

# **100** Series



S Series

100 Series

VP Series

MCS Series

MC Series

M Series

MOD Series

- Operating voltage up to 100 kVDC
- Operating current up to 80 Amps
- Advanced contact technology
- Oil tight receptacles available
- High performance insulation materials PTFE

# General characteristics and technical data Series 100

**100** Series

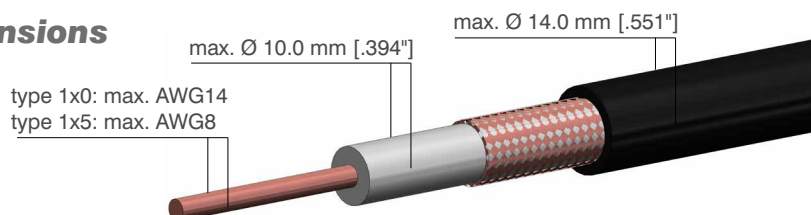
Housing	
Locking system	threaded coupling
Mounting type (panel mount connector)	round flange
Housing material	brass (CuZn)
Surface plating	nickel (Ni)
Protection class (mated connector)	IP67
Operating temperature	-30°C to +80°C

Contacts 2.5 mm (connector types SB1x0)	
Termination method	solder (male contact), solder / screw (female contact)
Rated current	30 A
Max. operating current	40 A
Pulse current	3000 A
Contact resistance	300 $\mu\Omega$
Contact diameter	2.5 mm [.173"]
Contact diameter	AWG 14 / 2.5 mm <sup>2</sup>
Contact material	brass (CuZn)
Contact plating	silver (Ag)
Insertion / Withdrawal force	5,5 N / 4,0 N
Mating cycles	100000
Rated temperature	+120°C

Contacts 5 mm (connector types SB1x5)	
Termination method	solder (male contact), solder / screw (female contact)
Rated current	80 A
Max. operating current	110 A
Pulse current	10000 A
Contact resistance	150 $\mu\Omega$
Contact diameter	5 mm [.197"]
Max. wire size	AWG 8 / 10 mm <sup>2</sup>
Contact material	brass (CuZn)
Contact plating	silver (Ag)
Insertion / Withdrawal force	15 N / 10 N
Mating cycles	100000
Rated temperature	+120°C

Insulation inserts	
Number of contacts	1
Insulation material	PTFE
CTI value	600
Flammability class PTFE	UL94 V-0
Operating temperature PTFE	-50°C to +200°C
Insulating material group PTFE / POM	I (DIN IEC 60664)

## Suitable cable dimensions



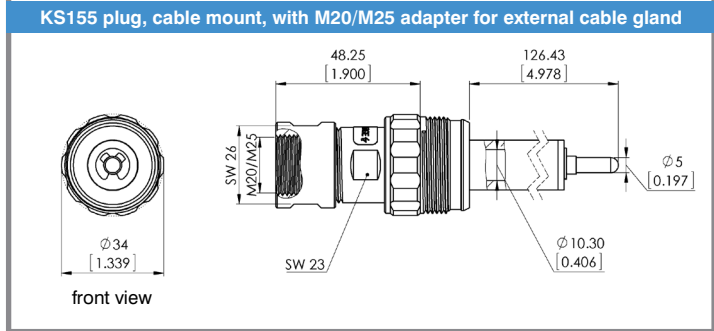
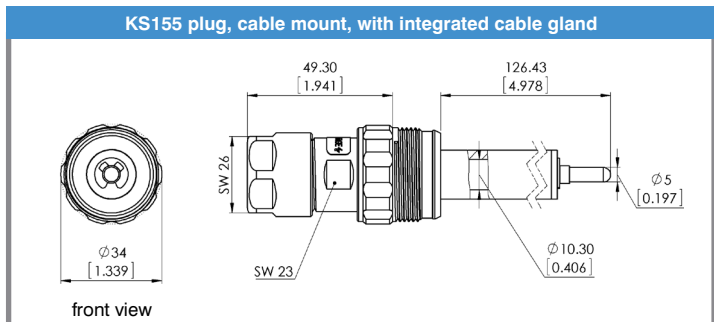
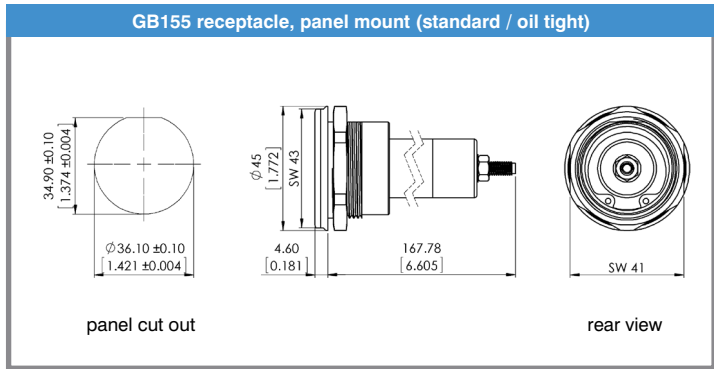


GB155 receptacle, panel mount



KS155 plug, cable mount

Electrical values	
Operating voltage (DC)	50 kV
Test voltage (DC)	75 kV
Rated current	80 A
Maximum operating current	110 A
Pulse current	10000 A
Characteristics	
Contact size	5 mm [.197"]
Insulation material	PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm [inch]

P/N	Description	Plug, cable mount	Receptacle, panel mount	clamping range for cables Ø 6.5 - 8 mm [.256" - .315"]	clamping range for cables Ø 8 - 9.5 mm [.315" - .374"]	clamping range for cables Ø 9.5 - 11 mm [.374" - .433"]	clamping range for cables Ø 11 - 12.5 mm [.433" - .492"]	clamping range for cables Ø 12.5 - 14 mm [.492" - .551"]	oil tight version
7200551	KS155/6,5-8 PTFE	•		•					
7200550	KS155/8-9,5 PTFE	•			•				
7200552	KS155/9,5-11 PTFE	•				•			
7200554	KS155/11-12,5 PTFE	•					•		
7200553	KS155/12,5-14 PTFE	•						•	
7200555	KS155/M20 PTFE	•		with adapter M20x1.5 for external cable gland					
7200556	KS155/M25 PTFE	•		with adapter M25x1.5 for external cable gland					
7200557	GB155 PTFE		•						
7200558	GB155/Ö PTFE		•						•



Accessories - page 42  
 Mounting instructions - page 44-47  
 Cables - page 48-49

\*KV = screwed cable gland

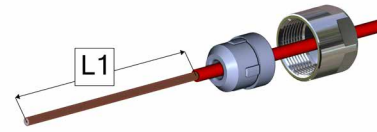
# Assembly Instructions Series 100 (plug, cable mount)

1.



Part as delivered

5.



Remove cable jacket  
⚠ Do not damage shield braid

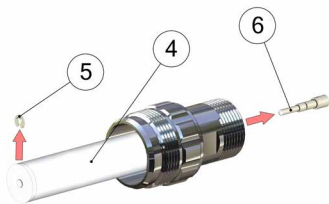
2.



Components  
Cap (1), sealing insert (2), housing (3), insulator (4)

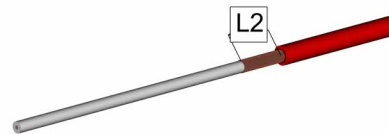
Types	min. L1 mm [inch]
S110 / S115	52 [2.037"]
S120 / S125 / S125 Pro	72 [2.824"]
S130 / S135	92 [3.611"]
S150 / S155	142 [5.580"]
S160 / S165	224 [8.828"]
S1100 / S1105	377 [14.852"]

3.



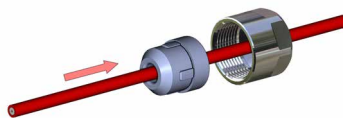
Remove snap ring (5) and take out male contact (6)

6.



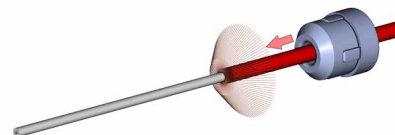
Cut shield braid roughly about 30 mm [1.181"] (=L2)  
⚠ Carefully remove shield parts. Loose shield parts can cause electrical break down

4.



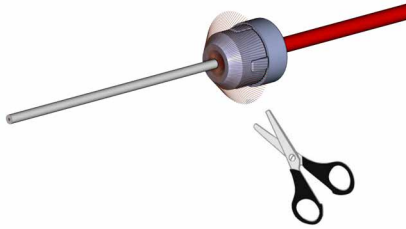
Place cap (1) and sealing insert (2) on cable  
⚠ Respect correct order of parts (see picture)

7.



Completely widen shield braid. Push seal insert (2) under shield braid

8.



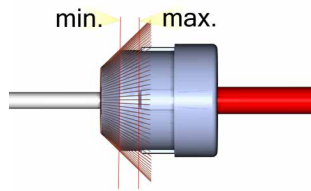
**Cut shield to length.**  
⚠ For length see step 9.

12.



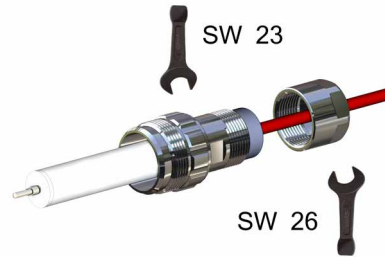
**Completely insert cable in insulation part (4) until seal insert (2) plugs in housing (3)**

9.



**Make sure shield length is between min. and max. mark.**

13.



**Screw cap (1) onto housing (3)**  
⚠ Wrench size housing SW23, Wrench size cap SW26, tightening torque 10 Nm

10.



**Remove dielectric insulation**

14.

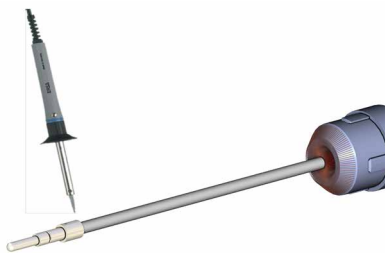


**Secure contact (6) with snap ring (5)**

Types	min. L3 mm [inch]
KS 110/120/130/150/160/1100	5 [.197"]
KS 115/125/125 Pro/135/155/165/1105	8 [.315"]

⚠ Do not damage conductor

11.



**Solder contact (6) on conductor**  
⚠ Tin-solder must not remain on contact surface

15.



**Assembly finished**

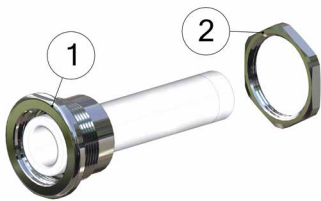
# Assembly Instructions Series 100 (receptacle, panel mount)

1.



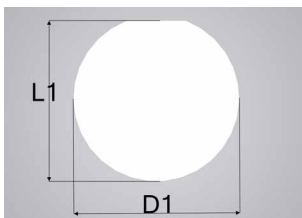
Part as supplied

2.



Remove counter nut (1) from housing (2)

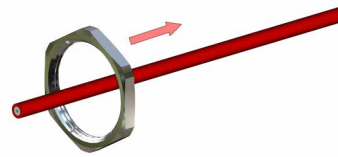
3.



Panel cut out

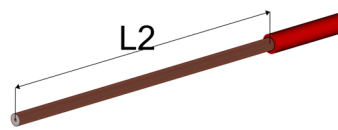
Dimension	Value mm [inch]
D1	36.10 [1.421"]
L1	34.90 [1.374"]

4.



Place counter nut (1) on cable

5.

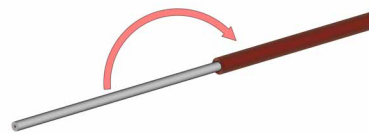


⚠ ONLY when using shielded cable:  
Remove cable jacket

Type	min. L2 mm [inch]
B 110 / 115	40 [1.575"]
B 120 / 125	80 [3.150"]
B 130 / 135	120 [4.724"]
B 150 / 155	200 [7.874"]
B 160 / 165	240 [9.449"]
B 1100 / 1105	400 [15.748"]

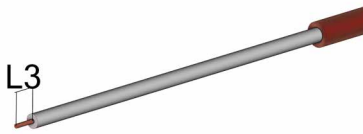
⚠ Do not damage shield braid

6.



Fold back shield braid over jacket

7.



Remove dielectric insulation

Type	min. L3 mm [inch]
B 110 / 120 / 130 / 150 / 160 / 1100	5 [.197"]
B 115 / 125 / 135 / 155 / 165 / 1105	8 [.315"]

⚠ Do not damage conductor.

10.



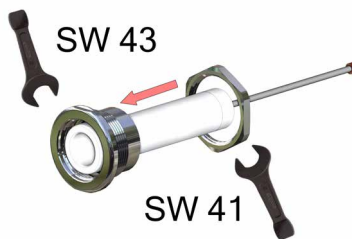
Assembly finished

8.



Solder conductor on female contact or use a cable lug to connect conductor with contact  
⚠ Tin-solder must not remain on contact surface

9.



Screw on counter nut and tighten



**Note – important!**

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

**IMPORTANT – PLEASE NOTE:**

Stated stripping lengths are referring ONLY to jackets of shielded cables!

