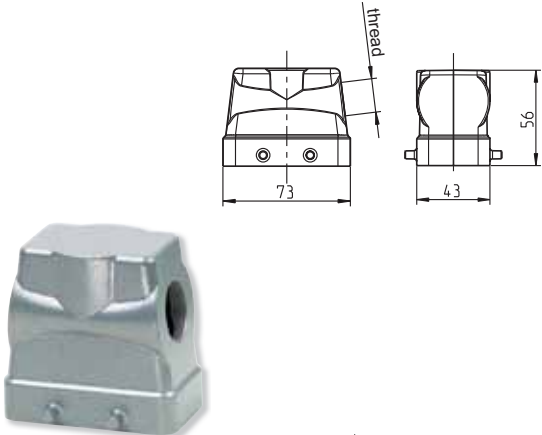
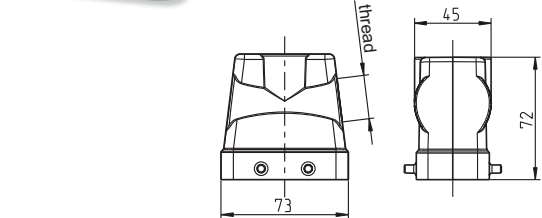
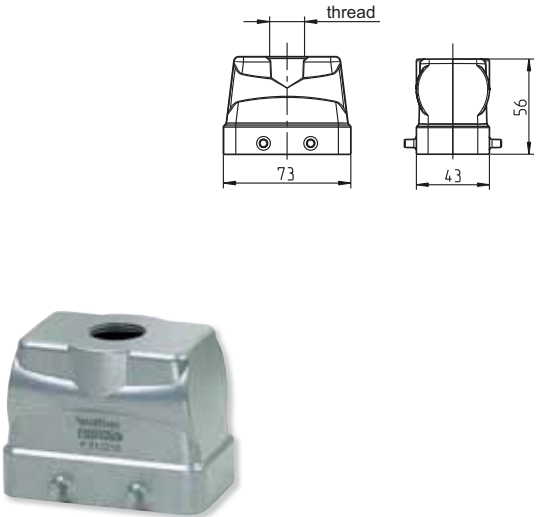
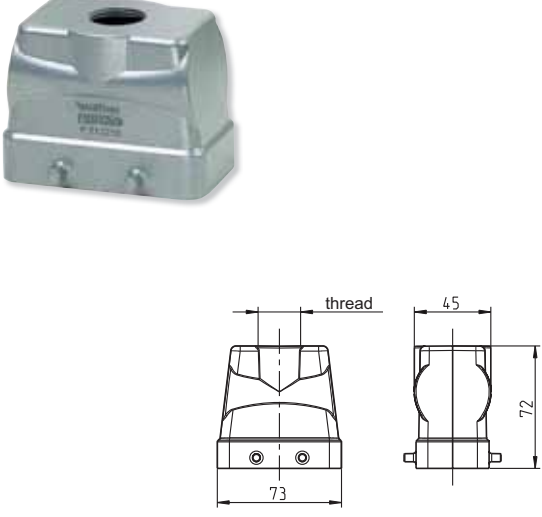
	Screw terminal inserts	Crimp contact carriers	IDC inserts	Push-in inserts	Wiring adapters for panel housings
B 10 ▶ p. 28 to 29	Female insert, screw terminal, with wire protection, Part no. 710 110  Male insert, screw terminal, with wire protection, Part no. 710 210  Female insert, screw terminal, without wire protection, Part no. 710 770  Male insert, screw terminal without wire protection, Part no. 710 774 	Crimp contact carrier for sleeve contacts, Part no. 710 310  Crimp contact carrier for pin contacts, Part no. 710 410 	Female insert, IDC terminal, No. 710 110 01  Male insert, IDC terminal, No. 710 210 01 	Female insert, push-in terminal, No. 710 110 04  Male insert, push-in terminal, No. 710 210 04 	Wiring adapter, female insert, earth pin on the right: Part no. 710 658  Wiring adapter, male insert, earth pin on the right: Part no. 710 666  earth pin o. the left: Part no. 710 662  earth pin o. the left: Part no. 710 670 
BB 18 ▶ p. 29		Crimp contact carrier for sleeve contacts, Part no. 710 318  Crimp contact carrier for pin contacts, Part no. 710 418 			
DD 42 ▶ p. 63		Crimp contact carrier for sleeve contacts, Part no. 750 142  Crimp contact carrier for pin contacts, Part no. 750 242 			
MOB 10 ▶ p. 75	Female frame MO B10 for 3 contact carriers for pin and sleeve contacts (frame coding A-C) Part no. 770 010  for pin and sleeve contacts (2 x PE) Part no. 770 410 		Male frame MO B10 for 3 contact carriers for pin and sleeve contacts (frame coding A-C) Part no. 770 110  for pin and sleeve contacts (2 x PE) Part no. 770 510 		

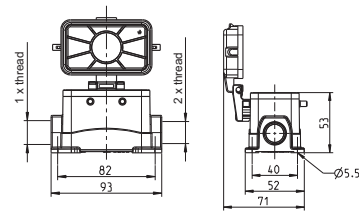
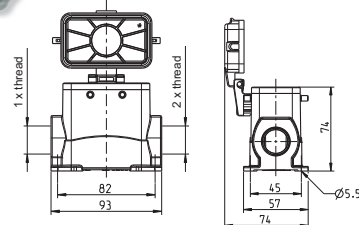
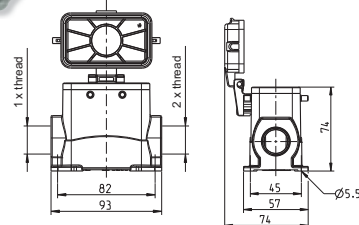
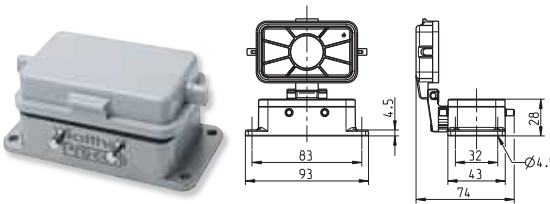
▶ The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series . . .

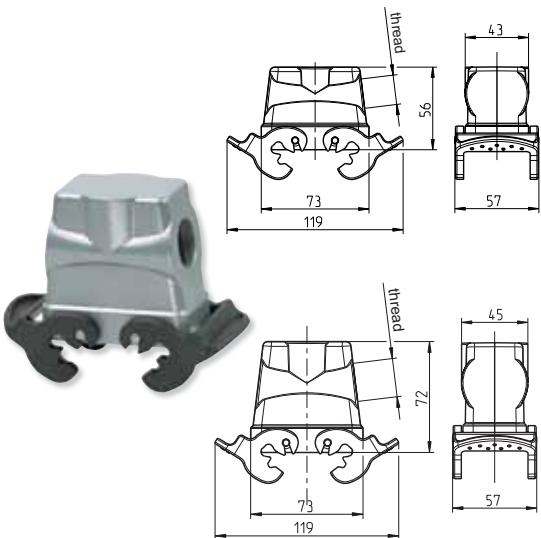
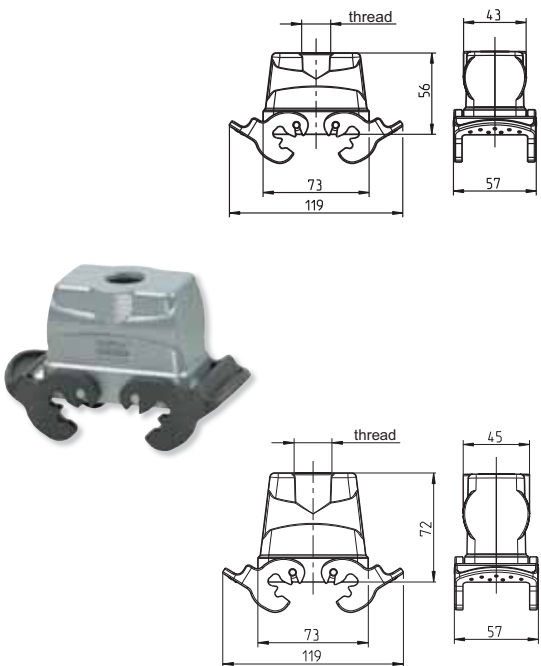
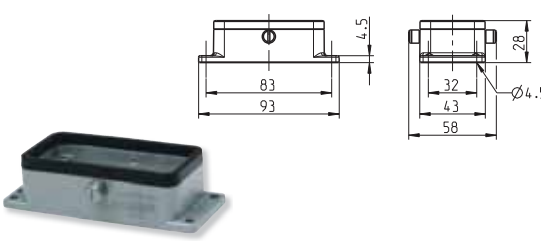
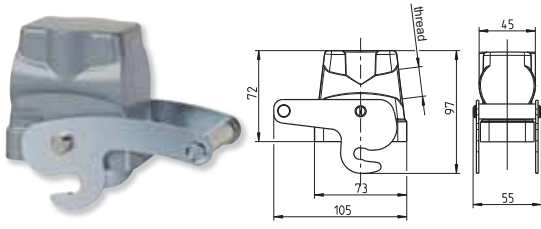
B 10:	see page 29
BB 18:	
DD 42:	see page 63
MOB 10:	see page 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

Description		Part no.	M	Housings for series B 10, BB 18, DD 42, MOB 10	  9
Housings: double locking system				 	10 231 243 230 254
Wall mount housing, height 53 mm with double locking system					
with collar with cable gland	P 711 010 MS ex stock P 711 010 MV ex stock	1 x M 20			
with two collars with two cable glands	P 711 110 MS P 711 110 MV	2 x M 20			
Wall mount housing, height 74 mm with double locking system				 	10 332 351 330 368 303 330 299 353
with collar with cable gland	P 751 042 MS P 751 042 MV	1 x M 25			
with two collars with two cable glands	P 751 142 MS P 751 142 MV	2 x M 25			
with collar with cable gland	P 757 042 MS P 757 042 MV	1 x M 32			
with two collars with two cable glands	P 757 142 MS P 757 142 MV	2 x M 32			
Panel housing, height 28 mm with double locking system				 	10 147
Panel cutout 65 x 35 mm	714 110 ex stock				
Coupler hoods, height 61,5 mm with double locking system, top cable entry				 	10 171 186 199 168 183 196 166 190 205
with threaded hole with collar with cable gland	P 713 610 P 713 610 MS P 713 610 MV	1 x M 20			
with two threaded holes with two collars with two cable glands	P 713 610 00 P 713 610 00 MS P 713 610 00 MV	2 x M 20			
with two threaded holes with two collars with two cable glands	P 713 710 P 713 710 MS P 713 710 MV	1 x M 25			
Coupler hoods, height 77,5 mm with double locking system, top cable entry				 	10 202 224 243 198 220 239 199 232 260
with threaded hole with collar with cable gland	P 753 642 P 753 642 MS P 753 642 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 753 642 00 P 753 642 00 MS P 753 642 00 MV	2 x M 25			
with threaded hole with collar with cable gland	P 753 742 P 753 742 MS P 753 742 MV	1 x M 32			

Description	Part no.	M	Housings for series B 10, BB 18, DD 42, MOB 10	
Housings: double locking system				
Hoods, height 56 mm for double locking system, side cable entry				
with threaded hole with collar with cable gland	P 712 010 ex stock P 712 010 MS P 712 010 MV ex stock	1 x M 20		10 130 145 158
with threaded hole with collar with cable gland	P 712 110 P 712 110 MS P 712 110 MV	1 x M 25		125 150 165
Hoods, height 72 mm for double locking system, side cable entry				
with threaded hole with collar with cable gland	P 758 042 P 758 042 MS P 758 042 MV	1 x M 25		10 158 180 199
with threaded hole with collar with cable gland	P 758 142 P 758 142 MS P 758 142 MV	1 x M 32		155 188 216
Hoods, height 56 mm for double locking system, top cable entry				
with threaded hole with collar with cable gland	P 712 210 ex stock P 712 210 MS P 712 210 MV ex stock	1 x M 20		10 130 145 158
with two threaded holes with two collars with two cable glands	P 712 210 00 P 712 210 00 MS P 712 210 00 MV	2 x M 20		127 142 155
with threaded hole with collar with cable gland	P 712 310 P 712 310 MS P 712 310 MV	1 x M 25		125 150 165
Hoods, height 72 mm for double locking system, top cable entry				
with threaded hole with collar with cable gland	P 758 242 P 758 242 MS P 758 242 MV	1 x M 25		10 159 181 200
with two threaded holes with two collars with two cable glands	P 758 242 00 P 758 242 00 MS P 758 242 00 MV	2 x M 25		155 177 196
with threaded hole with collar with cable gland	P 758 342 P 758 342 MS P 758 342 MV	1 x M 32		156 189 217

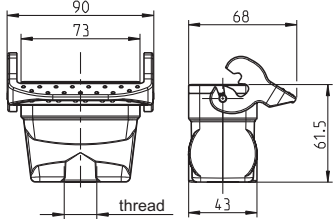
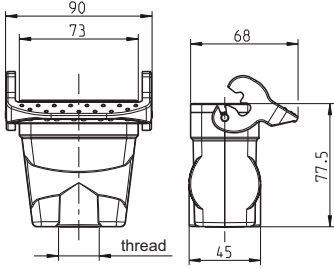
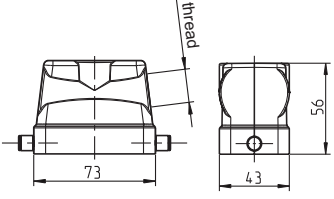
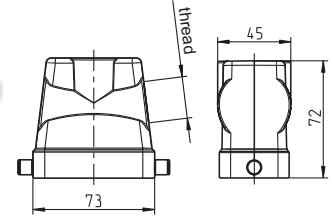
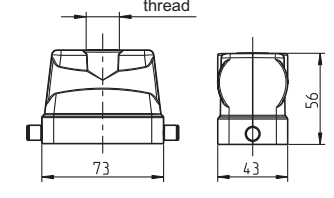
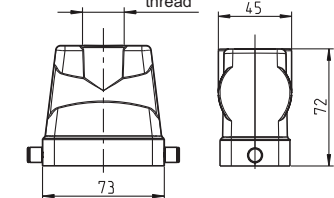
Description	Part no.	M	Housings for series B 10, BB 18, DD 42, MOB 10	 9
Housings: double locking system				
Wall mount housing, height 53 mm for double locking system, with hinged cover				
with collar with cable gland	*P 711 210 MS *P 711 210 MV	1 x M 20		10 236 248
with two collars with two cable glands	*P 711 310 MS *P 711 310 MV	2 x M 20		235 259
Wall mount housing, height 74 mm for double locking system, with hinged cover				
with collar with cable gland	*P 751 242 MS *P 751 242 MV	1 x M 25		10 335 354
with two collars with two cable glands	*P 751 342 MS *P 751 342 MV	2 x M 25		333 371
with collar with cable gland	*P 757 242 MS *P 757 242 MV	1 x M 32		307 334
with two collars with two cable glands	*P 757 342 MS *P 757 342 MV	2 x M 32		303 357
Panel housing, height 28 mm for double locking system, with hinged cover				
Panel cutout 65 x 35 mm	*714 210			10 105

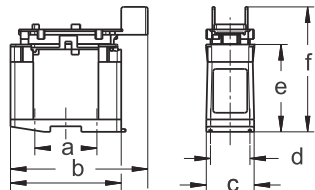
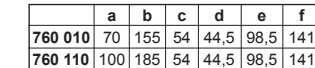
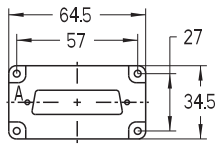
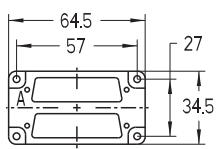
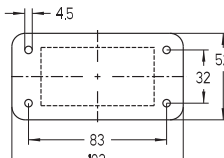
* Other cover version required? Simply add the corresponding letters at the end of the part number:

Description	Part no.	M	Housings for series B 10, BB 18, DD 42, MOB 10	
Housings: double locking system				10 163 178 191
Hoods, height 56 mm with double locking system, side cable entry				
with threaded hole with collar with cable gland	P 713 010 P 713 010 MS P 713 010 MV	1 x M 20		
Hoods, height 72 mm with double locking system, side cable entry				10 191 213 232 186 219 247
with threaded hole with collar with cable gland	P 753 042 P 753 042 MS P 753 042 MV	1 x M 25		
with threaded hole with collar with cable gland	P 753 142 P 753 142 MS P 753 142 MV	1 x M 32		
Hoods, height 56 mm with double locking system, top cable entry				10 162 177 190 159 174 187
with threaded hole with collar with cable gland	P 713 210 P 713 210 MS P 713 210 MV	1 x M 20		
with two threaded holes with two collars with two cable glands	P 713 210 00 P 713 210 00 MS P 713 210 00 MV	2 x M 20		
Hoods, height 72 mm with double locking system, top cable entry				10 192 214 233 188 210 229 189 222 250
with threaded hole with collar with cable gland	P 753 242 P 753 242 MS P 753 242 MV	1 x M 25		
with two threaded holes with two collars with two cable glands	P 753 242 00 P 753 242 00 MS P 753 242 00 MV	2 x M 25		
with threaded hole with collar with cable gland	P 753 342 P 753 342 MS P 753 342 MV	1 x M 32		
Housings: central locking system				10 78
Panel housing, height 28 mm for central locking system				
Panel cutout 65 x 35 mm	770 652			
Hoods, height 72 mm with central locking system, side cable entry				10 295 317 336
with threaded hole with collar with cable gland	P 770 653 P 770 653 MS P 770 653 MV	M 25		

Description	Part no.	M	Housings for series B 10, BB 18, DD 42, MOB 10	
Housings: single locking system				
Wall mount housing, height 53 mm with single locking system				
with collar with cable gland	P 711 410 MS ex stock P 711 410 MV	1 x M 20		10 216 228
with two collars with two cable glands	P 711 510 MS P 711 510 MV	2 x M 20		
Wall mount housing, height 74 mm with single locking system				
with collar with cable gland	P 751 442 MS P 751 442 MV	1 x M 25		10 317 340
with two collars with two cable glands	P 751 542 MS P 751 542 MV	2 x M 25		
with collar with cable gland	P 757 442 MS P 757 442 MV	1 x M 32		
with two collars with two cable glands	P 757 542 MS P 757 542 MV	2 x M 32		
Panel housing, height 28 mm with single locking system				
Panel cutout 65 x 35 mm	714 310 ex stock			10 125
Wall mount housing, height 53 mm with single locking system, with hinged cover				
with collar with cable gland	*P 711 610 MS ex stock *P 711 610 MV	1 x M 20		10 254 266
with two collars with two cable glands	*P 711 710 MS ex stock *P 711 710 MV	2 x M 20		
Wall mount housing, height 74 mm with single locking system, with hinged cover				
with collar with cable gland	*P 751 642 MS *P 751 642 MV	1 x M 25		10 355 374
with two collars with two cable glands	*P 751 742 MS *P 751 742 MV	2 x M 25		
with collar with cable gland	*P 757 642 MS *P 757 642 MV	1 x M 32		
with two collars with two cable glands	*P 757 742 MS *P 757 742 MV	2 x M 32		
Panel housing, height 28 mm with single locking system, with hinged cover				
Panel cutout 65 x 35 mm	*714 410 ex stock			10 152

* Other cover version required? Simply add the corresponding letters at the end of the part number:

Description		Part no.	M	Housings for series B 10, BB 18, DD 42, MOB 10	
Housings: single locking system				 	10 158 173 186 155 170 183
Coupler hoods, height 61,5 mm with single locking system, top cable entry					
with threaded hole with collar with cable gland	P 713 810 P 713 810 MS P 713 810 MV	1 x M 20			
with two threaded holes with two collars with two cable glands	P 713 810 00 P 713 810 00 MS P 713 810 00 MV	2 x M 20			
Coupler hoods, height 77,5 mm with single locking system, top cable entry				 	10 187 209 228 183 205 224 184 217 245
with threaded hole with collar with cable gland	P 753 842 P 753 842 MS P 753 842 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 753 842 00 P 753 842 00 MS P 753 842 00 MV	2 x M 25			
with threaded hole with collar with cable gland	P 753 942 P 753 942 MS P 753 942 MV	1 x M 32			
Hoods, height 56 mm for single locking lever, side cable entry				 	10 136 151 164
with threaded hole with collar with cable gland	P 712 610 ex stock P 712 610 MS P 712 610 MV ex stock	1 x M 20			
Hoods, height 72 mm for single locking lever, side cable entry				 	10 166 188 207 161 194 222
with threaded hole with collar with cable gland	P 758 642 ex stock P 758 642 MS P 758 642 MV ex stock	1 x M 25			
with threaded hole with collar with cable gland	P 758 742 P 758 742 MS P 758 742 MV	1 x M 32			
Hoods, height 56 mm for single locking lever, top cable entry				 	10 135 150 163 132 147 160
with threaded hole with collar with cable gland	P 712 810 ex stock P 712 810 MS P 712 810 MV ex stock	1 x M 20			
with two threaded holes with two collars with two cable glands	P 712 810 00 P 712 810 00 MS P 712 810 00 MV	2 x M 20			
Hoods, height 72 mm for single locking lever, top cable entry				 	10 167 189 208 163 185 204 164 197 225
with threaded hole with collar with cable gland	P 758 842 P 758 842 MS P 758 842 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 758 842 00 P 758 842 00 MS P 758 842 00 MV	2 x M 25			
with threaded hole with collar with cable gland	P 758 942 P 758 942 MS P 758 942 MV	1 x M 32			

Description		Part no.	Housings for series B 10, BB 18, DD 42, MOB 10		  9																					
Snap-on mounting adapters																										
swing-type																										
adapter module 125 adapter module 150		760 010 760 110																								
mountable on DIN-rails top can be screwed with bottom																										
			125 mm: adapter module 125 150 mm: adapter module 150																							
			  																							
			<table><tr><th></th><th>a</th><th>b</th><th>c</th><th>d</th><th>e</th><th>f</th></tr><tr><td>760 010</td><td>70</td><td>155</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr><tr><td>760 110</td><td>100</td><td>185</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr></table>				a	b	c	d	e	f	760 010	70	155	54	44,5	98,5	141	760 110	100	185	54	44,5	98,5	141
	a	b	c	d	e	f																				
760 010	70	155	54	44,5	98,5	141																				
760 110	100	185	54	44,5	98,5	141																				
Protective covers																										
with retaining cord for housings with double locking system																										
Plastic Aluminium		710 624 710 624 AL																								
with retaining cord for housings with single locking system																										
Plastic Aluminium		710 632 710 632 AL																								
with gasket and retaining cord for hoods with double locking system																										
Plastic Aluminium		710 756 710 756 AL																								
with gasket and retaining cord for hoods with latch pins for double locking system																										
Plastic Aluminium		710 759 710 759 AL																								
with gasket and retaining cord for hoods with latch pins for single locking system																										
Plastic Aluminium		710 763 710 763 AL																								
Adapter plates for contact inserts																										
for installation in series B 10 housings																										
Sub miniature, single 25-pole		710 798																								
Sub miniature, double 25-pole		710 804																								
			Installation possibilities: Front and reverse side of the plate are marked with "A" or "T". If installed in a panel housing , the A must be readable, if installed in a hood , the T must be readable. The corresponding fixing screws are included in the scope of delivery.																							
			   																							
Cover plates for switch cabinets																										
for panel housing B10																										
grey orange green		720 639 720 643 720 647																								
			 																							

Specifications of „size 7” housings and short overview of installation possibilities for series B 16, BA6, BB 32, D 40, DD 72 and MOB 16 inserts

Housings

Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Plastic; locking elements made of stainless steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

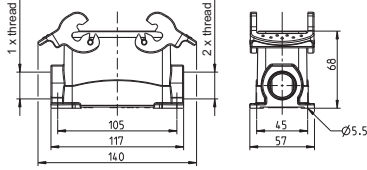
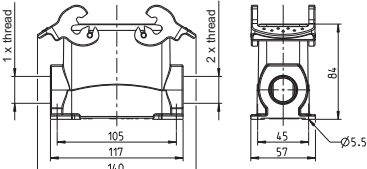
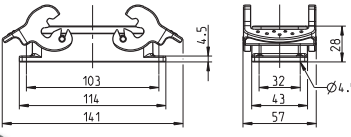
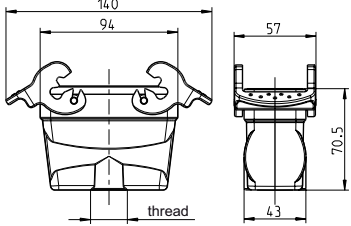
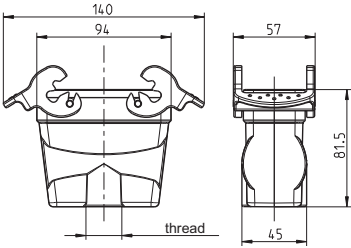
The housings shown on the following pages can be equipped with the inserts listed below:

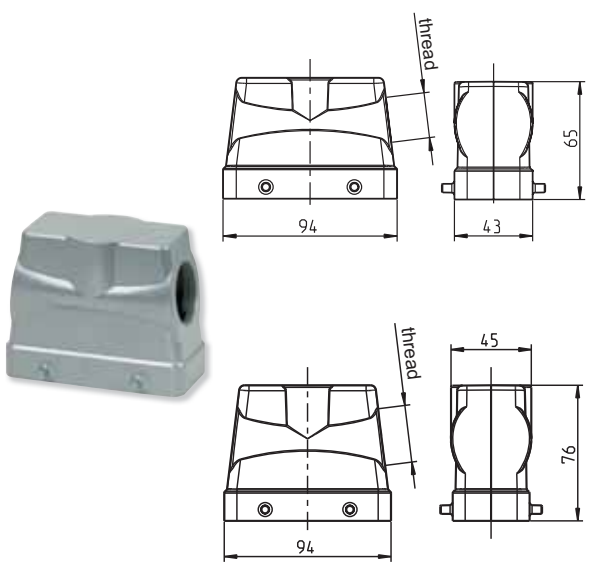
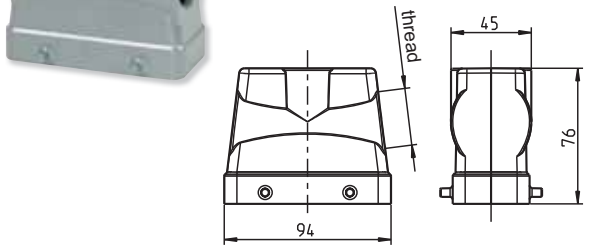
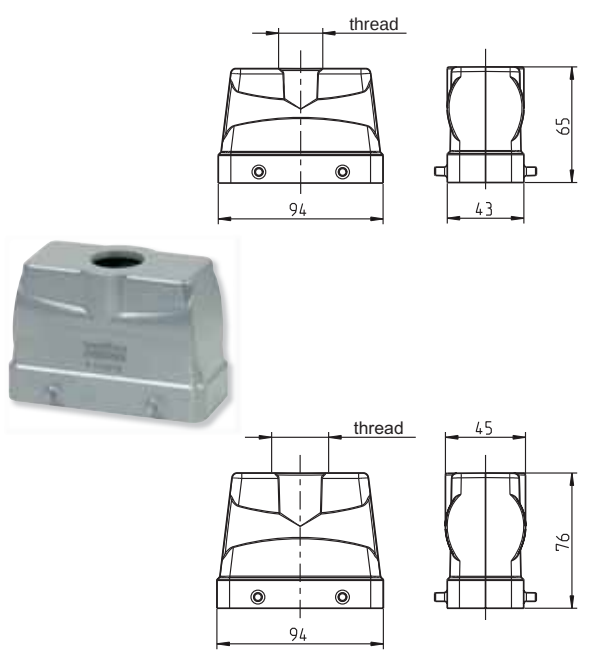
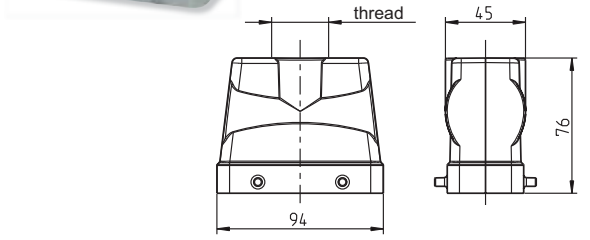
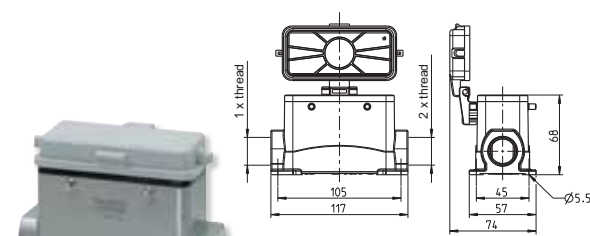
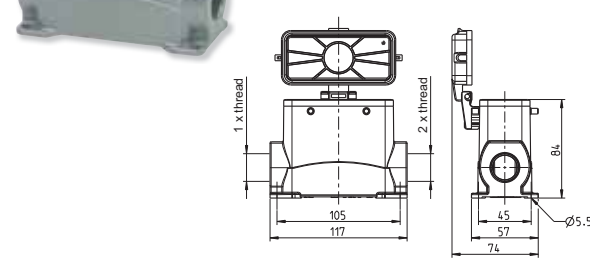
	Screw terminal inserts	Crimp contact carriers	IDC inserts	Push-in inserts	Wiring adapters for panel housings
B 16 ▶ p. 30 to 31	Female insert, screw terminal, with wire protection, Part no. 710 116 Female insert, screw terminal, without wire protection, Part no. 710 771 	Crimp contact carrier for sleeve contacts Part no. 710 316 Crimp contact carrier for pin contacts Part no. 710 416 	Female insert IDC terminal No. 710 116 01 Male insert IDC terminal No. 710 216 01 	Female insert, push-in contact No. 710 116 04 Male insert, push-in contact No. 710 216 04 	Wiring adapter, female insert, earth pin on the right: Part no. 710 659 Wiring adapter, male insert, earth pin on the right: Part no. 710 667 earth pin on the left: Part no. 710 663 earth pin on the left: Part no. 710 671
BB 32 ▶ p. 31		Crimp contact carrier for sleeve contacts Part no. 710 333 Crimp contact carrier for pin contacts Part no. 710 433 			
BA 6 ▶ p. 40	Female insert, screw terminal, with wire protection, Part no. 710 620 Male insert, screw terminal, with wire protection, Part no. 710 621 				
D 40 ▶ p. 50 to 51		Crimp contact carrier for sleeve contacts Part no. 720 340 Crimp contact carrier for pin contacts Part no. 720 440 			Wiring adapter, female insert, earth pin on the left: Part no. 720 633 Wiring adapter, female insert, earth pin on the left: Part no. 720 632
DD 72 ▶ p. 64		Crimp contact carrier for sleeve contacts Part no. 750 172 Crimp contact carrier for pin contacts Part no. 750 272 			
MOB 16 ▶ p. 75	Female frame MO B16 for 5 contact carriers for pin and sleeve contacts (frame coding A-E) Part no. 770 016 for pin and sleeve contacts (2 x PE) Part no. 770 416 			Male frame MO B16 for 5 contact carriers for pin and sleeve contacts (frame coding A-E) Part no. 770 116 for pin and sleeve contacts (2 x PE) Part no. 770 516 	

▶ The page reference at the left of the table guides you to the detailed overview of inserts.

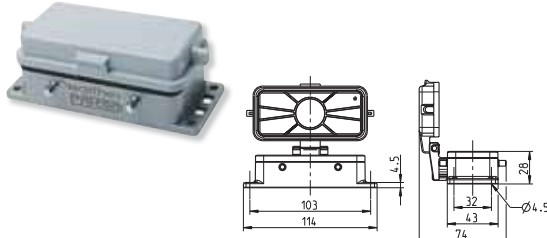
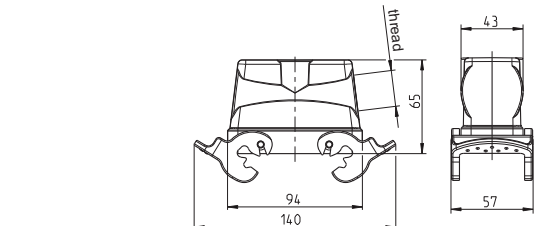
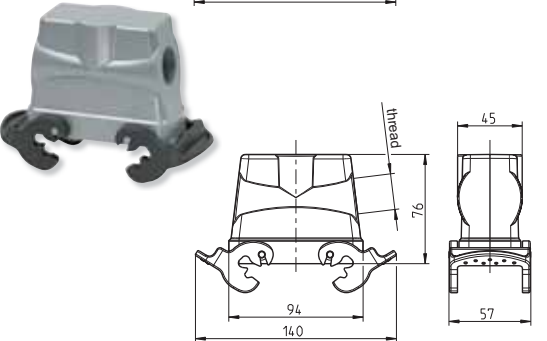
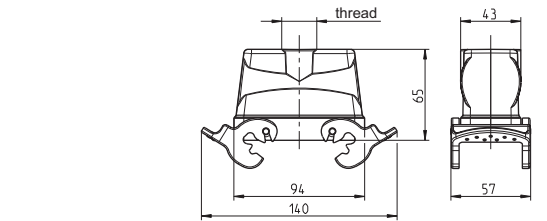
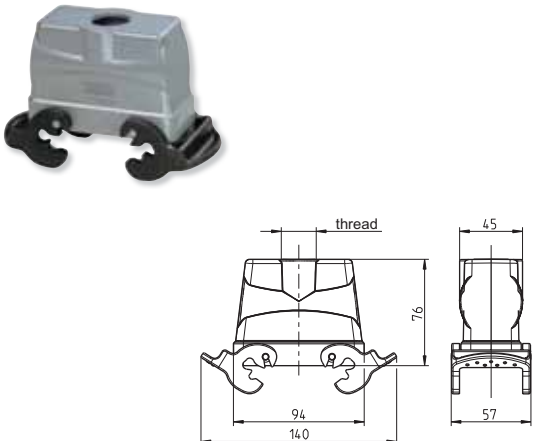
Contacts for crimp contact carriers of series . . .

B 16:	see page 31
BB 32:	
D 40:	see page 51
DD 72:	see page 65
MOB 16:	see page 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

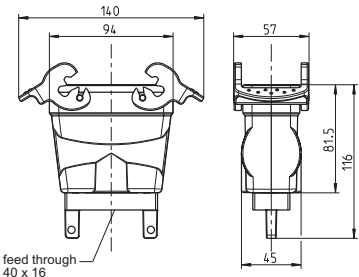
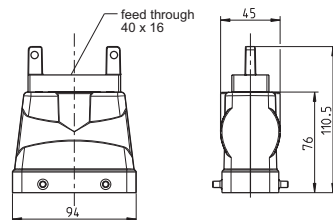
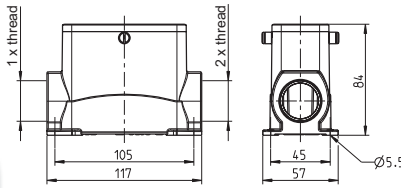
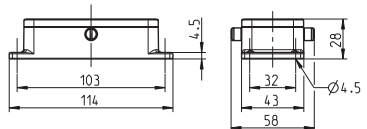
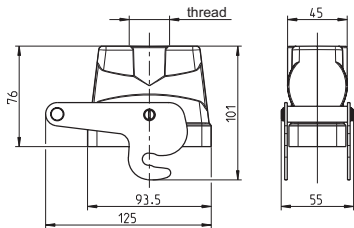
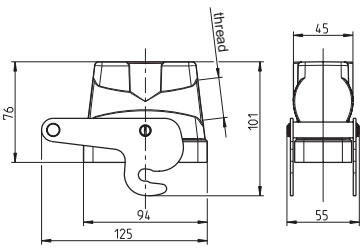
Description	Part no.	M	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	
Housings: double locking system				
Wall-mount housing, height 68 mm with double locking system				
with collar with cable gland	P 711 016 MS ex stock P 711 016 MV ex stock	1 x M 25		10 340 359
with two collars with two cable glands	P 711 116 MS P 711 116 MV	2 x M 25		338 376
Wall-mount housing, height 84 mm with double locking system				
with collar with cable gland	P 757 072 MS P 757 072 MV	1 x M 32		10 418 445
with two collars with two cable glands	P 757 172 MS P 757 172 MV	2 x M 32		414 468
with collar with cable gland	P 757 072 40 MS P 757 072 40 MV	1 x M 40		379 422
with two collars with two cable glands	P 757 172 40 MS P 757 172 40 MV	2 x M 40		350 436
Panel housing, height 28 mm with double locking system				
Panel cutout 86 x 35 mm	714 116 ex stock		 	10 165
Coupler hoods, height 70,5 mm with double locking system, top cable entry				
with threaded hole with collar with cable gland	P 713 616 P 713 616 MS P 713 616 MV	1 x M 25		10 208 230 249
with two threaded holes with two collars with two cable glands	P 713 616 00 P 713 616 00 MS P 713 616 00 MV	2 x M 25		204 226 245
with threaded hole with collar with cable gland	P 713 716 P 713 716 MS P 713 716 MV	1 x M 32		205 238 266
Coupler hoods, height 81,5 mm with double locking system, top cable entry				
with threaded hole with collar with cable gland	P 753 772 P 753 772 MS P 753 772 MV	1 x M 32		10 234 267 295
with two threaded holes with two collars with two cable glands	P 753 772 00 P 753 772 00 MS P 753 772 00 MV	2 x M 32		229 262 290
with threaded hole with collar with cable gland	P 753 772 40 P 753 772 40 MS P 753 772 40 MV	1 x M 40		228 272 314

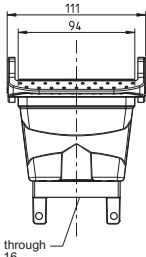
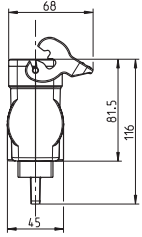
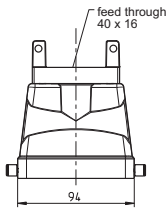
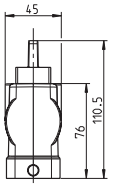
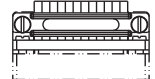
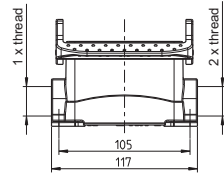
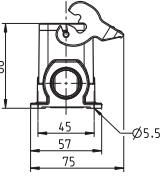
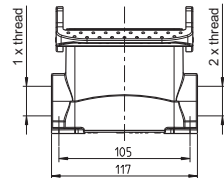
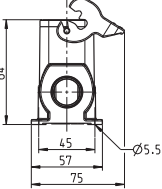
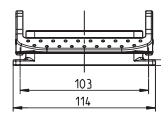
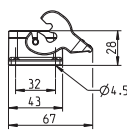
Description		Part no.	M	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	
Housings: double locking system					
Hoods, height 65 mm for double locking system, side cable entry					
with threaded hole with collar with cable gland	P 718 016 ex stock P 718 016 MS ex stock P 718 016 MV ex stock	1 x M 25			10 166 188 207
with threaded hole with collar with cable gland	P 718 116 P 718 116 MS P 718 116 MV	1 x M 32			162 195 223
Hoods, height 76 mm for double locking system, side cable entry					
with threaded hole with collar with cable gland	P 728 140 ex stock P 728 140 MS P 728 140 MV ex stock	1 x M 32			
with threaded hole with collar with cable gland	P 728 140 40 P 728 140 40 MS P 728 140 40 MV	1 x M 40			176 220 262
Hoods, height 65 mm for double locking system, top cable entry					
with threaded hole with collar with cable gland	P 718 216 ex stock P 718 216 MS P 718 216 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 718 216 00 P 718 216 00 MS P 718 216 00 MV	2 x M 25			163 185 204
with threaded hole with collar with cable gland	P 718 316 P 718 316 MS P 718 316 MV	1 x M 32			164 197 225
Hoods, height 76 mm for double locking system, top cable entry					
with threaded hole with collar with cable gland	P 728 340 P 728 340 MS P 728 340 MV	1 x M 32			
with threaded hole with collar with cable gland	P 728 340 00 P 728 340 00 MS P 728 340 00 MV	2 x M 32			180
with two threaded holes with two collars with two cable glands	P 728 340 40 P 728 340 40 MS P 728 340 40 MV	1 x M 40			182 226 268
Wall-mount housing, height 68 mm for double locking system, with hinged lid					
with collar with cable gland	*P 711 216 MS *P 711 216 MV	1 x M 25			
with two collars with two cable glands	*P 711 316 MS *P 711 316 MV	2 x M 25			348 386
Wall-mount housing, height 84 mm for double locking system, with hinged lid					
with collar with cable gland	*P 751 272 MS *P 751 272 MV	1 x M 25			
with two collars with two cable glands	*P 751 372 MS *P 751 372 MV	2 x M 25			456 494
with collar with cable gland	*P 757 272 MS *P 757 272 MV	1 x M 32			427 454
with two collars with two cable glands	*P 757 372 MS *P 757 372 MV	2 x M 32			423 477

* Other cover version required? Simply add the corresponding letters at the end of the part number:

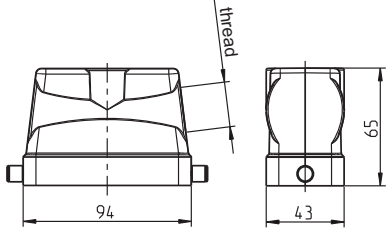
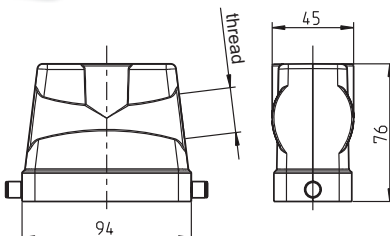
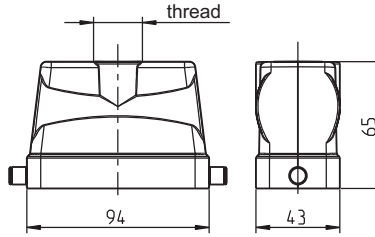
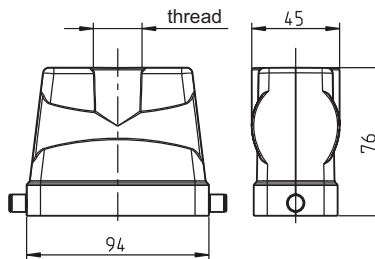
Description		Part no.	M	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	
Housings: double locking system					10 111
Panel housing, height 28 mm for double locking system, with hinged lid					
Panel cutout 86 x 35 mm	*714 216				
Hoods, height 65 mm with double locking system, side cable entry					10 200 222 241
with threaded hole with collar with cable gland	P 713 016 ex stock P 713 016 MS P 713 016 MV ex stock	1 x M 25			
Hoods, height 76 mm with double locking system, side cable entry					10 222 244 263 217 250 278
with threaded hole with collar with cable gland	P 723 040 P 723 040 MS P 723 040 MV	1 x M 25			
with threaded hole with collar with cable gland	P 723 140 P 723 140 MS P 723 140 MV	1 x M 32			
Hoods, height 65 mm with double locking system, top cable entry					10 200 222 241 196 218 237
with threaded hole with collar with cable gland	P 713 216 P 713 216 MS P 713 216 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 713 216 00 P 713 216 00 MS P 713 216 00 MV	2 x M 25			
Hoods, height 76 mm with double locking system, top cable entry					10 224 246 265 220 242 261 221 254 282 216 249 277
with threaded hole with collar with cable gland	P 723 240 P 723 240 MS P 723 240 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 723 240 00 P 723 240 00 MS P 723 240 00 MV	2 x M 25			
with threaded hole with collar with cable gland	P 723 340 P 723 340 MS P 723 340 MV	1 x M 32			
with two threaded holes with two collars with two cable glands	P 723 340 00 P 723 340 00 MS P 723 340 00 MV	2 x M 32			

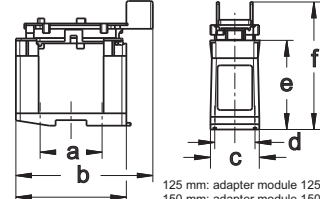
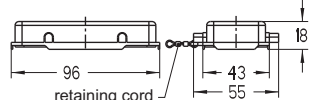
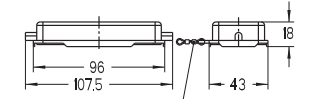
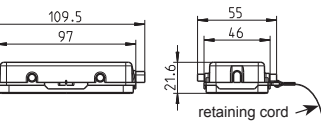
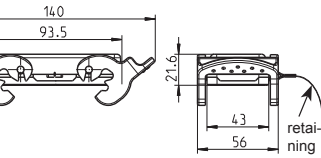
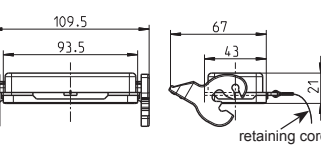
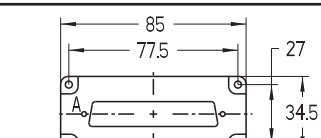
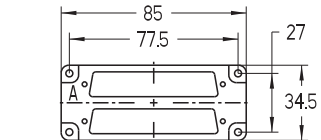
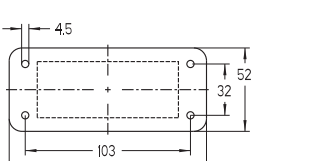
* Other cover version required? Simply add the corresponding letters at the end of the part number:

Description		Part no.	M	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	  g
Housings: double locking system				 	10 322
Coupler hood for flat cable, height 81 mm					
with double locking system	P 729 740				
Hood for flat cable, height 76 mm				 	10 278
with double locking system					
	P 729 440				
Housings: central locking system				 	10 381 408
Wall-mount housing, height 84 mm					
for central locking system					
with collar with cable gland	P 770 654 MS P 770 654 MV	1 x M 32			
Panel housing, height 28 mm					
for central locking system			 	10 82	
Panel cutout 86x35mm	770 655				
Hoods, height 76 mm				 	10 327 360 388
with central locking system top cable entry					
with threaded hole with collar with cable gland	P 770 656 P 770 656 MS P 770 656 MV	M 32			
Hoods, height 76 mm					
with central locking system side cable entry			 	10 324 357 385	
with threaded hole with collar with cable gland	P 770 657 P 770 657 MS P 770 657 MV	M 32			

Description		Part no.	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	 
Housings: single locking system			   feed through 40 x 16	10 309
Coupler hood for flat cable, height 81 mm				
with single locking system	P 729 840			
Hood for flat cable, height 76 mm			   feed through 40 x 16	10 285
for single locking system	P 729 640			
Gasket sets with strain relief clamp			   5 mm for 1 flat cable 10 mm for 2 flat cables 15 mm for 3 flat cables 40	10 87 84 81
for 1 flat cable	719 601	40 x 5 mm		
for 2 flat cables	719 602	40 x 10 mm		
for 3 flat cables	719 603	40 x 15 mm		
Wall-mount housing, height 68 mm with single locking system			   1 x thread 2 x thread 105 117 68 45 57 75 Ø5.5	10 328 347 326 364
with collar with cable gland	P 711 416 MS ex stock P 711 416 MV	1 x M 25		
with two collars with two cable glands	P 711 516 MS P 711 516 MV	2 x M 25		
Wall-mount housing, height 84 mm with single locking system			   1 x thread 2 x thread 105 117 84 45 57 75 Ø5.5	10 406 433 402 456 379 422 350 436
with collar with cable gland	P 757 472 MS P 757 472 MV	1 x M 32		
with two collars with two cable glands	P 757 572 MS P 757 572 MV	2 x M 32		
with collar with cable gland	P 757 472 40 MS P 757 472 40 MV	1 x M 40		
with two collars with two cable glands	P 757 572 40 MS P 757 572 40 MV	2 x M 40		
Panel housing, height 28 mm with single locking system			   103 114 4.5 32 43 67 28 Ø4.5	10 146
Panel cutout 86 x 35 mm	714 316 ex stock			

Description	Part no.	M	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	
Housings: single locking system				
Wall-mount housing, height 68 mm with single locking system, with hinged lid				
with collar with cable gland	*P 711 616 MS ex stock *P 711 616 MV	1 x M 25		10 370 389
with two collars with two cable glands	*P 711 716 MS *P 711 716 MV	2 x M 25		368 406
Wall-mount housing, height 84 mm with single locking system, with hinged lid				
with collar with cable gland	*P 757 672 MS *P 757 672 MV	1 x M 32		10 447 474
with two collars with two cable glands	*P 757 772 MS *P 757 772 MV	2 x M 32		443 497
with collar with cable gland	*P 757 672 40 MS *P 757 672 40 MV	1 x M 40		421 464
with two collars with two cable glands	*P 757 772 40 MS *P 757 772 40 MV	2 x M 40		392 478
Panel housing, height 28 mm with single locking system, with hinged lid				
Panel cutout 86 x 35 mm	*714 416 ex stock			10 179
Coupler hoods, height 70,5 mm with single locking system, top cable entry				
with threaded hole with collar with cable gland	P 713 816 P 713 816 MS P 713 816 MV	1 x M 25		10 199 221 240
with two threaded holes with two collars with two cable glands	P 713 816 00 P 713 816 00 MS P 713 816 00 MV	2 x M 25		195 217 236
with threaded hole with collar with cable gland	P 713 916 P 713 916 MS P 713 916 MV	1 x M 32		196 229 257
Coupler hoods, height 81,5 mm with single locking system, top cable entry				
with threaded hole with collar with cable gland	P 753 972 P 753 972 MS P 753 972 MV	1 x M 32		10 220 253 281
with two threaded holes with two collars with two cable glands	P 753 972 00 P 753 972 00 MS P 753 972 00 MV	2 x M 32		213 246 264
with threaded hole with collar with cable gland	P 753 972 40 P 753 972 40 MS P 753 972 40 MV	1 x M 40		215 259 301

Description	Part no.	M	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16	
Housings: single locking system				
Hoods, height 65 mm for single locking system, side cable entry				
with threaded hole with collar with cable gland	P 718 616 ex stock P 718 616 MS P 718 616 MV ex stock	1 x M 25		10 168 190 209
with threaded hole with collar with cable gland	P 718 716 P 718 716 MS P 718 716 MV	1 x M 32		163 195 215
Hoods, height 76 mm for single locking system, side cable entry				
with threaded hole with collar with cable gland	P 728 740 P 728 740 MS P 728 740 MV	1 x M 32		10 190 223 251
with threaded hole with collar with cable gland	P 728 740 40 P 728 740 40 MS P 728 740 40 MV	1 x M 40		182 226 268
Hoods, height 65 mm for single locking system, top cable entry				
with threaded hole with collar with cable gland	P 718 816 P 718 816 MS P 718 816 MV	1 x M 25		10 170 192 233
with two threaded holes with two collars with two cable glands	P 718 816 00 P 718 816 00 MS P 718 816 00 MV	2 x M 25		166 188 229
with threaded hole with collar with cable gland	P 718 916 P 718 916 MS P 718 916 MV	1 x M 32		163 195 215
Hoods, height 76 mm for single locking system, top cable entry				
with threaded hole with collar with cable gland	P 728 940 ex stock P 728 940 MS P 728 940 MV ex stock	1 x M 32		10 193 226 254
with two threaded holes with two collars with two cable glands	P 728 940 00 P 728 940 00 MS P 728 940 00 MV	2 x M 32		188 221 249
with threaded hole with collar with cable gland	P 728 940 40 P 728 940 40 MS P 728 940 40 MV	1 x M 40		187 231 273

Description		Part no.	Housings for series B 16, BA 6, BB 32, D 40, DD 72, MOB 16																						
Snap-on mounting adapters			  125 mm: adapter module 125 150 mm: adapter module 150 <table><tr><th></th><th>a</th><th>b</th><th>c</th><th>d</th><th>e</th><th>f</th></tr><tr><td>760 016</td><td>70</td><td>155</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr><tr><td>760 116</td><td>100</td><td>185</td><td>54</td><td>44,5</td><td>98,5</td><td>141</td></tr></table>		a	b	c	d	e	f	760 016	70	155	54	44,5	98,5	141	760 116	100	185	54	44,5	98,5	141	5 183 294
	a	b		c	d	e	f																		
760 016	70	155	54	44,5	98,5	141																			
760 116	100	185	54	44,5	98,5	141																			
swing-type																									
Adapter module 125 Adapter module 150		760 016 760 116																							
mountable on DIN-rails, top can be screwed with bottom																									
Protective covers			  retaining cord	10 19 70																					
with retaining cord for housings with double locking system		710 626 ex stock 710 626 AL																							
with retaining cord for housings with <u>single locking system</u>		710 634 710 634 AL	  retaining cord	10 18 65																					
with retaining cord for housings with <u>single locking system</u>																									
with gasket and retaining cord for hoods with <u>double locking system</u>		710 757 710 757 AL	  retaining cord	10 25 76																					
with gasket and retaining cord for hoods with <u>double locking system</u>																									
with gasket and retaining cord for hoods with latch pins for double locking system		710 760 710 760 AL	  retaining cord	10 85 136																					
with gasket and retaining cord for hoods with latch pins for double locking system																									
with gasket and retaining cord for hoods with latch pins for single locking system		710 764 710 764 AL	  retaining cord	10 84 138																					
with gasket and retaining cord for hoods with latch pins for single locking system																									
Adapter plates for contact inserts			  Installation possibilities: Front and reverse side of the plate are marked with A or T. If installed in a panel housing, the A must be readable, if installed in a hood, the T must be readable. Fixing screws are included in the scope of delivery.	10 17 16																					
for installation in series B 16 housings		710 799 710 800																							
Sub miniature, single 37-pole 50-pole			 	10 14 13																					
Sub miniature, double 37-pole 50-pole		710 805 710 806																							
Cover plates for switch cabinets			 	10 23 23 23																					
for panel housing B 16		720 640 720 644 720 648																							
grey orange green																									



Specifications of „size 8” housings and short overview of installation possibilities for series B 24, BB 46, D 64, DD 108 and MOB 24 inserts

Housings

Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Plastic, locking elements made of stainless steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

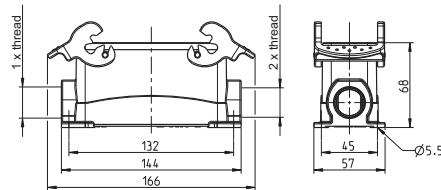
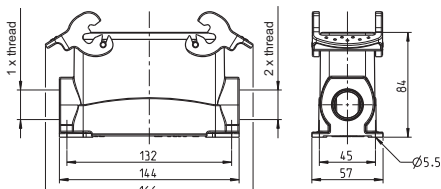
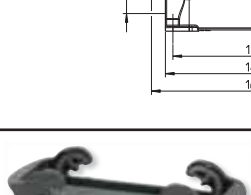
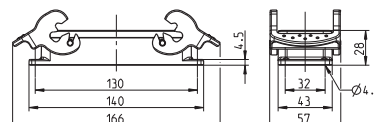
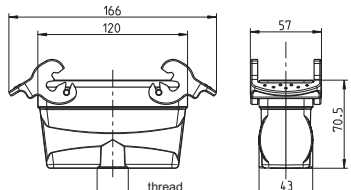
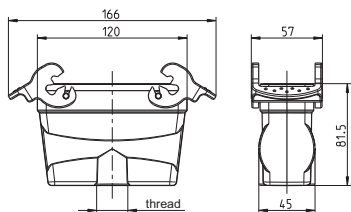
The housings shown on the following pages can be equipped with the inserts listed below:

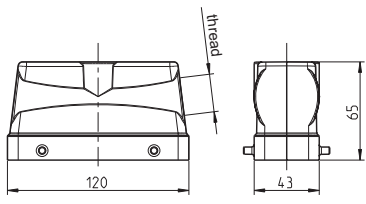
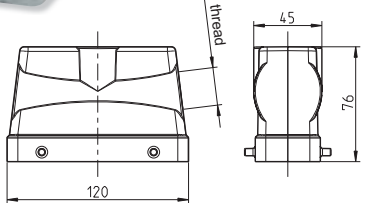
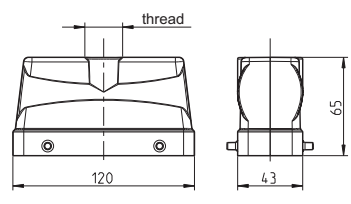
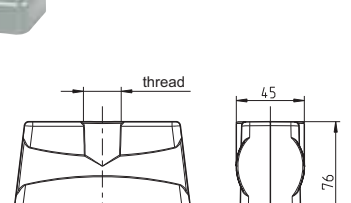
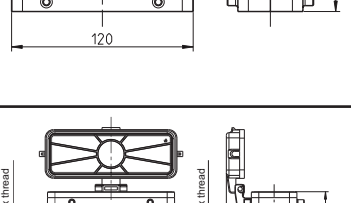
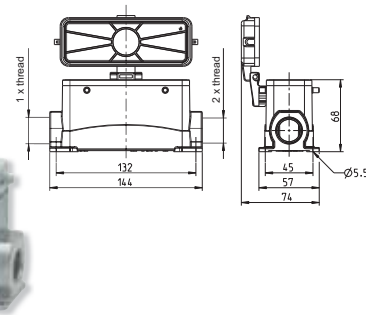
	Screw terminal inserts	Crimp contact carriers	IDC inserts	Push-in inserts	Wiring adapters for panel housings
B 24 ▶ p. 32 to 33	Female insert, screw terminal, with wire protection, Part no. 710 124 Male insert, screw terminal, with wire protection, Part no. 710 224 Female insert, screw terminal, without wire protection, Part no. 710 772 Male insert, screw terminal, without wire protection, Part no. 710 776	Crimp contact carrier for sleeve contacts, Part no. 710 324 Crimp contact carrier for pin contacts, Part no. 710 424	Female insert, IDC terminal No. 710 124 01 Male insert, IDC terminal No. 710 224 01	Female insert, push-in terminal No. 710 124 04 Male insert, Push-in terminal No. 710 224 04	Wiring adapter female insert earth pin o. t. right: Part no. 710 660 Wiring adapter male insert earth pin o. t. right: Part no. 710 668 earth pin o. t. left: Part no. 710 664 earth pin o. t. left: Part no. 710 672
BB 46 ▶ p. 33		Crimp contact carrier for sleeve contacts Part no. 710 346 Crimp contact carrier for pin contacts Part no. 710 446			
D 64 ▶ p. 53		Crimp contact carrier for sleeve contacts Part no. 720 364 Crimp contact carrier for pin contacts Part no. 720 464			Wiring adapter female insert earth pin o. t. left: Part no. 720 635 Wiring adapter male insert earth pin o. t. left: Part no. 720 634
DD 108 ▶ p. 66		Crimp contact carrier for sleeve contacts Part no. 750 108 Crimp contact carrier for pin contacts Part no. 750 208			
MOB 24 ▶ p. 75	Female frame MO B24 for 7 contact carrier for pin and sleeve contacts (frame coding A-G) Part no. 770 024 for pin and sleeve contacts (2 x PE) Part no. 770 424	 			

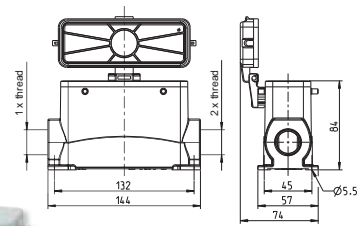
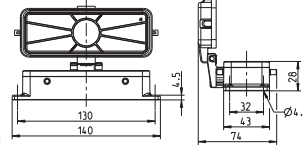
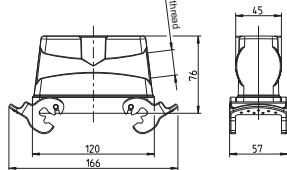
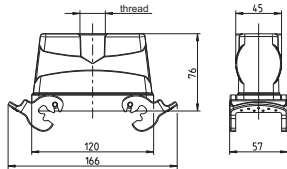
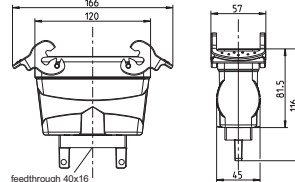
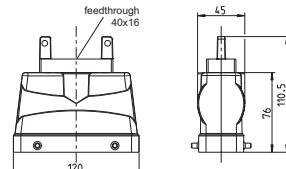
► The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series ...

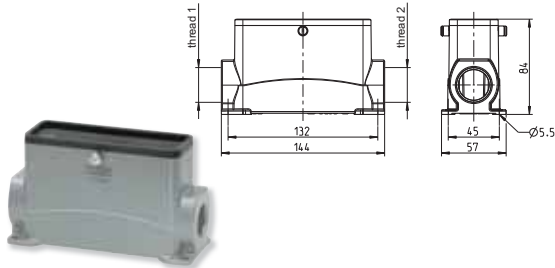
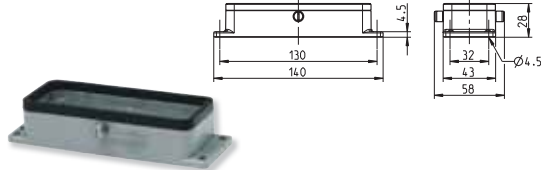
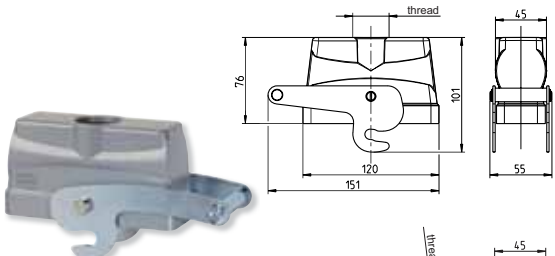
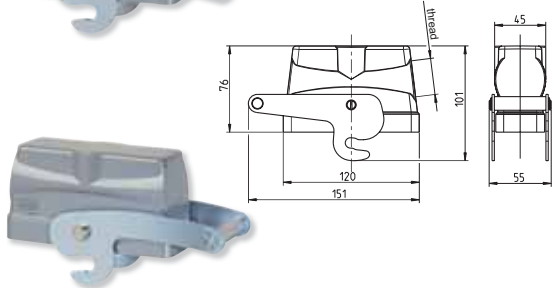
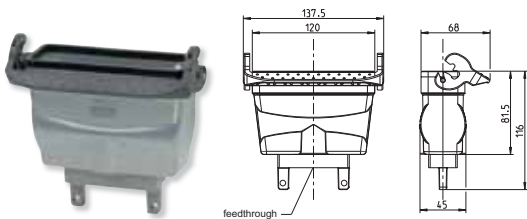
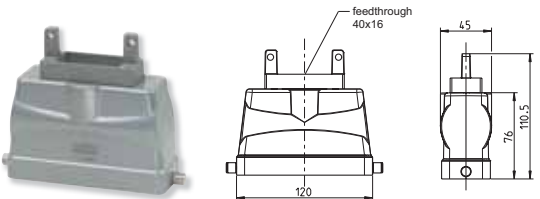
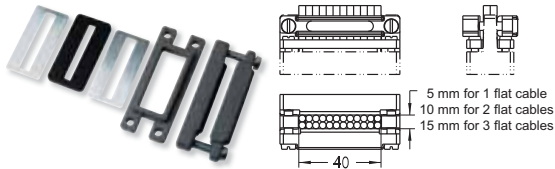
B 24:	see page 33
BB 46:	
D 64:	see page 54
DD 108:	see page 67
MO:	see page 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

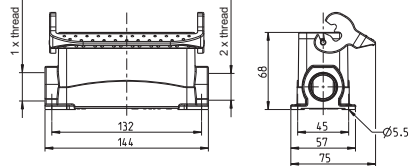
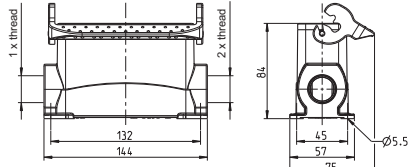
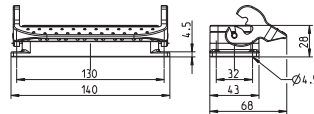
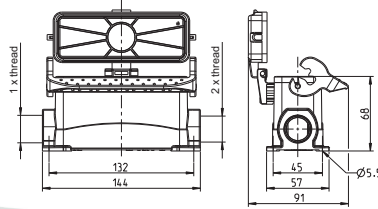
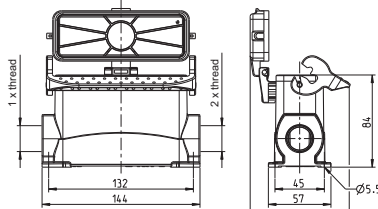
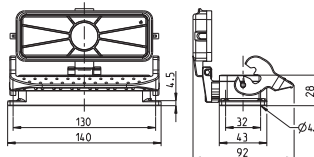
Description		Part no.	M	Housings for series B 24, BB 46, D 64, DD 108, MOB 24	
Housings: double locking system					
Wall mount housing, height 68 mm with double locking system					
with collar with cable gland	P 711 024 MS ex stock P 711 024 MV ex stock	1 x M 25			10 396 415
with two collars with two cable glands	P 711 124 MS P 711 124 MV	2 x M 25			393 431
Wall mount housing, height 84 mm with double locking system					
with collar with cable gland	P 757 008 MS P 757 008 MV	1 x M 32			
with two collars with two cable glands	P 757 108 MS P 757 108 MV	2 x M 32			480 534
with collar with cable gland	P 757 008 40 MS P 757 008 40 MV	1 x M 40			460 503
with two collars with two cable glands	P 757 108 40 MS P 757 108 40 MV	2 x M 40			458 544
Panel housing, height 28 mm with double locking system					
Panel cutout 112 x 35 mm	714 124 ex stock				
Coupler hoods, height 70,5 mm with double locking system, top cable entry					
with threaded hole with collar with cable gland	P 753 608 P 753 608 MS P 753 608 MV	1 x M 25			
with two threaded holes with two collars with two cable glands	P 753 608 00 P 753 608 00 MS P 753 608 00 MV	2 x M 25			244 266 285
with threaded hole with collar with cable gland	P 753 708 P 753 708 MS P 753 708 MV	1 x M 32			245 278 306
Coupler hoods, height 81,5 mm with double locking system, top cable entry					
with threaded hole with collar with cable gland	P 713 724 P 713 724 MS P 713 724 MV	1 x M 32			
with two threaded holes with two collars with two cable glands	P 713 724 00 P 713 724 00 MS P 713 724 00 MV	2 x M 32			272 305 333
with threaded hole with collar with cable gland	P 713 724 40 P 713 724 40 MS P 713 724 40 MV	1 x M 40			272 316 358

Description	Part no.	M	Housings for series B 24, BB 46, D 64, DD 108, MOB 24	
Housings: double locking system				
Hoods, height 65 mm for double locking system, side cable entry				
with threaded hole with collar with cable gland	P 712 024 ex stock P 712 024 MS P 712 024 MV ex stock	1 x M 25		10 200 222 241
with threaded hole with collar with cable gland	P 712 124 ex stock P 712 124 MS ex stock P 712 124 MV	1 x M 32		
Hoods, height 76 mm for double locking system, side cable entry				
with threaded hole with collar with cable gland	P 718 124 ex stock P 718 124 MS P 718 124 MV ex stock	1 x M 32		10 232 265 293
with threaded hole with collar with cable gland	P 718 124 40 P 718 124 40 MS P 718 124 40 MV	1 x M 40		
Hoods, height 65 mm for double locking system, top cable entry				
with threaded hole with collar with cable gland	P 712 224 P 712 224 MS P 712 224 MV	1 x M 25		10 202 224 243
with two threaded holes with two collars with two cable glands	P 712 224 00 P 712 224 00 MS P 712 224 00 MV	2 x M 25		
with threaded hole with collar with cable gland	P 712 324 P 712 324 MS P 712 324 MV	1 x M 32		196 229 257
Hoods, height 76 mm for double locking system, top cable entry				
with threaded hole with collar with cable gland	P 718 324 P 718 324 MS P 718 324 MV	1 x M 32		10 235 268 296
with two threaded holes with two collars with two cable glands	P 718 324 00 P 718 324 00 MS P 718 324 00 MV	2 x M 32		
with threaded hole with collar with cable gland	P 718 324 40 P 718 324 40 MS P 718 324 40 MV	1 x M 40		229 273 315
Wall mount housing, height 68 mm for double locking system, with hinged lid				
with collar with cable gland	*P 711 224 MS *P 711 224 MV	1 x M 25		10 413 432
with two collars with two cable glands	*P 711 324 MS *P 711 324 MV	2 x M 25		

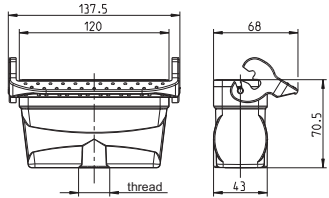
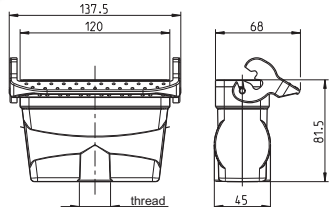
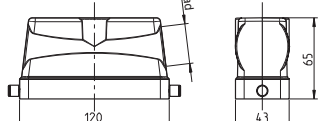
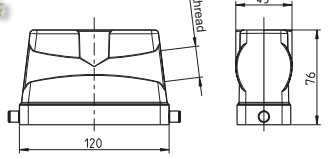
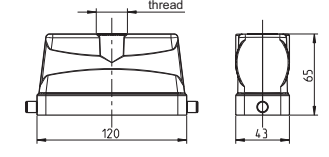
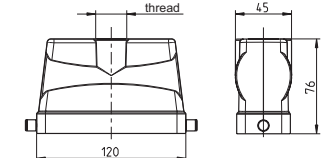
Description	Part no.	M	Housings for series B 24, BB 46, D 64, DD 108, MOB 24	
Housings: double locking system			 	10 534 553 532 570 502 529 497 551
Wall mount housing, height 84 mm for double locking system, with hinged lid				
with collar with cable gland	*P 751 208 MS *P 751 208 MV	1 x M 25		
with two collars with two cable glands	*P 751 308 MS *P 751 308 MV	2 x M 25		
with collar with cable gland	*P 757 208 MS *P 757 208 MV	1 x M 32		
with two collars with two cable glands	*P 757 308 MS *P 757 308 MV	2 x M 32		
Panel housing, height 28 mm for double locking system, with hinged lid			 	10 132
Panel cutout 112 x 35 mm	*714 224 ex stock			
Hoods, height 76 mm with double locking system, side cable entry			 	10 270 292 311 266 299 327
with threaded hole with collar with cable gland	P 713 024 P 713 024 MS P 713 024 MV	1 x M 25		
with threaded hole with collar with cable gland	P 713 124 P 713 124 MS P 713 124 MV	1 x M 32		
Hoods, height 76 mm with double locking system, top cable entry			 	10 271 293 312 267 289 308 269 302 330 264 298 325
with threaded hole with collar with cable gland	P 713 224 P 713 224 MS P 713 224 MV	1 x M 25		
with two threaded holes with two collars with two cable glands	P 713 224 00 P 713 224 00 MS P 713 224 00 MV	2 x M 25		
with threaded hole with collar with cable gland	P 713 324 P 713 324 MS P 713 324 MV	1 x M 32		
with two threaded holes with two collars with two cable glands	P 713 324 00 P 713 324 00 MS P 713 324 00 MV	2 x M 32		
Coupler hood for flat cable, height 81 mm with double locking system			 	10 364
	P 719 724			
Hood for flat cable, height 76 mm for double locking system			 	10 324
	P 719 424			

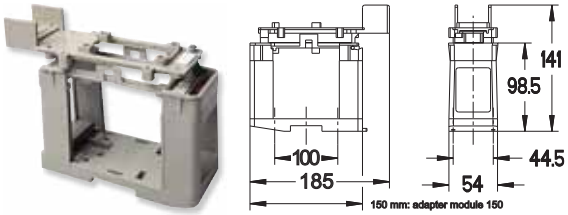
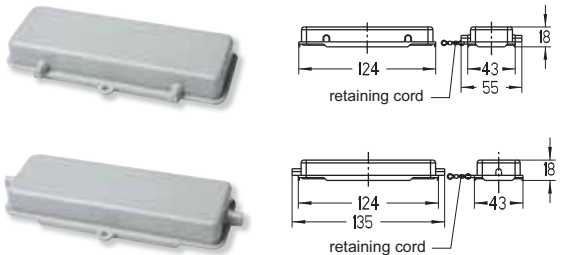
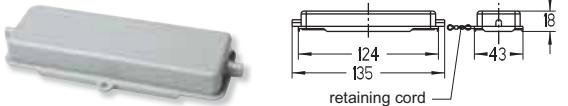
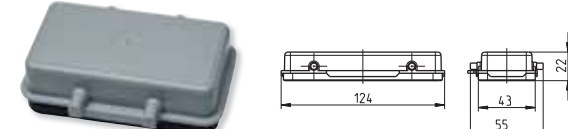
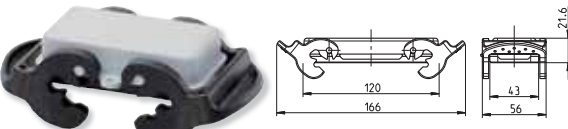
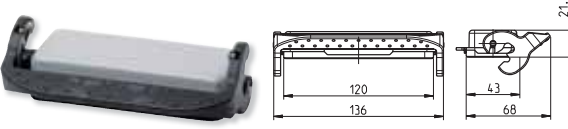
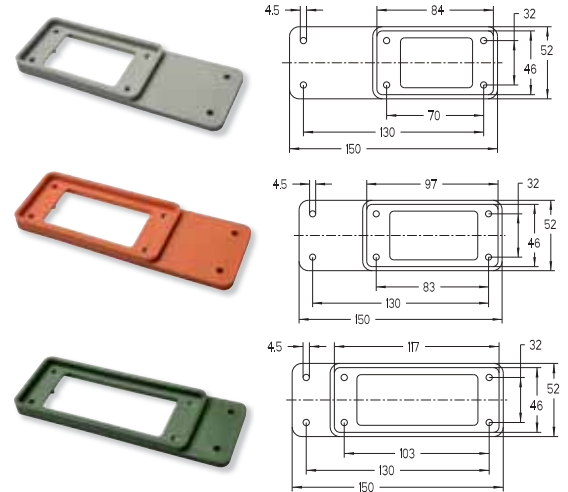
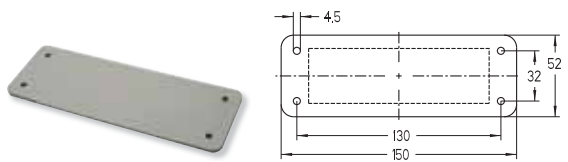
* Other cover version required? Simply add the corresponding letters at the end of the part number:

Description	Part no.	M	Housings for series B 24, BB 46, D 64, DD 108, MOB 24	
Housings: central locking system				10 448 475
Wall mount housing, height 84 mm for central locking system				
with collar with cable gland	P 770 658 MS P 770 658 MV	1 x M 32		10 140
Panel housing, height 28 mm for central locking system				
Panel cutout 112 x 35 mm	770 659			10 384 417 445
Hoods, height 76 mm with central locking system, top cable entry				
with threaded hole with collar with cable gland	P 770 660 P 770 660 MS P 770 660 MV	M 32		10 384 417 445
Hoods, height 76 mm with central locking system, side cable entry				
with threaded hole with collar with cable gland	P 770 661 P 770 661 MS P 770 661 MV	M 32		10 351
Housings, single locking system				
Coupler hood for flat cable, height 81 mm with single locking system				10 333
Hood for flat cable, height 76 mm for single locking system				
Gasket set with strain relief clamp				10 151 156 201
for 1 flat cable for 2 flat cables for 3 flat cables	719 601 719 602 719 603	40x5 mm 40x10 mm 40x15 mm		

Description	Part no.	M	Housings for series B 24, BB 46, D 64, DD 108, MOB 24	
Housings, single locking system				
Wall mount housing, height 68 mm with single locking system				
with collar with cable gland	P 711 424 MS P 711 424 MV	1 x M 25		10 386 405
with two collars with two cable glands	P 711 524 MS P 711 524 MV	2 x M 25		383 421
Wall mount housing, height 84 mm with single locking system				
with collar with cable gland	P 757 408 MS P 757 408 MV	1 x M 32		10 474 501
with two collars with two cable glands	P 757 508 MS P 757 508 MV	2 x M 32		469 523
with collar with cable gland	P 757 408 40 MS P 757 408 40 MV	1 x M 40		449 492
with two collars with two cable glands	P 757 508 40 MS P 757 508 40 MV	2 x M 40		420 506
Panel housing, height 28 mm with single locking system				
Panel cutout 112 x 35 mm	714 324 ex stock			10 171
Wall mount housing, height 68 mm with single locking system, with hinged lid				
with collar with cable gland	*P 711 624 MS *P 711 624 MV	1 x M 25		10 436 455
with two collars with two cable glands	*P 711 724 MS *P 711 724 MV	2 x M 25		433 471
Wall mount housing, height 84 mm with single locking system, with hinged lid				
with collar with cable gland	*P 757 608 MS *P 757 608 MV	1 x M 32		10 524 551
with two collars with two cable glands	*P 757 708 MS *P 757 708 MV	2 x M 32		519 573
with collar with cable gland	*P 757 608 40 MS *P 757 608 40 MV	1 x M 40		499 542
with two collars with two cable glands	*P 757 708 40 MS *P 757 708 40 MV	2 x M 40		470 556
Panel housing, height 28 mm with single locking system, with hinged lid				
Panel cutout 112 x 35 mm	*714 424 ex stock			10 208

* Other cover version required? Simply add the corresponding letters at the end of the part number:

Description		Part no.	M	Housings for series B 24, BB 46, D 64, DD 108, MOB 24			
Housings, single locking system				 			
Coupler hoods, height 70,5 mm with single locking system, top cable entry							
with threaded hole	P 753 808	1 x M 25					
with collar	P 753 808 MS						
with cable gland	P 753 808 MV						
with two threaded holes	P 753 808 00	2 x M 25					
with two collars	P 753 808 00 MS						
with two cable glands	P 753 808 00 MV						
with threaded hole	P 753 908	1 x M 32					
with collar	P 753 908 MS						
with cable gland	P 753 908 MV						
Coupler hoods, height 81,5 mm with single locking system, top cable entry				 			
with threaded hole	P 713 924	1 x M 32					
with collar	P 713 924 MS						
with cable gland	P 713 924 MV						
with two threaded holes	P 713 924 00	2 x M 32					
with two collars	P 713 924 00 MS						
with two cable glands	P 713 924 00 MV						
with threaded hole	P 713 924 40	1 x M 40					
with collar	P 713 924 40 MS						
with cable gland	P 713 924 40 MV						
Hoods, height 65 mm for single locking system, side cable entry						 	
with threaded hole	P 712 624 ex stock	1 x M 25					
with collar	P 712 624 MS						
with cable gland	P 712 624 MV ex stock						
with threaded hole	P 712 724	1 x M 32					
with collar	P 712 724 MS						
with cable gland	P 712 724 MV						
Hoods, height 76 mm for single locking system, side cable entry				 			
with threaded hole	P 718 724	1 x M 32					
with collar	P 718 724 MS						
with cable gland	P 718 724 MV						
with threaded hole	P 718 724 40	1 x M 40					
with collar	P 718 724 40 MS						
with cable gland	P 718 724 40 MV						
Hoods, height 65 mm for single locking system, top cable entry						 	
with threaded hole	P 712 824	1 x M 25					
with collar	P 712 824 MS						
with cable gland	P 712 824 MV						
with two threaded holes	P 712 824 00	2 x M 25					
with two collars	P 712 824 00 MS						
with two cable glands	P 712 824 00 MV						
Hoods, height 76 mm for single locking system, top cable entry				 			
with threaded hole	P 718 924	1 x M 32					
with collar	P 718 924 MS						
with cable gland	P 718 924 MV						
with two threaded holes	P 718 924 00	2 x M 32					
with two collars	P 718 924 00 MS						
with two cable glands	P 718 924 00 MV						
with threaded hole	P 718 924 40	1 x M 40					
with collar	P 718 924 40 MS						
with cable gland	P 718 924 40 MV						

Description	Part no.	Housings for series B 24, BB 46, D 64, DD 108, MOB 24	
Snap-on mounting adapters			5 197
swing-type Adapter module 150 mountable on DIN-rails, top can be screwed with bottom	760 124		
Protective covers			10 24 83
with retaining cord for housings with double locking system Plastic Aluminium	710 628 710 628 AL		
with retaining cord for housings with single locking system Plastic Aluminium	710 636 710 636 AL		10 23 77
with gasket and retaining cord for hoods with double locking system Plastic Aluminium	710 758 710 758 AL		10 31 90
with gasket and retaining cord for hoods with latch pins for double locking system Plastic Aluminium	710 761 710 761 AL		10 91 150
with gasket and retaining cord for hoods with latch pins for single locking system Plastic Aluminium	710 765 710 765 AL		10 105 166
Adapter plates for switch cabinets			10 37 37 37 35 35 35 33 33 33
Panel housing B24 on B6 grey orange green	720 650 720 653 720 656		
Panel housing B24 on B10 grey orange green	720 651 720 654 720 657		
Panel housing B24 on B16 grey orange green	720 652 720 655 720 658		
Cover plates for switch cabinets			10 27 27 27
Cover plate for panel housing B24 grey orange green	720 641 720 645 720 649		

Specifications of „size 9” housings and short overview of installation possibilities for series B 32, BA12, BB 64, D 80, DD 144 and 2xMOB 16

Housings

Material:	Aluminium die casting
Surface:	Powder coated
Locking levers:	Zinc-plated steel
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C (depending on cable gland)
Protection degree acc. to DIN EN 60 529:	IP 65 (in locked condition)

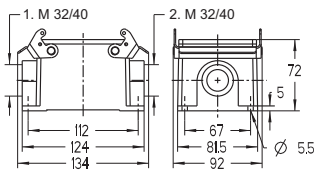
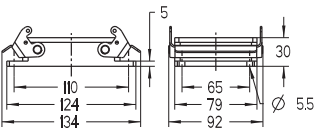
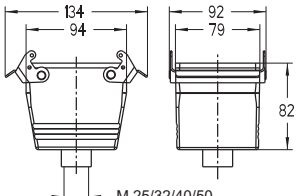
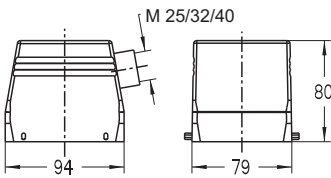
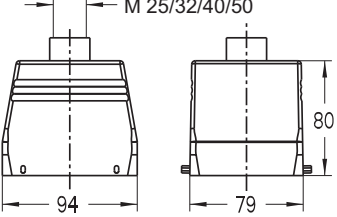
The housings shown on the following pages can be equipped with the inserts listed below:

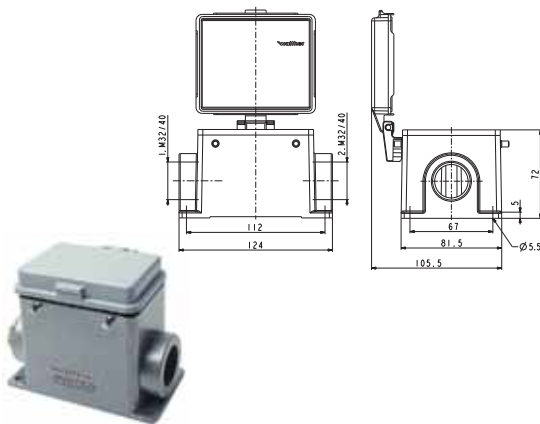
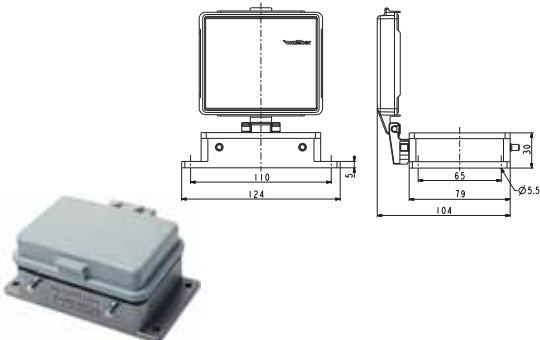
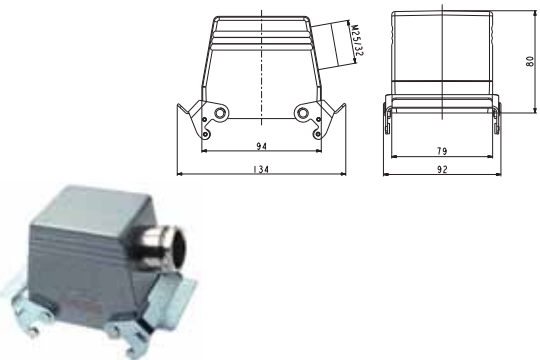
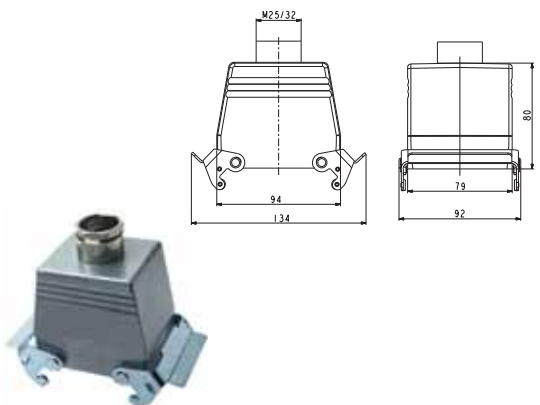
	Screw terminal inserts				Crimp contact carriers		IDC inserts		Push-in inserts	
B 32	Female insert, screw terminal: with wire protection 1-16 Part no. 710 116	Female insert, screw terminal: w/o wire protection Part no. 710 771	Male insert, screw terminal: with wire protection 1-16, Part no. 710 216	Male insert, screw terminal: without wire protection Part no. 710 775	Crimp contact carrier f. sleeve contacts 1-16 Part no. 710 316	Crimp contact carrier for pin contacts 1-16 Part no. 710 416	Female insert IDC contact, 1-16 No. 710 116 01	Male insert IDC contact, 1-16 No. 710 216 01	Female insert, push-in contact 1-16 No. 710 116 04	Male insert, push-in contact 1-16 Part no. 710 216 04
▶ p. 34										
	with wire protection 17-32 Part no. 710 132	w/o wire protection Part no. 710 859	with wire protection 17-32 Part no. 710 232	w/o wire protection Part no. 710 860	for sleeve contacts 17-32 Part no. 710 332	for pin contacts 17-32 Part no. 710 432	IDC contact, 17-32 No. 710 132 01	IDC contact, 17-32 No. 710 232 01	push-in contact 17-32 Part no. 710 132 04	push-in contact 17-32 Part no. 710 232 04
BB 64					Crimp contact carrier f. sleeve contacts 1-32 Part no. 710 333	Crimp contact carrier for pin contacts 1-32 Part no. 710 433				
▶ p. 35										
					f. sleeve contacts 33-64 Part no. 710 364	for pin contacts 33-64 Part no. 710 464				
BA 12	Female insert, screw terminal, with wire protection 1-6, Part no. 710 620	Male insert, screw terminal, with wire protection 1-6, Part no. 710 621								
▶ p. 41										
	Female insert, screw terminal, with wire protection 7-12, Part no. 710 692	Male insert, screw terminal, with wire protection 7-12, Part no. 710 693								
D 80					Crimp contact carrier f. sleeve contacts Part no. 720 340 (2x)	Crimp contact carrier for pin contacts Part no. 720 440 (2x)				
▶ p. 55										
DD 144					Crimp contact carrier f. sleeve contacts 1-72 Part no. 750 172	Crimp contact carrier for pin contacts 1-72 Part no. 750 272				
▶ p. 68										
					f. sleeve contacts 73-144 Part no. 750 144	for pin contacts 73-144 Part no. 750 244				
2xMOB16	Female frame MO B16, for 5 contact carriers				Male frame MO B16 for 5 contact carriers					
▶ p. 75	for pin and sleeve contacts, with additional female frame (frame coding V - Z) Part no. 770 216				for pin and sleeve contacts, with additional male frame, (frame coding V - Z) Part no. 770 316					
	for pin and sleeve contacts (2 x PE) Part no. 770 616				for pin and sleeve contacts (2 x PE) Part no. 770 716					

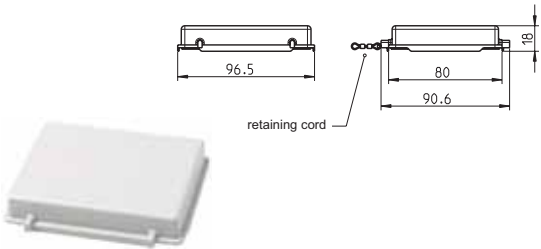
▶ The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series ...

B 32:	see page 35
BB 64:	
D 80:	see page 56
DD 144:	see page 69
MO:	see page 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

Description		Part no.	M	Housings for series B 32, BA 12, BB 64, D 80, DD 144, 2 x MOB 16	  9
Housings: double locking system				 	10 497 532 477 550 532 477 550
Wall mount housing, height 72 mm with double locking system					
with collar	T 711 032 MS	1 x M 32			
with cable gland	T 711 032 MV				
with two collars	T 711 132 MS	2 x M 32			
with two cable glands	T 711 132 MV				
with collar	T 711 032 40 MS	1 x M 40			
with cable gland	T 711 032 40 MV				
with two collars	T 711 132 40 MS	2 x M 40			
with two cable glands	T 711 132 40 MV				
Panel housing, height 30 mm with double locking system				 	10 224
Panel cutout 84 x 70 mm	714 132 ex stock				
Coupler hoods, height 82 mm with double locking system, top cable entry				 	10 438 462 484 431 465 501 452 497 554 465 522 618
with threaded hole	T 713 632	1 x M 25			
with collar	T 713 632 MS				
with cable gland	T 713 632 MV				
with threaded hole	T 713 732	1 x M 32			
with collar	T 713 732 MS				
with cable gland	T 713 732 MV				
with threaded hole	T 750 664	1 x M 40			
with collar	T 750 664 MS				
with cable gland	T 750 664 MV				
with threaded hole	T 750 669	1 x M 50			
with collar	T 750 669 MS				
with cable gland	T 750 669 MV				
Hoods, height 80 mm for double locking system, side cable entry				 	10 353 377 399 349 383 418 344 378 413 369 414 471
with threaded hole	T 718 032	1 x M 25			
with collar	T 718 032 MS				
with cable gland	T 718 032 MV				
with threaded hole	T 718 132	1 x M 32			
with collar	T 718 132 MS				
with cable gland	T 718 132 MV				
with two threaded holes	T 718 132 00	2 x M 32			
with two collars	T 718 132 00 MS				
with two cable glands	T 718 132 00 MV				
with threaded hole	T 750 670	1 x M 40			
with collar	T 750 670 MS				
with cable gland	T 750 670 MV				
Hoods, height 80 mm for double locking system, top cable entry				 	10 353 377 399 356 390 425 351 385 420 369 414 471 382 439 535
with threaded hole	T 718 232	1 x M 25			
with collar	T 718 232 MS				
with cable gland	T 718 232 MV				
with threaded hole	T 718 332	1 x M 32			
with collar	T 718 332 MS				
with cable gland	T 718 332 MV				
with two threaded holes	T 718 332 00	2 x M 32			
with two collars	T 718 332 00 MS				
with two cable glands	T 718 332 00 MV				
with threaded hole	T 750 663	1 x M 40			
with collar	T 750 663 MS				
with cable gland	T 750 663 MV				
with threaded hole	T 750 671	1 x M 50			
with collar	T 750 671 MS				
with cable gland	T 750 671 MV				

Description		Part no.	M	Housings for series B 32, BA 12, BB 64, D 80, DD 144, 2 x MOB 16	
Housings: double locking system					10 490 550 486 610 450 560 450 630
Wall mount housing, height 72 mm for double locking system, with hinged lid					
with collar with cable gland	T 711 232 MS T 711 232 MV	1 x M 32			
with two collars with two cable glands	T 711 332 MS T 711 332 MV	2 x M 32			
with collar with cable gland	T 711 232 40 MS T 711 232 40 MV	1 x M 40			
with two collars with two cable glands	T 711 332 40 MS T 711 332 40 MV	2 x M 40			
Panel housing, height 30 mm for double locking system, with hinged lid					10 184
Panel cutout 84 x 70 mm	714 232				
Hoods, height 80 mm with double locking system, side cable entry					10 446 470 512 426 460 518 421 455 513
with threaded hole with collar with cable gland	T 713 032 T 713 032 MS T 713 032 MV	1 x M 25			
with threaded hole with collar with cable gland	T 713 132 T 713 132 MS T 713 132 MV	1 x M 32			
with two threaded holes with two collars with two cable glands	T 713 132 00 T 713 132 00 MS T 713 132 00 MV	2 x M 32			
Hoods, height 80 mm with double locking system, top cable entry					10 446 470 512 426 460 518 421 455 513
with threaded hole with collar with cable gland	T 713 232 T 713 232 MS T 713 232 MV	1 x M 25			
with threaded hole with collar with cable gland	T 713 332 T 713 332 MS T 713 332 MV	1 x M 32			
with two threaded holes with two collars with two cable glands	T 713 332 00 T 713 332 00 MS T 713 332 00 MV	2 x M 32			

Description	Part no.	M	Housings for series B 32, BA 12, BB 64, D 80, DD 144, 2 x MOB 16	
Protective cover: plastic				10 34
for housings with double locking system, with retaining cord	710 911			

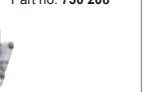


Specifications of „size 10“ housings and short overview of installation possibilities for series B 48, BB 92, D 128, DD 216 and 2x MOB 24

Housings

Material:	Aluminium die-casting
Surface:	Powder coated
Locking levers:	Zinc-plated steel
Housing gasket:	NBR
Temperature range:	- 40 °C to + 125 °C (depending on cable gland)
Protection degree DIN EN 60 529:	IP 65 (in locked condition)

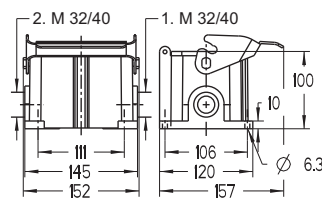
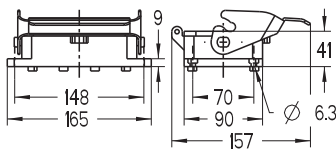
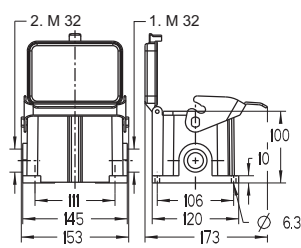
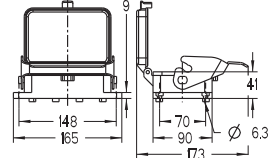
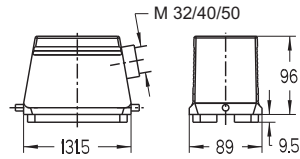
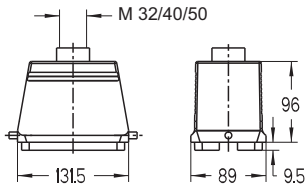
The housings shown on the following pages can be equipped with the inserts listed below:

	Screw terminal inserts				Crimp contact carriers		IDC inserts		Push in inserts	
B 48	Female insert, screw terminal: with wire protection 1-24, part no. 710 124	Female insert, screw terminal: without wire protection, part no. 710 772	Male insert, screw terminal: with wire protection 1-24, part no. 710 224	Male insert, screw terminal: without wire protection, part no. 710 776	Crimp contact carrier, for sleeve contacts 1-24 Part no. 710 324	Crimp contact carrier, for pin contacts 1-24 Part no. 710 424	Female insert IDC terminal 1-24 No. 710 124 01	Male insert IDC terminal 1-24 No. 710 224 01	Female insert, push-in contact 1-24 No. 710 124 04	Male insert push-in contact 1-24 No. 710 224 04
▶ p. 36										
	with wire protection 25-48 part no. 710 148	without wire protection, part no. 710 861	with wire protection 25-48, part no. 710 248	without wire protection, part no. 710 862	for sleeve contacts 25-48 Part no. 710 348	for pin contacts 25-48 Part no. 710 448	IDC terminal 25-48 No. 710 148 01	IDC terminal 25-48 No. 710 248 01	push-in contact 25-48 No. 710 148 04	push-in contact 25-48 No. 710 248 04
BB 92					Crimp contact carrier f. sleeve contacts 1-46 Part no. 710 346	Crimp contact carrier for pin contacts 1-46 Part no. 710 446				
▶ p. 37										
					for sleeve contacts 47-92 Part no. 710 392	for pin contacts 47-92 Part no. 710 492				
D 128					Crimp contact carrier for sleeve contacts Part no. 720 364 (2x)	Crimp contact carrier for pin contacts Part no. 720 464 (2x)				
▶ p. 57										
DD 216					Crimp contact carrier f. sleeve contacts 1-108 Part no. 750 108	Crimp contact carrier f. pin contacts 1-108 Part no. 750 208				
▶ p. 70										
					for sleeve contacts 109-216, Part no. 750 116	for pin contacts 109-216, Part no. 750 216				
2 x MOB24	Female frame MO B24 for 7 contact carriers				Male frame MO B24 for 7 contact carriers					
▶ p. 75	for pin and sleeve contacts, with additional female frame (frame coding T - Z) Part no. 770 224				for pin and sleeve contacts with additional male frame (frame coding T - Z) Part no. 770 324					
	for pin and sleeve contacts (2 x PE) Part no. 770 624				for pin and sleeve contacts (2 x PE) Part no. 770 724					

▶ The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series . . .

B 48:	see page 37
BB 92:	see page 37
D 128:	see page 58
DD 216:	see page 71
MO:	see page 77, 79, 81, 83, 84, 87, 89, 91, 93, 95, 97, 99, 101

Description			Part no.	M	Housings for series B 48, BB 92, BV 20, BV 26, BV 32, D 128, DD 216, 2 x MOB 24	  9
Housings: single locking system					 	1 1169 1205 1133 1204 1169 1205 1204 1204
Wall mount housing, height 100 mm with single locking system						
with collar	T 711 448 MS	1 x M 32				
with cable gland	T 711 448 MV					
with collar	T 711 548 MS	2 x M 32				
with cable gland	T 711 548 MV					
with collar	T 711 448 40 MS	1 x M 40				
with cable gland	T 711 448 40 MV					
with collar	T 711 548 40 MS	2 x M 40				
with cable gland	T 711 548 40 MV					
Panel housing, height 41 mm with single locking system					 	1 546
Panel cutout 120 x 82 mm	714 348					
Wall mount housing, height 100 mm with single locking system, with hinged lid					 	1 1262 1292 1219 1291 1262 1262 1219 1219
with collar	T 711 648 MS	1 x M 32				
with cable gland	T 711 648 MV					
with collar	T 711 748 MS	2 x M 32				
with cable gland	T 711 748 MV					
with collar	T 711 648 40 MS	1 x M 40				
with cable gland	T 711 648 40 MV					
with collar	T 711 748 40 MS	2 x M 40				
with cable gland	T 711 748 40 MV					
Panel housing, height 41 mm with single locking system, with hinged lid					 	1 632
Panel cutout 120 x 82 mm	714 448					
Hoods, height 96 mm for single locking system, side cable entry					 	1 553 587 623 561 606 668 574 631 732
with threaded hole	T 712 648	1 x M 32				
with collar	T 712 648 MS					
with cable gland	T 712 648 MV					
with two threaded holes	T 712 648 00	2 x M32				
with two collars	T 712 648 00 MS					
with two cable glands	T 712 648 00 MV					
with threaded hole	T 712 748	1 x M 40				
with collar	T 712 748 MS					
with cable gland	T 712 748 MV					
with threaded hole	T 710 653	1 x M 50				
with collar	T 710 653 MS					
with cable gland	T 710 653 MV					
Hoods, height 96 mm for single locking system, top cable entry					 	1 565 599 634 560 594 629 584 629 690 574 631 732
with threaded hole	T 712 848	1 x M 32				
with collar	T 712 848 MS					
with cable gland	T 712 848 MV					
with two threaded holes	T 712 848 00	2 x M 32				
with two collars	T 712 848 00 MS					
with two cable glands	T 712 848 00 MV					
with threaded hole	T 712 948	1 x M 40				
with collar	T 712 948 MS					
with cable gland	T 712 948 MV					
with threaded hole	T 720 712	1 x M 50				
with collar	T 720 712 MS					
with cable gland	T 720 712 MV					

Screw-mountable hoods and hoods with bayonet lock

You save ...

☒ the panel housing

☒ additional stock types

☒ costs



The hoods are available in four sizes ...



B 6

B 10

B 16

B 24

... and for three application areas:

Standard
colour grey

for harsh environmental requirements
colour black

for EMC (electromagnetic compatibility)
colour silver

Your advantages:

High protection degree:
IP 67 / IP 68

High housing size:
100 mm

Large cable entry:
M 40 already possible with B 6

High vibration/impact resistance
due to screw locking

Mounting flange set

consisting of 2 flanges,
4 self-tapping screws (M 4)
and 4 lock washers.



On standard switch cabinet cutouts the two flanges are fixed with metric screws M 4 or M 5 and matching nuts.



Standard switch cabinet cutout
with **mounted flange**:



... for screw-mountable
hoods



... for hoods with
bayonet lock

Hoods:



... screw mountable hoods
= protection degree IP 68



... with bayonet lock
= protection degree IP 67

Protective caps:



... for screw-mountable
hoods



... for hoods with
bayonet lock



Bayonet lock
(quick lock).
The material is the same
for all three housing versions.

Screw mountable hoods / hoods with bayonet lock

Specifications

Regulations:	DIN VDE 0627, DIN VDE 0110, DIN EN 61 984
Approvals:	UR, CSA, SEV, MEIE, EZÜ
Number of poles:	6 - 108 + PE
Electrical data: See individual series.	
Housings grey, standard:	
Material:	Aluminium die casting
Surface:	Powder coated
Housing gasket:	NBR
Temperature range:	- 40 °C up to + 125 °C
Protection degree acc. to DIN EN 60 529	
• in screwed condition:	IP 68
• in locked condition (bayonet):	IP 67
Housings silver, electromagnetic compatibility (EMC):	
Material:	Aluminium die casting
Surface:	Powder coated
Housing gasket:	NBR conductive
Temperature range:	- 40 °C up to + 125 °C
Protection degree DIN EN 60 529	
• in screwed condition:	IP 68
• in locked condition (bayonet):	IP 67
Housings black, harsh environmental requirements: sea water	
Material:	Aluminium die casting
Surface:	Powder coated
Housing gasket:	Viton
Temperature range:	- 40 °C up to + 200 °C
Protection degree acc. to DIN EN 60 529	
• in screwed condition:	IP 68
• in locked condition (bayonet):	IP 67
For all three housing types (grey, silver, black) applies:	
Locking screws:	Stainless steel
Bayonet lock:	Metal V2 Viton gasket Plastic V0

Application hint:

Heavy duty connectors are electrical devices which must not be inserted or separated under load!



Page

Screw mountable hoods and hoods with bayonet lock

B 6, BB 10, BHT 6,
DD 24, MOB 6

159



Screw mountable hoods and hoods with bayonet lock

B 10, BB 18, BHT 10,
DD 42, MOB 10

161



Screw mountable hoods and hoods with bayonet lock

B 16, BB 32, BHT 16,
BA 6, D 40,
DD 72, MOB 16

163



Screw mountable hoods and hoods with bayonet lock

B 24, BB 46, BHT 24,
D 64, DD 108,
MOB 24

165



Flange sets

158, 160,
162, 164



Protective caps

159, 161,
163, 165



Short overview of installation possibilities for series B 6, BB 10, BHT 6, DD 24 and MOB 6 inserts in screw-mountable hoods and hoods with bayonet lock

The housings shown on the following pages can be equipped with the inserts listed below:

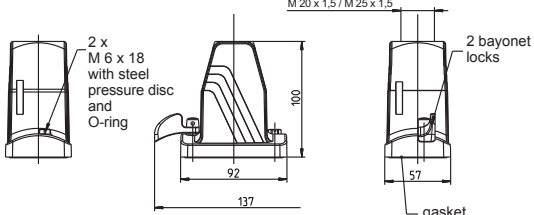
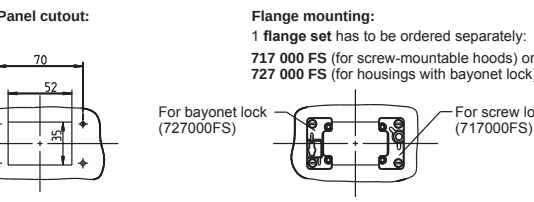
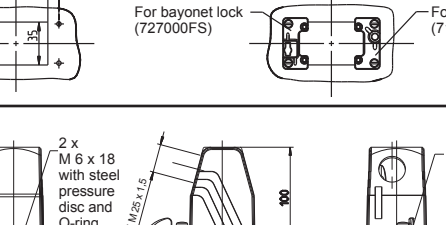
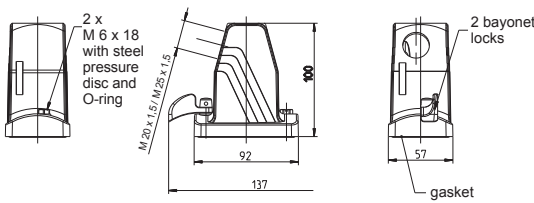
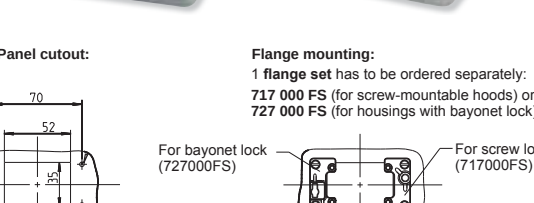
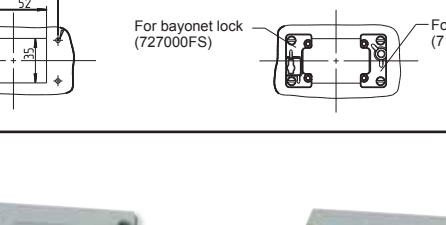
	Screw terminal inserts		Crimp contact carriers		IDC inserts		Wiring adapters for panel housings	
B 6	Female insert screw terminal with wire protection Part no. 710 106	Male insert screw terminal with wire protection Part no. 710 206	Crimp contact carrier for sleeve contacts Part no. 710 306	Crimp contact carrier for pin contacts Part no. 710 406	Female insert, IDC terminal Part no. 710 106 01	Male insert, IDC terminal Part no. 710 206 01	Wiring adapter female insert earth pin on the right: Part no. 710 657	Wiring adapter male insert earth pin on the right: Part no. 710 665
▶ p. 26								
	without wire protection Part no. 710 769	without wire protection Part no. 710 773					earth pin on the left: Part no. 710 661	earth pin on the left: Part no. 710 669
BB 10			Crimp contact carrier for sleeve contacts Part no. 710 311	Crimp contact carrier for pin contacts Part no. 710 411				
▶ p. 27								
BHT 6	Female insert, screw terminal, with wire protection, Part no. 710 106 HT	Male insert, screw terminal, with wire protection, Part no. 710 206 HT						
▶ p. 158								
DD 24			Crimp contact carrier for sleeve contacts Part no. 750 124	Crimp contact carrier for pin contacts Part no. 750 224				
▶ p. 62								
MOB 6	Female frame MO B6 for 2 contact carriers				Male frame MO B6 for 2 contact carriers			
	for pin and sleeve contacts (frame coding A-B)	Part no. 770 006			for pin and sleeve contacts (frame coding A-B)	Part no. 770 106		
▶ p. 75	for pin and sleeve contacts (2 x PE)	Part no. 770 406			for pin and sleeve contacts (2 x PE)	Part no. 770 506		

▶ The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series ...

- B 6: page 26
- DD 24: page 62
- MO: page 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

Description		Part no.	Accessories for hoods (screw-mountable / with bayonet lock)	 
Flange sets, zinc				
for screw-mountable hoods				
with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing!		717 001 FS	 <i>similar to picture</i>	1 52
for hoods with bayonet lock				
with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing!		727 001 FS	 <i>similar to picture</i>	1 50

Description	Part no.	M	Hoods (screw-mountable / with bayonet lock), for series B 6, BB 10, BHT 6, DD 24, MOB 6	
Hoods, screw-mountable				
height 100 mm, top cable entry				10 284 284 284
grey ¹⁾ 717 106 OV 1 x M 20 silver ²⁾ 717 106 OVEM 1 x M 20 black ³⁾ 717 106 OVSP 1 x M 20				10 278 278 278
Hoods with bayonet lock				
height 100 mm, top cable entry				10 299 299 299
grey ¹⁾ 727 106 OV 1 x M 20 silver ²⁾ 727 106 OVEM 1 x M 20 black ³⁾ 727 106 OVSP 1 x M 20				10 293 293 293
Hoods, screw-mountable				
height 100 mm, side cable entry				10 284 284 284
grey ¹⁾ 717 506 OV 1 x M 20 silver ²⁾ 717 506 OVEM 1 x M 20 black ³⁾ 717 506 OVSP 1 x M 20				10 278 278 278
Hoods with bayonet lock				
height 100 mm, side cable entry				10 299 299 299
grey ¹⁾ 727 506 OV 1 x M 20 silver ²⁾ 727 506 OVEM 1 x M 20 black ³⁾ 727 506 OVSP 1 x M 20				10 293 293 293
Protective caps				
for screw-mountable hoods for mounting side and hood, for snapping on, IP50				10 26
for mounting side, with screw lock, with retaining cord, IP65				41
for hoods with bayonet lock for mounting side, with bayonet lock, with retaining cord, IP65				56

¹⁾ grey = standard

²⁾ silver = EMC (electromagnetic compatibility)

³⁾ black = harsh environmental conditions

Short overview of installation possibilities for series B 10, BB 18, BHT 10, DD 42, MOB 10 inserts in screw-mountable hoods and hoods with bayonet lock

The housings shown on the following pages can be equipped with the inserts listed below:

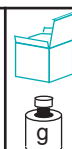
	Screw terminal inserts		Crimp contact carriers		IDC inserts		Wiring adapters for panel housings	
B 10	Female insert screw terminal with wire protection Part no. 710 110	Male insert screw terminal with wire protection Part no. 710 210	Crimp contact carrier for sleeve contacts Part no. 710 310	Crimp contact carrier for pin contacts Part no. 710 410	Female insert, IDC terminal Part no. 710 110 01	Male insert, IDC terminal Part no. 710 210 01	Wiring adapter female insert earth pin on the right: Part no. 710 658	Wiring adapter male insert earth pin on the right: Part no. 710 666
▶ p. 28 to 29								
	without wire protection Part no. 710 770	without wire protection Part no. 710 774					earth pin on the left: Part no. 710 662	earth pin on the left: Part no. 710 670
BB 18			Crimp contact carrier for sleeve contacts Part no. 710 318	Crimp contact carrier for pin contacts Part no. 710 418				
▶ p. 29								
BHT 10	Female insert, screw terminal, with wire protection, Part no. 710 110 HT	Male insert, screw terminal, with wire protection, Part no. 710 210 HT						
▶ p. 160								
DD 42			Crimp contact carrier for sleeve contacts Part no. 750 142	Crimp contact carrier for pin contacts Part no. 750 242				
▶ p. 63								
MOB 10	Female frame MO B10 for 3 contact carriers for pin and sleeve contacts (frame coding A-C) for pin and sleeve contacts (2 x PE)		Part no. 770 010		Male frame MO B10 for 3 contact carriers for pin and sleeve contacts (frame coding A-C) for pin and sleeve contacts (2 x PE)		Part no. 770 110	
▶ p. 75			Part no. 770 410				Part no. 770 510	

▶ The page reference at the left of the table guides you to the detailed overview of inserts.

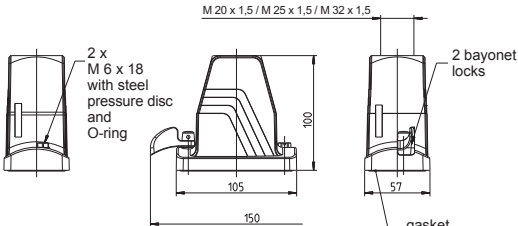
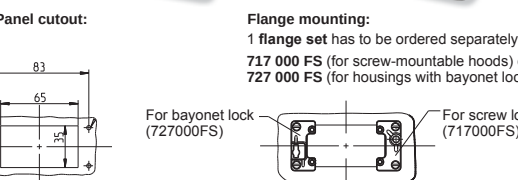
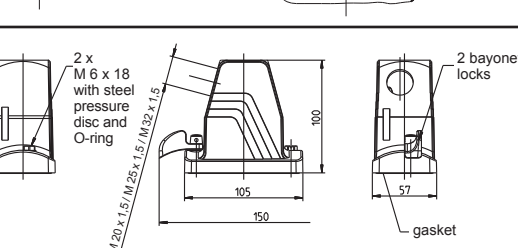
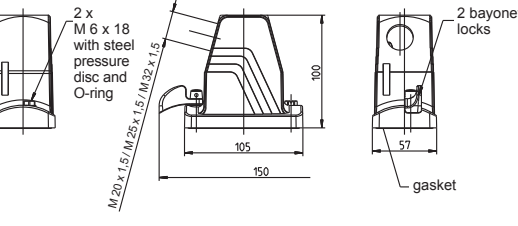
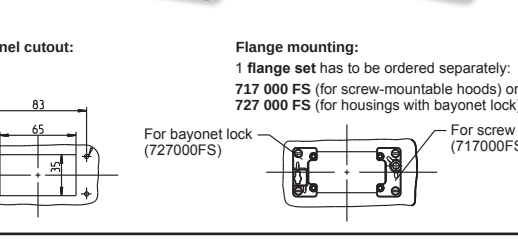
Contacts for crimp contact carriers of series . . .

- B 10: page 28
- DD 42: page 63
- MO: page 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

Accessories for hoods (screw-mountable / with bayonet lock)



Description	Part no.		
Flange sets, zinc			
for screw-mountable hoods			
with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing!	717 001 FS		1 52
		similar to picture	
for hoods with bayonet lock			
with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing!	727 001 FS		1 50
		similar to picture	

Description	Part no.	M	Hoods (screw-mountable / with bayonet lock), for series B 10, BB 18, BHT 10, DD 42 + MOB 10	
Hoods, screw-mountable height 100 mm, top cable entry grey ¹⁾ 717 110 OV 1 x M 20 silver ²⁾ 717 110 OVEM 1 x M 20 black ³⁾ 717 110 OVSP 1 x M 20				10 318 318 318
height 100 mm, top cable entry grey ¹⁾ 717 210 OV 1 x M 25 silver ²⁾ 717 210 OVEM 1 x M 25 black ³⁾ 717 210 OVSP 1 x M 25		Thread M 32 or M 40 on request		10 310 310 310
Hoods with bayonet lock height 100 mm, top cable entry grey ¹⁾ 727 110 OV 1 x M 20 silver ²⁾ 727 110 OVEM 1 x M 20 black ³⁾ 727 110 OVSP 1 x M 20			 Panel cutout: Flange mounting: 1 flange set has to be ordered separately: 717 000 FS (for screw-mountable hoods) or 727 000 FS (for housings with bayonet lock) For bayonet lock (727000FS) For screw lock (717000FS)	10 333 333 333
height 100 mm, top cable entry grey ¹⁾ 727 210 OV 1 x M 25 silver ²⁾ 727 210 OVEM 1 x M 25 black ³⁾ 727 210 OVSP 1 x M 25		Thread M 32 or M 40 on request		10 325 325 325
Hoods, screw-mountable height 100 mm, side cable entry grey ¹⁾ 717 510 OV 1 x M 20 silver ²⁾ 717 510 OVEM 1 x M 20 black ³⁾ 717 510 OVSP 1 x M 20				10 318 318 318
height 100 mm, side cable entry grey ¹⁾ 717 610 OV 1 x M 25 silver ²⁾ 717 610 OVEM 1 x M 25 black ³⁾ 717 610 OVSP 1 x M 25		Thread M 32 or M 40 on request		10 310 310 310
Hoods with bayonet lock height 100 mm, side cable entry grey ¹⁾ 727 510 OV 1 x M 20 silver ²⁾ 727 510 OVEM 1 x M 20 black ³⁾ 727 510 OVSP 1 x M 20			 Panel cutout: Flange mounting: 1 flange set has to be ordered separately: 717 000 FS (for screw-mountable hoods) or 727 000 FS (for housings with bayonet lock) For bayonet lock (727000FS) For screw lock (717000FS)	10 333 333 333
height 100 mm, side cable entry grey ¹⁾ 727 610 OV 1 x M 25 silver ²⁾ 727 610 OVEM 1 x M 25 black ³⁾ 727 610 OVSP 1 x M 25		Thread M 32 or M 40 on request		10 325 325 325
Protective caps for screw-mountable hoods for mounting side and hood, for snapping on, IP50 717 699 for mounting side, with screw lock, with retaining cord, IP65 717 703 for hoods with bayonet lock for mounting side, with bayonet lock, with retaining cord, IP65 727 625				1 29 44 59

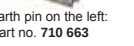
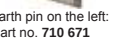
¹⁾ grey = standard

²⁾ silver = EMC (electromagnetic compatibility)

³⁾ black = harsh environmental conditions

Short overview of installation possibilities for series B 16, BB 32, BHT 16, BA 6, D 40, DD 72, MOB 16 inserts in screw-mountable hoods & hoods with bayonet lock

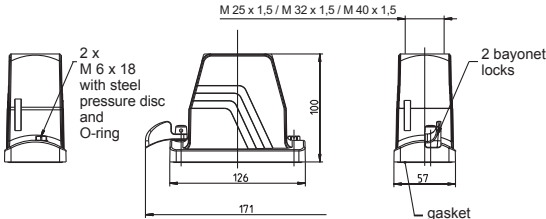
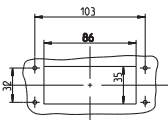
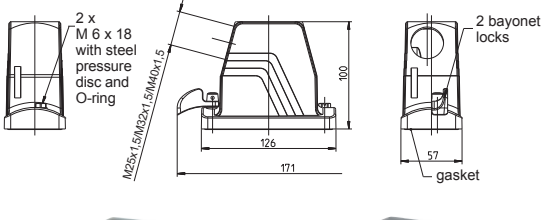
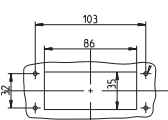
The housings shown on the following pages can be equipped with the inserts listed below:

	Screw terminal inserts		Crimp contact carriers		IDC inserts		Wiring adapters for panel housings	
B 16 ► p. 30 to 31	Female insert, screw terminal, Part no. 710 116 	Male insert, screw terminal, Part no. 710 216 	Crimp contact carrier for sleeve contacts, Part no. 710 316 	Crimp contact carrier for pin contacts, Part no. 710 416 	Female insert, IDC terminal, Part no. 710 116 01 	Male insert, IDC terminal, Part no. 710 216 01 	Wiring adapter female insert earth pin on the right: Part no. 710 659  earth pin on the left: Part no. 710 663 	Wiring adapter male insert earth pin on the right: Part no. 710 667  earth pin on the left: Part no. 710 671 
BB 32 ► p. 31			Crimp contact carrier for sleeve contacts Part no. 710 333 	Crimp contact carrier for pin contacts Part no. 710 433 				
BHT 16 ► p. 162	Female insert, screw terminal, Part no. 710 116 HT 	Male insert, screw terminal, Part no. 710 216 HT 						
BA 6 ► p. 40	Female insert, screw terminal, Part no. 710 620 	Male insert, screw terminal, Part no. 710 621 						
D 40 ► p. 50 to 51			Crimp contact carrier for sleeve contacts, Part no. 720 340 	Crimp contact carrier for pin contacts, Part no. 720 440 			Wiring adapter female insert earth pin on the left: Part no. 720 633 	Wiring adapter male insert earth pin on the left: Part no. 720 632 
DD 72 ► p. 64			Crimp contact carrier, for sleeve contacts, Part no. 750 172 	Crimp contact carrier for pin contacts, Part no. 750 272 				
MOB 16 ► p. 75	Female frame MO B16 for 5 contact carriers for pin and sleeve contacts (frame coding A - E) for pin and sleeve contacts (2 x PE) Part no. 770 016 		Male frame MO B16 for 5 contact carriers for pin and sleeve contacts (frame coding A - E) for pin and sleeve contacts (2 x PE) Part no. 770 516 					

► The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series . . . B 16: p. 30 / D 40: p. 51 / DD 72: p. 65 / MO: p. 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

Description		Part no.	Accessories for hoods (screw-mountable / with bayonet lock)	 g
Flange sets, zinc				
for screw-mountable hoods				
with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing!		717 001 FS	 similar to picture	1 52
for hoods with bayonet lock				
with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing!		727 001 FS	 similar to picture	1 50

Description	Part no.	M	Hoods (screw-mountable / with bayonet lock), for series B 16, BB 32, BHT 16, BA 6, D 40, DD 72, MOB 16	  9		
Hoods, screw-mountable				10 344 344 344		
height 100 mm, top cable entry						
grey ¹⁾ silver ²⁾ black ³⁾	717 216 OV 717 216 OVEM 717 216 OVSP	1 x M 25 1 x M 25 1 x M 25				
height 100 mm, top cable entry		Thread M 40 on request		10 336 336 336		
grey ¹⁾ silver ²⁾ black ³⁾		717 316 OV 717 316 OVEM 717 316 OVSP			1 x M 32 1 x M 32 1 x M 32	
Hoods with bayonet lock						
height 100 mm, top cable entry		Thread M 40 on request		10 359 359 359		
grey ¹⁾ silver ²⁾ black ³⁾					727 216 OV 727 216 OVEM 727 216 OVSP	1 x M 25 1 x M 25 1 x M 25
height 100 mm, top cable entry					727 316 OV 727 316 OVEM 727 316 OVSP	1 x M 32 1 x M 32 1 x M 32
Hoods, screw-mountable				10 344 344 344		
height 100 mm, side cable entry						
grey ¹⁾ silver ²⁾ black ³⁾	717 616 OV 717 616 OVEM 717 616 OVSP	1 x M 25 1 x M 25 1 x M 25				
height 100 mm, side cable entry		Thread M 40 on request		10 336 336 336		
grey ¹⁾ silver ²⁾ black ³⁾		717 716 OV 717 716 OVEM 717 716 OVSP			1 x M 32 1 x M 32 1 x M 32	
Hoods with bayonet lock						
height 100 mm, side cable entry		Thread M 40 on request		10 359 359 359		
grey ¹⁾ silver ²⁾ black ³⁾					727 616 OV 727 616 OVEM 727 616 OVSP	1 x M 25 1 x M 25 1 x M 25
height 100 mm, side cable entry					727 716 OV 727 716 OVEM 727 716 OVSP	1 x M 32 1 x M 32 1 x M 32
Protective caps				10 33		
for screw-mountable hoods for mounting side and hood, for snapping on, IP50		717 700				
for mounting side, with screw lock, with retaining cord, IP65		717 704				
for hoods with bayonet lock for mounting side, with bayonet lock, with retaining cord, IP65		727 626		49		
				64		

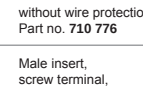
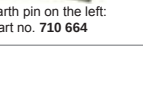
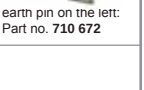
¹⁾ grey = standard

²⁾ silver = EMC (electromagnetic compatibility)

³⁾ black = harsh environmental conditions

Short overview of installation possibilities for series B 24, BB 46, BHT 24, D 64, DD 108, MOB 24 inserts in screw-mountable hoods and hoods with bayonet lock

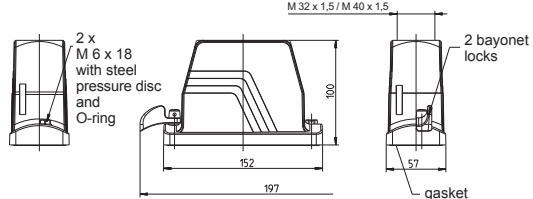
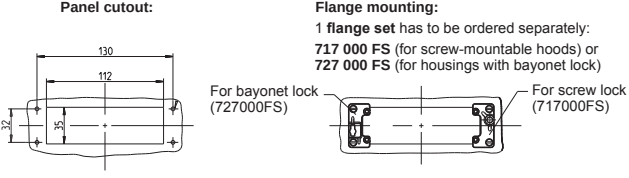
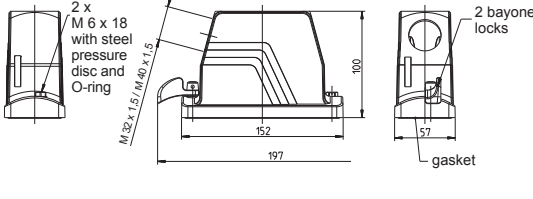
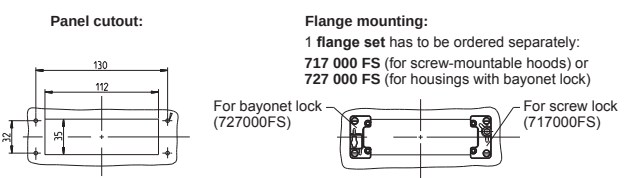
The housings shown on the following pages can be equipped with the inserts listed below:

	Screw terminal inserts	Crimp contact carriers	IDC inserts	Wiring adapters for panel housings
B 24 ▶ p. 32 to 33	Female insert screw terminal with wire protection Part no. 710 124  without wire protection Part no. 710 772  Male insert screw terminal with wire protection Part no. 710 224  without wire protection Part no. 710 776 	Crimp contact carrier for sleeve contacts Part no. 710 324  Crimp contact carrier for pin contacts Part no. 710 424 	Female insert IDC terminal Part no. 710 124 01  Male insert IDC terminal Part no. 710 224 01 	Wiring adapter female insert earth pin on the right: Part no. 710 660  earth pin on the left: Part no. 710 664  Wiring adapter male insert earth pin on the right: Part no. 710 668  earth pin on the left: Part no. 710 672 
BHT 24 ▶ p. 164	Female insert, screw terminal, with wire protection, Part no. 710 124 HT  Male insert, screw terminal, with wire protection, Part no. 710 224 HT 			
BB 46 ▶ p. 33		Crimp contact carrier for sleeve contacts Part no. 710 346  Crimp contact carrier for pin contacts Part no. 710 446 		
D 64 ▶ p. 53 to 54		Crimp contact carrier for sleeve contacts Part no. 720 364  Crimp contact carrier for pin contacts Part no. 720 464 		Wiring adapter female insert earth pin on the left: Part no. 720 635  Wiring adapter male insert earth pin on the left: Part no. 720 634 
DD 108 ▶ p. 66		Crimp contact carrier for sleeve contacts Part no. 750 108  Crimp contact carrier for pin contacts Part no. 750 208 		
MOB 24 ▶ p. 75	Female frame MO B24 for 7 contact carriers for pin and sleeve contacts (frame coding A-G) Part no. 770 024  for pin and sleeve contacts (2 x PE) Part no. 770 424 	Male frame MO B24 for 7 contact carriers for pin and sleeve contacts (frame coding A-G) Part no. 770 124  for pin and sleeve contacts (2 x PE) Part no. 770 324 		

▶ The page reference at the left of the table guides you to the detailed overview of inserts.

Contacts for crimp contact carriers of series . . . B 24: p. 32 / D 64: p. 54 / DD 108: p. 67 / MO: p. 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101

Description	Part no.	Accessories for hoods (screw-mountable / with bayonet lock)	
Flange sets, zinc for screw-mountable hoods with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing! 717 001 FS		 <i>similar to picture</i>	 1 52
for hoods with bayonet lock with 2 flanges, 4 screws, 4 serrated lock washers. Male and female insert are mounted directly on the mounting flange - saves the panel housing! 727 001 FS		 <i>similar to picture</i>	1 50

Description	Part no.	M	Hoods (screw-mountable / with bayonet lock), for series B 24, BB 46, BHT 24, D 64, DD 108 + MOB 24	 
Hoods, screw-mountable			 	10 433 433 433
height 100 mm, top cable entry				10 428 428 428
grey ¹⁾ silver ²⁾ black ³⁾	717 324 OV 717 324 OVEM 717 324 OVSP	1 x M 32 1 x M 32 1 x M 32		
Hoods with bayonet lock			 	10 448 448 448
height 100 mm, top cable entry				10 443 443 443
grey ¹⁾ silver ²⁾ black ³⁾	727 324 OV 727 324 OVEM 727 324 OVSP	1 x M 32 1 x M 32 1 x M 32		
Hoods, screw-mountable			 	10 443 443 443
height 100 mm, side cable entry				10 428 428 428
grey ¹⁾ silver ²⁾ black ³⁾	717 724 OV 717 724 OVEM 717 724 OVSP	1 x M 32 1 x M 32 1 x M 32		
Hoods with bayonet lock			 	10 448 448 448
height 100 mm, side cable entry				10 443 443 443
grey ¹⁾ silver ²⁾ black ³⁾	727 724 OV 727 724 OVEM 727 724 OVSP	1 x M 32 1 x M 32 1 x M 32		
Protective caps			 	10 39
for screw-mountable hoods for mounting side and hood, for snapping on, IP50	717 701			55
for mounting side, with screw lock, with retaining cord, IP65	717 705			70
for hoods with bayonet lock for mounting side, with bayonet lock, with retaining cord, IP65			727 627	

¹⁾ grey = standard

²⁾ silver = EMC (electromagnetic compatibility)

³⁾ black = harsh environmental conditions

Series B HT inserts are made of special temperature resistant plastic material, suitable for temperatures up to max. 180 °C incl. self-heating.



The housings of series B HT can also accommodate inserts of other series. This solution is applicable if there are no difficulties with regard to heat but where high quality aluminium die cast has to be used because of harsh environmental application areas.



Series B HT housings are made of sea-water resistant die-cast aluminium alloy. The seals are made of Viton and are temperature resistant up to 200 °C. The locking levers are made of stainless steel.

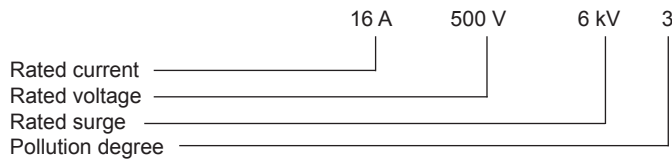
Series B HT

Specifications

Regulations: DIN VDE 0627,
DIN VDE 0110,
DIN EN 61 984

Number of poles: 6, 10, 16, 24 + PE

Electrical data acc. to DIN EN 61 984:



Material: high temperature resistant plastic
Temperature range: up to + 180 °C
Mechanical operating life: ≥ 500
Mating cycles: ≥ 500

Contacts:
Material: copper alloy
Surface - hard silver plated: 3 µm Ag
Contact resistance: < 1 m Ω
Screw type terminal with wire protection: 2,5 mm² (14 AWG)
Torque / testing torque: 0,5 Nm
Wire stripping length: 7 mm

Housings:
Material: die cast aluminium,
sea water resistant
Surface: powder coated
Double locking levers: stainless steel
Single locking levers: stainless steel
Housing seal: Viton
Temperature range: up to + 200 °C
Protection degree acc. to DIN EN 60 529 in locked condition: IP 65

Application advice:

Industrial connectors are electrical devices which must not be connected or disconnected under load!

Page

B HT 6 pole + ⚡

168 - 169



B HT 10 pole + ⚡

170 - 171



B HT 16 pole + ⚡

172 - 173

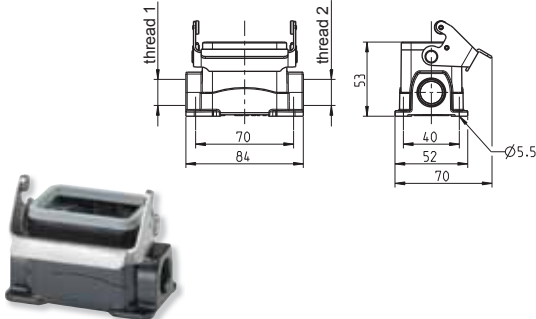
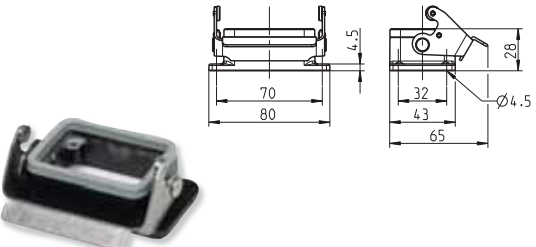
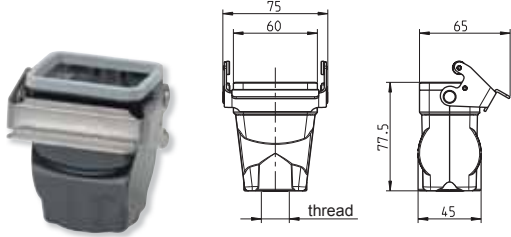
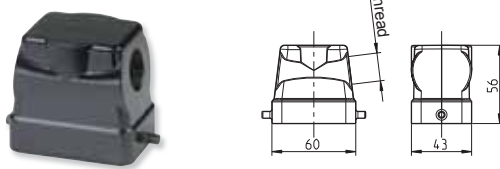
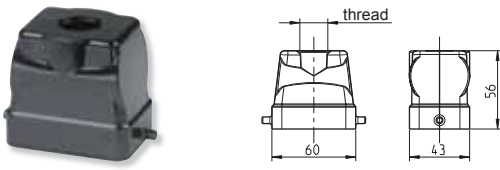


B HT 24 pole + ⚡

174 - 175

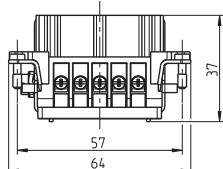
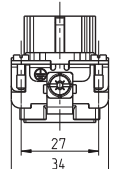
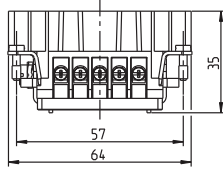
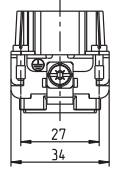
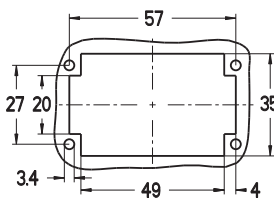
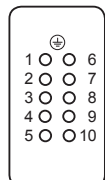
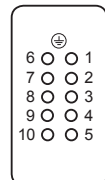


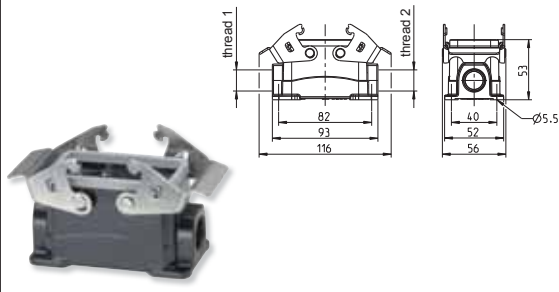
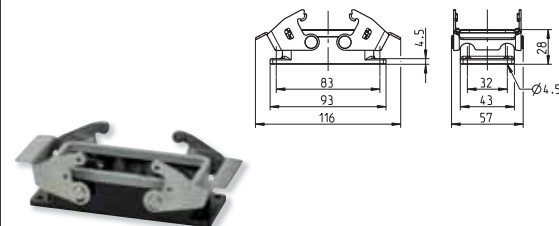
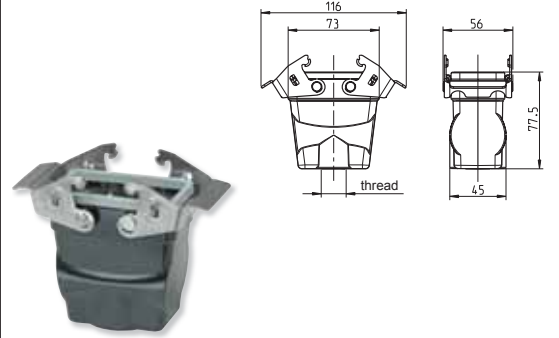
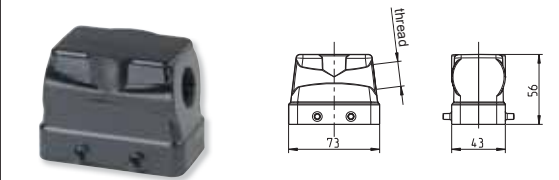
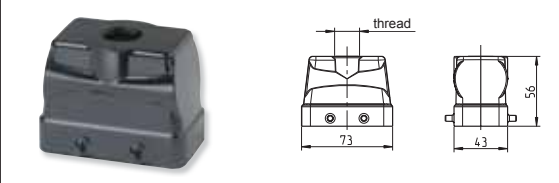
Description	Part no.		Series B HT 6 P +  16 A / 500 V	 
Screw terminal inserts B HT 6				10 54
Female insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	710 106 HT			
Male insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	710 206 HT		Panel cutout View from termination side Female insert Male insert	10 52
Contact arrangement				

Description	Part no.	M	Series B HT 6	
Housings: single locking system				10 226 226
Wall mount housing, height 53 mm with single locking system				
with collar	P 741 406 MS	1 x M 20		
with collar	P 741 506 MS	2 x M 20		
Panel housing, height 28 mm with single locking system				10 135
Panel cutout 52 x 35 mm	744 306			
Coupler hoods, height 77,5 mm with single locking system, top cable entry				10 188 212
with threaded hole with collar	P 743 806 P 743 806 MS	1 x M 20		
Hoods, height 56 mm for single locking system, side cable entry				10 110 125
with threaded hole with collar	P 742 606 P 742 606 MS	1 x M 20		
Hoods, height 56 mm for single locking system, top cable entry				10 110 125
with threaded hole with collar	P 742 806 P 742 806 MS	1 x M 20		

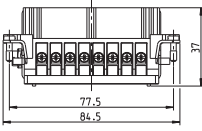
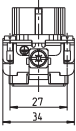
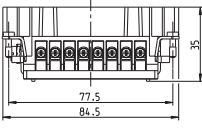
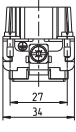
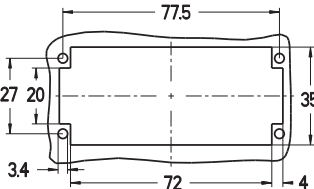
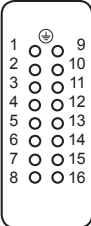
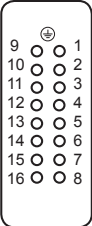
Housings also suitable for inserts / contact carriers of series B 6 and DD 24

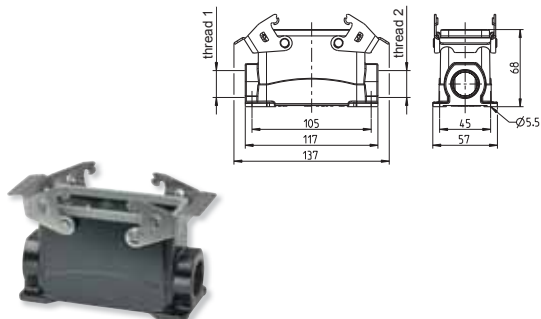
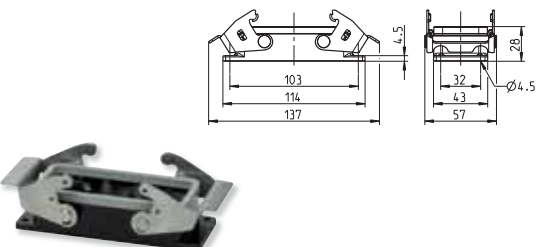
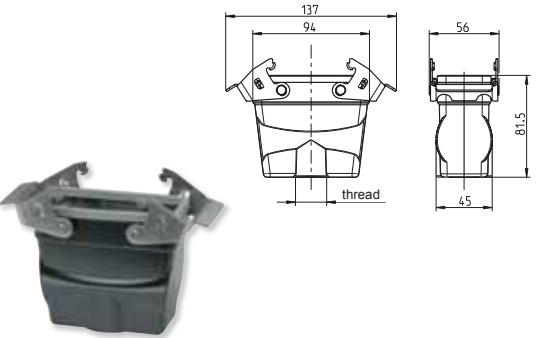
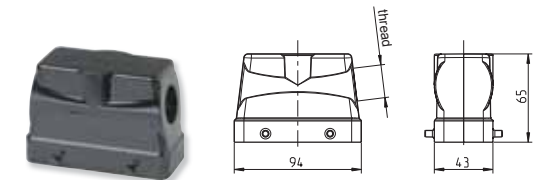
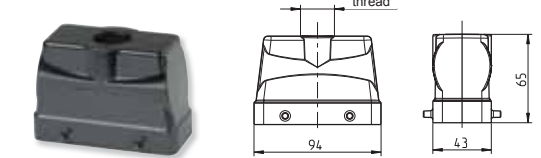
► Matching screw-mountable hoods see page 159

Description	Part no.		Series B HT 10 P +  16 A / 500 V	 
Screw terminal inserts B HT 10			     	10 71 10 67
Female insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	710 110 HT			
Male insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	710 210 HT			
Contact arrangement			Panel cutout  View from termination side Female insert  Male insert 	

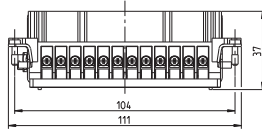
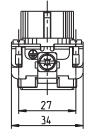
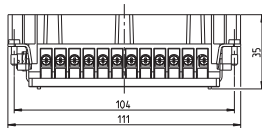
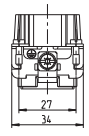
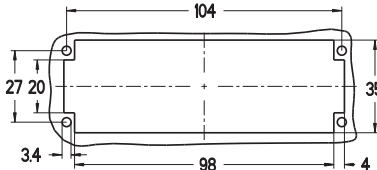
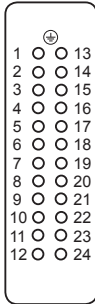
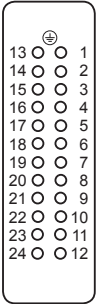
Description	Part no.	M	Series B HT 10	
Housings: double locking system				
Wall mount housing, height 53 mm with double locking levers				
with collar	P 741 010 MS	1 x M 20		10 260 259
with collar	P 741 110 MS	2 x M 20		
Panel housing, height 28 mm with double locking levers				
Panel cutout 65 x 35 mm	744 110			10 171
Coupler hoods, height 77,5 mm with double locking levers, top cable entry				
with threaded hole with collar	P 743 610 P 743 610 MS	1 x M 20		10 228 243
Hoods, height 56 mm for double locking system, side cable entry				
with threaded hole with collar	P 742 010 P 742 010 MS	1 x M 20		10 128 143
Hoods, height 56 mm for double locking system, top cable entry				
with threaded hole with collar	P 742 210 P 742 210 MS	1 x M 20		10 128 143

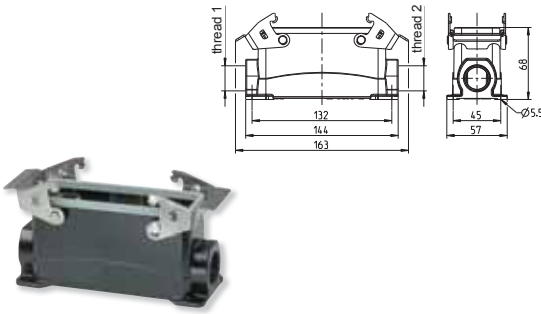
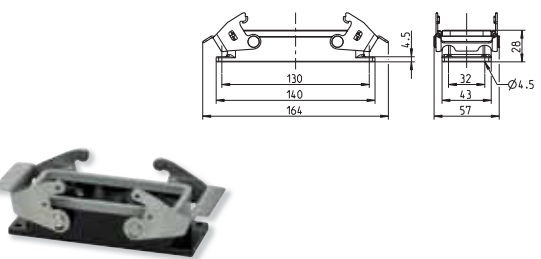
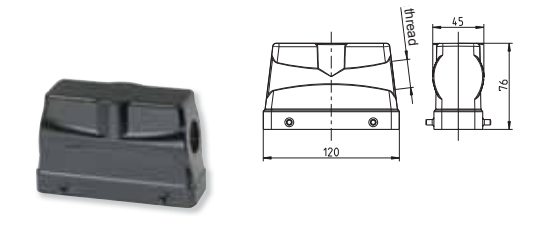
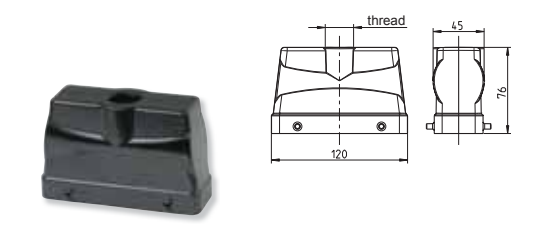
Housings also suitable for inserts / contact carriers of series B 10 and DD 42

Description	Part no.		Series B HT 16 P +  16 A / 400 V	 
Screw terminal inserts B HT 16				
Female insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	710 116 HT		  	10 96
Male insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)	710 216 HT		  	10 96
Contact arrangement			Panel cutout  View from termination side Female insert  Male insert 	

Description		Part no.	M	Series B HT 16	
Housings: double locking system					10 370 368
Wall mount housing, height 68 mm with double locking levers					
without threaded hole	P 741 016 MS	1 x M 25			
without threaded hole	P 741 116 MS	2 x M 25			
Panel housing, height 28 mm with double locking levers					10 189
with recess for labels Panel cutout 86 x 35 mm	744 116				
Coupler hoods, height 81,5 mm with double locking levers, top cable entry					10 261 283 258 291
with threaded hole with collar	P 743 616 P 743 616 MS	1 x M 25			
with threaded hole with collar	P 743 716 P 743 716 MS	1 x M 32			
Hoods, height 65 mm for double locking system, side cable entry					10 164 186
with threaded hole with collar	P 748 016 P 748 016 MS	1 x M 25			
Hoods, height 65 mm for double locking system, top cable entry					10 165 187
with threaded hole with collar	P 748 216 P 748 216 MS	1 x M 25			

Housings also suitable for inserts / contact carriers of series B 16, BA 6, D 40 and DD 72

Description		Part no.	Series B HT 24 P +  16 A / 400 V	 
Screw terminal inserts B HT 24				
Female insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)		710 124 HT	  	10 140
Male insert Screw terminal with wire protection 0,5-2,5 mm ² (20-14 AWG)		710 224 HT	  	10 120
Contact arrangement			Panel cutout  View from termination side Female insert  Male insert 	

Description		Part no.	M	Series B HT 24	
Housings: double locking system					10 428 425
Wall mount housing, height 68 mm with double locking levers					
with collar	P 741 024 MS	1 x M 25			
with collar	P 741 124 MS	2 x M 25			
Panel housing, height 28 mm with double locking levers					10 202
with recess for labels Panel cutout 112 x 35 mm					
744 124					
Coupler hoods, height 81,5 mm with double locking levers, top cable entry					10 304 326 301 334
with threaded hole with collar	P 743 624 P 743 624 MS	1 x M 25			
with threaded hole with collar	P 743 724 P 743 724 MS	1 x M 32			
Hoods, height 76 mm for double locking system, side cable entry					10 235 257 230 263
with threaded hole with collar	P 748 024 P 748 024 MS	1 x M 25			
with threaded hole with collar	P 748 124 P 748 124 MS	1 x M 32			
Hoods, height 76 mm for double locking system, top cable entry					10 236 258 233 266
with threaded hole with collar	P 748 224 P 748 224 MS	1 x M 25			
with threaded hole with collar	P 748 324 P 748 324 MS	1 x M 32			

Housings also suitable for inserts / contact carriers of series B 24, D 64 and DD 108



Series BV

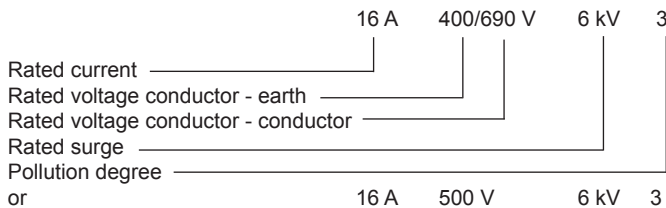
Specifications

Regulations: DIN VDE 0627,
DIN VDE 0110,
DIN EN 61 984

Approvals: SEV, MEIE, EZÚ

Number of poles: 3, 6, 10, 16, 20 (2 x 10),
26 (1 x 10 + 1 x 16),
32 (2 x 16) + PE

Electrical data acc. to DIN EN 61 984:



Rated voltage: 250 V

Switch contact pins: Glassfibre reinforced polyamide

Material: - 40 °C up to + 125 °C

Temperature range: V 0

Flame class rating acc. to UL 94: V 0

Mechanical operating life: ≥ 500

Mating cycles: ≥ 500

Contacts:

Material: Copper alloy

Surface: - hard silver plated: 3 µm Ag
- hard gold plated: 2 µm Au over 3 µm Ni

Contact resistance: < 1 m Ω

Screw terminal with wire protection: 2,5 mm² (14 AWG)

Torque/Testing torque: 0,5 Nm

Crimp-type terminal: 0,5 - 4 mm² (20 - 12) AWG

Wire stripping length: 7 mm with screw and crimp contacts

Housings:

Material: Aluminium die cast

Surface: Powder coated

Locking levers: Plastic; locking elements made of stainless steel

Housing seal: NBR

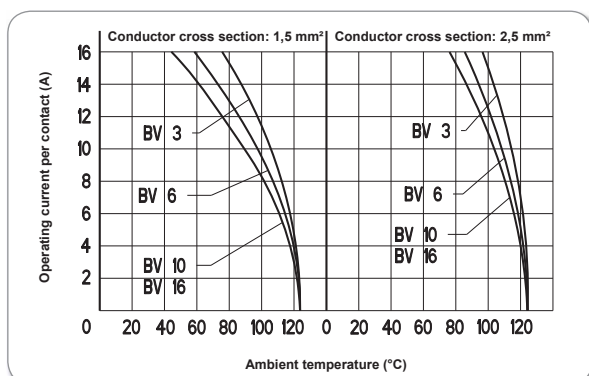
Temperature range: - 40 °C up to + 125 °C (depending on cable gland)

Protection degree acc. to DIN EN 60 529: IP 65 (in locked condition)

Application hint:

Industrial connectors are electrical devices which must not be inserted or separated under load!

The derating diagram (corrected current capacity curve) acc. to DIN IEC 60512 applies to such kind of current which can - depending on ambient temperature and conductor size) circulate through each contact without exceeding the upper limiting temperature.



Page

Inserts

BV 3-pole + ⊕
BV 6-pole + ⊕
BV 10-pole + ⊕
BV 16-pole + ⊕
BV 20-pole + ⊕
BV 26-pole + ⊕
BV 32-pole + ⊕

178



Housings

with double locking levers on housing base

179



Housings

with double locking system on housing top

179



Housings

with single locking system on housing base

179



Series BV - Short Overview



The housings of series BV are no standard housings.

The ribs on the two end walls of the housings have to be removed so that the inserts of series BV (which are provided with a lateral build-in blocking) can be installed.

In addition, there are isolating strips at the inner sides of the long housing walls.

Due to the lateral build-in blocking, the male and female inserts can not be installed in standard housings.

The female inserts are provided with two insertion blockings which prevents plugging with series B inserts.



BV inserts

													
			Screw terminal inserts		Crimp contact carriers		Crimp contacts acc. to cross sections						
No. of poles	Marked inserts	Volt AC	Ampère	Female inserts	Male inserts	for sleeve contacts	for pin contacts	0,14-0,37 mm²	0,5 mm²	0,75-1 mm²	1,5 mm²	2,5 mm²	4 mm²
				with wire protection		Contacts separately							
3		690 V	16 A	730 103	730 203	730 303	730 403	Sleeve: 710 508 Pin: 710 518	Sleeve: 710 504 Pin: 710 514	Sleeve: 710 500 Pin: 710 510 • 710 515 ²⁾	Sleeve: 710 501 Pin: 710 511 • 710 516 ²⁾	Sleeve: 710 502 Pin: 710 512 • 710 517 ²⁾	Sleeve: 710 503 Pin: 710 513
6				730 106	730 206	730 306	730 406						
10				730 110	730 210	730 310	730 410						
16				730 116	730 216								
20	1 - 10			730 110 ¹⁾	730 210 ¹⁾	730 310 ¹⁾	730 410 ¹⁾						
26	1 - 10			730 110	730 210	730 310	730 410						
	1 - 16			730 116	730 216								
32	1 - 16			730 116 ¹⁾	730 216 ¹⁾								

1) always two inserts required per housing

2) always two shortened switching contact pins required per housing

Dimensions of BV inserts:

- of **3-pole** inserts: ▶ see page 28 (B 10-pole)
- of **6-pole** inserts: ▶ see page 30 (B 16-pole)
- of **10/16-pole** inserts: ▶ see page 32 (B 24-pole)
- of **20/26/32-pole** inserts: ▶ see page 36 (B 48-pole)

Series BV - Short Overview

Housings with double locking system on the housing base (HB)

Number of poles	Cable entry					
3	1 x M 20 2 x M 20	- P 731 003 MS P 731 103 MS Height 53	ex stock 734 103 - - Height 28	- P 733 603 - Height 61.5	- P 732 003 - Height 56	- P 732 203 - Height 56
6	1 x M 25 2 x M 25	- P 731 006 MS P 731 106 MS Height 68	734 106 - - Height 28	- P 733 606 - Height 70.5	- P 732 006 - Height 65	- P 732 206 - Height 65
10/ 16	1 x M 25 2 x M 25 1 x M 32	- P 731 010 MS P 731 110 MS - Height 68	734 110 - - - Height 28	- P 733 610 - P 733 710 Height 70.5	- P 732 010 - P 732 110 Height 65	- P 732 210 - - Height 65

Housings with double locking system on the housing top (HT)

Number of poles	Cable entry				
3	1 x M 20 2 x M 20	- P 731 203 MS P 731 303 MS Height 53	734 203 - - Height 28	- P 733 003 - Height 56	- P 733 203 - Height 56
6	1 x M 25 2 x M 25	- P 731 206 MS P 731 306 MS Height 68	734 206 - - Height 28	- P 733 006 - Height 65	- P 733 206 - Height 65
10/ 16	1 x M 25 2 x M 25 1 x M 32	- P 731 210 MS P 731 310 MS - Height 68	734 210 - - - Height 28	- P 733 010 - P 733 110 Height 65	- P 733 210 - P 733 310 Height 65

Housings with single locking system on the housing base (HB)

Number of poles	Cable entry						
3	1 x M 20 2 x M 20	- P 731 403 MS P 731 503 MS Height 53	- P 731 603 MS P 731 703 MS Height 53	734 403 - - Height 28	- P 733 803 - Height 61.5	- P 732 603 - Height 56	- P 732 803 - Height 56
6	1 x M 25 2 x M 25	- P 731 406 MS P 731 506 MS Height 68	- P 731 606 MS P 731 706 MS Height 68	734 406 - - Height 28	- P 733 806 - Height 70.5	- P 732 606 - Height 65	- P 732 806 - Height 65
10 16	1 x M 25 2 x M 25 1 x M 32	- P 731 410 MS P 731 510 MS - Height 68	- P 731 610 MS P 731 710 MS - Height 68	734 410 - - - Height 28	- P 733 810 - P 733 910 Height 70.5	- P 732 610 - P 732 710 Height 65	- P 732 810 - - Height 65
20 26 32	1 x M 32 2 x M 32 1 x M 40	- - - -	- - - -	714 448 - - - Height 41	- - - -	- - - -	- - - -

Housing dimensions:

- of housings for **3-pole** inserts: ▶ see series B 10 (from page 125 on)
- of housings for **6-pole** inserts: ▶ see series B 16 (from page 133 on)
- of housings for **10/16-pole** inserts: ▶ see series B 24 (from page 143 on)
- of housings for **20/26/32-pole** inserts: ▶ see series B 48 (from page 155 on)

Housings with new design also available with:

- **Cable gland** (part no. + MV, e.g. P 731 003 MV)
- **Collar** (part no. + MS, e.g. P 731 003 MS)

Special versions

WALTHER offers individual solutions for special applications.

PROCON industrial connectors offer a great variety of different sizes and numbers of cable entries. Cable entries can either be made from top, side or front.

For special applications, WALTHER PROCON hoods are also available without drilled holes.

Hoods in different heights offer enough space for various solutions.

Protective caps in standard version as well as those especially made for individual applications help to protect the contact carriers against dirt and the contacts against corrosion (silver oxide = non-conductor).

For the use of PROCON industrial connectors with compensation cables for temperature measurements, WALTHER offers the reliable series B crimp contacts made of constantan or iron.

Our sales assistants will be pleased to give you any further assistance you may require.



Accessories

Cable glands

p. 182 - 183



NPT adapters, adapters, labels (clips)

p. 184



Coding accessories, coding possibilities

p. 185



Instructions for connection with POF cable

p. 186



Thermal crimp contacts

Protective caps

p. 187



Crimping pliers, tools

p. 188



Accessories for series A and B

p. 189 - 190



Wire-through housings

p. 191



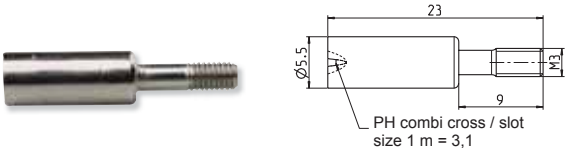
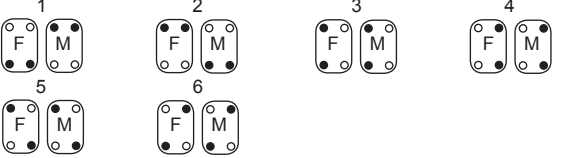
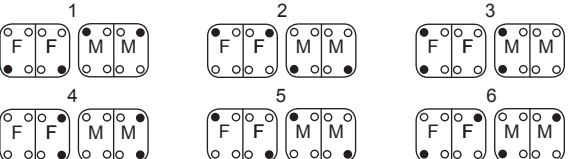
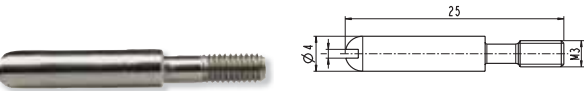
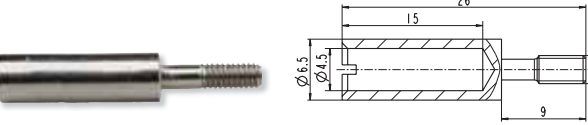
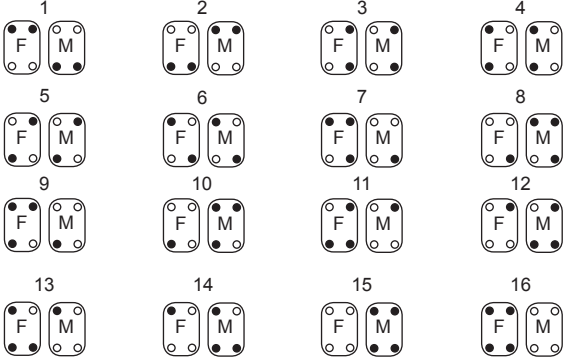
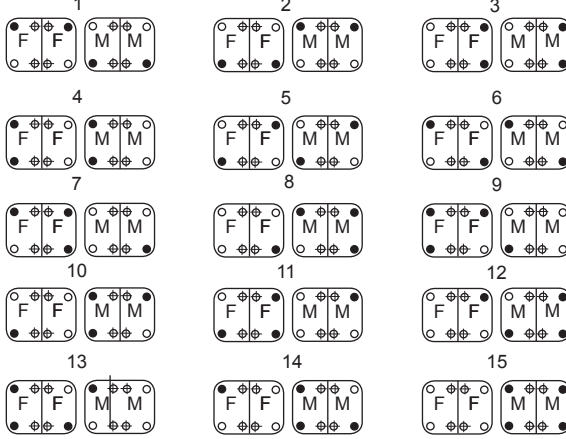
Description	Part no.	Pg / M	Accessories	 9
Cable glands				10
Gasket ring to be peeled acc. to dia- meter, with pressure rings	710 701 710 702 710 703 710 704 710 705 710 706 710 707 717 621 717 622 717 623 717 624 717 625	Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20 M 25 M 32 M 40 M 50		3 4 5 6 11 22 24 5 6 11 22 24
Gasket ring for flat cable, with pressure rings	710 708 710 709 710 710 710 711 710 712	Pg 16 Pg 21 Pg 29 Pg 36 Pg 42		10 13 16 21 38 47
Pressure glands brass, nickel-plated	710 713 710 714 710 715 710 716 710 717 710 718 710 719 710 720 717 630 717 631 717 632 717 633 717 634 717 635	Pg 11* Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20* M 20 M 25 M 32 M 40 M 50		10 3 6 7 9 13 23 37 64 3 6 13 23 37 64
Pressure glands with gasket ring, to be peeled acc. to diameter, with pressure rings	710 552 710 542 710 543 710 544 710 545 710 546 710 547 710 548 717 636 717 637 717 638 717 639 717 640 717 641	Pg 11* Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20* M 20 M 25 M 32 M 40 M 50		10 4 9 10 13 19 34 60 86 4 9 19 34 60 86
Complete cable glands brass, nickel-plated	710 572 710 562 710 563 710 564 710 565 710 566 710 567 710 568 717 642 717 629 717 630 717 631 717 632 717 633	Pg 11* Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20* M 20 M 25 M 32 M 40 M 50		10 10 17 22 28 42 73 127 183 10 10 42 73 127 183

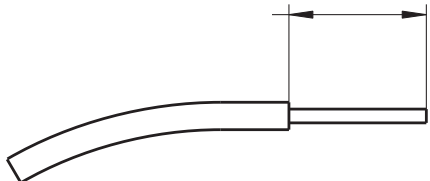
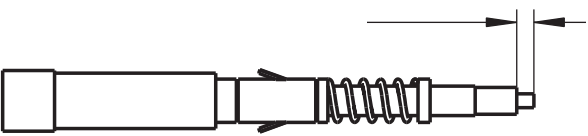
* plastic

Description	Part no.	Pg / M	Accessories	
Cable glands				10
Special cable glands brass, nickel-plated	710 728 710 729 710 730 710 731 710 732 710 733 710 734 717 648 717 649 717 650 717 651 717 652	Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20 M 25 M 32 M 40 M 50		25 32 46 62 92 154 223 32 62 92 154 223
Pressure glands with strain relief, brass, nickel-plated	710 673 710 674 710 675 710 676 710 677 710 678 710 679 710 673 20 710 676 25 710 677 32 710 678 40 710 679 50	Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20 M 25 M 32 M 40 M 50		10 20 24 37 63 92 136 217 24 63 92 136 217
Blanking plugs brass, nickel-plated	710 721 710 722 710 723 710 724 710 725 710 726 710 727 717 658 717 659 717 660 717 661 717 662 717 663	Pg 11 Pg 13,5 Pg 16 Pg 21 Pg 29 Pg 36 Pg 42 M 20* M 20 M 25 M 32 M 40 M 50		10 9 13 19 22 42 55 74 9 13,5 22 42 55 74
EMC cable glands brass, nickel-plated	750 672 750 673 750 674 750 675 717 653 717 654 717 655 717 656 717 657	Pg 13,5 Pg 16 Pg 21 Pg 29 M 20 M 25 M 32 M 40 M 50		10 27 34 48 64 34 48 64 88 124

* plastic

Description		Part no.	Accessories	
NPT adapters				
Adapters from Pg to NPT thread				10 23 25 36 37 53 110 171 158 170 160 137
Pg 11 → 3/8 inch	710 646			
Pg 11 → 1/2 inch	710 647			
Pg 13,5 → 1/2 inch	710 648			
Pg 16 → 1/2 inch	710 649			
Pg 21 → 3/4 inch	710 650			
Pg 29 → 1 inch	710 651			
Pg 29 → 1 1/4 inch	710 857			
Pg 36 → 1 1/4 inch	710 652			
Pg 36 → 1 1/2 inch	710 858			
Pg 42 → 2 inches	710 863			
Pg 48 → 1 1/2 inch	710 864			
Adapters from M to NPT - thread				
M 20 → 3/8 inch	717 688			23
M 20 → 1/2 inch	717 689			36
M 25 → 3/4 inch	717 690			53
M 32 → 1 inch	717 691			110
M 32 → 1 1/4 inch	717 692			171
M 40 → 1 1/4 inch	717 693			158
M 40 → 1 1/2 inch	717 694			170
M 50 → 1 1/4 inch	717 695			160
M 50 → 2 inches	717 696			155
M 63 → 1 1/2 inch	717 697			137
Adapters				
Adapters from M to M thread			 Picture similar	10 19 31 43
M 20 → M 25	717 664			
M 25 → M 32	717 665			
M 32 → M 40	717 666			
Adapters from Pg to M thread			 Picture similar	10 13 32 23 30 41 90
Pg 11 → M 16	717 667			
Pg 16 → M 20	717 668			
Pg 16 → M 25	717 669			
Pg 21 → M 25	717 670			
Pg 21 → M 32	717 671			
Pg 29 → M 40	717 672			
Adapters from M to Pg thread			 Picture similar	10 13 20 28 60
M 16 → Pg 11	717 673			
M 20 → Pg 16	717 674			
M 25 → Pg 21	717 675			
M 32 → Pg 29	717 676			

Description		Part no.	Accessories		
Coding					
Coding pin		710 600	ex stock		100 280
Coding examples					
F = Female insert M = Male insert			for housings with one contact insert  for housings with two contact inserts  ● Coding pin ○ Fixing screw		
Guiding pins and sleeves					
Guiding pin		710 601			100 280
Guiding sleeve		710 602	ex stock	 Guiding pins and sleeves largely prevent the connector from being inserted / withdrawn at an angle. Inclined position acc. to EN DIN 175301-801 in lengthwise direction $\pm 5^\circ$. This value is adhered to with the elements.	300
Coding examples					
F = Female insert M = Male insert			● Guiding pin ○ Guiding sleeve ⊕ Fixing screws		
for housings with one contact insert / MO retaining frame			for housings with 2 contact inserts / MO retaining frames		
					

Description	Part no.	Accessories	 
Accessories for POF* conductors			
Crimping plier for lightwave cable made of polymer optical fibre (POF) Ø 1 mm	720 611		1 408
Cutting and stripping tool for lightwave cable made of polymer optical fibre (POF) Ø 1 mm	720 612		1 511
Safety cutter for WALTHER tool 720 612	720 614		1 120
POF* cable: handling instructions Strip 1,0 mm POF* cable on min. 14 mm for sleeve contacts and min. 19 mm for pin contacts. Insert the stripped POF* cable into the sleeve or pin contact as far as it will go. The fibre should then stick approx. 1 mm out of the contact.		for sleeve contacts min. 14 mm for pin contacts min. 19 mm  sleeve contact approx. 1,0 mm  pin contact approx. 1,0 mm 	

Description		Part no.	Accessories		
Thermal crimp contacts					
- Connectors for temperature measurement cables - Suitable for crimp contact inserts of series B - Inserts can be equipped with different contacts: Inside inserts, thermal crimp contacts can be combined with standard contacts of series B.					
Sleeve contact crimp-type, solid, turned Material iron: surface gold-plated Material isotan: surface uncoated Marking acc. to DIN IEC 584 type J Contact resistance ≤ m Ω (weight per 100)	Iron (Fe): 710 504 FE 710 500 FE 710 501 FE Isotan (CuNi): 710 504 CU 710 500 CU 710 501 CU	 	Conductor size: 0,5 mm² 20 AWG 0,75 mm² 18 AWG 1,5 mm² 16 AWG 0,5 mm² 20 AWG 0,75 mm² 18 AWG 1,5 mm² 16 AWG	100 65 68 70 65 68 70	
Pin contact crimp-type, solid, turned Material iron: surface gold-plated Material isotan: surface uncoated Marking acc. to DIN IEC 584 type J Contact resistance ≤ m Ω (weight per 100)	Iron (Fe): 710 514 FE 710 510 FE 710 511 FE Isotan (CuNi): 710 514 CU 710 510 CU 710 511 CU	 	0,5 mm² 20 AWG 0,75 mm² 18 AWG 1,5 mm² 16 AWG 0,5 mm² 20 AWG 0,75 mm² 18 AWG 1,5 mm² 16 AWG	100 65 68 70 65 68 70	
Protective caps					
for hoods with double locking system: with latch pins for double levers, gasket and retaining cord					
Plastic	Series B 10 B 16 B 24 B 32	710 756 710 757 710 758 710 912			10 20 25 31 38
Aluminium	B 10 B 16 B 24	710 756 AL 710 757 AL 710 758 AL			60 76 90
f. hoods w. latching pins f. double locking system: w. double locking levers, gasket + retaining cord					
Plastic	B 10 B 16 B 24 B 32	710 759 710 760 710 761 710 913			10 80 85 91 112
Aluminium	B 10 B 16 B 24	710 759 AL 710 760 AL 710 761 AL			120 136 150
f. hoods with latch pins f. single locking system: with single locking lever, gasket + retaining cord.					
Plastic	B 6 B 10 B 16 B 24	710 762 710 763 710 764 710 765			10 54 61 84 105
Aluminium	B 6 B 10 B 16 B 24	710 762 AL 710 763 AL 710 764 AL 710 765 AL			96 107 138 166

Description	Part no.		Accessories	 9
Crimping				
Crimping plier for turned contacts 1,5 - 10 mm ² 4 indents	710 610			1 663
WALTHER crimping plier for conductor sizes of 0,14 - 4,0 mm ² only for turned contacts replacement jaws	710 611 710 873			1 510 57
Insertion tool	710 613			1 17
Removal tool for D contacts (not suitable for CEPro devices)	710 614			1 30
Removal tool for D contacts	719 612			1 2
Removal tool for series BB 10 - BB 92	719 619			1 34

Crimping machines for drilled contacts on request

Description	Size	Part no.	Accessories for series A & B
PE screws			
for series A 10, A 16, D 15, D 25	M 3,5	709 001	
for series B, BB, DD, MO, BV, D 40 and D 64	M 4	719 001	
for series BA 6 - BA 12	M 5	719 002	
Contact screw			
for series A 3 and A 4	M 3	709 002	
Fixing screw			
for series A 3, A 4, A 5, D 7 and D 8 Protection degree IP 65	M 3	700 728	
Locking screw			
with O-ring and pressure disc for screw-mountable hoods for series B 6 - B 24	M 6	719 003	
Single locking lever			
Plastic, black for series A 3		709 003	
Plastic, black for series B 6	ex stock	719 016	
for series B 10	ex stock	719 017	
for series B 16	ex stock	719 018	
for series B 24	ex stock	719 019	
Double locking lever			
Plastic, black for series B 10, B 16 and B 24	ex stock	719 015	
Bearing bracket, plastic			
for plastic spring covers, series A and B		719 004	

Accessories for series A & B

Description

Part no.

Plastic flap lid for bearing bracket

for series A 10
for series A 16
for series A 32

709 005
709 006
709 007

for series B 6
for series B 10
for series B 16
for series B 24
for series B 32

719 005
719 006
719 007
719 008
719 009



Bearing bracket, aluminium

for aluminium flap lid
series B

719 010



Aluminium flap lid f. bearing bracket

for series B 6
for series B 10
for series B 16
for series B 24

719 011
719 012
719 013
719 014



Flange gaskets

for series A 3
for series A 10
for series A 16
for series A 32

709 008
709 009
709 010
709 011

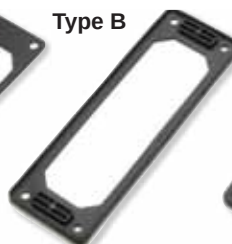
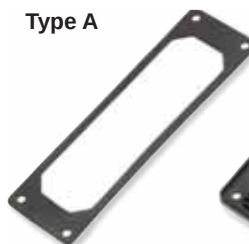
for series B 6
for series B 10
for series B 16
for series B 24
for series B 32
for series B 48

Type A:	Type B:	Type C:
719 020	719 020 01	719 020 02
719 021	719 021 01	719 021 02
719 022	719 022 01	719 022 02
719 023	719 023 01	719 023 02
719 024		719 024 02
719 025		719 025 02

Type A

Type B

Type C



Standard
Neoprene

for new housing
design, profiled

for uneven surfaces,
sponge rubber/cellular rubber

Profile gaskets

for series A 3
for series A 10
for series A 16
for series A 32

709 012
709 013
709 014
709 015

for series B 6
for series B 10
for series B 16
for series B 24
for series B 32
for series B 48

719 026
719 027
719 028
719 029
719 030
719 031



Moulded gaskets

for screw-mountable hoods and hoods with bayonet lock

for series B 6
for series B 10
for series B 16
for series B 24

Standard

719 032
719 033
719 034
719 035

for series B 6
for series B 10
for series B 16
for series B 24

EMC
(electromagnetic compatibility)

719 036
719 037
719 038
719 039

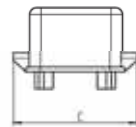
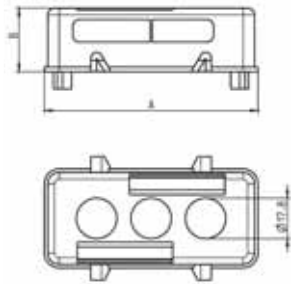
for series B 6
for series B 10
for series B 16
for series B 24

for harsh environmental
requirements

719 040
719 041
719 042
719 043



Wire-through housings



	A	B	C	Cable entries
750 628	94	28	56	3
750 629	120	28	56	4

Technical data

Wire-through housings
polycarbonate, UL 94 V-O

Grommets

Thermoplastic caoutchouc, UL listed

Temperature range

-40 up to +125°C

Protection degree

Protection degree in locked condition,
if correct type of grommets is used: IP 54

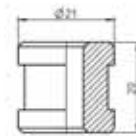
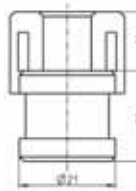
Wire-through options

750 628: 3 cable entries

750 629: 4 cable entries

Cable diameter

3 - 16 mm

Description	Cable Ø	Part no.		
Housings				
Wire-through housings				
3 wire-through options, size B 16		750 628		1 38
4 wire-through options, size B 24		750 629		49
Panel housings				
Series B 16, B HT 16, BA 6, BV 6, D 40, DD 72	ex stock	714 116		10 165
Series B 24, B HT 24, BV 10, BV 16, D 64, DD 108	ex stock	714 124		178
Grommets				
Please order separately				
	3 - 4	750 630		10
	4 - 5	750 631		5
	5 - 6	750 632		5
	6 - 7	750 633		5
	7 - 8	750 634		4
	8 - 9	750 635		4
	9 - 10	750 636		4
	10 - 11	750 637		5
From 10 mm Ø with strain relief through cable ties (maximum width 8 mm)	11 - 12	750 638		5
	12 - 13	750 639		4
	13 - 14	750 640		4
	14 - 15	750 641		3
	15 - 16	750 642		3
For ASI cable	-	750 643		5
Blanking plug	-	750 644		4

CEPro Plugs and Sockets - Power and Control in One Unit



This avoids influence by switching impulses from the power section and a good damping of interference from the outside is achieved.

The application is suitable for a temperature range of - 30 up to + 80 °C with flexing cable, but the flexing radius should not be lower than 7.5 x cable diameter.

The wires in the cables are tested against each other and the power current section is tested to the control part with 3500 V. The outside coating is made of polyurethane.

CEPro plugs and sockets in connection with CEPro cable ensure a safe power and signal

transmission, guaranteeing the requirements of a „safe connection“ according to VDE 0100 T 410.



Power contact section

The CEPro plugs and sockets system is similar to the CEE system, the power contacts are arranged in a circle. In CEPro devices, however, phase, neutral and earth positions are arranged at a different angle, which prevents incorrect mating between the CEE and CEPro system.

The crimp contacts engage automatically in the contact chambers and can be detached with a removal tool.

Scope of delivery

CEPro devices are provided with screw terminal power contacts. The control contact section comes without pins and sleeves so that it can be equipped by the user himself with the required crimp contacts.

For the safe contacting, all devices are supplied with bayonet lock, with degree of protection IP 67.

WALTHER CEPro cable

In addition to the CEPro plugs and sockets, WALTHER also offers special hybrid cables which guarantee safe transmission of power and control signals.

All cables consist of fine wire copper strands. The wires are twisted together and shielded in pairs.

Control contact section

The pins and sleeves to be used here are from the widely used and tested WALTHER PROCON range of industrial connectors (series B).

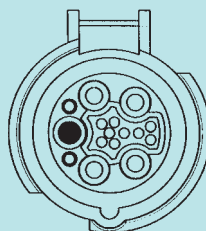
The protective collar around the control contacts prevents a voltage flashover, even in highly ionised atmosphere.

Termination method inside the control contact section

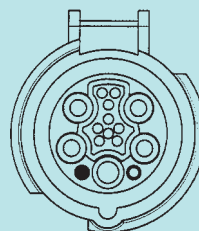
The wires are connected to the control contact cross sections by means of crimping. An important advantage of the crimping technique is that a gastight connection can be set up between contact and cable conductor, thereby establishing a constantly low contact resistance.

CEPro coding

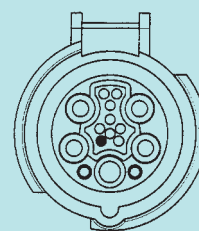
In installations where several CEPro sockets are in close proximity but performing different functions, the sockets and plugs have to be made unmistakable. This is achieved either by mechanical or electronic coding.



• 9 hour position



• key pin



• blind sleeve

Mechanical coding:

- Use of screwable key pins in connection with blanking plugs
- Allocation of different hour positions
- Snapping-in of blind sleeves in the control contact section.

Electronic coding:

Electrical connections are only established in dependence on a programmed control (PLC). Since the complete control contact section lags behind the power contact section when the plug is inserted, there is a large number of different electrical locking options, already by the mere occupying with different control contact pairs.

CEPro plugs and sockets for power and control



CEPro plugs and sockets can transmit both power and control signals simultaneously within one compact system. CEPro devices can be plugged and withdrawn under load.

One plug and socket system instead of two - a **compact solution**.

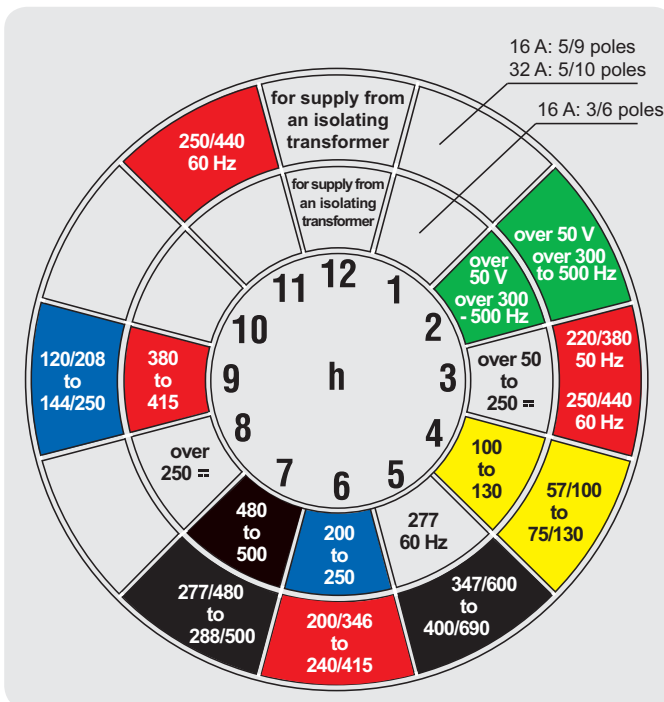
CEPro devices can be plugged and withdrawn under load.

Application areas

This system is ideal for installations and machines which operate or utilise both power and control systems: e.g. production planning systems (PPS) or computer integrated manufacturing (CIM). Other applications are for example connection to end-users with network backed-up systems, like:

- crane controls
- light- and stage control
- container control etc.

WALTHER CEPro clock



The power voltage coding was adopted from IEC/EN 60 309 and is indicated by the position of the earth contact in relation to the hour position of the keyway and the corresponding colour, as well as the first-to-mate/last-to-break earth contact connection when plugging/withdrawing.

Operating and testing data

p. 194-195

Optical waveguide (POF) connection

p. 196

POF cable connection

p. 197



Sockets

16 and 32 A

p. 199



Plugs

16 and 32 A

p.199



Appliance inlets

16 and 32 A

p. 199



Couplers

16 and 32 A

p. 199



Panel sockets

16 and 32 A

p. 199-201



Contacts for control contact section

p. 200

Tools and coding parts

p. 201



Accessories for POF conductors

p. 202

CEPro cables

p. 202



Specifications

Conductor sizes in power contact section

Ratings of the plug and socket device		internal terminals				External terminals if available	
Voltage	Rated current	Flexible cables for plugs and couplers, single- or multiple wire cables for appliance inlets		single or multiple-wire cables for socket outlets			
V	A						
	Series I/II	mm ²	AWG	mm ²	AWG	mm ²	AWG
over 50	16/20	1 - 2,5	17 - 13	1,5 - 4	16 - 11	6	9
	32/30	2,5 - 6	13 - 9	2,5 - 10	13 - 7	10	7

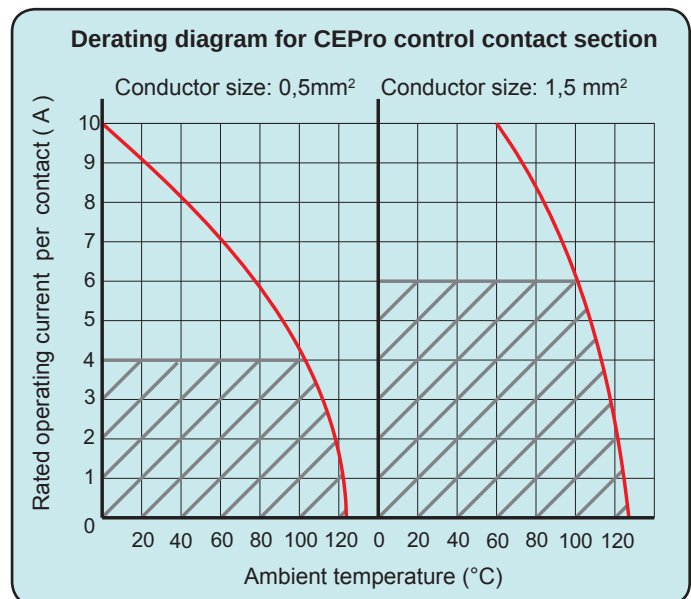
Table 107

Cross sections and sizes of connection cables (extract)

Source: EN 60309-2, 1992

Conductor sizes in control contact section

	z	Conductor sizes marked with „z“	
Sleeve and pin contacts crimp type	1	0,14 - 0,37 mm ²	26 - 22 AWG
	2	0,5 mm ²	20 AWG
	3	0,75 - 1 mm ²	19 - 18 AWG
	4	1,5 mm ²	16 AWG
	5	2,5 mm ²	14 AWG
Sleeve and pin contact glass fibre cable	POF Ø 1 mm		



/// breaking capacity

CEPro plugs and sockets for power and control

Operational and test data for
CEPro plugs and sockets
with CEPro cable

	2 P + ⊕, 16 A + 6 control contacts		3 P + N + ⊕, 16 A + 9 control contacts		3 P + N + ⊕, 32 A + 10 control contacts	
Cable: CEPro cable	Power 3 x 2,5 mm ²	Control + 3 x (2 x 0,5 mm ²)	Power 5 x 2,5 mm ²	Control +4 x (2 x 0,5 mm ²) +1 x 0,5 mm ²	Power 5 x 4 mm ²	Control +5 x (2 x 0,5 mm ²)
Conductor Resistances R	7,98 Ω / km	39 Ω / km	7,98 Ω / km	39 Ω / km	4,95 Ω / km	39 Ω / km
U _{Rated}	up to 690 V AC	up to 250 V AC	up to 690 V AC	up to 250 V AC	up to 690 V AC	up to 250 V AC
I _{Rated} without breaking capacity	16 A	10 A	16 A	10 A	32 A	10 A
I _{Rated} with breaking capacity	16 A	6 A with 1,5 mm ²	16 A	6 A with 1,5 mm ²	32 A	6 A with 1,5 mm ²
I _{Rated} with breaking capacity	16 A	4 A with 0,5 mm ²	16 A	4 A with 0,5 mm ²	32 A	4 A with 0,5 mm ²
Breaking capacity test ratings						
U _{Test}	750 V AC	250 V AC	750 V AC	250 V AC	750 V AC	250 V AC
I _{Test}	20 A	4 A with 0,5 mm ²	20 A	4 A with 0,5 mm ²	40 A	4 A with 0,5 mm ²
cosφ	0,6	0,9	0,6	0,9	0,6	0,9
Insertions	50	50	50	50	50	50
Insertions/min	7,5	7,5	7,5	7,5	7,5	7,5
Normal Use						
Insertions	5000 under load	5000 under load	5000 under load	5000 under load	2000 1000 x under load 1000 x without load	2000 1000 x under load 1000 x without load
I _{Rated}	16 A	4 A with 0,5 mm ²	16 A	4 A with 0,5 mm ²	32 A	4 A with 0,5 mm ²
High voltage testing						
U _{Test}	3000 V AC	2000 V AC	3000 V AC	2000 V AC	3000 V AC	2000 V AC
Power contact section against control contact section	3500 V AC	3500 V AC	3500 V AC	3500 V AC	3500 V AC	3500 V AC
Crosstalk attenuation between power + control contact section						
100 KHz	82 - 96 dB	82 - 96 dB	82 - 96 dB	82 - 96 dB	82 - 96 dB	82 - 96 dB
500 MHz	15 - 22 dB	15 - 22 dB	15 - 22 dB	15 - 22 dB	15 - 22 dB	15 - 22 dB
Crosstalk attenuation between control contacts (pair to pair)	90 - 96 dB	90 - 96 dB	90 - 96 dB	90 - 96 dB	90 - 96 dB	90 - 96 dB
Signal transmission loss per pair (max.)						
100 KHz	0,001 dB	0,001 dB	0,001 dB	0,001 dB	0,001 dB	0,001 dB
500 MHz	1,000 dB	1,000 dB	1,000 dB	1,000 dB	1,000 dB	1,000 dB
Operating capacity						
Wire/wire	120 nF/km	120 nF/km	120 nF/km	120 nF/km	120 nF/km	120 nF/km
Wire/screen	160 nF/km	160 nF/km	160 nF/km	160 nF/km	160 nF/km	160 nF/km

Tests:

Power contact sections acc. to IEC / EN 60309-1; 1997, section 20, 21, 22

Control contact sections acc. to IEC / EN 60309-1; 1997, section 20, 21, 22, VDE 0627, draft 91

CEPro with Optical Waveguide (POF) Connection

Decentralization and automation require pluggable connections. Master-slaves take over peripheral tasks from plant parts which not only have to be provided with power but which also must have a data connection to the control centre.

The use of glass fibre cables guarantees the maximum transfer of bulk data quantities.

Therefore many control techniques - like fieldbus systems - are increasingly using opto-couplers for glass fibre cable transmission. Fieldbus structures may be divided into

- line wiring
- ring wiring
- star wiring
- tree wiring.

For glass fibre cable applications preferably star wiring is used in order to prevent signal losses..



For optical data transmission in plants, polymer optical fibres (POF) are very suitable.

The attenuation is about 0.3 dB/m at a wave-length of 660 nm. With a transmission rate of 93.75 K Bit/s up to 1.5 M Bit/s the usual bus requirements are completely covered.

Advantages of POF connections:

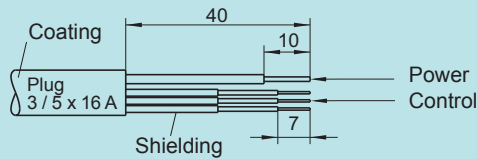
- galvanic isolation
- no potential compensating currents
- no crosstalk or adjacent current interference
- high transmission rate and speed
- highest safety in the explosion-proof sector
- no interference through external magnetic fields
- small cable diameter and low weight

Connection with POF cable

Stripping of copper conductors for CEPro cable without POF:

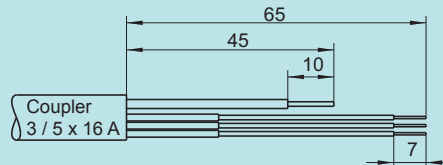
Plug connection

2 P + $\oplus$ 16 A
3 P + N + $\oplus$



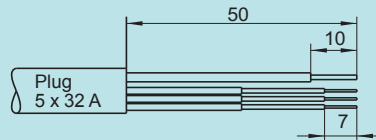
Coupler connection

2 P + $\oplus$ 16 A
3 P + N + $\oplus$



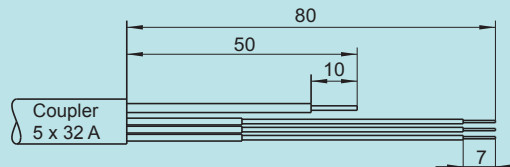
Plug connection

3 P + N + $\oplus$ 32 A



Coupler connection

3 P + N + $\oplus$ 32 A



Instructions for connection with POF cable

- 1) Before crimping the POF-cable ($\varnothing$ 1 mm) to the glass fibre cable contact, the end of the fibre has to be polished.

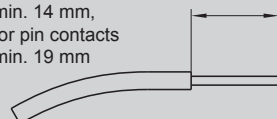
Stick the end of the POF-cable into the polishing tool and grind on a plane surface (e.g. a glass plate)..

Wipe off any residues after polishing

The best optical damping values are achieved with the wet-polishing procedure.

- 2) Strip the POF cable ($\varnothing$ 1 mm) on min. 14 mm for glass fibre cable sleeve contacts and on min. 19 mm for glass fibre cable pin contacts.

for sleeve contacts
min. 14 mm,
for pin contacts
min. 19 mm

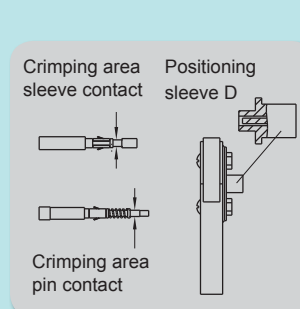
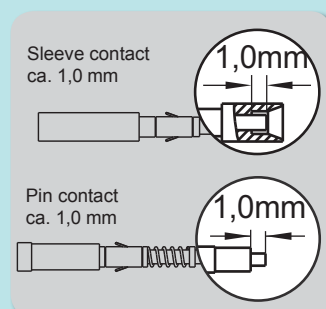
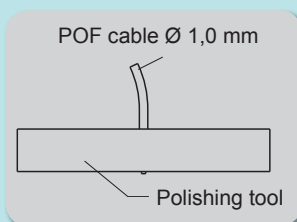


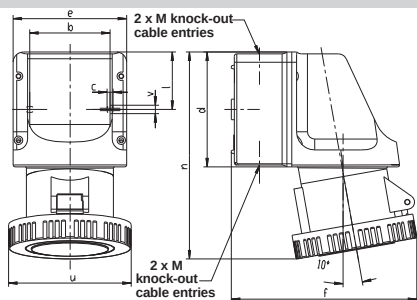
- 3) Insert stripped POF cable into the sleeve or pin contacts as far as it will go. The fibre should then stick about 1 mm out of the contact.

- 4) Fibre crimping:

Adjust the positioning sleeve into the corresponding inlet of the crimping tool with the stop screw at 1,45 mm (if necessary check with gauge pin, $\varnothing$ 1,45 mm, with closed crimping tool).

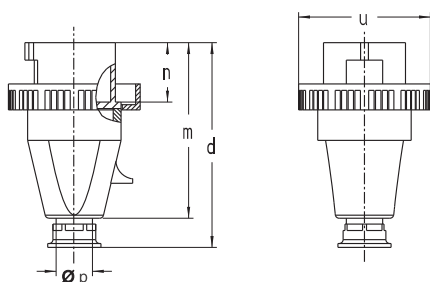
Insert the glass fibre cable contact together with the POF cable through the crimp opening of the crimping tool into the positioning sleeves. By imposing pressure on the contact, the fibre inside the contact will be locked in the right position for fibre crimping. Continue to apply pressure until the release mechanism is heard.





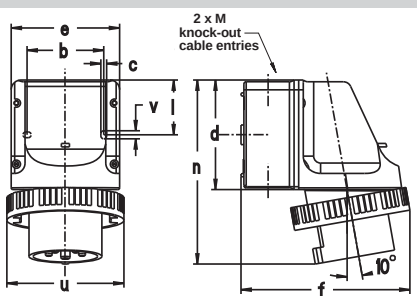
Amp.	16		32
Poles	3	5	5
b	66,5	66,5	66,5
c	5	5	5
d	96	96	96
e	95	95	95
f	140	147	156
l	47,5	47,5	47,5
n	164	164	176
u	72	88	103
v	7	7	7
M	20/25	20/25	20/25

Wall sockets,
internal fixing means,
2 knock-out cable entries on top and bottom,
IP 67 🡕🡕



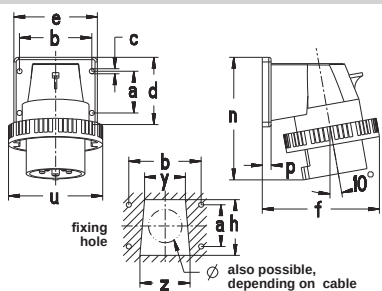
Amp.	16		32
Poles	3	5	5
d	126	139	166
m	110	114	135
n	37	37	46
u	72	88	103
Øp	7,5-12,5	10-19,5	18-24,5

Plugs,
gland entry,
IP 67 🡕🡕



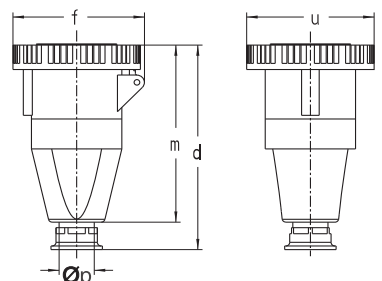
Amp.	16		32
Poles	3	5	5
b	66,5	66,5	66,5
c	5	5	5
d	96	96	96
e	95	95	95
f	140	140	150
l	47,5	47,5	47,5
n	154	154	164
u	72	88	103
v	7	7	7
M	20/25	20/25	20/25

Wall mount appliance inlets,
internal fixing means,
2 knock-out cable entries on top and bottom,
IP 67 🡕🡕



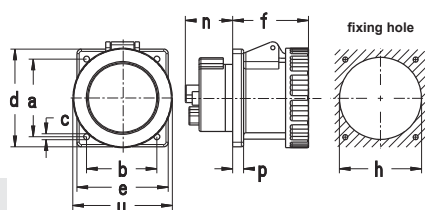
Amp.	16		32
Poles	3	5	5
a	30	40	45
b	55	68	78
c	5,5	5,5	5,5
d	52	66	75
e	65	80	90
f	81	103	117
h	38	52	60
n	98	113	131
p	9,5	9,5	9,5
u	72	88	103
y	30	38	44
z	36	46	54

Panel mount appliance inlets, angled,
with screwed flange housing,
IP 67 🡕🡕



Amp.	16		32
Poles	3	5	5
d	136	150	177
f	78	91	105
m	121	126	149
u	72	88	103
Øp	7,5-12,5	10-19,5	18-24,5

Couplers,
gland entry,
IP 67 🡕🡕



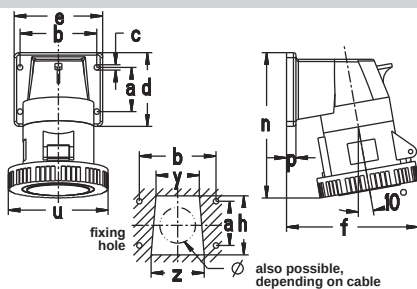
Amp.	16		32
Poles	3	5	5
a	47	60	60
b	47	60	60
c	5,5	5,5	5,5
d	62	80	80
e	62	80	80
f	57	59	70
h	46	67	71
n	22	22	23
p	8,5	8,5	8,5
u	72	88	103

Panel sockets, straight,
with screwed flange housing,
IP 67 🡕🡕

CEPro plugs and sockets for power and control

 2 P+E  3 P+N+E	Ampère	Poles	Control contacts maximum	110 V 50 a. 60 Hz 3-pole 4 h5-pole 4 h	230 V 50 a. 60 Hz 3-pole 6 h5-pole 9 h	400 V 50 a. 60 Hz 3-pole 9 h5-pole 6 h	440 V 60 Hz 5-pole 11 h	500 V 50 a. 60 Hz 3-pole 7 h5-pole 7 h		
Part numbers										
 Pic. 7119	16	3	6 pcs.*	7 119 304	7 119 306	7 119 309			5	407
	16	5	9 pcs.*	7 119 504	7 119 509	7 119	7 119 511	7 119 507	5	470
	32	5	10 pcs.*	7 139 504	7 139 509	7 139	7 139 511	7 139 507	5	549
 Pic. 7219	16	3	6 pcs.*	7 219 304	7 219 306	7 219 309			10	137
	16	5	9 pcs.*	7 219 504	7 219 509	7 219	7 219 511	7 219 507	10	207
	32	5	10 pcs.*	7 239 504	7 239 509	7 239	7 239 511	7 239 507	10	314
 Pic. 7618	16	3	6 pcs.*	7 618 304	7 618 306	7 618 309			5	312
	16	5	9 pcs.*	7 618 504	7 618 509	7 618	7 618 511	7 618 507	5	406
	32	5	10 pcs.*	7 638 504	7 638 509	7 638	7 638 511	7 638 507	5	479
 Pic. 7618	16	3	6 pcs.*	7 619 304	7 619 306	7 619 309			5	161
	16	5	9 pcs.*	7 619 504	7 619 509	7 619	7 619 511	7 619 507	5	234
	32	5	10 pcs.*	7 639 504	7 639 509	7 639	7 639 511	7 639 507	5	335
 Pic. 7319	16	3	6 pcs.*	7 319 304	7 319 306	7 319 309			10	178
	16	5	9 pcs.*	7 319 504	7 319 509	7 319	7 319 511	7 319 507	10	270
	32	5	10 pcs.*	7 339 504	7 339 509	7 339	7 339 511	7 339 507	10	384
 Pic. 7419	16	3	6 pcs.*	7 419 304	7 419 306	7 419 309			10	159
	16	5	9 pcs.*	7 419 504	7 419 509	7 419	7 419 511	7 419 507	10	247
	32	5	10 pcs.*	7 439 504	7 439 509	7 439	7 439 511	7 439 507	10	320

* Please order crimp and POF contacts separately



Amp.	16	32
Poles	3	5
a	30	40
b	55	68
c	5,5	5,5
d	52	66
e	65	80
f	88	108
h	38	52
n	109	123
p	9,5	9,5
u	72	88
y	30	38
z	38	46

Panel sockets, angled,
with screwed flange housing,
IP 67 ☹☹

Amp.	16	32
Poles	3	5
k	70	86
n	41	42
u	60	76

Protective caps
for plugs and appliance inlets, IP 67 ☹☹
with cord

Contacts for control part:

Sleeve contacts
crimp-type
solid, turned



Pic. 720506

silver-plated	gold-plated	Conductor sizes
720 506	720 686	0,14 - 0,37 mm ² 26 - 22 AWG
**720 507	720 687	0,5 mm ² 20 AWG
720 508	720 688	0,75 - 1 mm ² 19 - 18 AWG
720 509	720 689	1,5 mm ² 16 AWG
720 502	720 690	2,5 mm ² 14 AWG



Weight
per 100:

100	65
100	68
100	70
100	72
100	62

Pin contacts
crimp-type
solid, turned



Pic. 720 516

silver-plated	gold-plated	Conductor sizes
720 516	720 691	0,14 - 0,37 mm ² 26 - 22 AWG
**720 517	720 692	0,5 mm ² 20 AWG
720 518	720 693	0,75 - 1 mm ² 19 - 18 AWG
720 519	720 694	1,5 mm ² 16 AWG
720 512	720 695	2,5 mm ² 14 AWG



Weight
per 100:

100	60
100	63
100	65
100	67
100	70

Sleeve contact
for POF* connection,
solid, turned



Pic. 720520

720 520	POF* Ø 1 mm
----------------	-------------



Weight
per 100:

100	89
-----	----

Pin contact
for POF* connection,
solid, turned



Pic. 720530

720 530	POF* Ø 1 mm
----------------	-------------



Weight
per 100:

100	74
-----	----

CEPro plugs and sockets for power and control

 2 P + E	 3 P + N + E	Ampère	Poles	Control contacts maximum	110 V 50 a. 60 Hz 3-pole 4 h5-pole 4 h	230 V 50 a. 60 Hz 3-pole 6 h5-pole 9 h	400 V 50 a. 60 Hz 3-pole 9 h5-pole 6 h	440 V 60 Hz 5-pole 11 h	500 V 50 a. 60 Hz 3-pole 7 h5-pole 7 h		 g
					Part numbers						
 <i>Pic. 7518</i>		16	3	6 pcs.*	7 518 304	7 518 306	7 518 309			5	207
		16	5	9 pcs.*	7 518 504	7 518 509	7 518	7 518 511	7 518 507	5	299
		32	5	10 pcs.*	7 538 504	7 538 509	7 538	7 538 511	7 538 507	5	412
 <i>Pic. 613300</i>		16	3		613 300					10	34
		16	5		613 500					10	54
		32	5		633 500					10	89
Tools and coding parts:											
 <i>Pic. 710 610</i>	Crimping tool					710 610	for turned contacts 1,5 - 10 mm ² 4 indent crimping tool			1	663
 <i>Pic. 710 611</i>	WALTHER crimping tool					710 611	0,14 - 4 mm ² - for turned contacts -			1	510
 <i>Pic. 720 613</i>	Insertion tool					720 613				1	35
 <i>Pic. 719 612</i>	Removal tool					719 612				1	55
<u>Mechanical coding parts:</u>											
 <i>Pic. 720696</i>	Blind sleeve					720 696				1	1
 <i>Pic. 720697</i>	Coding pin for sockets					720 697				1	1
 <i>Pic. 720698</i>	Coding pin for plugs					720 698				1	1

* Please order crimp and POF contacts separately

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Accessories for POF connection and CEPro cables



POF connection

Crimping tool

for lightwave cable
made of polymer optical fibre (POF*)
Ø 1 mm

720 611



1

408

Cutting and stripping tool

for lightwave cable
made of polymer optical fibre (POF*)
Ø 1 mm

720 612



1

511

Safety cutter

for WALTHER tool 720 612

720 614



1

120

Designation

Part no.



Pic. 7952509

CEPro cable
5 x 2,5 mm² + 9 x 0,5 mm²

795 25 09

Li 12 Y 5 x 2.5 mm² + Li 12 Y
1 x 0.5 + Li 12 Y 4 x (2 x 0.5 D) - 11 Y 0.6/1 KV
Test voltage 3500 V
Flexing radius 7.5 x D with frequent flexing.
D = outside diameter 16.5 mm.
Temperature range -30 up to +80 °C with flexing cable.
Control contact section twisted and shielded in pairs,
thus high damping of interference from the outside.
The PUR coating is microbe and hydrolysis-resistant
and has a very high abrasion and impact resistance.



Pic. 7954010

CEPro cable
5 x 4 mm² + 10 x 0,5 mm²

795 40 10

Li 12 Y 5 x 4 mm² + Li 12 Y
5 x (2 x 0,5 D) - 11 Y 0.6/1 KV
Test voltage 3500 V
Flexing radius 7.5 x D with frequent flexing.
D = outside diameter 19.5 mm.
Temperature range -30 up to +80 °C with flexing cable.
Control contact section twisted and shielded in pairs,
thus high damping of interference from the outside.
The PUR coating is microbe and hydrolysis-resistant
and has a very high abrasion and impact resistance.



Pic. 7932506

CEPro cable
3 x 2,5 mm² + 6 x 0,5 mm²

793 25 06

Li 12 Y 3 x 2,5 mm² + Li 12 Y
3 x (2 x 0,5 D) - 11 Y 0,6/1 KV
Test voltage 3500 V
Flexing radius 7.5 x D with frequent flexing.
D = outside diameter 12.5 mm.
Temperature range -30 up to +80 °C with flexing cable.
Control contact section twisted and shielded in pairs,
thus high damping of interference from the outside.
The PUR coating is microbe and hydrolysis-resistant
and has a very high abrasion and impact resistance

Information



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The PROCON Industrial Connectors System



The rapid economic development in the fifties of the past century - especially in the construction of machines and industrial plants - required a so far unknown flexibility.

Permanent adaptation to the latest developments in technology demanded modified or new devices. It soon became obvious that only automated plants could provide the necessary precision and quality. Automated processes within machines and plants required equipment which was able to permanently

control the processes and update the measuring data. The wiring systems used previously were no longer able to meet these requirements.

This led to the development of rectangular heavy duty connectors. This type of construction offers the best possible use of space for different contact arrangements which determine the different series. In addition the rectangular form is ideal for an easy and space-saving assembly in machine recesses, in profile steels and switch cabinets.

To receive a complete connector, the following components have to be ordered:

Female insert

with screw or crimp terminals (*please order contacts separately*), insulation displacement connection or push-in terminals (spring clamps).

Male insert

with screw or crimp terminals (*please order contacts separately*), insulation displacement connection or push-in terminals (spring clamps).

Hood

High or low version, with top or side cable entry, with 1 or 2 locking levers.

Housing base

- Panel housing, with or without cover, plastic or metal, with 1 or 2 locking levers.
- Wall mount housing, high or low version, with or without cover, plastic or metal, with 1 or 2 locking levers and 1 or 2 cable entries
- Coupler hood for flying connections

Accessories

Different cable glands, separately available protective caps, coding pins and sleeves as well as guiding pins and sleeves for coding.



Within the PROCON industrial connector system, one housing is not only assigned to one series. It can accommodate male or female inserts of different series. Instead of plugs and sockets, housings for female or male contact carriers are used. Thus, the electrical designer can always apply the potential to a sleeve contact in case of reverse voltage danger in open controllers.

The PROCON series differ regarding their rated electrical characteristics. Specifications like rated current, rated voltage, rated surge, pollution degree, contact resistance and temperature range are determined by the construction of the contact carriers. For details please refer to the specification sheets of the individual series.

Basic similarities are the termination methods, which apply to all series.



Regulations and Approvals

PROCON industrial connectors are produced in compliance with:

DIN VDE 0627
DIN VDE 0110
IEC 60 664-1
DIN EN 61 984
DIN EN 60 529
DIN EN 175 301-801
DIN/IEC 512.

Most of the indicated PROCON industrial connectors have the following approvals, some of them valid for several countries:



CE marking

According to the European Commission, PROCON industrial connectors as electronic components do not have to be identified with the CE mark (Guidelines on the Application of Council Directive 73/23/EEC - July 1997).

Advantages of PROCON Industrial Connectors



- easy operation due to ingenious locking system
- ergonomically designed handles
- large wiring space - due to different housing sizes
- clearly legible black contact numbers on the inserts
- open, captive screws for easy mounting of inserts
- housings with high-quality powder coating
- easy and space-saving assembly in machine recesses, profile steels and switch cabinets
- fixing dimensions indicated on the housing base
- plant components can be mounted independently at different locations and then be assembled on the spot. Then all electric connections only have to be plugged together
- various coding possibilities available with PROCON industrial connectors of matching series and number of poles prevent the risk of wrong connections.
- parts of a system can be easily removed for maintenance or for testing at other locations and can be quickly replaced if required.
- with PROCON industrial connectors, the putting into operation of systems on-site can be realized exactly on schedule.
- quality assurance acc. to DIN EN ISO 9001
- made in Germany



Application Areas of PROCON Industrial Connectors

PROCON industrial connectors are used in process measuring and control technology as well as in machinery and plant engineering. They are used both for current supply and control functions and are ideal for light engineering and stage technology.

PROCON industrial connectors also serve as interfaces for PCs and diagnostic equipment to transmit operating or monitoring data during operation.

e.g. Switch Cabinet Construction

Screw mountable hoods

This alternative saves the panel housing. Two inexpensive mounting flanges are attached to the switch cabinet wall by means of two screws.

Then the inserts is mounted into the flanges. The mounted hood is then put on the flanges and is fixed with two M6 screws. Protection degree IP 68. Available either with top or side cable entry.

Adapter and cover plates

Standardization in the switch cabinet sector has also involved new developments in the sector of industrial connectors. The advantage of the plug-in system can be ensured only if the panel can be removed from the switch cabinet. Therefore it is necessary that all connections can be easily disconnected from the panel and that the designations on the panels are clearly defined (interfaces, e.g. V 24, RS 485). For this purpose, adapter plates for subminiature connectors are used, which make it possible to mount the contact carriers into the PROCON housing. The disconnectable outlets from the switch cabinets are carried out with panel housings. The switch cabinets have side walls with pre-punched rectangular cutouts for the panel housing B 24. If panel housings of other series are required, they can be adapted to the existing cutout by means of adapter plates. Additionally cover plates can be used, which enable a later upgrade of the switch cabinet.

Wiring adapters, combi snap element

Special contact carriers with wiring adapters are available for the panel housings.

They allow direct measuring during operation, are clear to mark and easily accessible. Together with the combi snap element, the wiring adapters can be mounted on DIN rails and are therefore suitable for use in switch cabinets.

Snap-on mounting adapters

Snap-on mounting adapters replace terminal blocks at those locations where the exits lead to peripheral sub-assemblies or components. Like terminal blocks they can be mounted on DIN rails. In particular the swing-type mounting plate for contact carriers offers many advantages as it allows easy access to the terminals and therefore measuring during operation. In addition, the base of the snap-on mounting adapter offers enough space to accommodate assigned electronic units like optocouplers, protective diodes, filters and similar functions.

The biggest advantage is a disconnectable but nevertheless safe connection of male and female insert.



Housings

PROCON housings can be divided into:

► **Permanently installed housings:**

- Wall mount housings with one or two cable entries
- Panel housings with a bottom opening for installation in switch cabinets

► **Independent housings:**

- Hoods
- Coupler hoods



The user can choose from a great variety of housing heights. They offer enough wiring space for large conductor sizes and provide better heat dissipation because of their larger surface.

Double width Procon housings (series A 32, B 32 and B 48) for universal applications allow the accommodation of two contact inserts/carriers - e.g. two series BA 6 inserts or one series DD 72 insert - together in one housing.

This allows for example the simultaneous transmission of 6 x 35 A power and 72 x signal or control impulses.

Locking systems

Within the different series, PROCON housings are also available with various locking systems. So the user can choose the suitable locking systems for his requirements. These locking systems are available:

- double locking system, IP65
- single locking system, IP65
- central locking system, IP65
- screw locking, IP68
- bayonet locking, IP67

The levers of the double and single locking system can be attached at the housing bases. Housing bases with double locking system can only be covered with loose protective caps.

On housing bases with single locking system, the protective cap (plastic or aluminium) can



Screw-mountable hoods are fixed with two M 6 screws. Protection degree is IP 68. Unauthorized opening of hoods is made more difficult since tools have to be used. Here, protective covers are available, both for the switch cabinet and the hoods.



be fixed with hinges and it can be closed tightly with a single locking lever if the connection is separated.

On the housings with central locking system, the locking lever is mounted on the top part - this saves space and is ideal for side-by-side arrangements. No protective covers are available here.

On housing tops, also double locking levers can be attached. These can be snapped onto the latch pins of the housing bases.

Furthermore, protective covers can be fixed with hinges on the housing bases. These covers, however, are not lockable.

Termination methods



Screw terminal with wire protection

prevents the slipping out and cutting off of wires in a flexible cable.

Screw terminal without wire protection

is used in installations with prewired cables with pin cable lugs or crimp type pin terminals.

The screw terminal is quick and easy to operate and therefore the most widely used.

The quality of the connection, however, depends very much on the thoroughness of the user. In addition, strong vibrations can also influence the quality of the screw connection.



Crimp terminal

At present, the most perfect way to establish electrical connections is with crimp technique.

Conductors and contacts are exactly coordinated to each other, the crimping tool can be adjusted exactly to the conductor size. Therefore an electrical connection which is constant, reproducible and independent from the user can be established. The crimping spot is gastight, so that no oxygen can get in at the point of current passage. As a result, corrosion can be prevented and a constantly low contact resistance can be guaranteed.

Crimp connections can be established manually, semi or fully automatically. There are crimp contacts without stop spring, meaning that the stop spring is mounted into the contact carrier, and crimp contacts with stop spring, meaning the stop spring is mounted on the contact.



Crimping tools
see page 186



Insulation displacement technique

When using series B inserts with insulation displacement technique, you simply insert the **unstripped** cable into the opened contact sleeve and push back the bladed slide with a screw driver - **ready**.

Coding

In addition to the known coding systems there is a simple and inexpensive plug-in coding part available.



Depending on the size of the pin or sleeve insert, you can use 2, 4 or 8 coding parts.

Advantages

- no stripping of wires
- no wire end ferrules
- no screws

Saves up to 60 % connection time

- Testing point inside the slide
- No splitting of wires with flexible cables
- Compatible with series B screw or crimp inserts



Push-in terminal

The new inserts with push-in terminals have a square wire entry (not rectangular), thus the wire can be introduced in either way.

Flexible wires with wire end ferrule or rigid wires can be plugged directly into the push-in contact inserts, without any tools.



Coding

As with the IDC inserts, coding is also made with the simple and inexpensive plug-in coding part.

Advantages

- Square wire entry
- 2 mm testing point
- reduced expenditure of time for line connection
- easy, quick and inexpensive coding
- stainless steel screws (V2A)



Glass fibre cable connections

For industrial and plant automatization, the decentralization in an integrated system also requires easily disconnectable power and control circuits.

Master slaves take over peripheral tasks from plant parts which do not only have to be provided with power but which also must have a data connection to the control centre.

There are considerable environmental influences along the data line when data is transferred. Data must not be distorted or get lost. The use of glass fibre cables guarantees the maximum transfer of bulk data quantities.

Many control techniques - like fieldbus systems - are increasingly using optocouplers for glass fibre cable transmission. Fieldbus structures may be divided into line, ring, star or tree wiring. For glass fibre cable applications, preferably star wiring is used in order to prevent signal losses.

With PROCON industrial connectors, the periphery can be integrated in a disconnectable network of power and control, making it possible to transmit power and control in one unit, the control signals either via copper conductor and/or with



glass fibre connection. **One unit for multiple systems!**

For the optical data transmission in plants, Polymer Optical Fibres (POF) are suitable. The attenuation is about 0,3 dB/m at a wave length of 660 nm. By comparison: pure quartz glass has 0,007 dB/m at a wavelength of 850 nm. This is due to the significantly higher inhomogeneity of the plastic fibre.

With a transmission rate of 93,75 k bit/s to 1,5 M bit/s, the usual bus requirements are completely covered. In view of electromagnetic compatibility and for short distances, there is a wide range of application possibilities, especially for glass fibre cables.

Special features of transmissions with glass fibre cables

- galvanic isolation
- no equipotential bonding currents
- no interference or crosstalk
- high transmission rate and speed
- highest safety in the explosion-proof sector
- not influenced by external magnetic fields
- small cable diameter and low weight
- very easy stripping of POF conductors

Technical Information

Generally

The choice of connectors is not only determined by considering the current or voltage ratings, but also by their functionality and number of contacts. Importance is rather attached to the area of application and the prevailing installation conditions.

This means that depending on the installation conditions acc. to the standardization, there can be different voltage and current indications for one connector.

Technical terms

► Clearance

Shortest distance in the air between two conducting parts (see DIN VDE 0110-1, section 1.3.2). The clearances are pre-determined by the rated surge.

► Creepage distance

Shortest distance along the surface of an insulating material between two conducting parts (see DIN VDE 0110-1, section 1.3.3).

The creepage distances depend on the rated voltage, the pollution degree and the properties of the insulating material.



— Creepage distance

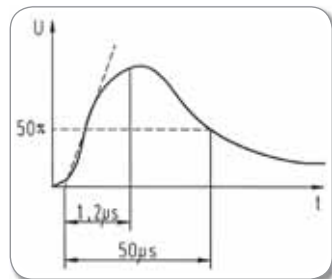
- - - Clearance

► Rated voltage

Fixed voltage value which working value and power value are referenced to. A connector may have more than one value or one rated voltage range.

► Rated surge

The rated surge is determined by means of the surge category and the rated voltage of a mains. It directly determines the value of the rated surge withstand capability tests of a connector (*voltage in wave form in 1,2/50 μ s acc. to IEC 60 060-1*).



► Rated current

Fixed current (preferably at an ambient temperature of 40 °C) which a connector can permanently carry (without interruption) and which flows simultaneously through all its contacts which are connected to the largest possible conductors specified, whereas the upper limiting temperature is not being exceeded.

The dependence of the rated current on the ambient temperature is shown in the respective derating diagrams.

► Transient surges

Short-period surges with a duration of some milliseconds or less, oscillating or non-oscillating, normally highly damped (see DIN VDE 0110-1, section 1.3.7.2).

The surge can be caused by a failure, a switching operation, a lightning discharge, or it can be an intentionally generated surge which is necessary for the functioning of a device, respectively component.

► Power frequency withstand voltage

Is a surge as alternating voltage (50/60 Hz). For voltage proof tests it is applied for one minute. The test values in context with the rated surge are shown in the excerpt of table 8, DIN EN 61 984.

► Test voltages (DIN EN 61 984, excerpt from sheet 8)

Impulse withstand voltage kV (1,2/50 μ s)	Power frequency withstand voltage kV (50/60 Hz)
0,5	0,37
0,8	0,50
1,5	0,84
2,5	1,39
4	2,21
6	3,31
8	4,26
12	6,6

► CTI value (Comparative Tracking Index)

This value informs about the conductivity of insulating materials and affects the default value of creepage distances. The CTI value has an influence on the creepage distance. The higher the value, the shorter the creepage distance can turn out. By means of the CTI value, plastics can be divided into insulation material groups.

Allocation of insulation material groups:

I	$600 \leq \text{CTI}$
II	$400 \leq \text{CTI} < 600$
IIIa	$175 \leq \text{CTI} < 400$
IIIb	$100 \leq \text{CTI} < 175$

► Protection degree acc. to IEC 60 529

The protection degree describes the proofness of housings, e.g. of electrical facilities and ranges from IP 00 up to IP 68. The standard protection degree of WALTHER industrial connectors is IP 65.

► Derating diagram acc. to DIN IEC 60 512

The diagrams show the maximum current capacity of components. Display format is a curve showing the current in dependence of the ambient temperature. The current capacity is limited by the thermal properties of both contacts and insulating parts, having an upper limiting temperature which should not be exceeded.

► Pollution degree

The rating of appliances depends on the ambient conditions. Possibly occurring pollutions affect their potential conductivity, combined with humidity they affect the insulating capacity of their surfaces. Over the creepage distance, the pollution degree has an influence on the component construction. For open, unprotected insulations, the pollution degree is defined by means of the ambient conditions.

WALTHER industrial connectors are per default laid out for pollution degree 3.

Pollution degree 1:

In air-conditioned or clean and dry rooms, e.g. computing machinery and measuring devices.

Pollution degree 2:

In residential areas, sales rooms and other business premises, fine mechanical workshops, laboratories, test facilities and medicinally utilized rooms. Due to occasional condensation, a temporary conductivity of the pollution has to be expected.

Pollution degree 3:

In industrial, commercial and agricultural premises, unheated storerooms, workshops, boiler houses and the electrical equipment of assembly machines or machine tools.

Pollution degree 4:

In outdoor places, e.g. devices on wagon roofs of locomotives or tramways.

Excerpt of DIN VDE 0110-1 resp. IEC 60 664-1, section 2.5.1:

Pollution degree 1:

No pollution or only dry, non-conducting pollution is occurring. The pollution has no influence.

Pollution degree 2:

Only non-conducting pollution is occurring. Occasionally, however, temporary conductivity caused by condensation has to be expected.

Pollution degree 3:

Conductive pollution or dry, non-conducting pollution is occurring, which becomes conductive because condensation has to be expected.

Pollution degree 4:

The pollution leads to permanent conductivity caused by conductive dust, rain or snow.

► Surge category

The surge category depends on the mains voltage and the mounting place of a device. It describes the maximum surge withstand capability of the device during a failure in the power supply system, e.g. in case of a lightning stroke.

Via the clearance, the surge category has an influence on the component dimensioning. According to standardization, there are 4 surge categories.

Devices for industrial use, e.g. WALTHER industrial connectors, fall in surge category III.

Excerpt of DIN VDE 0110-1 bzw. IEC 60 664-1, Abs. 2.2.2.1.1

Surge category I:

Devices which are meant for connection to the fixed installation of a building. Outside the device, measures have been taken to limit the transient surges to the respective value, either inside the fixed installation or between the fixed installation and the device.

Surge category II:

Devices which are meant for connection to the fixed electrical installation of a building; e.g. household appliances, portable tools and similar consumers.

Surge category III:

Devices which are part of the fixed installation and devices for which a higher degree of availability is expected. Examples: distribution boards, power switches, distributions (IEV 826-06-01, including cables, busbars, distribution boxes, switches, sockets) in the fixed installation and devices for industrial use as well as stationary motors which are permanently connected to the fixed installation.

Surge category IV:

Devices which are determined for the use on or near the supply into the electrical installation of buildings, seen from the main distribution towards the mains. Examples: electricity meters, overcurrent switches and ripple control devices.

*Rated surges
(DIN EN 61 984,
table 5)*

Rated voltage of the power supply system (≤ Rated insulation voltage of the equipment)					Preferred values for the rated surge in kV (1,2/50 μs)			
					Surge category			
Voltage phase-earth, deduced from the rated voltages of the mains for the alternating voltage (effective value) or DC voltage	Effective value of the DC voltage	Effective value of the alternating voltage	Effective value of the alternating voltage, DC voltage	Effective value of the alternating voltage, DC voltage	I Special protected levels	II Levels for electrical devices (household devices and others)	III Levels for distribution circuits	IV Levels on the input of the system
V	V	V	V	V				
100	66/115	66	60	—	0,5	0,8	1,5	2,5
150	120/208; 127/220	115; 120; 127	110; 120	220-110; 240-120	0,8	1,5	2,5	4
300	220/380; 230/400; 240/415; 260/440; 277/480	220; 230; 240; 260; 277	220	440-220	1,5	2,5	4	6
600	347/600; 380/660; 400/690; 415/720; 480/830	347; 380; 400; 415; 440; 480; 500; 577; 600	480	960-480	2,5	4	6	8
1000		660; 690; 720; 830; 1000	1000	—	4	6	8	12

Technical Information

► Current-carrying capacity (Derating curve)

The checking of the current-carrying capacity of electrical-mechanical components is prescribed in the DIN IEC 512 T3. Each contact of the component must be able to withstand the specified current for 5 hours with the specified conductor size and a conductor length of at least 500 mm, without hereby exceeding the specified temperature rise compared with the ambient temperature.

The materials used determine the upper limit temperature. Thereby you get a parabolic base curve. Due to variations of both components and material properties, this base curve has

to be multiplied with correction factor 0.8.

The connected conductor size determines the maximum permissible current.

The curves shown in the catalogue are already corrected curves. With these curves you can find out the permissible current which may flow simultaneously through each of the contacts.

In practice, however, rarely all of the contacts are loaded equally. Thus it is possible to occasionally let flow higher currents, if less than 20 % of the entirety is loaded.

► Contact resistance

When connectors are used under maximum rating conditions, the influence of the contact resistance is relatively low. Even extremely corroded silver-plated male and female contacts rarely cause any contact problems.

It is different with very small currents under extreme environmental conditions, like e.g. in electroplating works, tunnels, or when cellulose is being processed. The silver oxide layer on the surface of the contacts builds an electric resistance with

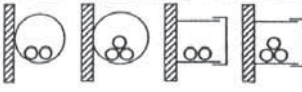
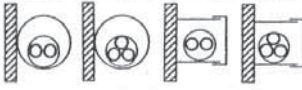
capacitive, inductive and ohmic shares, and thus distorts the signal curves to such an extent that the subsequent receiver can no longer recognize the signals - considerable and hardly locatable troubles are the result. In such cases gold-plated contacts are recommendable.

With currents < 4 mA and voltages - 5 V gold-plated contacts should generally be used.

► Short circuit strength and high starting currents

Series	Short circuit current (A)					
	Overload duration (s)					
	0,1	0,25	0,5	1	2,5	5
D, DD	380	220	170	120	75	55
A3, 4	800	480	320	230	140	95
A, B, BV	1100	710	590	360	230	165
BA	3100	1700	1200	800	540	360

► Current carrying capacity of copper conductors (in A)

Installation type ▼	Cross section (mm²) ►									
	0,25	0,34	0,5	0,75	1	1,5	2,5	4	6	10
 B 1 Conductors in protective conduits and installation channels	-	-	-	7,6	10,4	13,5	18,3	25,0	32,0	44,0
 B 2 Cables and lines in protective conduits or installation channels	-	-	-	-	9,6	12,0	16,5	23,0	29,0	40,0
 C Cables and lines on walls	4,0	5,0	7,1	9,1	11,7	15,2	21,0	28,0	36,0	50,0
 E Cables and lines on cable trays	4,0	5,0	7,1	9,1	11,5	16,1	22,0	30,0	37,0	52,0

► Special provision for connectors

If certain preconditions are considered, the standard for connectors offers the possibility to apply a lower pollution degree than that of the entire installation; i.e. that in an environment with pollution degree 3, connectors with the electrical data acc. to pollution degree 2 may be used. Basis hereof is DIN EN 61 984, section 6.19.2.2.

Excerpt from DIN EN 61 984, section 6.19.2.2

In case of a connector with minimum protection degree IP 54 acc. to IEC 60 529, the isolating parts inside the encapsulation may be rated for a lower pollution degree.

This applies also for connectors whose encapsulation is ensured by the connector housing and which are only separated for test/maintenance purposes.

The conditions are fulfilled by:

- a connector with minimum protection degree IP54 (IEC 60 529)
- a connector built into a housing which is only separated for test/maintenance purposes as it is described in the standard.
- a connector built into a housing which in separated condition is protected by a protective cap with at least IP 54.
- a connector inside a switch cabinet with at least IP 54.

A separated connector being exposed to industrial atmosphere for an undefined period of time does not belong to these conditions.

Please note that pollution can also act on the connector from inside a system.

► Choosing protection degree 2 for connectors 2

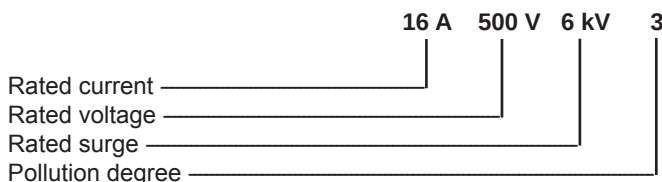
Application examples:

- Connector on a motor drive which is only separated, once a defective motor is being exchanged, even if pollution degree 3 would otherwise be required for the system.
- Connectors on a modular built-up machine, which are only opened for transport and which serve for quicker mounting and safe putting into operation. During transport, the connectors must be protected against pollution by means of protective caps, resp. by an adequate packaging of the system.
- Connectors within an IP 54 switch cabinet. Here you can even do without an IP 54 housing for the connector.

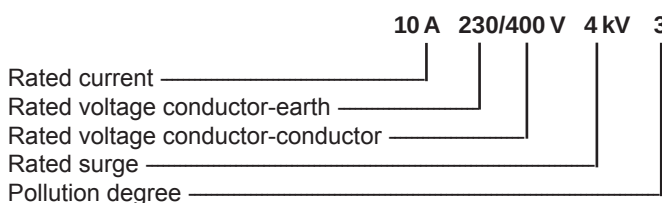
► Specifications of electrical data

The specifications of electrical data for connectors are made acc. to DIN EN 61 984.

Example of an identification for use in an unearthed mains or earthed delta mains (see page 193, table 5 of the DIN EN 61 984):



Example of an identification for exclusive use in earthed mains (see page 193, table 5 of the DIN EN 61 984):



► PG to M changeover

Basis for the changeover of our housings from the PG to the metric system is the international metric standard DIN EN 50 262: The PG range PG 7 up to PG 48 is replaced by the metric range M 12 up to M 63.

The outside diameters of the threads do now correspond to the system measures of the mentioned standard - this means a considerable simplification: Now the thread designation concretely indi-

cates the outside diameter in mm - M 20 for example stands for 20 mm outside diameter of the thread.

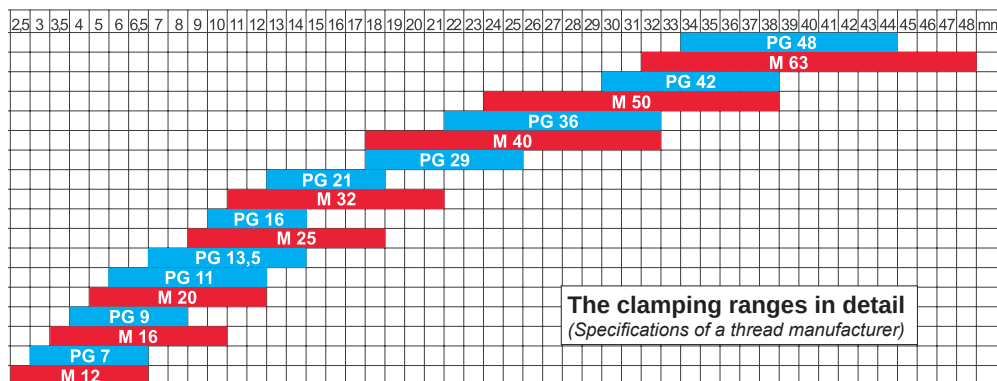
Housings with metric threads can be identified by the (M) on the surface.

The following cross reference table from PG to M threads results from the given housing dimensions.

Cross reference table

PG	M
PG 11	M 20
PG 13,5	
PG 16	
PG 21	M 25
PG 29	M 32
PG 36	M 40
PG 42	M 50

As a result of the cross reference, the maximum connectable cable diameters are becoming smaller due to the use of metric threads.



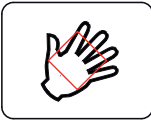
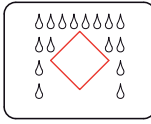
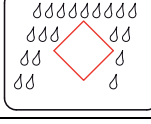
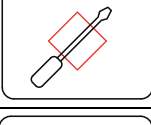
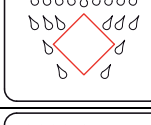
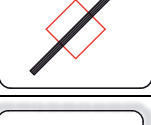
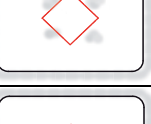
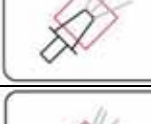
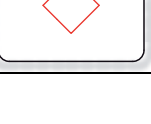
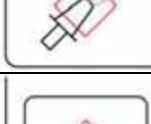
IP Protection Degrees

Code Letters (International Protection) **First Index Figure** (Protection against solid foreign bodies) **Second Index Figure** (Protection against water)

IP

6

5

Index figure	Degree of protection			Index figure	Degree of protection		
0	No protection		No protection against accidental contact, no protection against foreign bodies	0	No protection against water		No protection against water
1	Protection against large foreign bodies		Protection against contact with a large area by hand and against foreign bodies Ø > 12 mm	1	Drip proof		Protection against vertical water drips
2	Protection against medium sized foreign bodies		Protection against contact with fingers and against foreign bodies Ø > 12 mm	2	Drip proof		Protection against diagonally falling water drops (at any angle, up to 15 ° to the vertical)
3	Protection against small foreign bodies		Protection against tools, wires, or similar objects with Ø > 2,5 mm and against foreign bodies Ø > 12 mm	3	Spray proof		Protection against spray water from any angle, up to 60 ° to the vertical
4	Protection against grain-shaped foreign bodies		As indicated in index figure 3, but with Ø > 1 mm	4	Splash proof		Protected against splashed water from all directions
5	Protection against deposits of dust		Protection against contact, protection against interior dust deposits	5	Hose proof		Protection against water jets (nozzle) from all directions
6	Protection against ingress of dust		Total protection against contact, protection against penetration of dust	6	Protection against powerful water jets		Protection against powerful water jets from all directions
				7	Protection against immersion		Protected against the ingress of water when temporarily immersed
				8	Protection against submersion		Protected against water pressure when continuously submersed

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