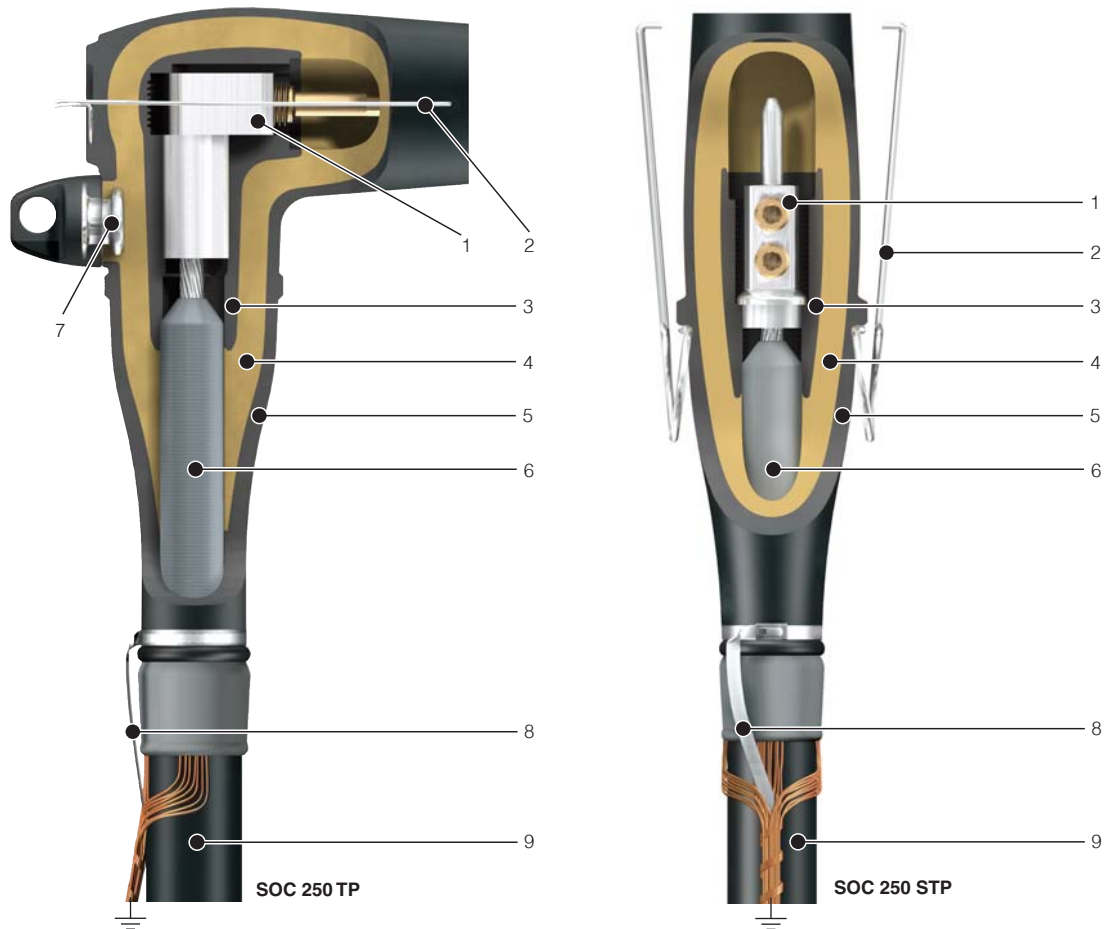


Premoulded screened separable connectors Type SOC 250 TP, SOC 250 STP

Kabeldon Cable Accessories 12-24 kV



Kabeldon premoulded screened separable connectors, 250 A



1. Pin contact SOC 250 TP

Consists of a silver-plated copper pin, and a tinned aluminium connecting clamp and conductor guide. The conductor is guided to its position and fixed by means of a hexagonal spanner size 7 and a torque wrench.

SOC 250 STP

Consists of a silver-plated copper pin, a tinned aluminium connecting clamp and two bolts made of brass. The pin contact is installed on the conductor by means of an allen key size 6 and a torque wrench.

2. Bail restraint

Consists of stainless steel, used to secure the connector to the bushing.

3. Inner conductive layer

Creates a Faraday cage around the connector. This ensures a stable electrical potential and eliminates the need for filling material in cavities and between the conductor and pin contact.

4. Insulating layer

High electrical strength, a thickness of min 10 mm and the elasticity of the material ensures the function with active pressure on all interfaces. Premoulded together with the inner and outer conductive layer. Electrical properties are ensured by routine test.

5. Outer conductive layer

UV-, Ozone- and tracking-resistant. UV-resistance tested for 3000 h in a xenon radiator. Thickness 2 mm on its thinnest part. When connected to the cable screen, the connector meets international requirements for a fully screened system.

6. Adapter

Made of flexible insulating rubber with an integrated resistive stress control part.

7. Capacitive test point

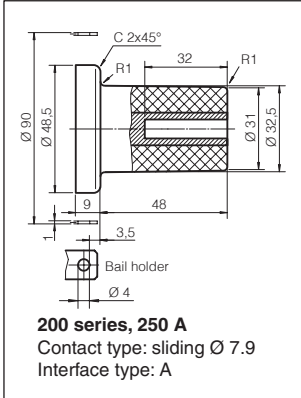
A metallic part vulcanized into the insulating layer to allow voltage indication when readout is made with suitable high impedance measuring devices. Covered by a cap of conductive rubber which ensures a touch proof system.

8. Earth connection

The conductive layer is connected to the cable screen via a stainless steel band strip. The band strip can temporarily be removed from the cable screen, which makes it possible to perform cable sheath tests without disconnecting the connector from the bushing.

9. Designed for polymeric insulated cables

SOC screened connectors can be installed on XLPE as well as EPR (flexible rubber) insulated cables.



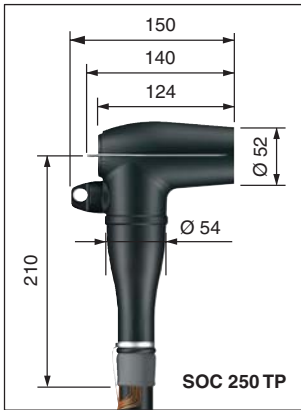
Routine test

All connectors are routinely tested with respect to

Pd	<5 pC at 22 kV
AC	45 kV for one minute
Visual inspection	

Technical data

Rated voltage IEC (U_M)	24 kV
Rated phase to earth voltage IEC (U_0)	12.7 kV
Lightning impulse withstand	125 kV
Interface standard for bushing	EN 50181
Current-carrying capacity	250 A
Cable conductor size	25 - 95 mm ²
Cable insulation diameter	12.9 - 25.8 mm



Type test according to CENELEC HD 628.1 and 629.1 test sequence D1 and D2

The screened separable connectors have been tested and approved in accordance with this international standard.

Test sequence D1

Test sequence D1	Requirements
1. DC voltage withstand test at 76 kV negative polarity for 15 min	No breakdown or flashover
2. AC voltage withstand test at 57 kV for 5 minutes	No breakdown or flashover
3. Pd measurement at ambient temperature at 24 kV	Discharge level <10 pC
4. Lightning impulse voltage test at 95°C with peak values 125 kV, 10 positive and 10 negative impulses	No breakdown or flashover
5. Load cycling in air 3 x 8 h at 32 kV	No breakdown or flashover
6. Pd measurement at elevated and ambient temperature at 24 kV	Discharge level <10 pC
7. Load cycling in air 60 x 8 h at 32 kV	No breakdown or flashover
8. Load cycling under 1 m water 63 x 8 h at 32 kV	No breakdown or flashover
9. Disconnection / connection 5 complete operations	No visible damage to contacts
10. Pd measurement at elevated and ambient temperature at 24 kV	Discharge level <10 pC
11. Lightning impulse voltage test at ambient temperature with peak values 125 kV, 10 positive and 10 negative impulses	No breakdown or flashover
12. AC voltage withstand test at 32 kV for 15 minutes	No breakdown or flashover

Test sequence D2

Test sequence D2	Requirements
13. Thermal short-circuit test for 1 sec to reach a conductor temperature of 250°C	No visible signs of damage
14. Lightning impulse voltage test at ambient temperature with peak values 125 kV, 10 positive and 10 negative impulses	No breakdown or flashover
15. AC voltage withstand test at 32 kV for 15 minutes	No breakdown or flashover
16. Examination	For information only

Tests Nos. 17 - 19 are carried out on separate test objects

17. Screen resistance measurement before and after ageing	Resistance <5000
18. Leakage current measurement	Leakage current <0.5 mA at 24 kV
19. Screen fault current initiation	Fault current should flow continuously

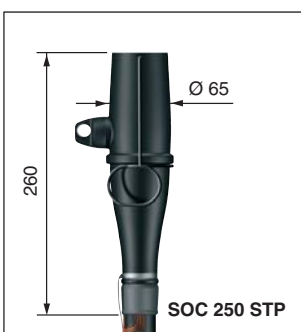




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