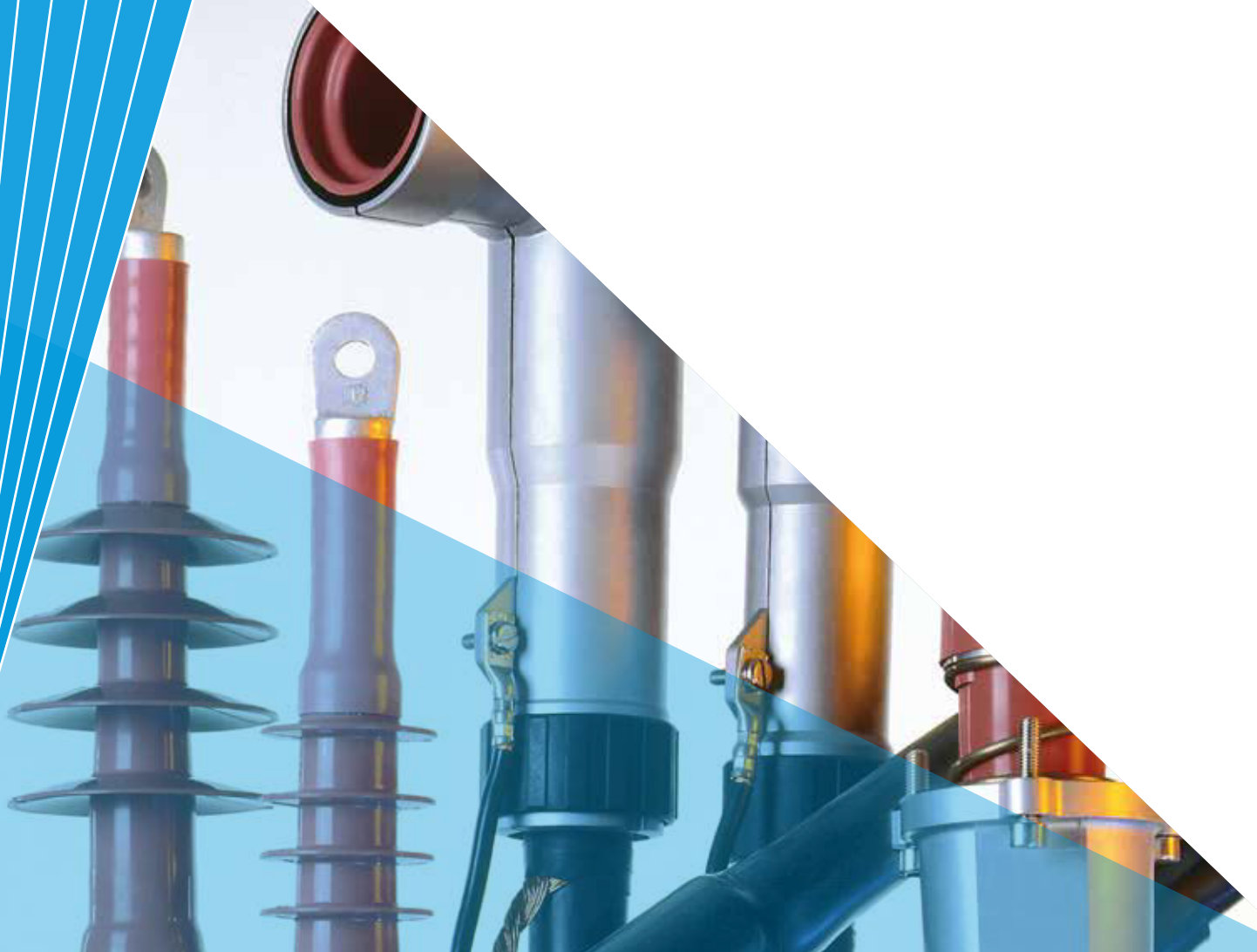


Cable Accessories

for XLPE-insulated medium voltage cables
12 – 52 kV



Inner cone system

Bushings up to 52 kV

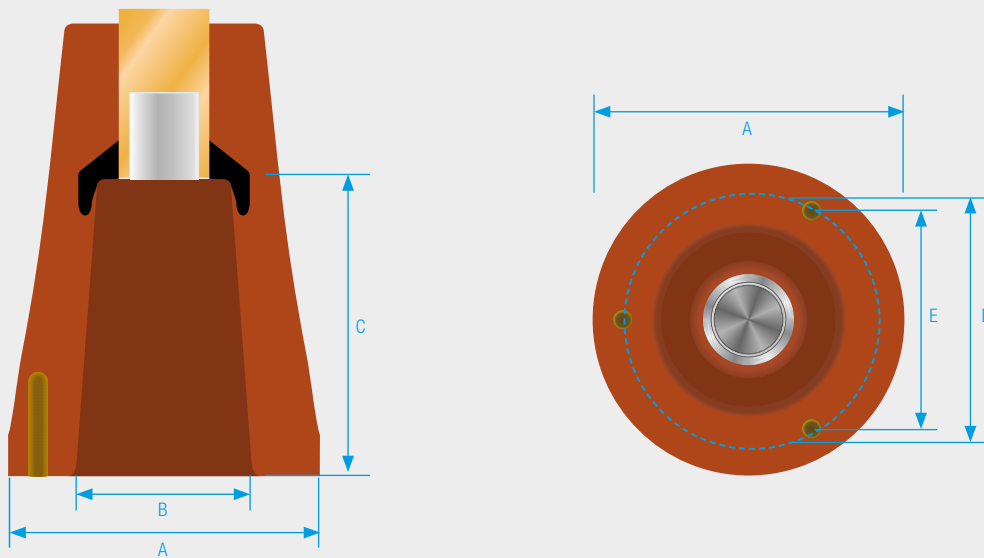
For the inner cone system too, particularly used in power switchgears and power transformers, Südkabel has developed a designated compatible product range for flexible application.

The standards EN 50180 and EN 50181 define four types of interfaces for the inner cone system up to 52 kV of which only three are relevant in practice.

The basic design of all inner cone plug-in terminations can be compared. The size of the insulator and the design of the individual plug-in contacts, however, vary according to the size of the respective bushing.

The plug-in contact consists of a lamellated contact that is connected to the conductor with a cone clamp. A pressure spring between insulating body and mounting flange ensures compensation of the expansion of the silicone components during operation. It also provides sufficient contact pressure at the interface between the silicone component and cast resin bushing.

The bushing type 1, type 2 and type 3 mainly vary in dimensions.



Designation	Rated current	Max. operating voltage kV	Contact element	Measure A mm	Measure B mm	Measure C mm	Measure D mm	Measure E mm
Interface type 1	400 – 630	36	lamellated contact	137	63.5	83	95	82.3
Interface type 2	800	42	lamellated contact	137	69.5	83	102	88.3
Interface type 3	1250	52	lamellated contact	185	92.5	110	130	112.6

Accessories for inner cone systems

Interface type 1 – 3

The inner cone plug-in termination type SEIK is suitable for bushings according to DIN EN 50180 and DIN EN 50181, interface types 1, 2 and 3.

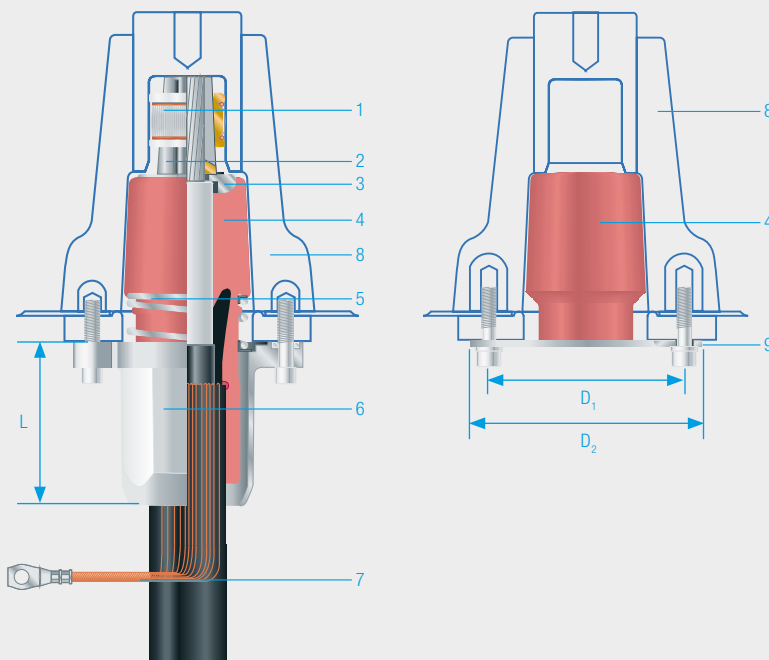
Inner cone plug-in termination SEIK, U_m up to 52 kV

- straight plug-in termination for connection of XLPE cable 12 - 52 kV to metal enclosed switchgears and transformers
- capacitive voltage tap on request
- sheath test possible with optional insulating wrap
- additional sealing options on request

The inner cone insulating seal type ISIK is suitable for bushings according to DIN EN 50180 and DIN EN 50181, interface types 1, 2 and 3.

Inner cone Insulating seal ISIK, U_m up to 52 kV

- for surge-proof and shock-proof terminations of bushings for inner cone system



Technical data

Max. voltage U_m	36 kV	42 kV	52 kV
AC voltage (5 min)	87 kV	93,5 kV	117 kV
DC voltage (15 min)	108 kV	125 kV	156 kV
Impulse voltage	170 kV	200 kV	250 kV
Partial discharge	< 5pC	< 5pC	< 5pC

- 1 contact ring with lamellated contact
- 2 cone clamp
- 3 stop disc
- 4 insulating body made of silicone rubber
- 5 pressure spring
- 6 silumin entry gland with mounting flange
- 7 earthing connection
- 8 inner cone bushing
- 9 pressure disc with mounting screws

Type	Interface type (max. rated current of bushing)	Admissible diameter over core insulation mm	Voltage U_m kV	Allocation of insulating body ²⁾ acc. to cross-section ¹⁾ mm ²	Measure L mm	Measure D_1 mm	Measure D_2 mm
SEIK	13	1 (630A)	12	35 – 240	80	95	112
	23		24	25 – 240			
	33		36	25 – 150			
SEIK	14	2 (800A)	12	35 – 300	80	102	119
	24		24	25 – 300			
	34		36 (42)	35 – 300			
SEIK	15	3 (1250A)	12	120 – 800	80	130	147
	25		24	50 – 800			
	35		36 (42)	35 – 800			
	55		52	95 – 500			
ISIK	13/23/33	1 (630A)	36	–	–	95	112
	14/24/34	2 (800A)	42	–	–	102	119
	15/25/35	3 (1250A)	52	–	–	130	147

1) for cables acc. to DIN VDE 0276-620

2) each cross-section is assigned a separate insulating body