



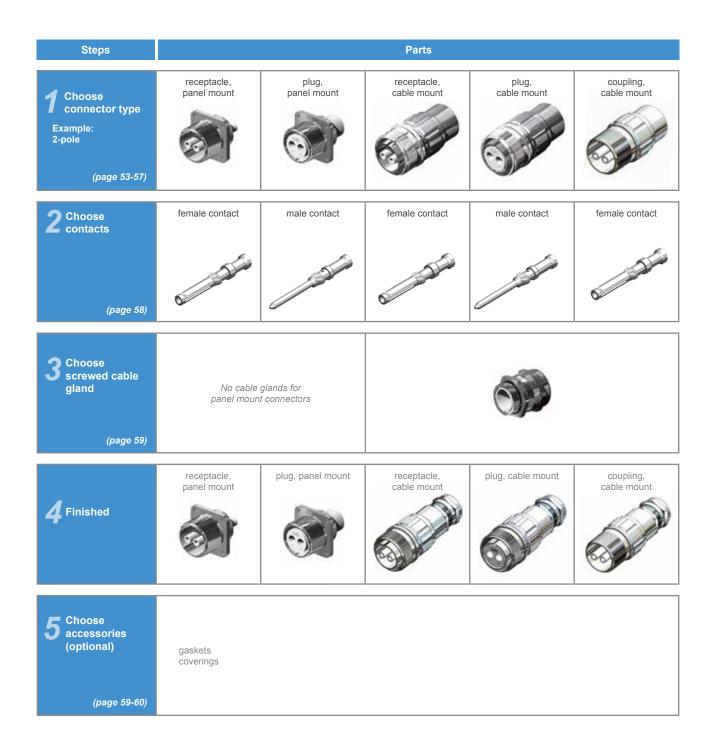
- Operating voltage from 10 kVDC to 15 kVDC
- Operating current up to 13 A
- 2 5 HV contacts
- For cable sizes AWG 26-14

Overview Series MC



P/N	Description	Plug	Receptacle	Cable mount	Panel mount	Coupling	HV-pins
5002010	GB-MC 207 POM		•		•		2
5002020	GS-MC 207 POM	•			•		2
5002030	KS-MC 207 POM	•		•			2
5002040	KB-MC 207 POM		•	•			2
5002041	KBI-MC 207 POM		•	•		•	2
5003010	GB-MC 307 POM		•		•		3
5003020	GS-MC 307 POM	•			•		3
5003030	KS-MC 307 POM	•		•			3
5003040	KB-MC 307 POM		•	•			3
5003041	KBI-MC 307 POM		•	•		•	3
5004010	GB-MC 407 POM		•		•		4
5004020	GS-MC 407 POM	•			•		4
5004030	KS-MC 407 POM	•		•			4
5004040	KB-MC 407 POM		•	•			4
5004042	KBI-MC 407 POM		•	•		•	4
5005010	GB-MC 507 POM		•		•		5
5005020	GS-MC 507 POM	•			•		5
5005030	KS-MC 507 POM	•		•			5
5005040	KB-MC 507 POM		•	•			5
5005041	KBI-MC 507 POM		•	•		•	5
5005115	GB-MC 520 PTFE		•		•		5
5005125	GS-MC 520 PTFE	•			•		5
5005135	KS-MC 520 PTFE	•		•			5
5005145	KB-MC 520 PTFE		•	•			5
5005146	KBI-MC 520 PTFE		•	•		•	5





General characteristics and technical data Series MC

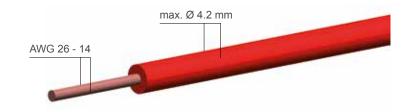


Housing	
Locking system	threaded coupling
Mounting type (panel mount connector)	4-hole flange
Housing material basis / adapter	aluminium (AI) / brass (CuZn)
Surface plating	nickel (Ni)
Protection class (mated connector)	IP54
Operating temperature	-30 °C to +80 °C

Contacts 1.6 mm	
Termination method	solder / crimp
Rated current	13 A
Contact resistance	≤ 5 mΩ
Contact diameter	1.6 mm
Wire size (AWG / cross section)	AWG 26-14 / 0.14 mm ² - 2.5 mm ²
Contact material	brass (CuZn)
Contact plating	silver (Ag) / gold (Au)
Mating cycles	≥ 1,000

Insulation inserts	
Number of contacts	2, 3, 4, 5
Insulation material	PTFE / POM
CTI value	600
Flammability class PTFE	UL94 V-0
Flammability class POM	UL94 HB
Operating temperature PTFE	-50 °C to +200 °C
Operating temperature POM	-30 °C bis +120 °C
Insulating material group PTFE / POM	I (DIN IEC 60664)

Suitable cable dimensions (single wire)





Electrical values	
Operating voltage (DC)	10 kV
Test voltage (DC)	15 kV
Rated current	13 A

Characteristics	
Number of pins	2
Insulation material	POM

Type / Version / Part number

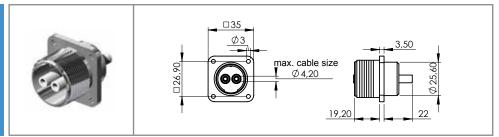
Drawing

GB-MC207

Receptacle, panel mount for female contacts

Part no. 5002010

(For female contacts go to page 58)

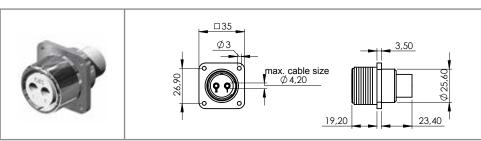


GS-MC207

Plug, panel mount for male contacts

Part no. 5002020

(For male contacts go to page 58)

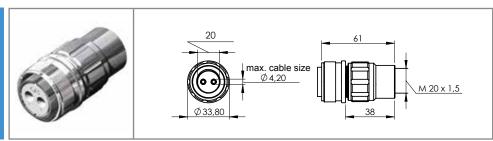


KS-MC207

Plug, cable mount for male contacs

Part no. 5002030

(for male contacts and cable glands go to page 58/59)

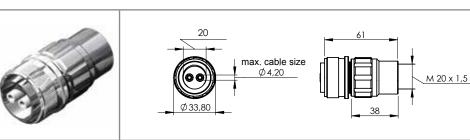


KB-MC207

Receptacle, cable mount for female contacts

Part no. 5002040

(for female contacts and cable glands go to page 58/59)



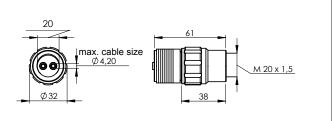
KBI-MC207

Receptacle, coupling, cable mount for female contacts

Part no. 5002041

(for female contacts and cable glands go to page 58/59)





drawing - dimensions in mm



Type MC307 3 Pole 10 kVDC



Electrical values	
Operating voltage (DC)	10 kV
Test voltage (DC)	15 kV
Rated current	13 A

Characteristics	
Number of pins	3
Insulation material	POM

Type / Version / Part number

Drawing

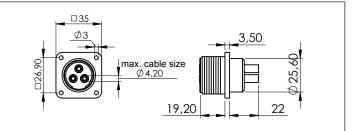
GB-MC307

Receptacle, panel mount for female contacts

Part no. 5003010

(For female contacts go to page 58)





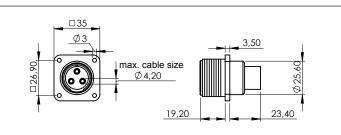
GS-MC307

Plug, panel mount for male contacts

Part no. 5003020

(For male contacts go to page 58)





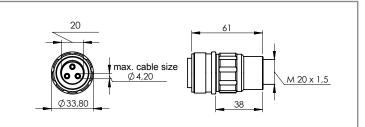
KS-MC307

Plug, cable mount for male contacs

Part no. 5003030

(for male contacts and cable glands go to page 58/59)





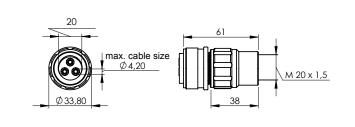
KB-MC307

Receptacle, cable mount for female contacts

Part no. 5003040

(for female contacts and cable glands go to page 58/59)





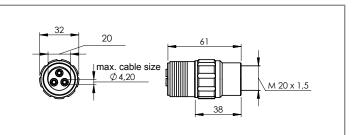
KBI-MC307

Receptacle, coupling, cable mount for female contacts

Part no. 5003041

(for female contacts and cable glands go to page 58/59)





drawing - dimensions in mm





Electrical values	
Operating voltage (DC)	10 kV
Test voltage (DC)	15 kV
Rated current	13 A

Characteristics	
Number of pins	4
Insulation material	POM

Type / Version / Part number

Drawing

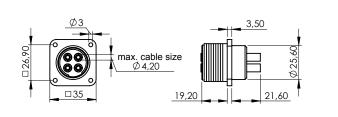
GB-MC407

Receptacle, panel mount for female contacts

Part no. 5004010

(For female contacts go to page 58)





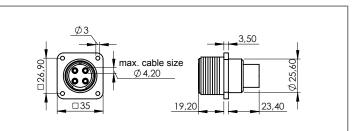
GS-MC407

Plug, panel mount for male contacts

Part no. 5004020

(For male contacts go to page 58)





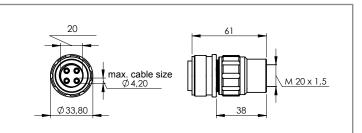
KS-MC407

Plug, cable mount for male contacs

Part no. 5004030

(for male contacts and cable glands go to page 58/59)





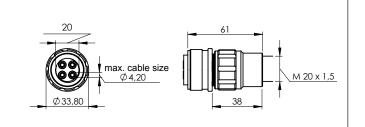
KB-MC407

Receptacle, cable mount for female contacts

Part no. 5004040

(for female contacts and cable glands go to page 58/59)





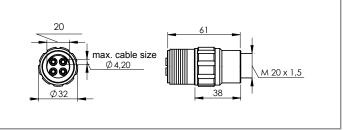
KBI-MC407

Receptacle, coupling, cable mount for female contacts

Part no. 5004042

(for female contacts and cable glands go to page 58/59)





drawing - dimensions in mm



Type MC507 5 Pole 10 kVDC



Electrical values	
Operating voltage (DC)	10 kV
Test voltage (DC)	15 kV
Rated current	13 A

Characteristics	
Number of pins	5
Insulation material	POM

Type / Version / Part number

Drawing

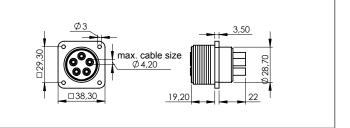
GB-MC507

Receptacle, panel mount for female contacts

Part no. 5005010

(For female contacts go to page 58)





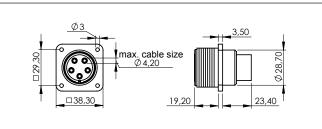
GS-MC507

Plug, panel mount for male contacts

Part no. 5005020

(For male contacts go to page 58)





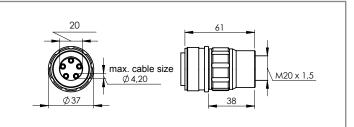
KS-MC507

Plug, cable mount for male contacs

Part no. 5005030

(for male contacts and cable glands go to page 58/59)





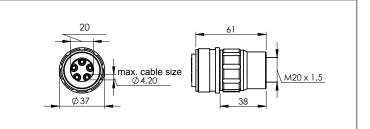
KB-MC507

Receptacle, cable mount for female contacts

Part no. 5005040

(for female contacts and cable glands go to page 58/59)





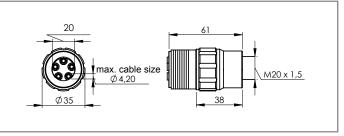
KBI-MC507

Receptacle, coupling, cable mount for female contacts

Part no. 5005041

(for female contacts and cable glands go to page 58/59)





drawing - dimensions in mm





Electrical values	
Operating voltage (DC)	15 kV
Test voltage (DC)	23 kV
Rated current	13 A

Characteristics	
Number of pins	5
Insulation material	PTFE

Type / Version / Part number

Drawing

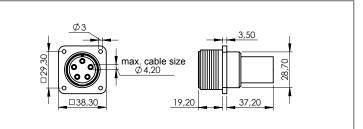
GB-MC520

Receptacle, panel mount for female contacts

Part no. 5005115

(For female contacts go to page 58)





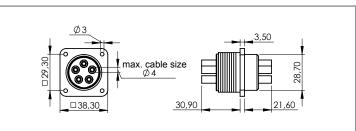
GS-MC520

Plug, panel mount for male contacts

Part no. 5005125

(For male contacts go to page 58)





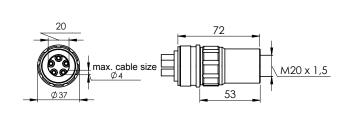
KS-MC520

Plug, cable mount for male contacs

Part no. 5005135

(for male contacts and cable glands go to page 58/59)





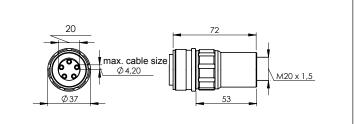
KB-MC520

Receptacle, cable mount for female contacts

Part no. 5005145

(for female contacts and cable glands go to page 58/59)





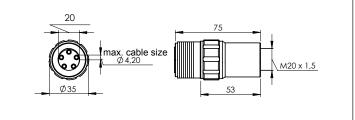
KBI-MC520

Receptacle, coupling, cable mount for female contacts

Part no. 5005146

(for female contacts and cable glands go to page 58/59)









Contacts



Male contacts 1.6 mm

Part no.	Description	Cross section in mm² (D)	AWG	Silver plated	Gold plated	Drawing
6575085	male contact 1.6 mm / AWG 26 - 22	0.14 - 0.37	26 - 22	•		25
6575086	male contact 1.6 mm / AWG 20	0.5	20	•		
6575088	male contact 1.6 mm / AWG 20 - 16	0.75 - 1.0	20 - 16	•		12 4,40
6575090	male contact 1.6 mm / AWG 16 - 15	1.5	16 - 15	•		
6575083	male contact 1.6 mm / AWG 14	2.5	14	•		
6575118	male contact AU 1.6 mm / AWG 26 - 22	0.14 - 0.37	26 - 22		•	25
6575121	male contact AU 1.6 mm / AWG 20	0.5	20		•	
6575116	male contact AU 1.6 mm / AWG 20 - 16	0.75 - 1.0	20 - 16		•	12 4.40
6575124	male contact AU 1.6 mm / AWG 16 - 15	1.5	16 - 15		•	
6575125	male contact AU 1.6 mm / AWG 14	2.5	14		•	

Male contact 1.6 mm interlock for safety interlock circle

drawing - dimensions in mm

Part no.	Description	Cross section in mm² (D)	AWG	Silver plated	Gold plated	Drawing
6575079	male contact interlock 1.6 mm / AWG 14 Short version for safety interlock circle	2.5	14	•		9,70

Female contacts 1.6 mm

drawing - dimensions in mm

Part no.	Description	Cross section in mm² (D)	AWG	Silver plated	Gold plated	Drawing
6575095	female contact 1.6 mm / AWG 26 - 22	0.14 - 0.37	26 - 22	•		21,70
6575107	female contact 1.6 mm / AWG 20	0.5	20	•		
6575098	female contact 1.6 mm / AWG 20 - 16	0.75 - 1.0	20 - 16	•		3,10
6575100	female contact 1.6 mm / AWG 16 - 15	1.5	16 - 15	•		
6575084	female contact 1.6 mm / AWG 14	2.5	14	•		
6575127	female contact AU 1.6 mm / AWG 26 - 22	0.14 - 0.37	26 - 22		•	21,70
6575131	female contact AU 1.6 mm / AWG 20	0.5	20		•	
6575117	female contact AU 1.6 mm / AWG 20 - 16	0.75 - 1.0	20 - 16		•	3,10
6575132	female contact AU 1.6 mm / AWG 16 - 15	1.5	16 - 15		•	
6575133	female contact AU 1.6 mm / AWG 14	2.5	14		•	

drawing - dimensions in mm



Screwed cable glands / Gaskets

Screwed cable glands M20 x 1.5

Part no.	Description	Clamping range in mm (D)	Drawing
1674058	screwed cable gland M20x1.5, 5-10 mm	5 - 10	thread M20 x 1,5 wrench size 22 clamping range (D) wrench size 20
1674110	screwed cable gland M20x1.5, 10-14 mm	10 -14	thread M20 x 1,5 wrench size 24 clamping range (D)
1674111	screwed cable gland M20x1.5, 7-12 mm	7 - 12	22.66

drawing - dimensions in mm

Gaskets

Part no.	Description	Drawing
6572081	Flat gasket for types GS/GB 207 - 407 (Size 18)	35 27 Ø 5,40
6572054	Flat gasket for types GS/GB 507/520 (Size 20)	38 29 Ø 5,40 Ø 32

drawing - dimensions in mm

Coverings / Tools



Coverings with thread

P/N	Description	Mechanical drawing
1672070	Covering for types KS/KB 507	chain length min. 120mm
1672071	Covering for types GS/GB/KBI 507	chain length min. 120mm
1672072	Covering for types KS/KB 207 - 407	chain length min. 120mm
1672073	Covering for types GS/GB/KBI 207 - 407	chain length min. 20mm

drawing - dimensions in mm

Tools

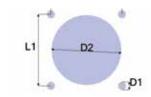
Part No.	Description	Connector types
3000001	Extracting tool for contacts 1.6 mm - male and female	MC 207 - 507
3000015	Crimping tool for contacts 1.6 mm - male and female incl. pliers, contact holder and crimping cheeks	MC 207 - 507, MC 520

Series **Series**

Assembly Instructions Series MC - type 207-507 receptacle, panel mount



Part as supplied Shrinking tubes (1), female contacts (2), connector housing (3)



Panel cut out

Туре	L1 [mm]	D1 [mm]	D2 [mm]
GB 207/ 307/ 407	26.90	3.00	25.60
GB 507	29.30	3.00	28.70

3.



Carefully remove cable jacket

Туре	L2 [mm]
GB 207/ 307/ 407/ 507	min. 45

⚠ Do not damage metal shield braid



Fold back shield braid.

5.



Remove any filling elements from cable



Remove dielectric insulation of single wires (L3 = 5 - 8mm)

7.



Crimp or solder one female contact (2) on each conductor

⚠ For soldering: Tin-solder must not remain on contact surface!



Put shrinking tubes (1) on insulation tubes on rear side of connector housing (3)



Slide contacts (2) completely into insulation tubes until contacts snap into place

Pull gently to check that contacts are correctly located and remain in position

10.



Shrink tubes - shrinking temperature 110° C



Assembly finished

Assembly Instructions Series MC - type 207- 507 plug, panel mount

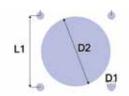






Part as supplied male contacts (1), connector housing (2)

2.



Panel cut out

Туре	L1 [mm]	D1 [mm]	D2 [mm]
GS 207/ 307/ 407	26.90	3.00	25.60
GS 507	29.30	3.00	28.70



Carefully remove cable jacket

Туре	L2 [mm]
GS 207/ 307/ 407/ 507	min. 45

Do not damage metal shield braid





Fold back shield braid.



Remove any filling elements from cable



Remove dielectric insulation of single wires (L3 = 5 - 8mm)

7.



Crimp or solder one male contact (1) on each conductor

For soldering: Tin-solder must not remain on contact surface!



Slide contacts (1) completely into connector shell (2) until contacts snap into place

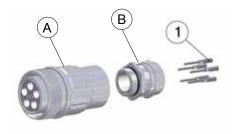
Pull gently to check that contacts are correctly located and remain in position



Assembly finished.

Series **Series**

Assembly Instructions Series MC - type 207- 507 plug, cable mount



Part as supplied

Connector housing (A), male contacts (1) Optional: Screwed cable gland (B)

2.



Components

Screwed cable gland (B): Cap (2), sealing insert (3), cable gland basis (4)

Connector housing (A): housing adapter (5), housing basis (6)

3.



Screw cable gland basis (4) to housing adapter (5)

Screwed cable gland	Clamping range	SW 1	Tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	10 (7)
M20	7 - 12	24	10
M20	10 - 14	24	10

4.



Place cap (2), sealing insert (3) and housing adapter (5) on cable.

Respect correct order of parts (see picture)



Remove cable jacket

Туре	L1 [mm]
KS 207 / 307 / 407 / 507	35 - 40

⚠ Do not damage metal shield braid



Fold back shield braid over jacket

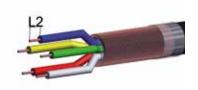
7.



Fix shield braid with tape



Remove any filling elements from cable



Remove dielectric insulation (L2 = min. 5mm)

Assembly Instructions Series MC - type 207- 507 plug, cable mount



10.



Crimp or solder male contacts on conductor

For solder: Tin-solder must not remain on con tact surface

15.



Completely slide seal insert under shield braid into cable gland basis

11.



Slide contacts completely into housing basis until contacts snap into place

Pull gently to check that contacts are correctly located and remain in position

16.



Cut overlapping shield braid

Carefully remove shield strands. Loose strands can cause electrical break down

12.



Screw adapter to housing basis

17.



Screw cable gland cap to cable gland basis

Screwed cable gland	Clamping range	SW 1	SW 2	Tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	20	5
M20	7 - 12	24	24	8
M20	10 - 14	24	24	8

13.



Remove tape

14.



Completely widen shield braid.

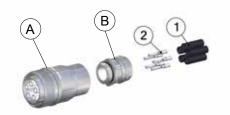


Assembly finished.



Assembly Instructions Series MC - type 207- 507 receptacle cable mount





Part as supplied

Connector housing (A), shrinking tubes (1), female contacts (2)

Optional: Screwed cable gland (B)

2.



Components

Screwed cable gland (B): Cap (3), sealing insert (4), cable gland basis (5)

Connector housing (A): housing adapter (6), housing basis (7)

3.



Screw cable gland basis (5) to housing adapter (6)

Screwed cable gland	Clamping range	SW 1	Tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	10 (7)
M20	7 - 12	24	10
M20	10 - 14	24	10

4.



Place cap (3), sealing insert (4) and housing adapter (6) on cable

Respect correct order of parts (see picture)

5.



Remove cable jacket

Туре	L1 [mm]
MC 207 / 307 / 407 / 507	35 - 40

♠ Do not damage metal shield braid

6.



Fold back shield braid over jacket

7.



Fix shield braid with tape

8.



Remove any filling elements from cable

9



Remove dielectric insulation (L2 = min. 5mm)



Crimp or solder female contacts (2) on conductor

For soldering: Tin-solder must not remain on con tact surface

Assembly Instructions Series MC - type 207-507 receptacle, cable mount



11.



Slide shrinking tubes (1) on insulation tubes on rear side of housing basis (7)





Slide female contacts completely into insualtion tuibes until contacts snap into place

Pull gently to check that contacts are correctly located and remain in position

13.



Shrink tubes - shrinking temperature 110° C

14.



Screw housing adapter to housing basis

15.



Remove tape

16.



Completely widen shield braid.

17.



Completely slide seal insert under shield braid into cable gland basis

18.



Cut overlapping shield braid

Carefully remove shield strands. Loose strands can cause electrical break down

19.



Screw cable gland cap to cable gland basis

Cable gland type	Clamping range	SW 1	SW 2	Tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	20	5
M20	7 - 12	24	24	8
M20	10 - 14	24	24	8



Assembly finished.



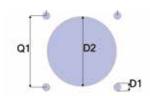
Assembly Instructions Series MC - type 520 receptacle, panel mount

1.



Part as supplied female contacts (1), connector housing (2)

2.



Panel cut out

Туре	Q1	D1	D2
	[mm]	[mm]	[mm]
GB 520	29.30	3.00	28.70

3.



Carefully remove cable jacket

Туре	L2 [mm]
GB 520	min. 60

♠ Do not damage metal shield braid

4.



Fold back shield braid.



Remove any filling elements from cable

6.



Remove dielectric insulation of single wires (L2 = 5 - 8mm)

7.



Crimp or solder one male contact (1) each on every conductor

For soldering: Tin-solder must not remain on contact surface!

8.



Slide contacts completely into connector shell until contacts snap into place

Pull gently to check that contacts are correctly located and remain in position



Assembly finished.

Assembly Instructions Series MC - type 520 plug, panel mount

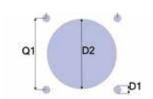






Part as supplied Shrinking tubes (1), male contacts (2), connector housing (3)

2.



Panel cut out

Туре	Q1	D1	D2
	[mm]	[mm]	[mm]
GS 520	29.30	3.00	28.70



Carefully remove cable jacket

Туре	L1 [mm]
GS 520	min. 60

1 Do not damage metal shield braid



Fold back shield braid.

5.

Remove any filling elements from cable



Remove dielectric insulation of single wires (L2 = 5 - 8mm)

7.



Crimp or solder one male contact (1) each on every conductor

For soldering: Tin-solder must not remain on contact surface!

8.



Put shrinking tubes on insulation tubes on back of connector housing.



Slide contacts completely into insulation tubes until contacts snap into place

Pull gently to check that contacts are correctly located and remain in position



Shrink tubes - shrinking temperature 110° C



Assembly finished

Series **Series**

Assembly Instructions Series MC - type 520 plug, cable mount



Part as supplied

Connector housing (A), shrinking tubes (1), male contacts (2)

Optional: Screwed cable gland (B)

2.



Components

Screwed cable gland (B): cap (3), sealing insert (4), cable gland basis (5)

Connector housing (A): housing adapter (6), housing basis (7)

3.



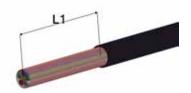
Screw cable gland basis (5) to housing adapter (6)

screwed cable gland	clamping range	SW 1	tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	10 (7)
M20	7 - 12	24	10
M20	10 - 14	24	10



Place cap (3), sealing insert (4) and housing adapter (6) on cable

Respect correct order of parts (see picture)



Remove cable jacket

Туре	L1 [mm]
KS 520	65 - 70

⚠ Do not damage metal shield braid

6.



Fold back shield braid over jacket

7.



Fix shield braid with tape

8.



Remove any filling elements from cable



Remove dielectric insulation (L2 = min. 5 mm)



Crimp or solder male contacts (2) on conductor For soldering: Tin-solder must not remain on con tact surface

Assembly Instructions Series MC - type 520 plug, cable mount



11.



Slide shrinking tubes (1) on insulation tubes on reae side of housing basis (7)

16.



Completely widen shield braid.

12.



Slide male contacts (2) completely into insulation tubes until contacts snap into place

Pull gently to check that contacts

are correctly located and remain in position

17.



Completely slide seal insert (3) under shield braid into cable gland basis (4)

13



Shrink tubes - shrinking temperature 110° C

18.



Cut overlapping shield braid

Carefully remove shield strands. Loose strands can cause electrical break down

41



Screw housing adapter (6) to housing basis (7)

19.



Screw cable gland cap (3) to cable gland basis (4)

Cable gland type	Clamping range	SW 1	SW 2	Tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	20	5
M20	7 - 12	24	24	8
M20	10 - 14	24	24	8

15.



Remove tape



Assembly finished.

Series MC

B

1.



Part as supplied Connector housing (A), female contacts (1) Optional: Screwed cable gland (B)

2.



Components

Screwed cable gland (B): Cap (2), sealing insert (3), cable gland basis (4)

Connector housing (A): housing adapter (5, housing basis (6)

3.



Screw cable gland basis (4) to housing adapter (5)

screwed cable gland	clamping range	SW 1	tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	7
M20	7 - 12	24	10
M20	10 - 14	24	10

4.

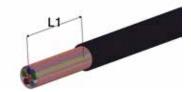


Place cap (2), sealing insert (3) and housing adapter (5) on cable.

Respect correct order of parts (see picture)

Assembly Instructions Series MC - type 520 receptacle, cable mount

5.



Remove cable jacket

Туре	L1 [mm]
KB 520	35 - 40

⚠ Do not damage metal shield braid

6.



Fold back shield braid over jacket

7.



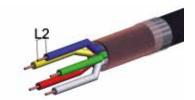
Fix shield braid with tape

8.



Remove any filling elements from cable

9.



Remove dielectric insulation (L2 = min. 5 mm)



Crimp or solder female contacts (1) on conductor

For soldering: Tin-solder must not remain on con tact surface

Assembly Instructions Series MC - type 520 receptacle, cable mount



11.



Slide female contacts (1) completely into housing basis (6) until contacts snap into place Pull gently to check that contacts are correctly located and remain in position

12.



Screw adapter (5) to housing basis (6)



Remove tape

14.



Completely widen shield braid.

15.



Completely slide seal insert (3) under shield braid into cable gland basis (4)

16.



Cut overlapping shield braid ⚠ Carefully remove shield strands. Loose strands can cause electrical break down

17.



Screw cable gland cap (2) to cable gland basis (4)

Cable gland type	Clamping range	SW 1	SW 2	Tightening torque [Nm]
M20 (M16)	5 - 10	22 (20)	20	5
M20	7 - 12	24	24	8
M20	10 - 14	24	24	8



Assembly finished