

Series MO

Specifications

Regulations: DIN VDE 0627, DIN VDE 0110, DIN EN 61984

Approvals: UR, CSA, SEV

Number of poles: 3 - 280 + PE

Electrical data:

See individual series.

Housings

Material: Die-cast aluminium

Surface: Powder-coated

Levers for double locking system: Stainless steel

Levers for single locking system: Zinc-plated steel

Housing seal: NBR

Temperature range: - 40 °C up to + 125 °C

Protection degree acc. to

DIN EN 60 529 in closed position: IP 65

Application hint: Heavy duty connectors are electrical devices which under proper use - under load - should not be inserted or separated.

Frames

MO B6 to MO B24 69

- short overview see page 102 -
- matching housings s. page 103 - 157 -



MO 3 pole coaxial 70 - 71

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- matching housings s. page 103 - 157 -



MO 3 pole 72 - 73

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MO 3.1 pole 74 - 75

- short overview see page 102 -
- matching housings s. page 103 - 157 -



MO 4 pole + PE
MO 5.1 pole 76 - 77

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MO 5 pole 78 - 79

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MO 10 pole 80 - 81

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MO 20 pole 82 - 83


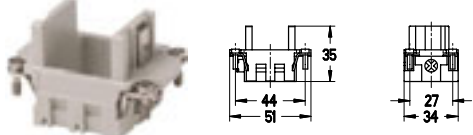
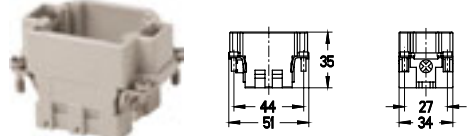
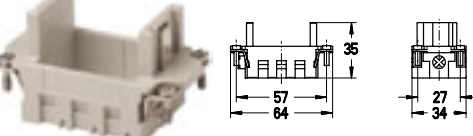
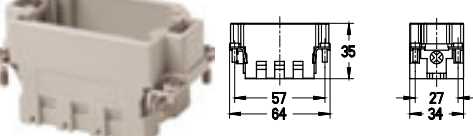
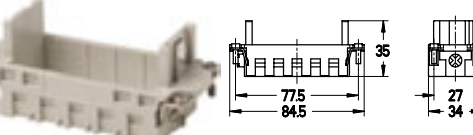
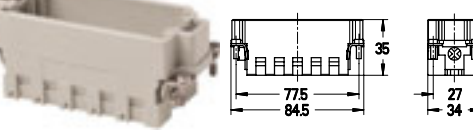
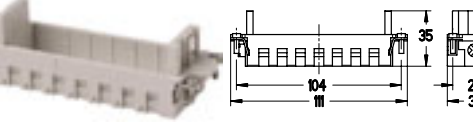
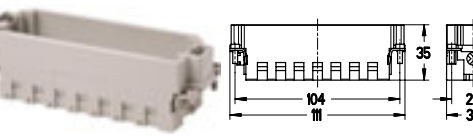
- short overview see page 102 -
- matching housings s. page 103 - 157 -



Blind module MO 0 84

- short overview see page 102 -
- matching housings s. page 103 - 157 -



Description	Part No.	Coding	Series MO B		EAN-No. 4015609...
Frames					
Female frame MO B6 for 2 contact carriers for pin and sleeve contacts mountable in housings series B6	770 006 770 406 (2 x PE)	A - B		10 29 31	173037 188765
Male frame MO B6 for 2 contact carriers for pin and sleeve contacts mountable in housings series B6	770 106 770 506 (2 x PE)	A - B		10 33 35	173044 188772
Female frame MO B10 for 3 contact carriers for pin and sleeve contacts mountable in housings series B10	770 010 770 410 (2 x PE)	A - C		10 33 35	173051 188789
Male frame MO B10 for 3 contact carriers for pin and sleeve contacts mountable in housings series B10	770 110 770 510 (2 x PE)	A - C		10 39 41	173068 188796
Female frame MO B16 for 5 contact carriers for pin and sleeve contacts mountable in housings series B16 with additional female frame mountable in housings series B32	770 016 770 416 (2 x PE) 770 216 770 616 (2 x PE)	A - E V - Z		10 33 35 33 35	173082 188802 188192 188826
Male frame MO B16 for 5 contact carriers for pin and sleeve contacts mountable in housings series B16 with additional male frame mountable in housings series B32	770 116 770 516 (2 x PE) 770 316 770 716 (2 x PE)	A - E V - Z		10 42 44 42 44	173075 188819 188239 188833
Female frame MO B24 for 7 contact carriers for pin and sleeve contacts mountable in housings series B24 with additional female frame mountable in housings series B48	770 024 770 424 (2 x PE) 770 224 770 624 (2 x PE)	A - G T - Z		10 40 42 40 42	173099 188840 188215 188864
Male frame MO B24 for 7 contact carriers for pin and sleeve contacts mountable in housings series B24 with additional male frame mountable in housings series B48	770 124 770 524 (2 x PE) 770 324 770 724 (2 x PE)	A - G T - Z		10 49 51 49 51	173105 188857 188246 188871

Series MO 3 polig koax

Specifications

Number of poles

3

Termination methods

crimp, solder type

Contacts

solid, drilled, copper alloy
gold-plated
Contact diameter 3,6 mm coaxial

Rated voltage

250 V

Contact resistance

≤ 5 mΩ

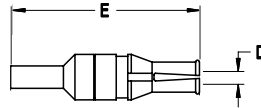
Surge impedance

50 Ω

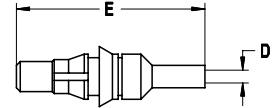
Frequency range

2 GHz

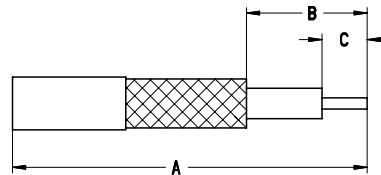
Sleeve



Pin



stripping/contact measurements



Cable size

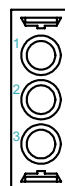
RG 174, 179, 316	A = 9,9 B = 3,6 C = 2	D = 1,7 E = 23,6	D = 1,7 E = 23,6
RG 58	A = 11,5 B = 3,6 C = 2	D = 3,2 E = 23,6	D = 3,2 E = 23,6

Contact arrangement

B: Female insert
S: Male insert


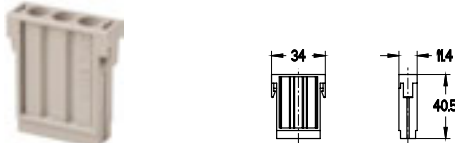





view from termination side

B



S



Description	Part No.		Series MO 3 P koax		EAN-No. 4015609...
Crimp contact carriers					
Contact carrier MO 3 K for sleeve contacts	771 203			10 8	187157
Please order crimp contacts separately					
Contact carrier MO 3 K for pin contacts	771 303			10 6	187164
Please order crimp contacts separately					
Contacts					
Sleeve contacts MO 3 K vergoldet for crimp- or solder-type terminal for cable size RG 174, 179, 316	772 400			1 3	187188
	772 410			3	188888
for cable size RG 58					
Pins MO 3 K vergoldet for crimp- or solder-type terminal for cable size RG 174, 179, 316	772 500			1 3	187195
	772 510			3	188895
for cable size RG 58					
Tools					
Removal tool for contacts MO 3	779 000			1 28	173136
Crimping tool for single contacts	779 700			1 420	188918
Crimping dies Cable size RG 174, 179, 316	779 710				188925
Cable size RG 58	779 720				188932
Removal tool for contact carriers	779 300			1 30	173440

Series MO 3 pole

Specifications

Number of poles

3

Termination method

crimp

Contacts

solid, drilled, copper alloy
silver-plated
Contact diameter 3,6 mm

Conductor size

1,5 - 10 mm² (16 - 8 AWG)

Rated current

max. 50 A, see derating diagram

Rated voltage

630 V

Rated impulse voltage

8,0 kV

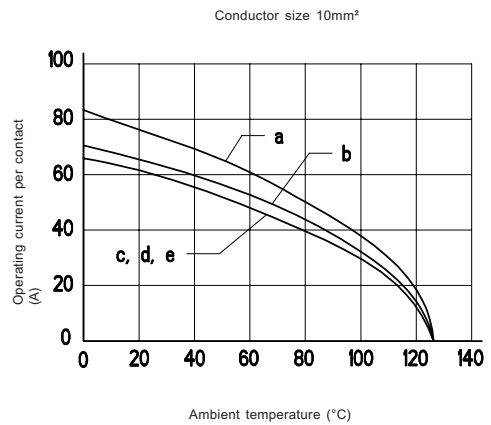
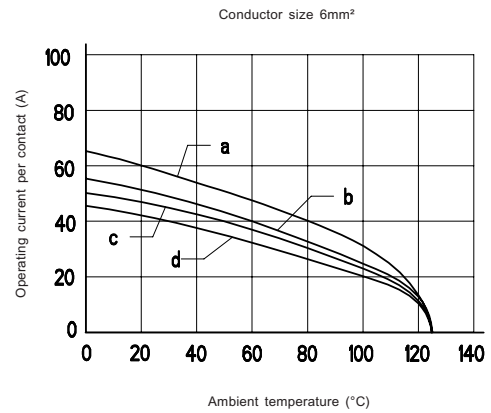
Test voltage

4 kV

Contact resistance

≤ 1 mΩ

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



Curve	No. of poles	Frames
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

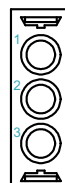
Contact arrangement


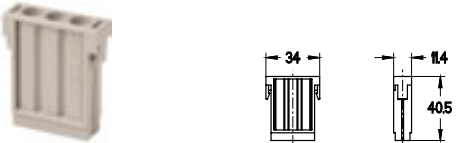
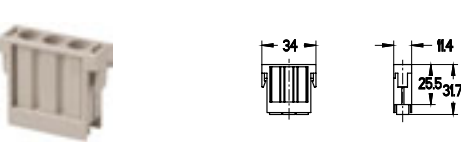





B: Female insert
S: Male insert

view from termination side

B

S



Description	Part No.	Series MO 3 P 50 A / 630 V		EAN-No. 4015609...
Crimp contact carriers				
Contact carrier MO 3 for sleeve contacts Please order crimp contacts separately	771 003		10 8	173112
Contact carrier MO 3 for pin contact Please order crimp contacts separately	771 103		10 6	173129
Contacts				
Sleeve contacts MO 3 crimp-type weight per 100	silver-plated 772 030 772 040 772 050 772 060 772 070	conductor size  1,5 mm ² 16 AWG 2,5 mm ² 14 AWG 4 mm ² 12 AWG 6 mm ² 10 AWG 10 mm ² 8 AWG	100 300 300 300 300 300	188949 188956 173204 173211 173228
Pin contacts MO 3 crimp-type weight per 100	silver-plated 772 130 772 140 772 150 772 160 772 170	 1,5 mm ² 16 AWG 2,5 mm ² 14 AWG 4 mm ² 12 AWG 6 mm ² 10 AWG 10 mm ² 8 AWG	100 300 300 300 300 300	188963 188970 173235 173242 173259
Tools				
Removal tool for contacts MO 3	779 000		1 28	173136
Crimping tool for drilled contacts 1,5 - 10 mm ² 4 indent	779 400		1 420	173143
Removal tool for contact carriers	779 300		1 30	173440

Series MO 3.1 pole

Specifications

All contacts 2 mm preleading to other contact carriers

Number of poles

3

Termination method

crimp

Contacts

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

Conductor size

1,5 - 10 mm² (16 - 8 AWG)

Rated current

max. 50 A, see derating diagram

Rated voltage

1000 V

Rated impulse voltage

8,0 kV

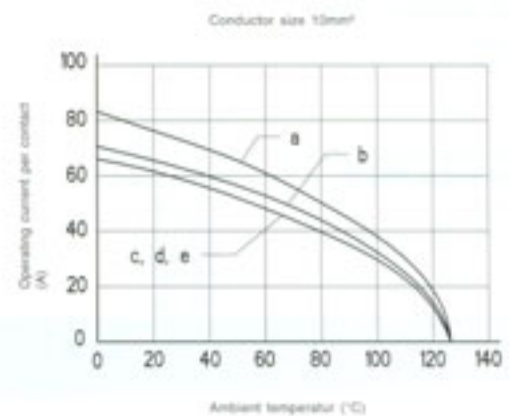
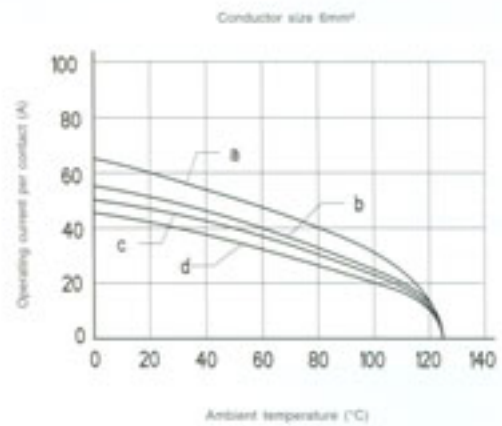
Test voltage

5,7 kV

Contact resistance

≤ 1 mΩ

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



Curve	No. of poles	Frames
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

B: Female insert
S: Male insert

view from termination side



Description	Part No.	Series MO 3.1 P 50 A / 1000 V		EAN-No. 4015609...
Crimp contact carriers				
Contact carrier MO 3.1 for sleeve contacts Please order crimp contacts separately	771 403		10 6	188987
Contact carrier MO 3.1 for pin contacts Please order crimp contacts separately	771 503		10 7	188994
Contacts				
Sleeve contacts MO 3 crimp-type weight per 100	silver-plated 772 030 772 040 772 050 772 060 772 070	conductor size 1,5 mm ² 16 AWG 2,5 mm ² 14 AWG 4 mm ² 12 AWG 6 mm ² 10 AWG 10 mm ² 8 AWG	100 300 300 300 300 300	188949 188956 173204 173211 173228
Pin contacts MO 3 crimp-type weight per 100	silver-plated 772 130 772 140 772 150 772 160 772 170	 1,5 mm ² 16 AWG 2,5 mm ² 14 AWG 4 mm ² 12 AWG 6 mm ² 10 AWG 10 mm ² 8 AWG	100 300 300 300 300 300	188963 188970 173235 173242 173259
Tools				
Removal tool for contacts MO 3	779 000		1 28	173136
Crimping tool for drilled contacts 1,5 - 10 mm ² 4 indent	779 400		1 420	173143
Removal tool for contact carrier	779 300		1 30	173440

Series MO 4 polig + PE /5.1 poe

Specifications

At the pin contact carrier MO 4 P + PE the protective earthing contact is 2 mm preloading

Number of poles

4 + ⊕

5

Termination method

crimp

Contacts

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

Conductor size

0,5 - 4 mm² (20 - 12 AWG)

Rated current

max. 16 A, see derating diagram

Rated voltage

1000 V

Rated impulse voltage

8,0 kV

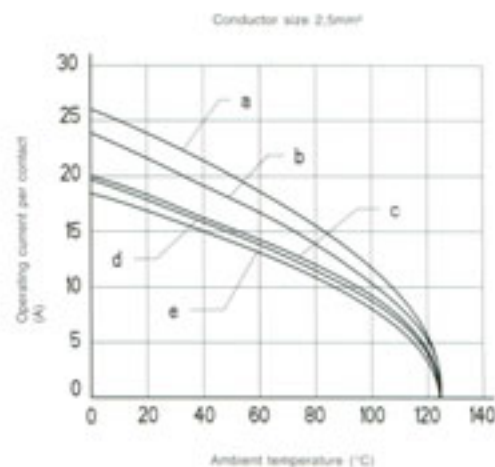
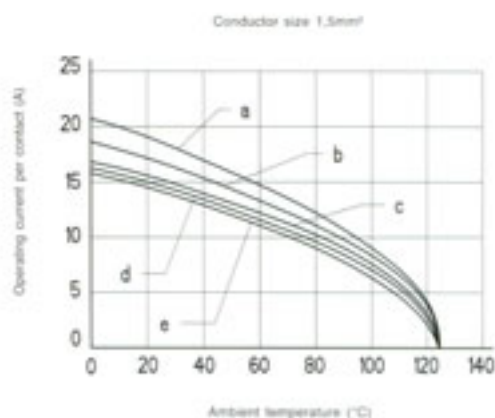
Test voltage

5,7 kV

Contact resistance

≤ 5 mΩ

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

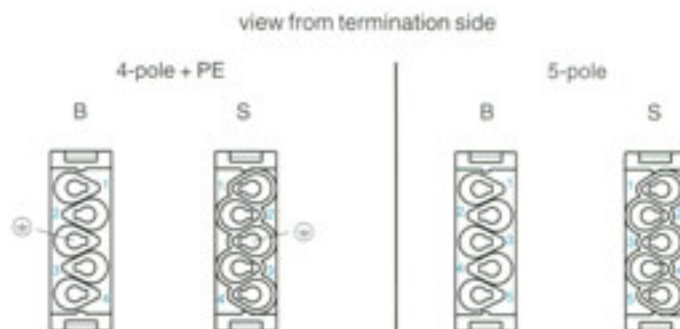





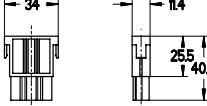

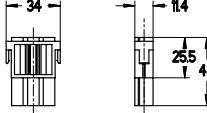

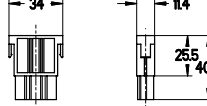

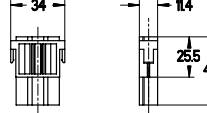





Curve	No. of poles	Frames
a	3	MO B 6
b	6	MO B 6
c	9	MO B 10
d	15	MO B 16
e	21	MO B 24

Contact arrangement

B: Female insert

S: Male insert



Description	Part No.		Series MO 4 P + ⊕ / 5.1 P 16 A / 1000 V	 	EAN-No. 4015609...
Crimp contact carriers					
Contact carrier MO 4 + PE for sleeve contacts	771 610		 	10 6	189052
Please order crimp contacts separately					
Contact carrier MO 4 + PE for pin contacts protective earthing contact 2 mm preleading	771 710		 	10 7	189069
Please order crimp contacts separately					
Crimp contact carriers					
Contact carrier MO 5.1 for sleeve contacts	771 620		 	10 6	189076
Please order crimp contacts separately					
Contact carrier MO 5.1 for pin contacts	771 720		 	10 7	189083
Please order crimp contacts separately					
Contacts			conductor size		
Sleeve contacts MO 5.1 crimp-type, stamped single contact	silver-plated 773 200 773 230 773 260		 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	189090 189106 189113
weight per 100 contacts on reel on request					
Pin contacts MO 5.1 crimp-type, stamped single contact	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	189120 189199 189137
weight per 100 contacts on reel on request					
Tools			(Crimping tools and machines for contacts on reel on request)		
Removal tool for contacts MO 5.1	779 800			1 26	189144
Crimping tools for single contacts crimping dies contact locators			 Conductor size 0,5 - 1,5mm ² 1,5 - 2,5mm ² 0,5 - 1,5mm ² 1,5 - 2,5mm ²	1 420	188918 189151 189168 189175 189182
weight per 100 contacts on reel on request					
Removal tool for contact carriers	779 300			1 30	173440

Module MO 5 pole

Specifications

Number of poles

5

Termination method

crimp

Contacts

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

Conductor size

0,5 - 4 mm² (20 - 12 AWG)

Rated current

max. 20 A, see derating diagram

Rated voltage

400 V

Rated impulse voltage

6,0 kV

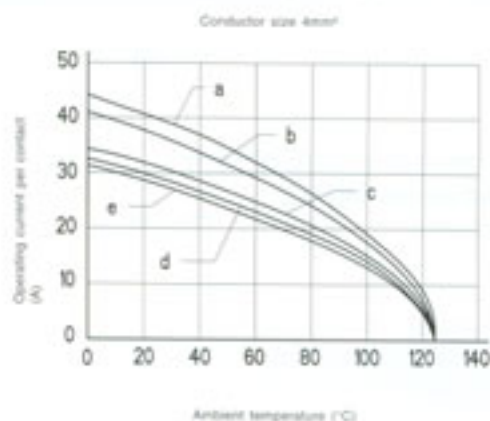
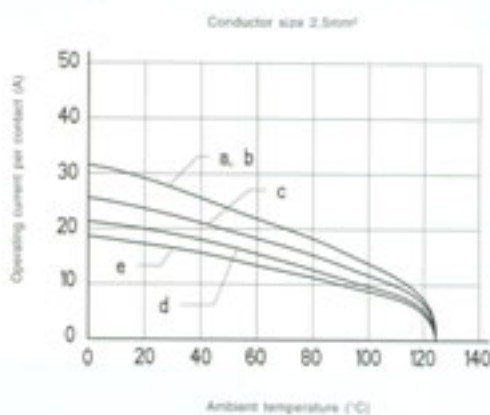
Test voltage

3,5 kV

Contact resistance

≤ 2 mΩ

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



Curve	No. of poles	Frames
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




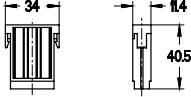

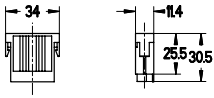





Contact arrangement

B: Female insert

S: Male insert

view from termination side



Description	Part No.	Series MO 5 P 20 A / 400 V	 	EAN-No. 4015609...										
Crimp contact carriers														
Contact carrier MO 5 for sleeve contacts Please order crimp contacts separately	771 005	 	10 8	173150										
Contact carrier MO 5 for pin contacts Please order crimp contacts separately	771 105	 	10 6	173167										
Contacts														
Sleeve contact MO 5 crimp-type weight per 100	silver-plated 772 210 772 220 772 230 772 240 772 250	 <p style="text-align: right;">conductor size</p> <table border="0"> <tr><td>0,5 mm²</td><td>20 AWG</td></tr> <tr><td>0,75 - 1 mm²</td><td>19 - 18 AWG</td></tr> <tr><td>1,5 mm²</td><td>16 AWG</td></tr> <tr><td>2,5 mm²</td><td>14 - 12 AWG</td></tr> <tr><td>4 mm²</td><td>12 AWG</td></tr> </table>	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	173266 173273 173280 173297 173303
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													
Pin contact MO 5 crimp-type weight per 100	silver-plated 772 310 772 320 772 330 772 340 772 350	 <table border="0"> <tr><td>0,5 mm²</td><td>20 AWG</td></tr> <tr><td>0,75 - 1 mm²</td><td>19 - 18 AWG</td></tr> <tr><td>1,5 mm²</td><td>16 AWG</td></tr> <tr><td>2,5 mm²</td><td>14 - 12 AWG</td></tr> <tr><td>4 mm²</td><td>12 AWG</td></tr> </table>	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	173310 173327 173334 173341 173358
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													
Tools														
Removal tool for contacts MO 5	779 100		1 26	173174										
Crimping tool for single contacts crimping dies contact locators	779 700 779 750 779 760 774 030 774 040	 <p style="text-align: right;">conductor size</p> <table border="0"> <tr><td>0,5 - 2,5mm²</td></tr> <tr><td>4mm²</td></tr> <tr><td>0,5 - 2,5mm²</td></tr> <tr><td>4mm²</td></tr> </table>	0,5 - 2,5mm ²	4mm ²	0,5 - 2,5mm ²	4mm ²	1 420	188918 189038 189045 189007 189014						
0,5 - 2,5mm ²														
4mm ²														
0,5 - 2,5mm ²														
4mm ²														
Removal tool for contact carrier	779 300		1 30	173440										

Series MO 10 pole

Specifications

Number of poles

10

Termination method

crimp
glass fibre cable

Contacts

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

Conductor size

0,14 - 2,5 mm² (26 - 14 AWG)

Rated current

max. 10 A, see derating diagram

Rated voltage

250 V

Rated impulse voltage

4,0 kV

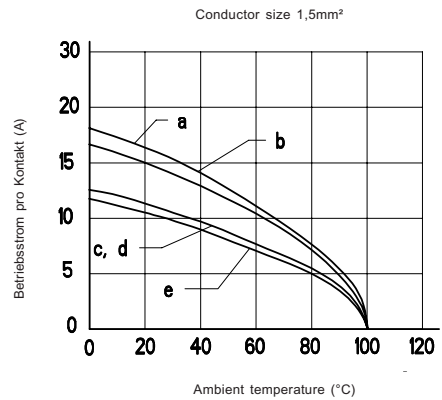
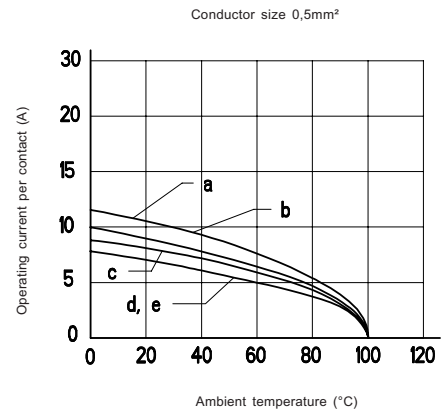
Test voltage

2,2 kV

Contact resistance

≤ 3 mΩ

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



Curve	No. of poles	Frames
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

B: Female insert
S: Male insert

view from termination side

B S



Description	Part No.	Series MO 10 P 10 A / 250 V			EAN-No. 4015609...
Crimp contact carriers					
Contact carrier MO 10 for sleeve contacts	771 010			10 11	173181
Please order crimp contacts and contacts for glass fibre cables separately					
Contact carrier MO 10 for pin contacts	771 110			10 7	173198
Please order crimp contacts and contacts for glass fibre cables separately					
Contacts					
Sleeve contacts D	silver-plated	gold-plated	z	conductor size marked by z	
crimp-type	720 506	720 686	1	0,14 - 0,37 mm ²	26 - 22 AWG
solid, drilled	720 507	720 687	2	0,5 mm ²	20 AWG
weight per 100	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 contacts D	silver-plated	gold-plated	z	conductor size marked by z	
crimp-type	720 516	720 691	1	0,14 - 0,37 mm ²	26 - 22 AWG
solid, drilled	720 517	720 692	2	0,5 mm ²	20 AWG
weight per 100	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 contacts					
glass fibre cable for plastic fibre	720 520			POF* Ø 1 mm	
solid, drilled					
weight per 100					
Pin contact					
glass fibre cable for plastic fibre	720 530			POF* Ø 1 mm	
solid, drilled					
weight per 100					
Tools					
Removal tool for contacts D	710 614			1 7	028016
Removal tool for contact carriers	779 300			1 30	173440

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Crimping tools see page 168

For tools and connection of glass fibre cables see page 166 - 167

Series MO 20 pole

Specifications

Number of poles

20

Termination method

Crimp

Contacts

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

Conductor size

0,09 - 0,5 mm² (28 - 20 AWG)

Rated current

max. 5 A, see derating diagram

Rated voltage

63 V

Rated impulse voltage

4,0 kV

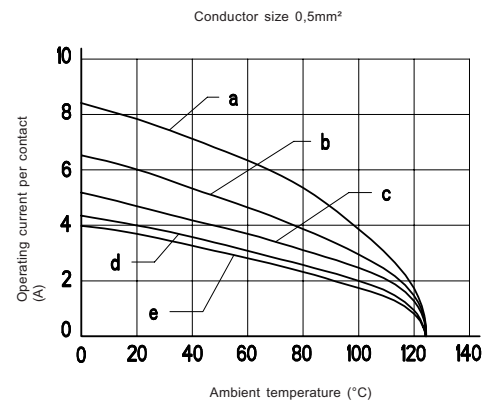
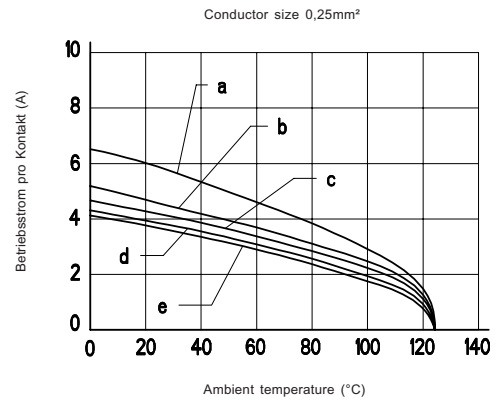
Test voltage

1,68 kV

Contact resistance

≤ 5 mΩ

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



Curve	No. of poles	Frames
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

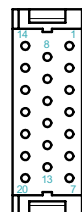
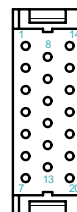
Contact arrangement




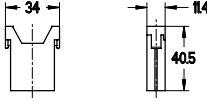

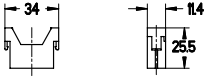




B: Female insert
S: Male insert

view from termination side

B

S



Description	Part No.	Series MO 20 P 5 A / 63 V	 	EAN-No. 4015609...
Crimp contact carrier				
Contact carrier MO 20 for sleeves	771 020	 	10 6	173365
Please order crimp contacts separately				
Contact carrier MO 20 for pin contact contacts	771 120	 	10 4	173372
Please order crimp contacts separately				
Contacts				
Sleeve contacts MO 20 crimp type stamped single contact weight per 100 contacts on reel on request	gold-plated 773 000 773 001	conductor size 0,09 - 0,25 mm ² 28 - 24 AWG 0,25 - 0,5 mm ² 24 - 20 AWG	100 45 45	173389 173396
Pin contacts MO 20 crimp-type stamped single contact weight per 100 contacts on reel on request	gold-plated 773 100 773 101	 0,09 - 0,25 mm ² 28 - 24 AWG 0,25 - 0,5 mm ² 24 - 20 AWG	100 45 45	173402 173419
Tools				
Removal tool for contacts MO 20	779 200		1 20	173426
Crimping tool for stamped contacts MO 20	779 500		1 486	173433
Removal tool for contact carriers	779 300		1 30	173440

Crimping tools and crimping machines for contacts on reel on request.

Description	Part No.	Series MO 0		 	EAN-No. 4015609...
Blind module					
Blind module for female frame without contact chambers	771 000			10 5	187133
Blind module for male frame without contact chambers	771 100			10 3	187140
Use of blind modules					
- to fill a gap in a frame - as dummy for future up-grading					
Tools					
Removal tool for contact carrier and blind module	779 300			1 30	173440