

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

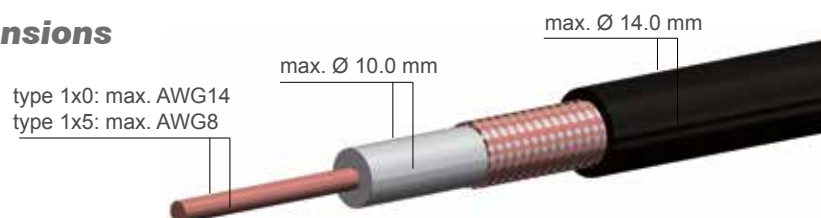
Housing	
Locking system	threaded coupling
Mounting type (panel mount connector)	round flange
Housing material	aluminium (Al)
Surface plating	nickel (Ni)
Protection class (mated connector)	IP50
Operating temperature	-30 °C to +80 °C

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
Max. wire size	AWG 14 / 2.5 mm <sup>2</sup>
Contact material	brass (CuZn)
Contact plating	silver (Ag) / gold (Au)
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
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 / 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 to +120 °C
Insulating material group PTFE / POM	I (DIN IEC 60664)

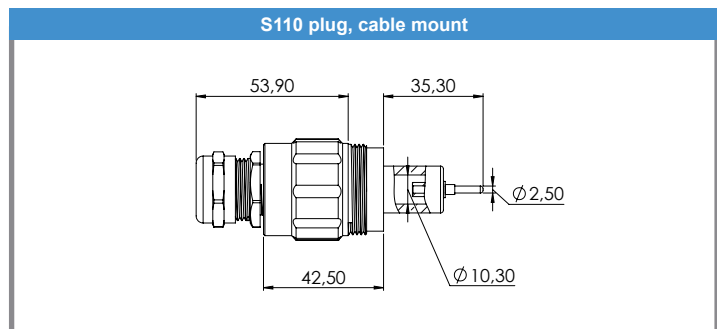
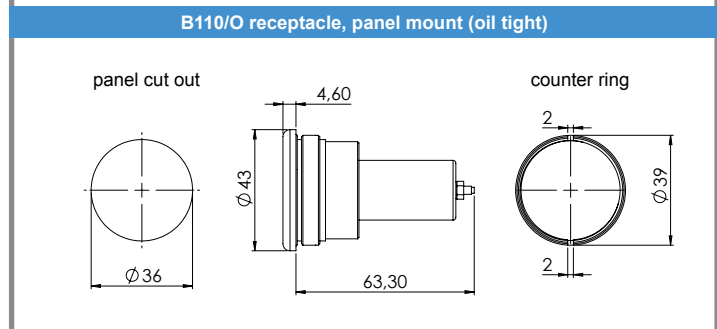
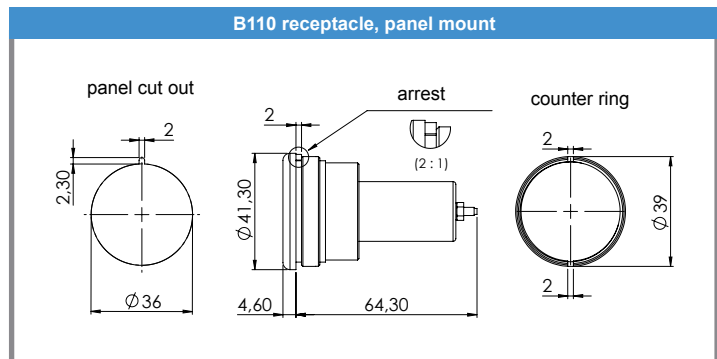
## Suitable cable dimensions





B110 receptacle, panel mount  
S110 plug, cable mount

Electrical values	
Operating voltage (DC)	10 kV
Test voltage (DC)	15 kV
Rated current	30 A
Maximum operating current	40 A
Pulse current	3000 A
Characteristics	
Contact size	2.5 mm
Insulation material	PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7212000	S110/A PTFE	•			•		
7212001	S110/B PTFE	•				•	
7212004	S110/E PTFE	•		•			
7213000	B110 PTFE		•				
7213001	B110/O PTFE		•				•

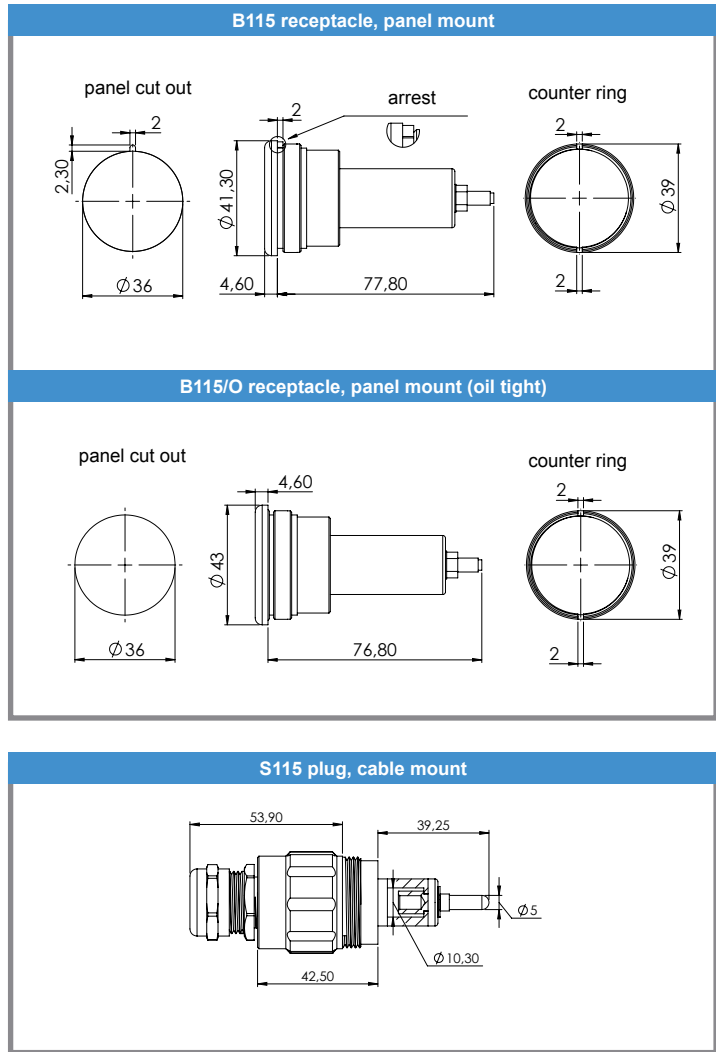
\*KV = screwed cable gland

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B115 receptacle, panel mount  
S115 plug, cable mount

Electrical values	
Operating voltage (DC)	10 kV
Test voltage (DC)	15 kV
Rated current	80 A
Maximum operating current	110 A
Pulse current	10000 A
Characteristics	
Contact size	5 mm
Insulation material	PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7215004	S115/C PTFE	•		•			
7217000	S115/A PTFE	•			•		
7217001	S115/B PTFE	•				•	
7218000	B115 PTFE		•				
7218001	B115/O PTFE		•				•

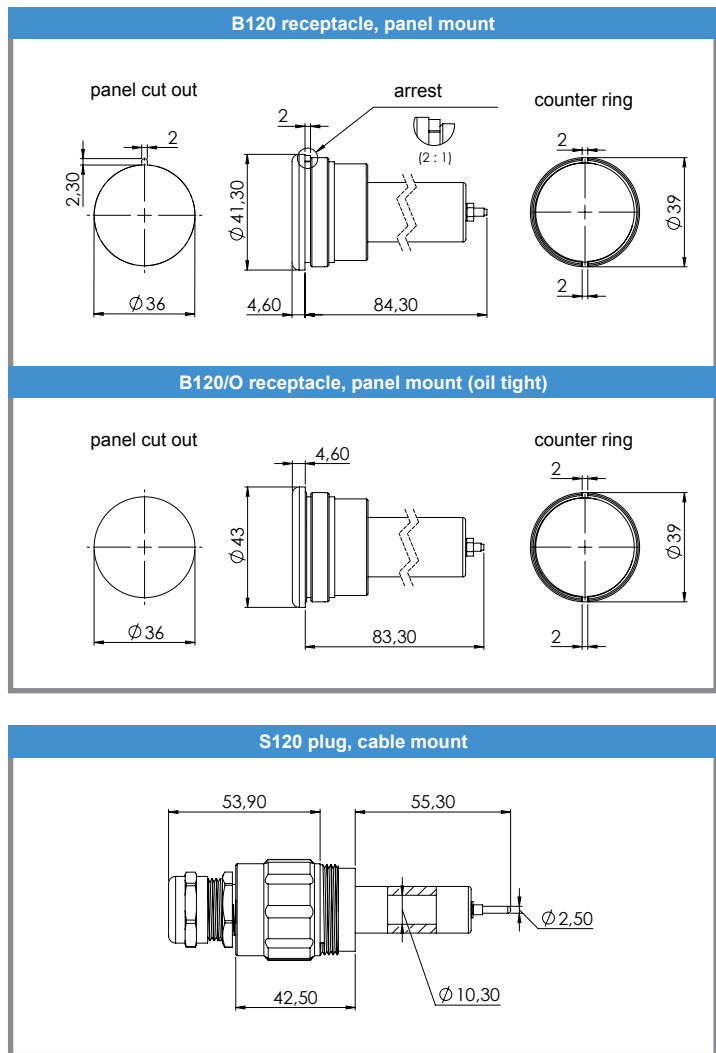
\*KV = screwed cable gland

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B120 receptacle, panel mount  
S120 plug, cable mount

Electrical values	
Operating voltage (DC)	20 kV
Test voltage (DC)	30 kV
Rated current	30 A
Maximum operating current	40 A
Pulse current	3000 A
Characteristics	
Contact size	2.5 mm
Insulation material	PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)

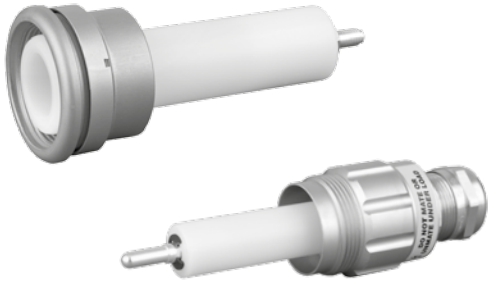


drawing - dimensions in mm

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7222000	S120/A PTFE	•			•		
7222002	S120/B PTFE	•				•	
7222003	S120/E PTFE	•		•			
7223000	B120 PTFE		•				
7223001	B120/O PTFE		•				•

\*KV = screwed cable gland

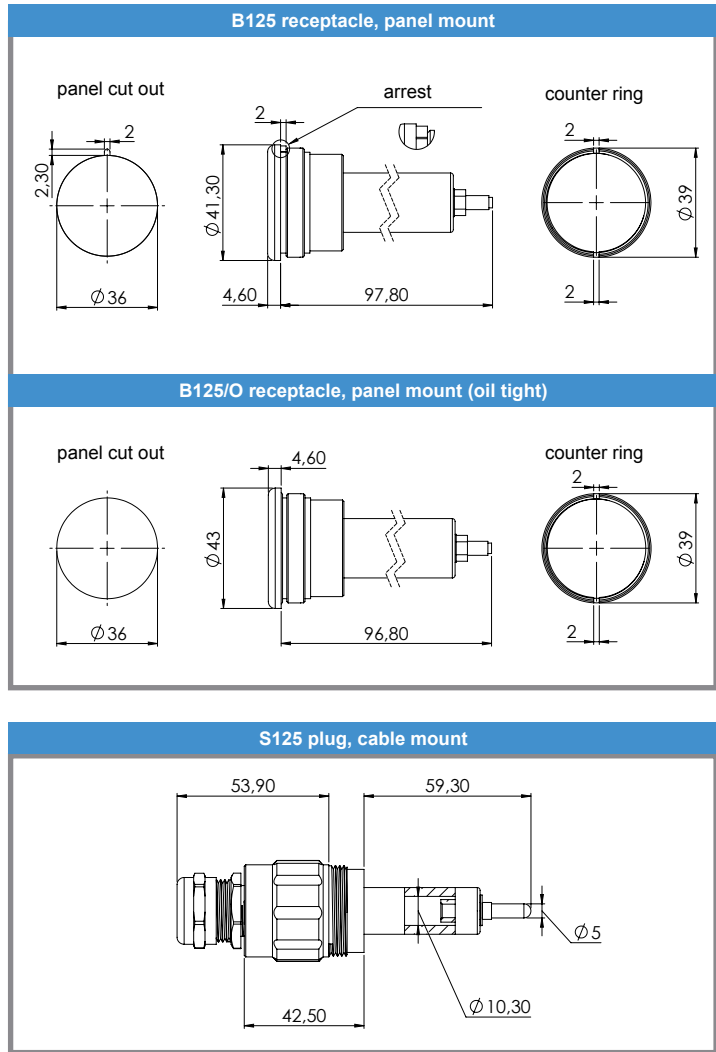
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B125 receptacle, panel mount  
S125 plug, cable mount

Series - 100

Electrical values	
Operating voltage (DC)	20 kV
Test voltage (DC)	30 kV
Rated current	80 A
Maximum operating current	110 A
Pulse current	10000 A
Characteristics	
Contact size	5 mm
Insulation material	PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7227000	S125/A PTFE	•			•		
7227001	S125/B PTFE	•				•	
7227002	S125/E PTFE	•		•			
7228000	B125 PTFE		•				
7228002	B125/O PTFE		•				•

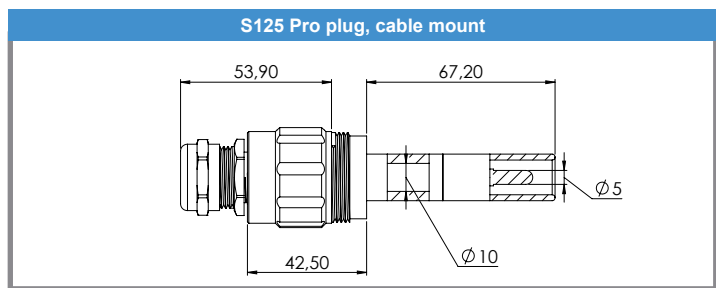
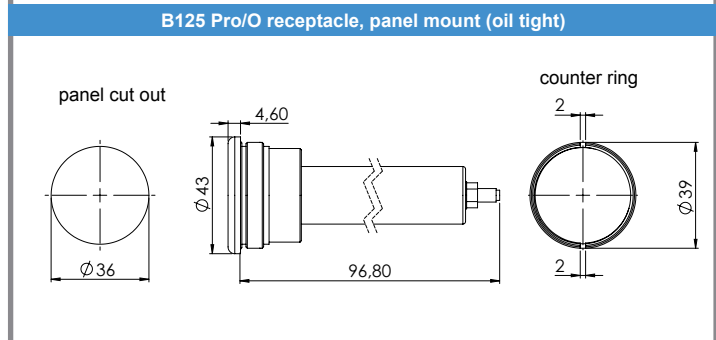
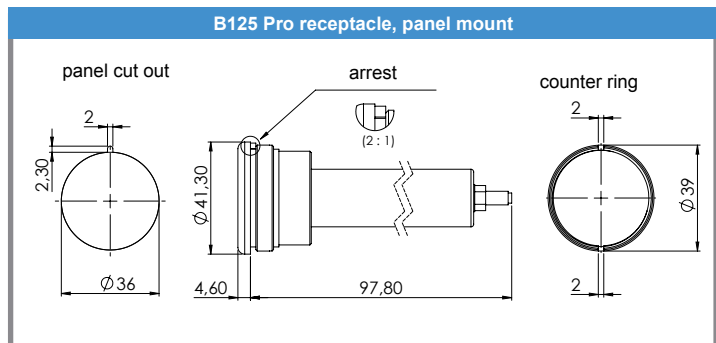
\*KV = screwed cable gland

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B125 Pro receptacle, panel mount  
S125 Pro plug, cable mount

Electrical values	
Operating voltage (DC)	20 kV
Test voltage (DC)	30 kV
Rated current	80 A
Maximum operating current	110 A
Pulse current	10000 A
Characteristics	
Contact size	5 mm
Male contact (plug)	finger-proof
Insulation material	PTFE
Mounting type receptacle	round flange



drawing - dimensions in mm

Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7225005	S125/A Pro POM	•			•		
7225006	S125/B Pro POM	•				•	
7225004	S125/E Pro POM	•		•			
7226001	B125 Pro POM		•				
7226002	B125/O Pro POM		•				•

\*KV = screwed cable gland

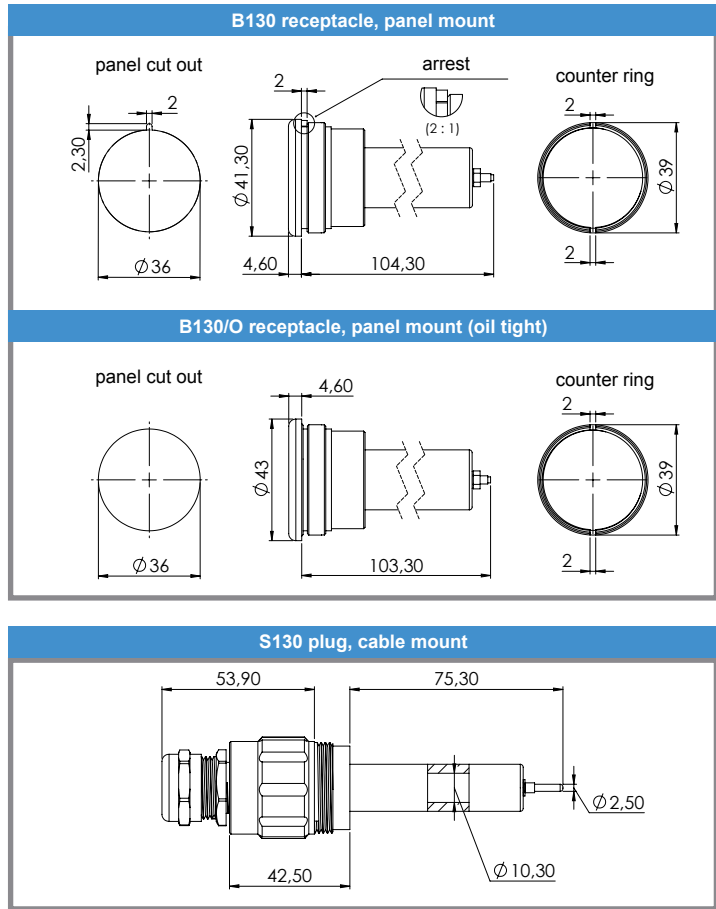


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B130 receptacle, panel mount  
S130 plug, cable mount

Electrical values	
Operating voltage (DC)	30 kV
Test voltage (DC)	45 kV
Rated current	30 A
Maximum operating current	40 A
Pulse current	3000 A
Characteristics	
Contact size	2.5 mm
Insulation material	PTFE
Mounting type receptacle	round flange
Contact plating	Silber (Ag)



drawing - dimensions in mm

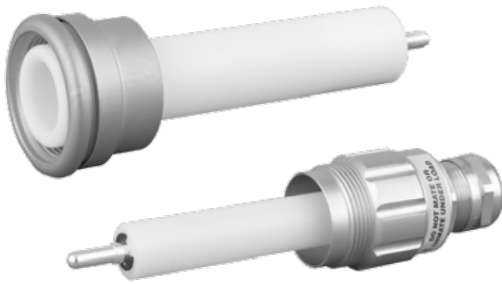
Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 -10 mm	KV* for cable O.D. 7 -12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7232000	S130/A PTFE	•			•		
7232001	S130/B PTFE	•				•	
7232007	S130/E PTFE	•		•			
7233000	B130 PTFE		•				
7233002	B130/O PTFE		•				•

\*KV = screwed cable gland

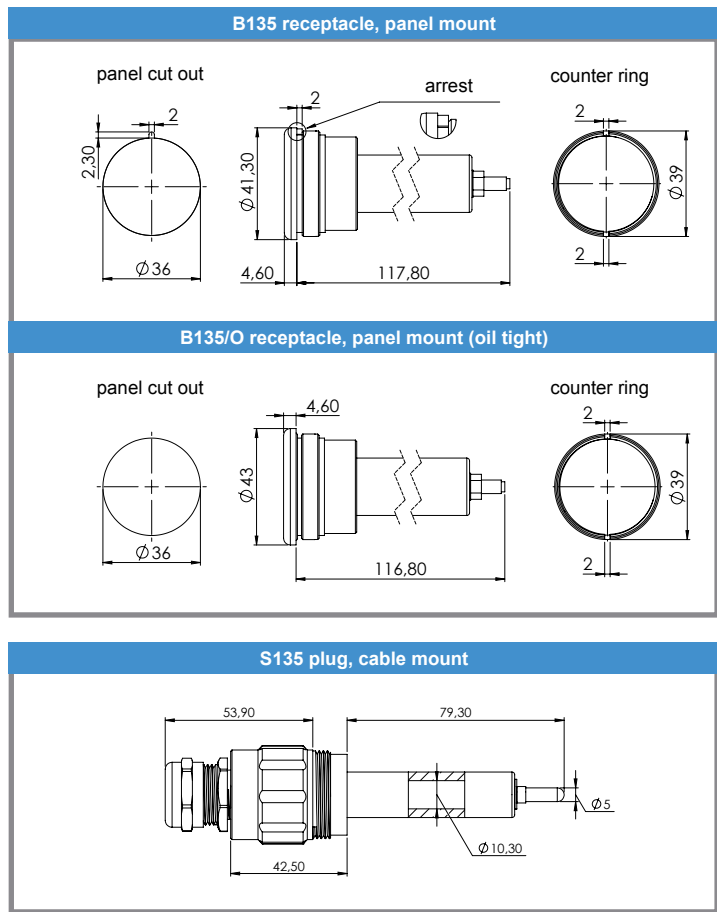


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B135 receptacle, panel mount  
S135 plug, cable mount

Electrical values	
Operating voltage (DC)	30 kV
Test voltage (DC)	45 kV
Rated current	80 A
Maximum operating current	110 A
Pulse current	10000 A
Characteristics	
Contact size	5 mm
Insulation material	POM / PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

Insulation material POM

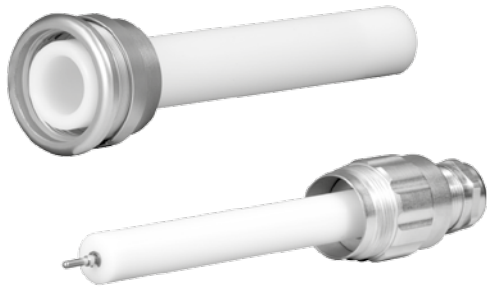
P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7235000	S135/A POM	•		•		
7235001	S135/B POM	•			•	
7236000	B135 POM		•			
7236001	B135/O POM		•			•

Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7237000	S135/A PTFE	•		•		
7237001	S135/B PTFE	•			•	
7238000	B135 PTFE		•			
7238001	B135/O PTFE		•			•

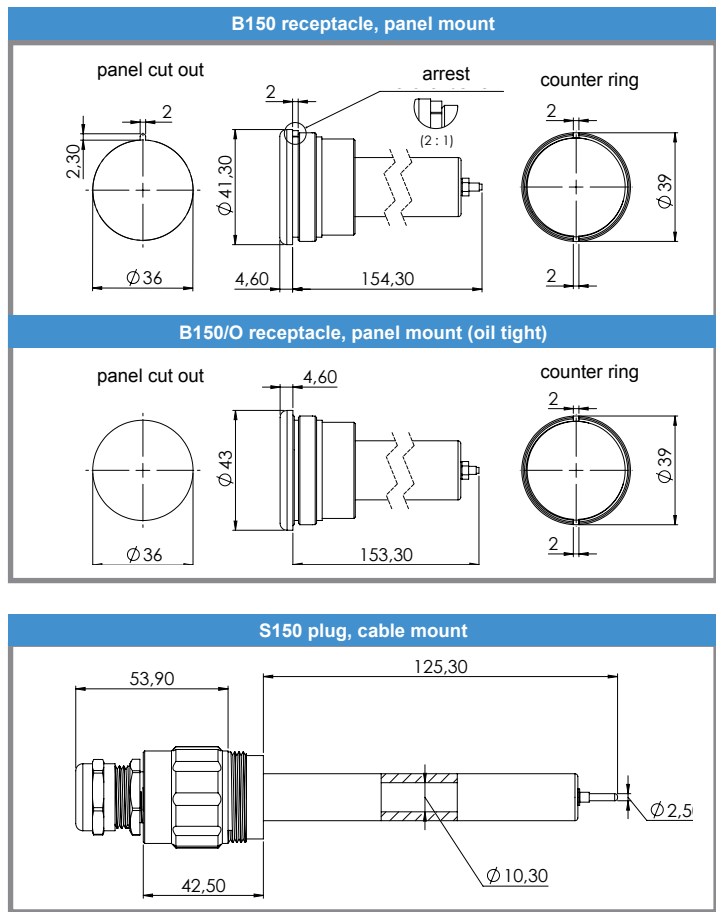
\*KV = screwed cable gland

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B150 receptacle, panel mount  
S150 plug, cable mount

Electrical values	
Operating voltage (DC)	50 kV
Test voltage (DC)	75 kV
Rated current	30 A
Maximum operating current	40 A
Pulse current	3000 A
Characteristics	
Contact size	2.5 mm
Insulation material	POM / PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

### Insulation material POM

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7250000	S150/A POM	•			•		
7250001	S150/B POM	•				•	
7250004	S150/E POM	•		•			
7251000	B150 POM		•				
7251001	B150/O POM		•				•

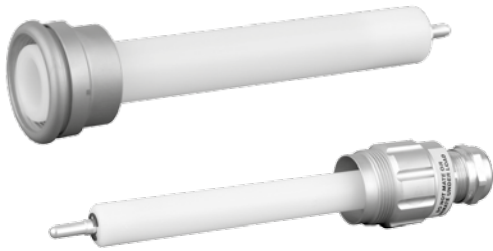
### Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7252000	S150/A PTFE	•			•		
7252001	S150/B PTFE	•				•	
7252004	S150/E PTFE	•		•			
7253000	B150 PTFE		•				
7253001	B150/O PTFE		•				•

\*KV = screwed cable gland

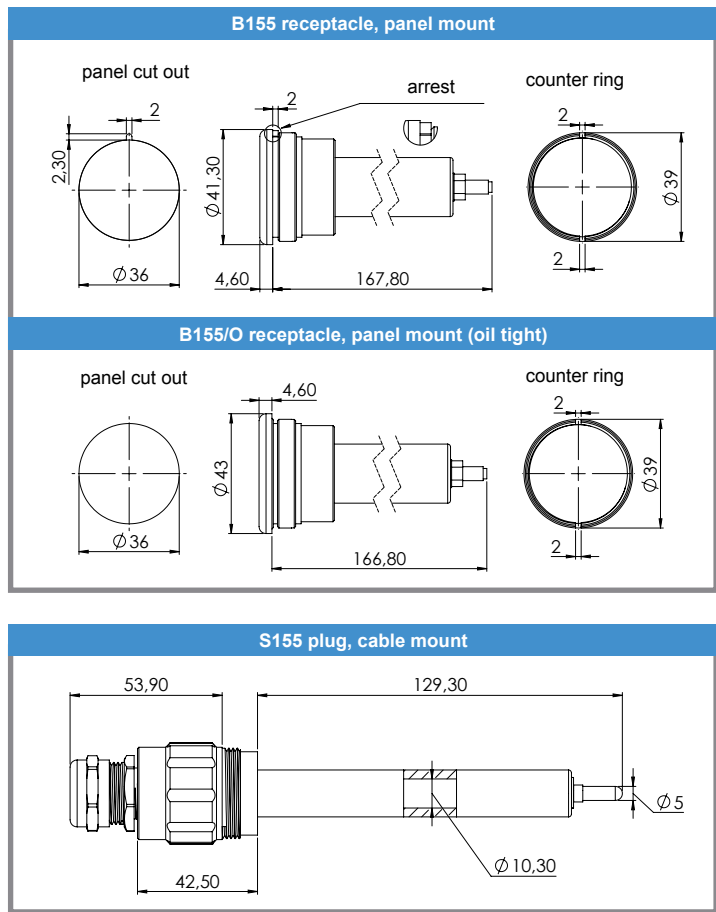


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B155 receptacle, panel mount  
S155 plug, cable mount

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
Insulation material	PTFE / POM
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

Insulation material POM

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7255000	S155/A POM	•		•		
7255001	S155/B POM	•			•	
7256000	B155 POM		•			
7258002	B155/O POM		•			•

Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7257001	S155/A PTFE	•		•		
7257000	S155/B PTFE	•				
7258000	B155 PTFE		•		•	
7258001	B155/O PTFE		•			•

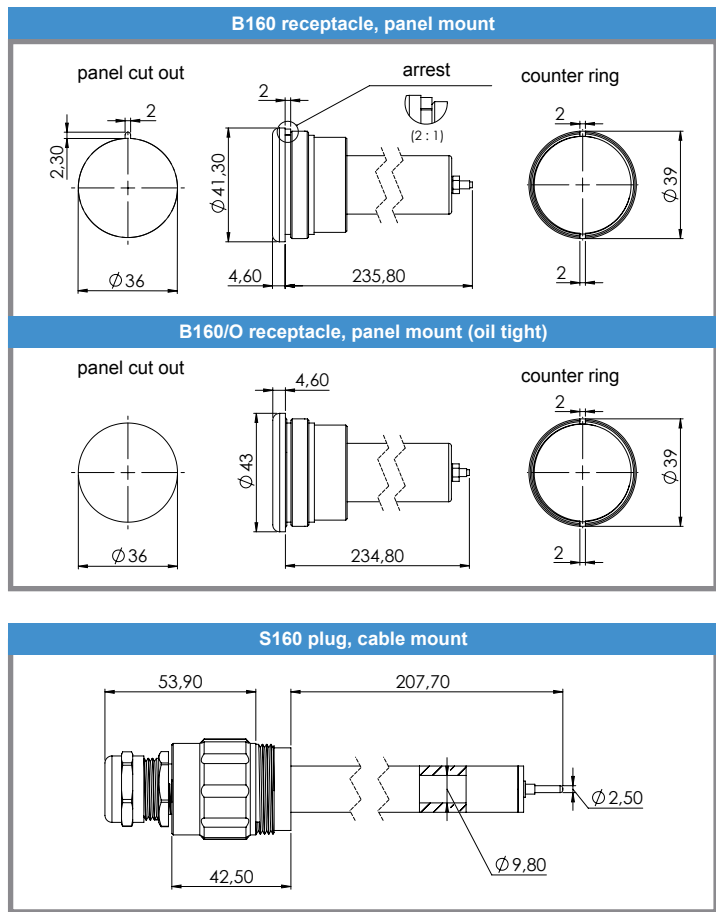
\*KV = screwed cable gland

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B160 receptacle, panel mount  
S160 plug, cable mount

Electrical values	
Operating voltage (DC)	60 kV
Test voltage (DC)	90 kV
Rated current	30 A
Maximum operating current	40 A
Pulse current	3000 A
Characteristics	
Contact size	2.5 mm
Insulation material	POM / PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

### Insulation material POM

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7280000	S160/A POM	•			•		
7280001	S160/B POM	•				•	
7280003	S160/E POM	•		•			
7280100	B160 POM		•				
7280150	B160/O POM		•				•

### Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 5 - 10 mm	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7280200	S160/A PTFE	•			•		
7280201	S160/B PTFE	•				•	
7280300	B160 PTFE		•				
7280350	B160/O PTFE		•				•

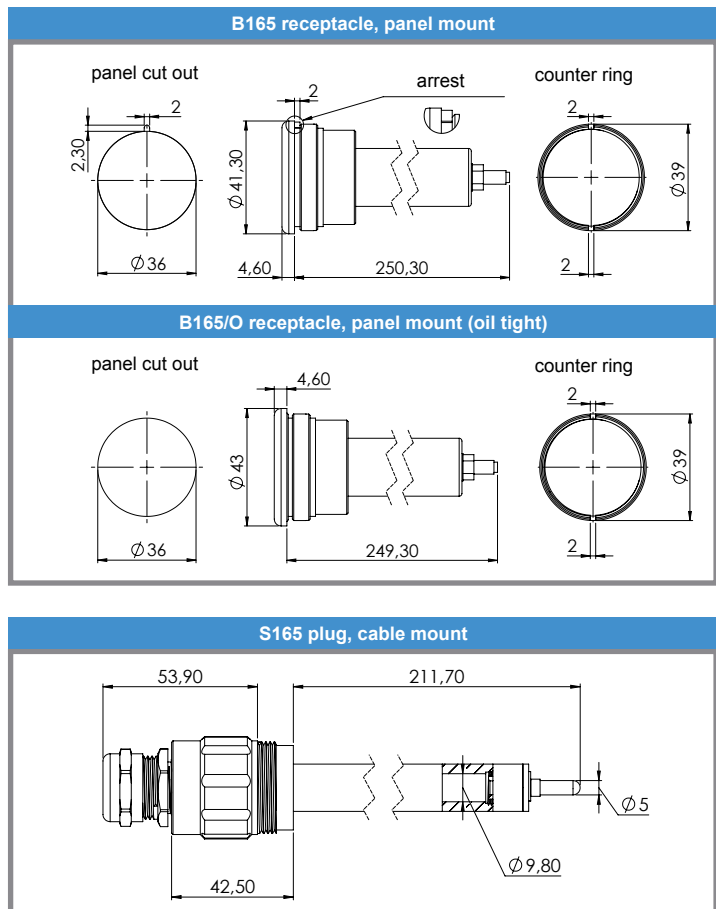
\*KV = screwed cable gland

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B165 receptacle, panel mount  
S165 plug, cable mount

Electrical values	
Operating voltage (DC)	60 kV
Test voltage (DC)	90 kV
Rated current	80 A
Maximum operating current	110 A
Pulse current	10000 A
Characteristics	
Contact size	5 mm
Insulation material	POM / PTFE
Mounting type receptacle	round flange
Contact plating	silver (Ag)



drawing - dimensions in mm

Series - 100

Insulation material POM

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7280410	S165/A POM	•		•		
7280411	S165/B POM	•			•	
7280460	B165 POM		•			
7280461	B165/O POM		•			•

Insulation material PTFE

P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7280400	S165/A PTFE	•		•		
7280415	S165/B PTFE	•			•	
7280450	B165 PTFE		•		•	
7280462	B165/O PTFE		•			•

\*KV = screwed cable gland

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B1100 receptacle, panel mount  
S1100 plug, cable mount

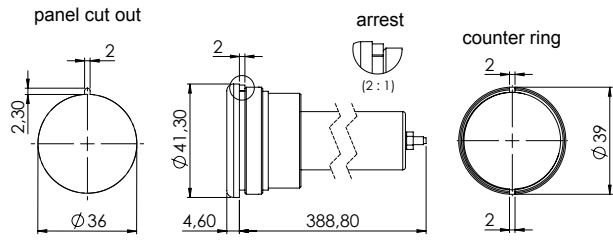
### Electrical values

Operating voltage (DC)	100 kV
Test voltage (DC)	150 kV
Rated current	30 A
Maximum operating current	40 A
Pulse current	3000 A

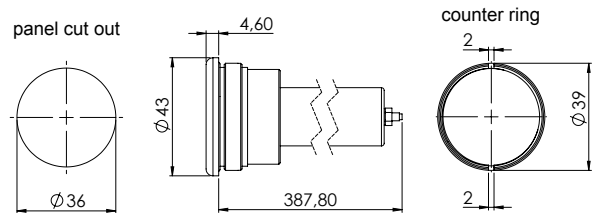
### Characteristics

Contact size	2.5 mm
Insulation material	POM
Mounting type receptacle	round flange
Contact plating	silver (Ag)

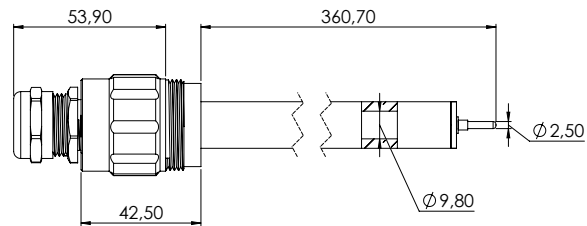
### B1100 receptacle, panel mount



### B1100/O receptacle, panel mount (oil tight)



### S 1100 plug, cable mount



drawing - dimensions in mm

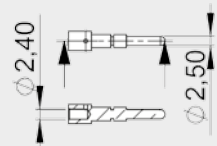
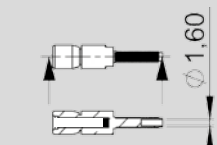
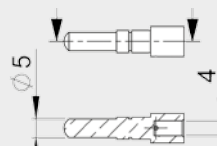
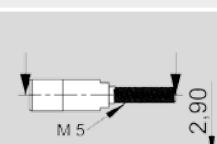
P/N	Description	Plug, cable mount	Receptacle, panel mount	KV* for cable O.D. 7 - 12 mm	KV* for cable O.D. 10 - 14 mm	oil tight version
7392000	S1100/A POM	•		•		
7392001	S1100/B POM	•			•	
7392003	B1100 POM		•			
7392004	B1100/O POM		•			•

\*KV = screwed cable gland



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**Contacts**

P/N	Description	Drawing
6572001	male contact 2.5 mm silver plated (Ag)	
6572005	female contact 2.5 mm silver plated (Ag)	
6672050	male contact 5 mm silver plated (Ag)	
6572007	female contact 5 mm silver plated (Ag)	

**Covering**

P/N	Description
6671011	Threaded covering with chain for receptacles Series 100
<b>Drawing</b>	
	

drawing - dimensions in mm

# Assembly Instructions Series 100 (plug, cable mount)

1.



Part as delivered

2.



Remove cap (1) and take out sealing insert (2) from housing (3)

3.



Remove snap ring (5), take out male contact (6) from insulation part (4)

4.



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

5.



Remove cable jacket

⚠ Do not damage shield braid

Types	min. L1 [mm]
S110 / S115	53
S120 / S125 / S125 Pro	73
S130 / S135	93
S150 / S155	143
S160 / S165	226
S1100 / S1105	379

⚠ The stated lengths in the table are only valid for types „A“ (i.e. S125/A) and „B“ (i.e. S150/B)

6.



Fold back shield braid over jacket

7.




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

**8.**



Remove dielectric insulation


Types	min. L3 [mm]
S 110/120/130/150/160/1100	5
S 115/125/125 Pro/135/155/165	8

 Do not damage conductor

**9.**



Solder contact (6) on conductor

 Tin-solder must not remain on contact surface

**10.**



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

**11.**




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

**12.**




Cut overlapping shield braid

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

**13.**



Screw cap (1) onto housing (3)

 Wrench size: 24 / tightening torque 10 Nm

**14.**



Secure contact (6) with snap ring (5)

**15.**



Assembly finished



Part as supplied



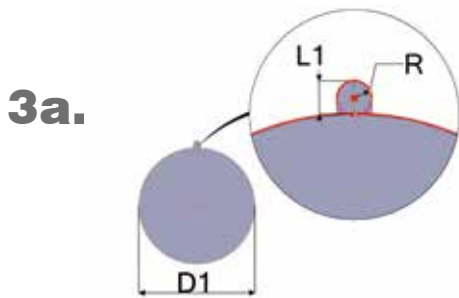
Place counter ring (1) on cable



Remove counter ring (1)



**⚠** ONLY when using shielded cable:  
Remove cable jacket



Panel cut out – standard receptacle

Dimension	Value [mm]
D1	36.50
R	1.20
L1	2.30



Panel cut out – oil tight receptacle

Dimension	Value [mm]
D1	36.50

Type	min. L2 [mm]
B 110 / 115	40
B 120 / 125	80
B 130 / 135	120
B 150 / 155	200
B 160 / 165	240
B 1100 / 1105	400

**⚠** Do not damage shield braid



Fold back shield braid over jacket

7.



Remove dielectric insulation

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

⚠ Do not damage conductor

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.



Assembly finished



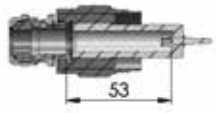
**Note – important!**

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

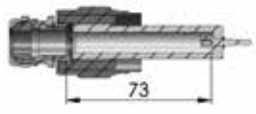
# Stripping lengths for shielded cables

**PLEASE NOTICE:**  
 Stated stripping lengths are referring ONLY to jackets of shielded cables !!

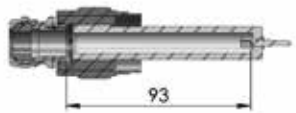
**S110  
S115**



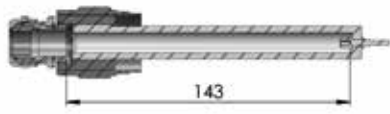
**S120  
S125**



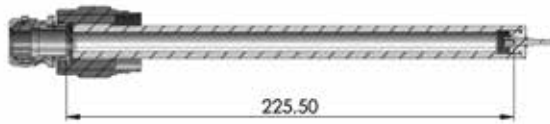
**S130  
S135**



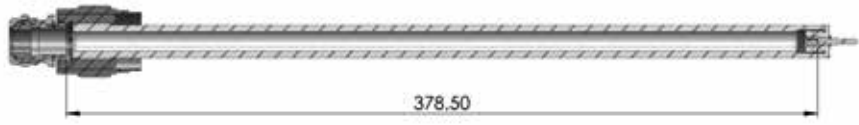
**S150  
S155**






**S160  
S165**



**S1100**



Type	"Screwed cable gland clamping range 5 - 10 mm"	"Screwed cable gland clamping range 7 - 12 mm"	"Screwed cable gland clamping range 10 - 14 mm"
Stripping length in mm			
S110	56.5	53	53
S115	56.5	53	53
S120	76.5	73	73
S125	76.5	73	73
S125 Pro	76.5	73	73
S130	96.5	93	93
S135	96.5	93	93
S150	143.5	143	143
S155	143.5	143	143
S160	226	225.5	225.5
S165	226	225.5	225.5
S1100	382	378.5	378.5

	Part No. 3330049	Part No. 3330050	Part No. 3330058
			
Operating voltage DC	100 kVDC	100 kVDC	60 kVDC
Operating voltage AC rms	30 kVAC		20 kVAC
Conductor size			
AWG	AWG 16	AWG 16	AWG 18
Strands	19 x AWG 29	19 x AWG 29	19 x AWG 30
Cross section	1.2 mm <sup>2</sup>	1.2 mm <sup>2</sup>	0.97 mm <sup>2</sup>
Diameter	1.25 mm	1.25 mm	1.11 mm
Semicon	YES	YES	YES
Diameter	2.5 mm	2.5 mm	2.0 mm
Material	Semiconductive PE	Semiconductive PE	Semiconductive PE
Dielectric			
Diameter	9.4 mm (± 0.25 mm)	9.4 mm (± 0.25 mm)	5.8 mm (± 0.25 mm)
Material	LDHMW PE	LDHMW PE	LDHMW PE
Screen (Shield)	NO	YES	NO
Diameter		9.8 mm	
Material		Cu/Sn (AWG 34 t.p.c.) 90% coverage	
Jacket			
Diameter		11.2 mm (± 0.25 mm)	
Material		PVC	
Impedance		61 Ω	
Capacitance		98 pF/m	
Min. bend radius	127 mm (fixed)	152 mm (fixed)	64 mm (fixed)
Temperature range	-51° C to +60° C	-51° C to +60° C	-51° C to +60° C
Weight	0.075 kg/m	0.149 kg/m	0.03 kg/m
Color	natural	black	natural
Fits connector types	SB110 SB115 SB120 SB125 SB125Pro SB130 SB135 SB150 SB155 SB160 SB165 SB1100	SB110 SB115 SB120 SB125 SB125Pro SB130 SB135 SB150 SB155 SB160 SB165 SB1100	SB110 SB115 SB120 SB125 SB125Pro SB130 SB135 SB150 SB155 SB160 SB165