



- Operating voltage up to 5 kVDC
- Operating current up to 4,5 A
- 2 6 high voltage contacts
- Quick and easy assembling
- Protection class IP68 acc. DIN EN 60529

General characteristics and technical data Series MCS



Housing	
Locking system	threaded coupling
Panel mount type	round flange
Housing material	brass (CuZn)
Surface plating	nickel (Ni)
Protection class acc. DIN EN 60529 (mated connector)	IP68
Operating temperature	-30°C to +80°C

Contacts 0.7 mm	
Termination method	solder / crimp
Rated current	4.5 A
Contact resistance	< 0.7 mΩ
Contact diameter	0.7 mm
Wire size	0.15-0.38 mm² (AWG 26 - 22)
Contact material	brass (CuZn)
Contact plating	gold (Au)
Mating cycles	≥ 5000

Insulation inserts	
Number of contacts	2, 4, 6
Insulation material	PBT
Flammability class	UL94 V-0
Operating temperature	-40°C to +150°C
CTI value	600
Insulation material group	I (DIN IEC 60664)
Max. diameter of dielectric cable insulation	1.6 mm

Configurations			
Туре	205	405	605
Receptacle			000
Plug	69		



Type MCS205 2-pole 5 kVDC

Electrical Values	
Operating Voltage (DC)	5 kV
Test Voltage (DC)	8 kV
Rated Current	4.5 A

Characteristics	
Number of pins	2
Insulation material	PBT

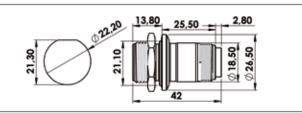
Type / Version / Description

Drawing

GB-MCS205

Receptacle, panel mount incl. female contacts 0.7mm

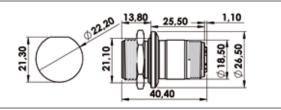




GS-MCS205

plug, panel mount incl. male contacts 0.7mm

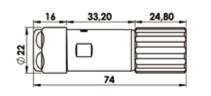




KS-MCS205

plug, cable mount incl. male contacts 0.7mm

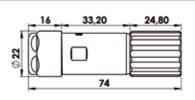




KB-MCS205

Receptacle, cable mount incl. female contacts 0.7mm





drawings – dimensions in mm

Part no.	Description	Plug	Receptacle	Cable mount	Panel mount	Clamping range (in mm) Screwed cable gland
5001200	GB-MCS205		•		•	
5001205	GS-MCS205	•			•	
5001210	KS-MCS205 6.5 - 4.0	•		•		6.5 - 4.0
5001211	KS-MCS205 8.0 - 5.0	•		•		8.0 – 5.0
5001212	KS-MCS205 9.5 - 6.5	•		•		9.5 - 6.5
5001213	KS-MCS205 10.5 - 7.0	•		•		10.5 – 7.0
5001220	KB-MCS205 6.5 - 4.0		•	•		6.5 - 4.0
5001221	KB-MCS205 8.0 - 5.0		•	•		8.0 – 5.0
5001222	KB-MCS205 9.5 - 6.5		•	•		9.5 - 6.5
5001223	KB-MCS205 10.5 - 7.0		•	•		10.5 – 7.0



Accessories - page 72 2-core cable - page 76

Type MCS405 **4-pole 5 kVDC**



Electrical Values	
Operating Voltage (DC)	5 kV
Test Voltage (DC)	8 kV
Rated Current	4.5 A

Characteristics	
Number of pins	4
Insulation material	PBT

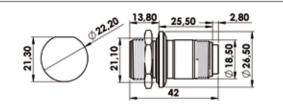
Type / Version / Description

Mechanical drawing

GB-MCS405

Receptacle, panel mount incl. female contacts 0.7mm

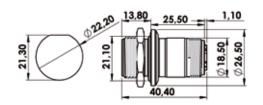




GS-MCS405

plug, panel mount incl. male contacts 0.7mm

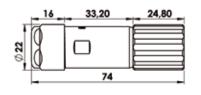




KS-MCS405

plug, cable mount incl. male contacts 0.7mm

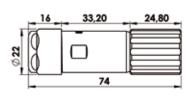




KB-MCS405

Receptacle, cable mount incl. female contacts 0.7mm





drawings – dimensions in mm

Part no.	Description	Plug	Receptacle	Cable mount	Panel mount	Clamping range (in mm) Screwed cable gland
5001400	GB-MCS405		•		•	
5001405	GS-MCS405	•			•	
5001410	KS-MCS405 6.5 - 4.0	•		•		6.5 - 4.0
5001411	KS-MCS405 8.0 - 5.0	•		•		8.0 – 5.0
5001412	KS-MCS405 9.5 - 6.5	•		•		9.5 - 6.5
5001413	KS-MCS405 10.5 - 7.0	•		•		10.5 – 7.0
5001420	KB-MCS405 6.5 - 4.0		•	•		6.5 - 4.0
5001421	KB-MCS405 8.0 - 5.0		•	•		8.0 – 5.0
5001422	KB-MCS405 9.5 - 6.5		•	•		9.5 - 6.5
5001423	KB-MCS405 10.5 - 7.0		•	•		10.5 – 7.0



Accessories - page 72 4-core cable - page 76



Type MCS605 6-pole 5 kVDC

Electrical Values	
Operating Voltage (DC)	5 kV
Test Voltage (DC)	8 kV
Rated Current	4.5 A

Characteristics	
Number of pins	6
Insulation material	PBT

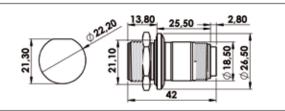
Type / Version / Description

Mechanical drawing

GB-MCS605

Receptacle, panel mount incl. female contacts 0.7mm

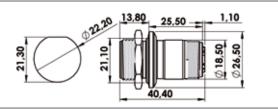




GS-MCS605

plug, panel mount incl. male contacts 0.7mm

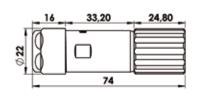




KS-MCS605

plug, cable mount incl. male contacts 0.7mm

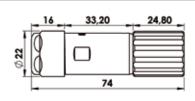




KB-MCS605

Receptacle, cable mount incl. female contacts 0.7mm





drawings – dimensions in mm

Part no.	Description	Plug	Receptacle	Cable mount	Panel mount	Clamping range (in mm) Screwed cable gland
5001600	GB-MCS605		•		•	
5001605	GS-MCS605	•			•	
5001610	KS-MCS605 6.5 – 4.0	•		•		6.5 - 4.0
5001611	KS-MCS605 8.0 - 5.0	•		•		8.0 – 5.0
5001612	KS-MCS605 9.5 - 6.5	•		•		9.5 - 6.5
5001613	KS-MCS605 10.5 - 7.0	•		•		10.5 – 7.0
5001620	KB-MCS605 6.5 – 4.0		•	•		6.5 - 4.0
5001621	KB-MCS605 8.0 - 5.0		•	•		8.0 – 5.0
5001622	KB-MCS605 9.5 - 6.5		•	•		9.5 - 6.5
5001623	KB-MCS605 10.5 - 7.0		•	•		10.5 – 7.0



Accessories - page 72 6-core cable - page 76

Components / Accessories



Contacts

Part no.	Description	Cross section In mm² (D)	AWG (D)	Mechanical drawing
6575150	Male contact 0.7mm	0.15 – 0.38	26 - 22	0 4.60 4.10 7.90 16.60 R
6575160	Female contact 0.7mm	0.15 – 0.38	26 - 22	4.60 4.10 7.90

drawings – dimensions in mm

Coverings with thread

Part no.	Description	Mechanical drawing
1672118	Covering (inside thread) for types GS / GB 205 - 605	6.50
1672119	Covering (outside thread) for types KS / KB 205 - 605	6.50 E

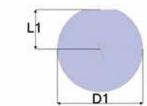
drawings – dimensions in mm

Assembly instructions (GB/GS)



Part as delivered contacts (1), insulation part (2), housing (3)

2.



Panel cut out	
D1 [mm]	L1 [mm]
22.20	10.10

3.



Carefully remove cable jacket (L2 = min. 30mm)

1 Do not damage metal shield.



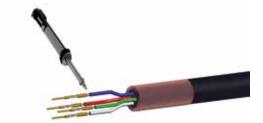
Fold back shield



Remove any filling elements from cable



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



Crimp or solder one contact (1) each on every conductor Tin-solder must not remain on contact surface!

8.



Slide contacts (1) completely into insulation part (2) until contacts snap

Put in all contacts at the same time



Put insulation part (2) into housing (3) Pay attention to notches.

10.



Assembly finished

Assembly instructions (KB/KS)



1.



Part as delivered

cap (1), clamping rubber (2), outer cone (3), inner cone (4), contacts (5), insulation part (6), housing (7)

2.



Place cap (1), clamping rubber (2) and outer cone (3) on cable

Respect correct order of parts (see picture).

3.



Carefully remove cable jacket (L1 = 28mm)

not damage metal shield.

Do not damage dielectric insulation.



Place inner cone (4) on cable

7.



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

Do not damage conductor.

8.



Crimp or solder one contact (5) each on every conductor

Tin-solder must not remain on contact surface!

4.



Fold back shield braid over jacket

9.



Completely widen shield braid. Push outer cone (3) and clamping rubber (2) under shield braid against inner cone (4) until shield braid clamps between outer cone (3) and inner cone (4)

5.



Remove any filling elements from cable



Cut overlapping shield braid

Carefully remove loose shield parts. Loose shield parts can cause electrical break down.

Assembly instructions (KB/KS)

11.



Slide contacts (5) completely into insulation part (6) until contacts snap

Insert all contacts at the same time. Pull gently to check that contacts are correctly located and remain in position.



Put on cap

Wrench size cap	Wrench size housing	Tightening torque [Nm]
20	19	5

12.



Slide insulation part (6) into housing (7) until insulation part snap in

⚠ Use notches for correct position of insulation part.



Assembly finished



Note - important!

- 1. Please carefully read assembly instructions before cable assembly.
- 2. Cable assembly must only be done by trained and qualified personnel.

Suitable cables for Series MCS



Part No. 3330082	Part No. 3330084	Part No. 3330086

Operating voltage DC	5 kVDC			
Test voltage DC	7.5 kVDC			
Number of wires	2 4		6	
Construction	2 wires stranded	4 wires stranded	6 wires stranded	
Single wire - conductor				
AWG	AWG 26			
Strands		7 x 0.16 mm		
Cross section	0.14 mm²			
Conductor diameter		0.42 mm		
Conductor material	tinned copper			
Single wire - dielectric				
Diameter	1.6 mm (± 0.1 mm)			
Material	FEP			
Encoding	grey, black	grey, black, blue, green	grey, black, blue, green, yellow, brown	
Screen (Shield)	YES			
Coverage	about 85 %			
Material	tinned copper			
Jacket				
Diameter	6.2 mm (± 0.3 mm)	6.9 mm (± 0.3 mm)	7.9 mm (± 0.3 mm)	
Material	Silicone			
Color	red			
Temperature range	-30° C to +180° C			
Fits connector types	MCS205	MCS405	MCS605	