



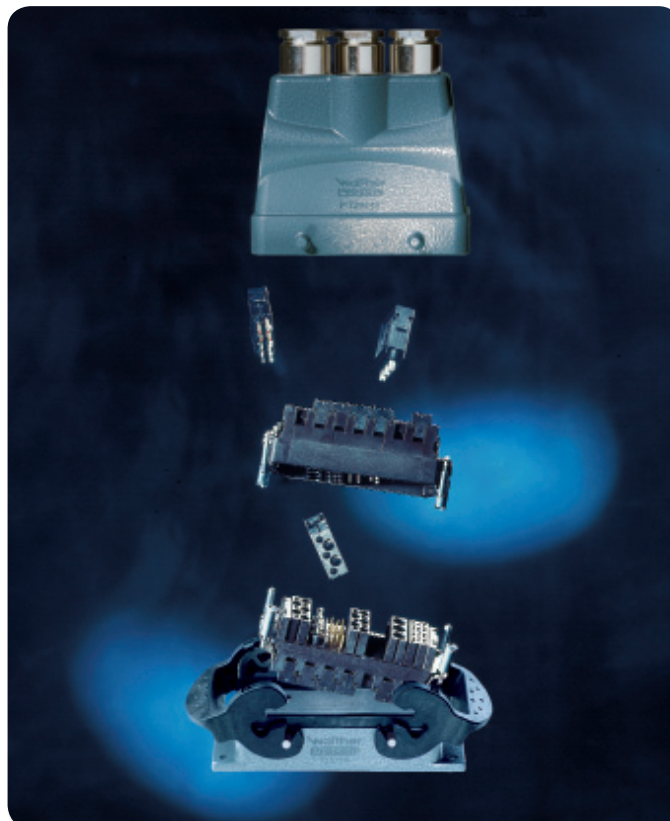
The different modules are inserted into the appropriate retaining frames (which vary according to the different housing sizes). There they snap in easily and safely. A special removal tool ensures quick and easy customisation of the connector to meet any change in the users' requirements.



The modular MO series is an extension of the PROCON range of industrial connectors. The advantage is the modularization 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 up 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 hint:
Industrial connectors are electrical devices which must not be connected or disconnected under load!

Attention:
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!

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Retaining frames MOB 6 up to MOB 24	71	
MO 3-pole coax	72 - 73	
MO 3-pole	74 - 75	
MO 3.1-pole	76 - 77	
MO 4-pole + \oplus MO 5.1-pole	78 - 79	
MO 5-pole	80 - 81	
MO 10-pole	82 - 83	
MO 20-pole	84 - 85	
MO RJ45	86 - 87	
MO pneumatic	88	
Blind module MO 0	88	

MO modules overview

Series	Specifications	5*	6*	7*	8*	9*	10*	Starting on page: Inserts Housings
MO	Retaining frame: No. of contact carrier:	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 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	$\frac{16 \text{ A}}{1000 \text{ V}}$							71 107
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 RJ45								
MO Blind module								


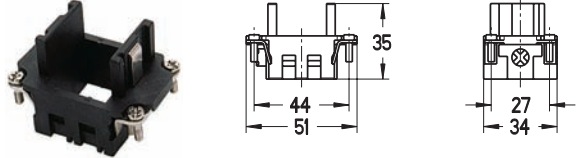
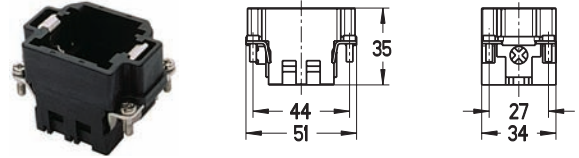
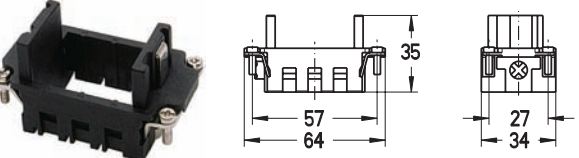
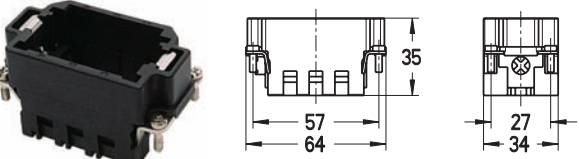
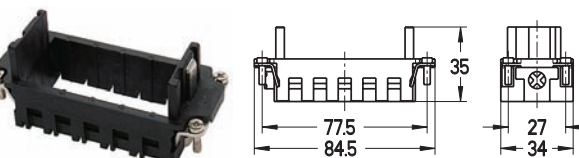
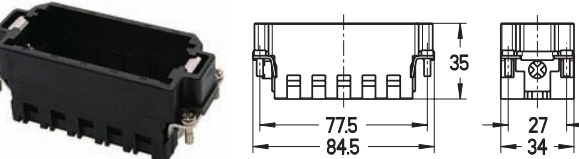

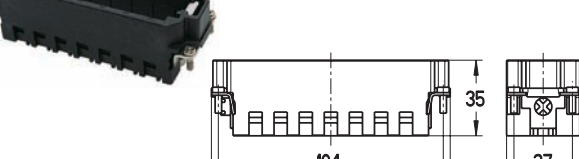

*Vertical columns: identical housing sizes and fixing dimensions for the different series and numbers of poles

$\frac{\text{S} \mid \text{IDC}}{\text{C} \mid \text{POF}} = \frac{\text{Screw} \mid \text{Insulation Displacement Connection}}{\text{Crimp} \mid \text{Polymer Optical Fibre}}$

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 housings	770 006 770 406 (2 x PE)	A - B		10 29 31
Male frames MO B 6 for 2 contact carriers for pin and sleeve contacts mountable in series B 6 housings	770 106 770 506 (2 x PE)	A - B		10 33 35
Female frames MO B 10 for 3 contact carriers for pin and sleeve contacts mountable in series B 10 housings	770 010 770 410 (2 x PE)	A - C		10 33 35
Male frames MO B 10 for 3 contact carriers for pin and sleeve contacts mountable in series B 10 housings	770 110 770 510 (2 x PE)	A - C		10 39 41
Female frames MO B 16 for 5 contact carriers for pin and sleeve contacts mountable in series B 16 housings	770 016 770 416 (2 x PE)	A - E		10 33 35
with additional female frame mountable in series B 32 housings	770 216 770 616 (2 x PE)	V - Z		33 35
Male frames MO B 16 for 5 contact carriers for pin and sleeve contacts mountable in series B 16 housings	770 116 770 516 (2 x PE)	A - E		10 42 44
with additional male frame mountable in series B 32 housings	770 316 770 716 (2 x PE)	V - Z		42 44
Female frames MO B 24 for 7 contact carriers for pin and sleeve contacts mountable in series B 24 housings	770 024 770 424 (2 x PE)	A - G		10 40 42
with additional female frame mountable in series B 48 housings	770 224 770 624 (2 x PE)	T - Z		40 42
Male frames MO B 24 for 7 contact carriers for pin and sleeve contacts mountable in series B 24 housings	770 124 770 524 (2 x PE)	A - G		10 49 51
with additional male frame mountable in series B 48 housings	770 324 770 724 (2 x PE)	T - Z		49 51

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

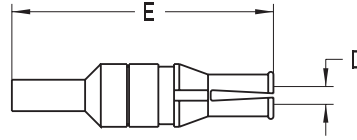
Rated voltage
250 V

Contact resistance
< 5 mΩ

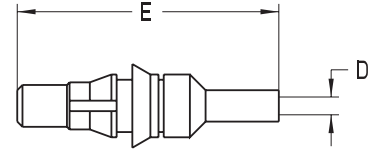
Wave impedance
50 Ω

Frequency range
2 GHz

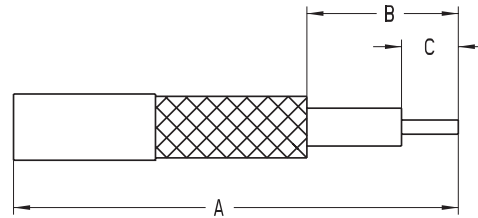
Sleeve contact



Pin contact



Stripping / contact dimensions



Cable size:

RG 174, 179, 316	A = 9.9	D = 1.7	D = 1.7
	B = 3.6	E = 23.6	E = 23.6
	C = 2		
RG 58	A = 11.5	D = 3.2	D = 3.2
	B = 3.6	E = 23.6	E = 23.6
	C = 2		

Contact arrangement


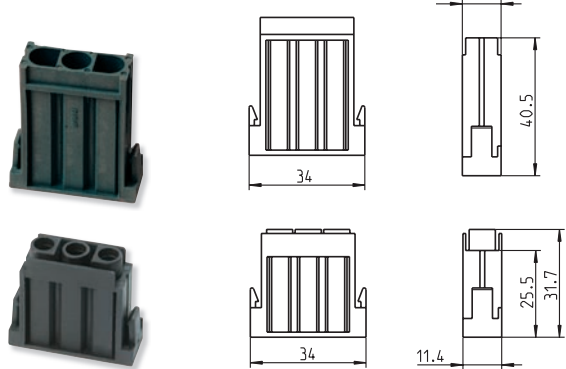


View from termination side

Female insert



Male insert



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

6

Series MO 3-pole

Specifications

Number of poles
3

Termination method
Crimp

6

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 diagrams

Rated voltage
630 V

Rated surge
8.0 kV

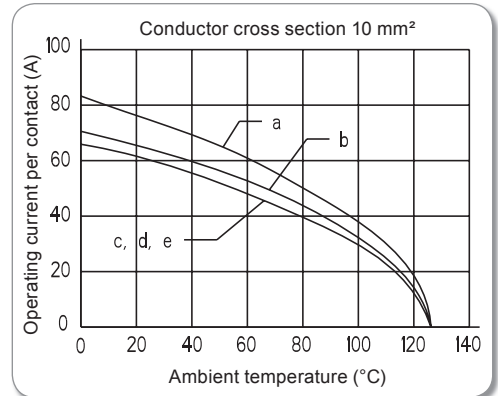
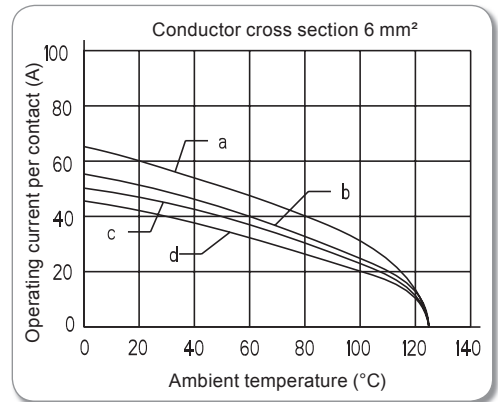
Test voltage
4 kV

Contact resistance
≤ 1 mΩ

The Derating-Diagram

(corrected current capacity curve)
acc. to DIN IEC 60 512 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


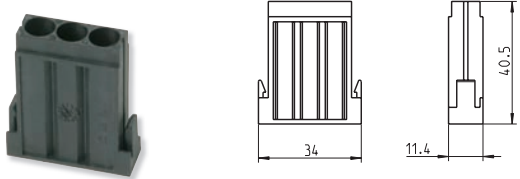
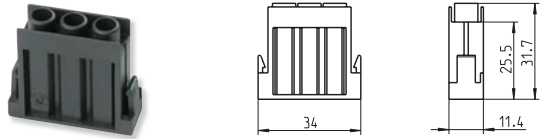





View from termination side

Female
insert



Male
insert



Description	Part no.	Series MO 3 P 50 A / 630 V											
Crimp contact carrier													
Contact carrier MO 3 for sleeve contacts <i>Please order crimp contacts separately</i>	771 003		10 8										
Contact carrier MO 3 for pin contacts <i>Please order crimp contacts separately</i>	771 103		10 6										
Contacts													
Sleeve contact MO 3 crimp-type, weight per 100	silver-plated 772 030 772 040 772 050 772 060 772 070	<div style="text-align: center;">Terminal cross section</div>  <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1.5 mm²</td><td>16 AWG</td></tr> <tr><td>2.5 mm²</td><td>14 AWG</td></tr> <tr><td>4 mm²</td><td>12 AWG</td></tr> <tr><td>6 mm²</td><td>10 AWG</td></tr> <tr><td>10 mm²</td><td>8 AWG</td></tr> </table>	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
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												
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	 <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>1.5 mm²</td><td>16 AWG</td></tr> <tr><td>2.5 mm²</td><td>14 AWG</td></tr> <tr><td>4 mm²</td><td>12 AWG</td></tr> <tr><td>6 mm²</td><td>10 AWG</td></tr> <tr><td>10 mm²</td><td>8 AWG</td></tr> </table>	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
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												
Tools													
Removal tool for MO 3 contacts	779 000		1 28										
Crimping tool for turned contacts 1.5-10 mm ² respectively 16-8 AWG fourfold indenting tool	710 610		1 663										
Removal tool for contact carriers	779 300		1 30										

6

Series MO 3.1-pole

Specifications

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

Number of poles

3

Termination method

Crimp

6

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 diagrams

Rated voltage

1000 V

Rated surge

8.0 kV

Test voltage

5.7 kV

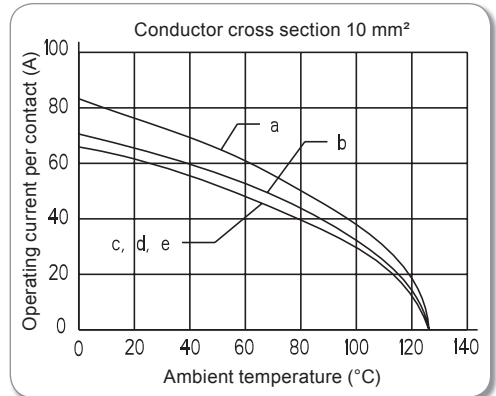
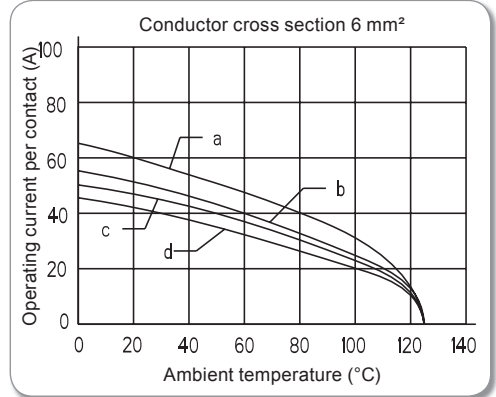
Contact resistance

1 m

The Derating-Diagram

(corrected current capacity curve) acc. to DIN IEC 60 512 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



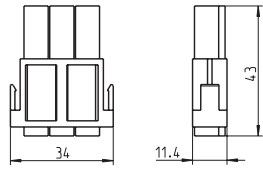





View from termination side:

Female insert



Male insert



Description	Part no.	Series MO 3.1 P 50 A / 1000 V											
Crimp contact carrier		 	10 6										
Contact carrier MO 3.1 for sleeve contacts	771 403	 	10 7										
Contacts		<p style="text-align: center;">Terminal cross section</p>  <table border="1" data-bbox="1069 840 1316 974"> <tr> <td>1.5 mm²</td> <td>16 AWG</td> </tr> <tr> <td>2.5 mm²</td> <td>14 AWG</td> </tr> <tr> <td>4 mm²</td> <td>12 AWG</td> </tr> <tr> <td>6 mm²</td> <td>10 AWG</td> </tr> <tr> <td>10 mm²</td> <td>8 AWG</td> </tr> </table>	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
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												
Sleeve contact MO 3 crimp-type, weight per 100	silver-plated 772 030 772 040 772 050 772 060 772 070	 <table border="1" data-bbox="1069 1019 1316 1153"> <tr> <td>1.5 mm²</td> <td>16 AWG</td> </tr> <tr> <td>2.5 mm²</td> <td>14 AWG</td> </tr> <tr> <td>4 mm²</td> <td>12 AWG</td> </tr> <tr> <td>6 mm²</td> <td>10 AWG</td> </tr> <tr> <td>10 mm²</td> <td>8 AWG</td> </tr> </table>	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
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												
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	Tools		1 28									
Removal tool for MO 3 contacts	779 000	Tools		1 663									
Crimping tool for turned contacts 1.5 - 10 mm ² respectively 16 - 8 AWG fourfold indenting tool	710 610	Tools		1 30									
Removal tool for contact carriers	779 300												

6

Series MO 4-pole + ⊕ / 5.1-pole

Specifications

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

Number of poles

4 + ⊕
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 diagrams

Rated voltage

1000 V

Rated surge

8.0 kV

Test voltage

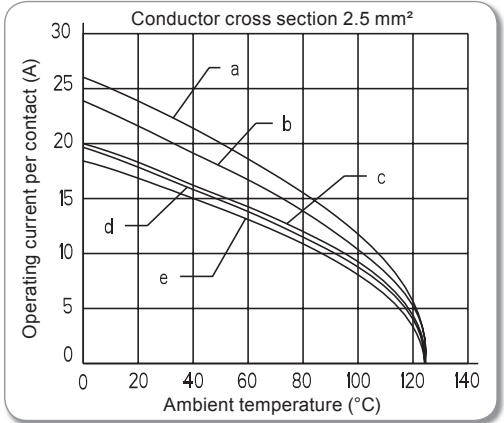
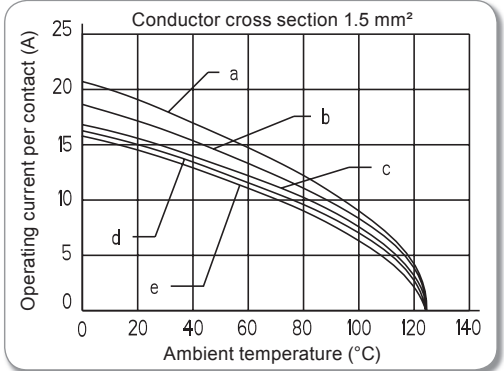
5.7 kV

Contact resistance

5 m

The Derating-Diagram

(corrected current capacity curve)
acc. to DIN IEC 60 512 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:

4-pole + ⊕

5-pole

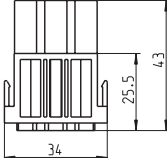
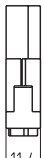

Female insert

Male insert

Female insert

Male insert



Description	Part no.	Series MO 4 P + ⊕ / 5.1 P 16 A / 1000 V	 												
Crimp contact carrier															
Contact carrier MO 4 + ⊕ for sleeve contacts <i>Please order crimp contacts separately</i>	771 610	  	10 6												
Contact carrier MO 4 + ⊕ for pin contacts PE contact 2 mm first-to-mate <i>Please order crimp contacts separately</i>	771 710	  	10 7												
Crimp contact carrier															
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 silver-plated crimp-type, stamped, single contact weight per 100, - strip contacts on request -	773 200 773 230 773 260	<div style="text-align: center;">Terminal cross section</div>  <table border="0"> <tr> <td>0.5 - 1.5 mm²</td> <td>20 - 16 AWG</td> </tr> <tr> <td>1.5 - 2.5 mm²</td> <td>16 - 14 AWG</td> </tr> <tr> <td>2.5 - 4 mm²</td> <td>12 AWG</td> </tr> </table>	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						
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														
Pin contact MO 5.1 silver-plated crimp-type, stamped, single contact, pin Ø 2.5 mm ² , weight per 100, - strip contacts on request -	773 300 773 330 773 360	 <table border="0"> <tr> <td>0.5 - 1.5 mm²</td> <td>20 - 16 AWG</td> </tr> <tr> <td>1.5 - 2.5 mm²</td> <td>16 - 14 AWG</td> </tr> <tr> <td>2.5 - 4 mm²</td> <td>12 AWG</td> </tr> </table>	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						
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														
Tools (Crimping tools and machines for strip contacts on request)															
Removal tool for MO 5.1 contacts	779 800		1 26												
Crimping tool for single contacts Crimping dies Contact locators	779 700 779 730 779 740 774 010 774 020	 <table border="0"> <tr> <th colspan="2">Conductor size</th> </tr> <tr> <th>(mm²)</th> <th>(AWG)</th> </tr> <tr> <td>0.5 - 1.5</td> <td>20 - 16</td> </tr> <tr> <td>1.5 - 2.5</td> <td>16 - 14</td> </tr> <tr> <td>0.5 - 1.5</td> <td>20 - 16</td> </tr> <tr> <td>1.5 - 2.5</td> <td>16 - 14</td> </tr> </table>	Conductor size		(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
Conductor size															
(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														
Removal tool for contact carriers	779 300		1 30												

6

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 diagrams

Rated voltage
400 V

Rated surge
6.0 kV

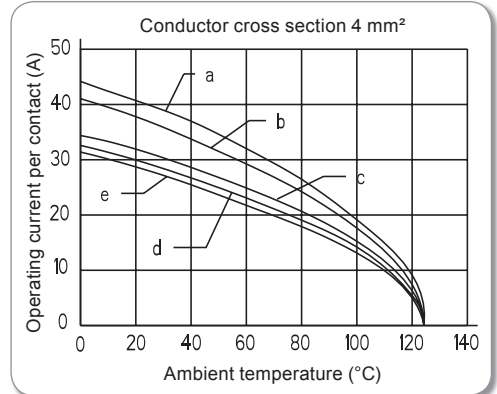
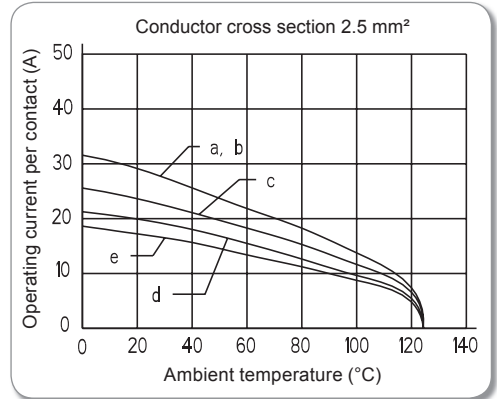
Test voltage
3.5 kV

Contact resistance
≤ 2 mΩ

The Derating-Diagram

(corrected current capacity curve)
acc. to DIN IEC 60 512 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.

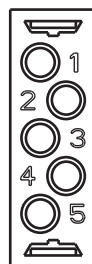
Curve	Poles	Retaining frame
a	5	MO B 6
b	10	MO B 6
c	15	MO B 10
d	25	MO B 16
e	35	MO B 24



Contact arrangement


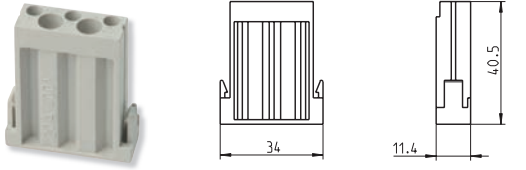
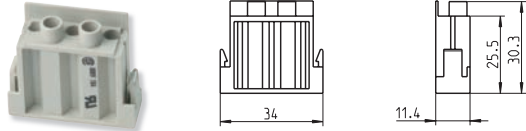





View from termination side:

Female insert



Male insert



Descriptions	Part no.	Series MO 5 P 20 A / 400 V													
Crimp contact carrier															
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	 <table border="1" data-bbox="1066 763 1366 943"> <thead> <tr> <th colspan="2">Terminal cross section</th> </tr> </thead> <tbody> <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> </tbody> </table>	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
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														
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	 <table border="1" data-bbox="1066 987 1366 1122"> <thead> <tr> <th colspan="2">Terminal cross section</th> </tr> </thead> <tbody> <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> </tbody> </table>	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 58 65 70 100 140
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														
Tools															
Removal tool for MO 5 contacts	779 100		1 26												
Walther crimping tool for conductor cross section 0.14 - 4.0 mm ² respectively 26 - 12 AWG for turned contacts only	710 611		1 510												
Removal tool for contact carriers	779 300		1 30												

6

Series MO 10-pole

Specifications

Number of poles
10

Termination method
Crimp
POF

6

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 diagrams

Rated voltage
250 V

Rated surge
4.0 kV

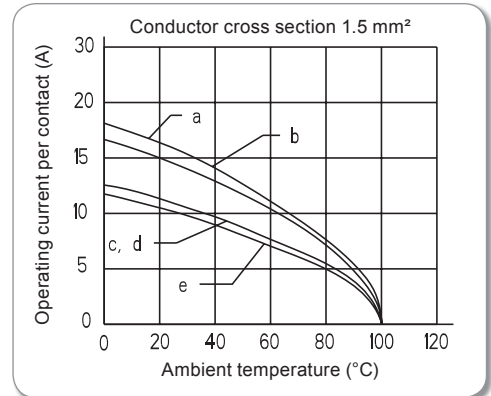
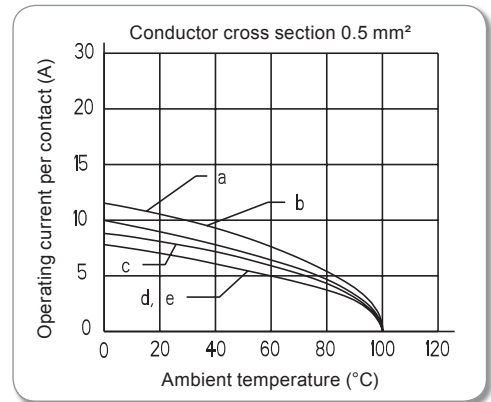
Test voltage
2.2 kV

Contact resistance
3 m

The Derating-Diagram

(corrected current capacity curve)
acc. to DIN IEC 60 512 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.	Part no.	Series MO	10 P	10 A / 250 V		
Crimp contact carrier							
Contact carrier MO 10 for sleeve contacts	771 010					10 11	
<i>Please order crimp contacts and contacts for optical waveguide separately</i>							
Contact carrier MO 10 for pin contacts	771 110					10 7	
<i>Please order crimp contacts and contacts for optical waveguide separately</i>							
Contacts			Terminal cross section indicated by code digit 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 6 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 contact D crimp-type solid, turned, weight per 100, pin Ø 1.6 mm ²	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 6 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	
Tools							
Removal tool for D contacts	710 614					1 7	
Removal tool for contact carriers	779 300					1 30	

Crimping tools see page 174

Tools and connection of glass fibre cables see page 172

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 diagrams

Rated voltage
63 V

Rated surge
4.0 kV

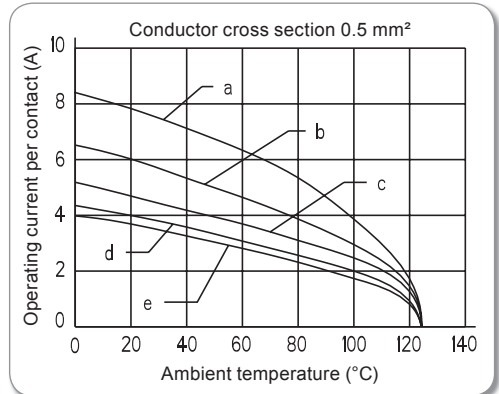
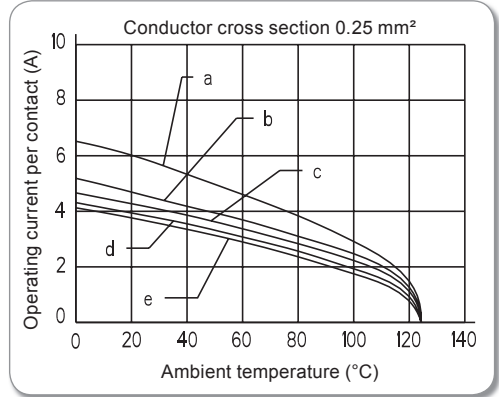
Test voltage
1.68 kV

Contact resistance
≤ 5 mΩ

The Derating-Diagram

(corrected current capacity curve) acc. to DIN IEC 60 512 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.

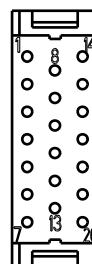
Curve	Poles	Retaining frame
a	20	MO B 6
b	40	MO B 6
c	60	MO B 10
d	100	MO B 16
e	140	MO B 24



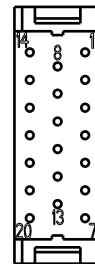
Contact arrangement

View from termination side

Female insert



Male insert



Description	Part no.	Series MO 20 P 5 A / 63 V		 	
Crimp contact carrier					
Contact carrier MO 20 for sleeve contacts <i>Please order crimp contacts separately</i>	771 020				10 6
Contact carrier MO 20 for pin contacts <i>Please order crimp contacts separately</i>	771 120				10 4
Contacts					
Sleeve contact MO 20 crimp-type, stamped, single contact, weight per 100, - strip contacts on request -	gold-plated 773 000 773 001		Terminal cross section 0.09 - 0.25 mm ² 28 - 24 AWG 0.25 - 0.5 mm ² 24 - 20 AWG		100 45 45
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		0.09 - 0.25 mm ² 28 - 24 AWG 0.25 - 0.5 mm ² 24 - 20 AWG		100 45 45
Tools					
Removal tool for MO 20 contacts	779 200				1 20
Crimping tool for stamped MO 20 contacts	779 500				1 486
Removal tool for contact carriers	779 300				1 30

6

- 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 RJ 45

8
plugging
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 category temperature
Lower category 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
≥ 500 mating cycles

Materials:

Contact insert
Colour
Contacts pin / sleeve
Contact surface

PA 6.6 GF
black
CuZn
Ag (silver)



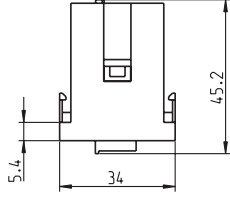
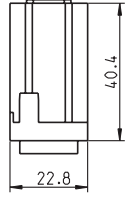

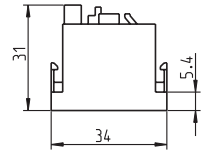
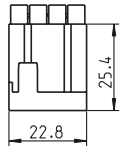







black
CuSn
Au (gold)

1) 2 modules, 40 °C ambient temperature, 1.5 mm² terminal cross section

RJ modules

For the 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 area
- Achieves CAT 5 for ethernet acc. to ISO/IEC 11801

Description	Part no.	Part no.	Series MO	RJ45	13 A / 400 V AC	 9	
RJ modules			Attention: 2 module spaces required in the frame				
Female module	775 000					10 24.5	
<i>Please order crimp contacts and contacts for optical waveguide separately</i>							
Male module	775 100					10 10.3	
<i>Please order crimp contacts, contacts for optical waveguide and pin contact RJ45 separately</i>							
Contacts			Terminal cross section indicated by code digit z				
Sleeve contact D	silver-plated 720 506 crimp-type solid, turned, weight per 100	gold-plated 720 686 720 687 720 688 720 689 720 690		z	1 0.14 - 0.37 mm ² 2 0.5 mm ² 3 0.75 - 1 mm ² 4 1.5 mm ² 5 2.5 mm ²	26 - 22 AWG 20 AWG 19 - 18 AWG 16 AWG 14 AWG	100 65 68 70 72 62
Pin contact D	silver-plated 720 516 crimp-type solid, turned, weight per 100, Pin Ø 1.6 mm ²	gold-plated 720 691 720 692 720 693 720 694 720 695		z	1 0.14 - 0.37 mm ² 2 0.5 mm ² 3 0.75 - 1 mm ² 4 1.5 mm ² 5 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
Pin contact RJ45	crimp-type, Cat5	720 545			24 - 26 AWG		10 8
Tools							
Removal tool	for D contacts	710 614					1 7
Removal tool	for contact carriers	779 300					1 30

Crimping tools see page 174

Tools and connection of glass fibre cables see page 172

Description	Part no.		Series MO 1P + 2P pneumatic	
Pneumatic				
Pneumatic module Female insert with contacts	771 001 1P hose Ø 2.5 mm 771 002 2P hose Ø 2.5 mm 771 004 1P hose Ø 4.0 mm 771 006 2P hose Ø 4.0 mm		<p>1 pole contact concentric</p>	 9 10 10 12 9 11
Pneumatic module Male insert with contacts	771 101 1P hose Ø 2.5 mm 771 102 2P hose Ø 2.5 mm 771 104 1P hose Ø 4.0 mm 771 106 2P hose Ø 4.0 mm		<p>1 pole contact concentric</p>	 10 9 10 8 9
Specifications				
Number of poles: Material: Temperature range: Flame class rating: Mechanical operating life: Connection technique: Operating pressure: Switched path: Shut off: Contacts (mounted):	1 and 2 Glass fibre reinforced PA - 20 °C up to + 100 °C V0 acc. to UL 94 5000 mating cycles Hose connection, only PTFE 8 bar 4.0 mm unidirectional Brass MS 58			
Description	Part no.		Series MO 0	
Blind module				
Blind module for Female frame without contact cavities	771 000			 10 5
Blind module for Male frame 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