



Raychem Screened, Separable Connection  
System RSTI-68 800 A up to 42 kV



**Raychem**  
from TE Connectivity

# Raychem Screened, Separable Connection System RSTI-68, 800 A up to 42 kV



## Features

- The insulation of the connector is made of a highly modified silicone rubber characterised by high tracking resistance, elongation at break and non-flammability.
- A thin walled screen is permanently bonded onto the insulation and protects the connection system against accidental contact.
- The screened connector need not be removed for over sheath testing.
- The screened cable connector exceeds CENELEC HD 629.1 S2 requirements, which includes BS; VDE and other international specifications.
- Design fits 630 A and 1250 A bushings (Interface “C<sub>1</sub>” and “C<sub>2</sub>”) as specified by EN 50180 and EN 50181.
- The compact design supports the use of double “T” connections inside standard terminal boxes.
- The wide application range covers cable cross sections from 35 to 300 mm<sup>2</sup>.
- Conductor connection with mechanical, DIN or deep indent lugs.
- Easily accessible rear plug with capacitive test point.
- Few accessories required for system test, double “T” and earth connection.
- Complete kit including lugs facilitates installation and storage.

Raychem RSTI screened separable connectors are designed to connect single- and three-core polymeric cables to medium-voltage gas insulated switchgear and other equipment using CENELEC bushings Type C<sub>1</sub>=630 A and C<sub>2</sub>=1250 A, specified up to 42 kV.

Made of a highly modified silicone rubber and protected by a thin walled outer conductive screen connected to earth, RSTI connectors are equally suited for indoor and outdoor installation.

Supporting a wide application range, the design incorporates one body and two stress cone adapters to cover all cross-sections from 35 to 300 mm<sup>2</sup>. The overall and cut back dimensions are designed to take up minimum space in the terminal box. RSTI connectors are equipped with a capacitive test point for determining whether the circuit is energised. A conductive cap protects this test point.

## Accessories

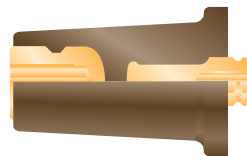
### Test rod

Ref. no.: RSTI-68TR; Length: 310 mm  
 RSTI-68TRL; Length: 460 mm  
 RSTI-68TRA; Kit includes 2 short and 1 long testrod



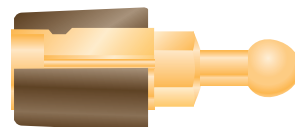
### Terminating plug

Ref. no.: RSTI-68TP



### Earthing adapter

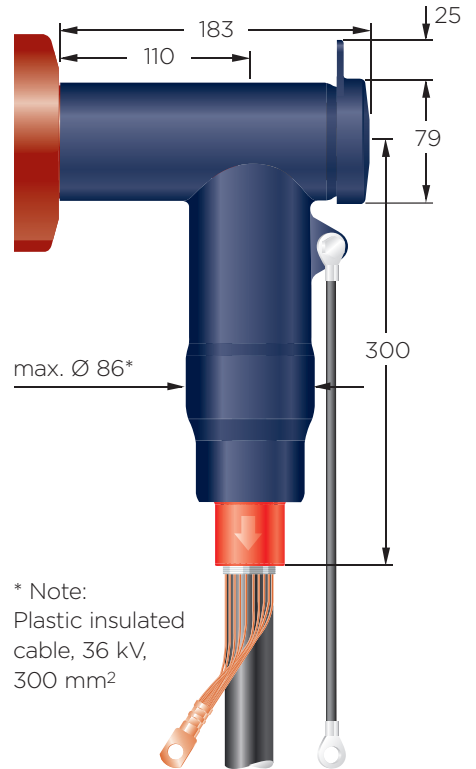
Ref. no.: RSTI-68EA20;  
 Ball diameter: 20 mm  
 RSTI-68EA25;  
 Ball diameter: 25 mm



## Applications

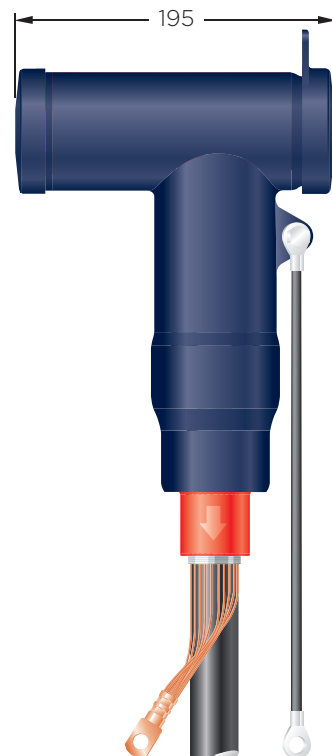
### Single connection

Material requested for 3 phases:  
 1 x RSTI-68xx (Kit)

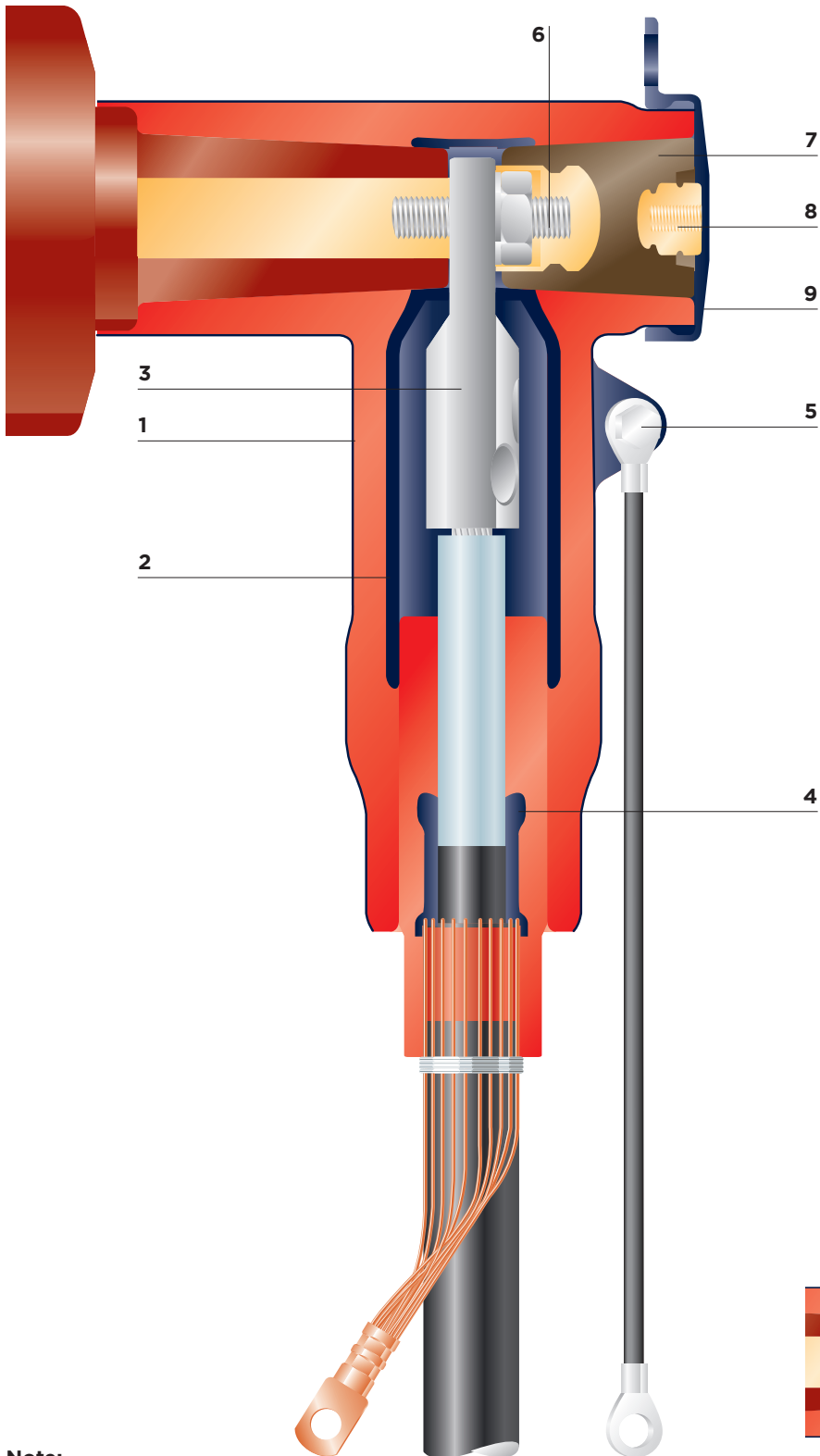


### Live end seal

Material requested for 3 phases:  
 1 x RSTI-68xx (Kit)  
 1 x RSTI-68TP (Terminating plug kit)



**Design and construction**



**1 Screened body**

A thin walled conductive outer screen is permanently bonded to the silicone rubber insulating material of the body.

**2 Inner screen**

A conductive inner layer, as a Faraday cage around the compression or mechanical lug, prevents corona at rated voltage.

**3 Compression or mechanical lugs**

Specially designed DIN and deep indent compression lugs, as well as tinned, mechanical lugs with shear bolts for connecting either aluminium or copper conductor cables.

**4 Stress cone adapter**

Relieves electrical stress at the point where the cable screen is cut. The insulated section, extending beyond the wire shielding, provides a convenient point for over sheath testing.

**5 Earthing eye and ground lead**

Provides a connection point for earthing the screen.

**6 Threaded pin**

A threaded pin together with a spring washer (wave type) and hex nut ensure a high performance electrical and mechanical contact with the bushing.

**7 Rear plug with test point**

Removable rear plug with capacitive test point.

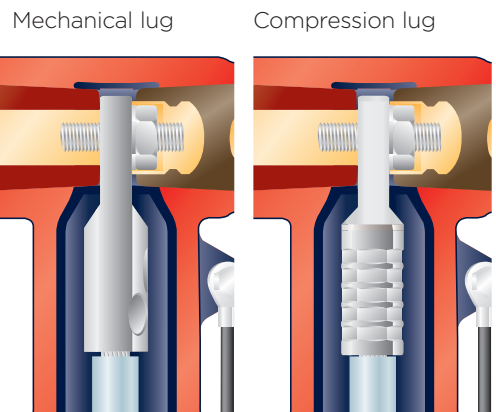
**8 Test point**

The test point is used to determine whether the circuit is energised; alternatively it can be used for phasing.

**9 Conductive end cap**

Electrical screen and protection of the rear end of the separable connector.

**Note:**  
All applications as shown in the brochure need to have a mechanical support, based on the requirements for dynamic short circuit.



## Technical data

Cable insulation diameter range	22.4 - 42.0 mm
Connector cross-section range	35 - 300 mm <sup>2</sup>
Maximum system voltage	42 kV
Continuous current rating	800 A
Basic impulse level	200 kV
Partial discharge at 2 U <sub>0</sub>	< 2 pC
AC voltage withstand, 5 min	93.5 kV
DC voltage withstand, 15 min	125 kV
Thermal short circuit, 1 s	55 kA
Thermal short circuit, 3 s	32 kA
Dynamic short circuit	125 kA

The adapters meet the international CENELEC HD 629.1 S2 specification

## Selection table

### Screened separable connection system 36 kV and 42 kV with DIN compression lugs

Cross Section mm <sup>2</sup>	Diameter Reference number Core insulation		Conductor material	
	min mm	max mm	Al	Cu
50	22.4 -	35.5	RSTI-6811	RSTI-6821
70	22.4 -	35.5	RSTI-6812	RSTI-6822
95	22.4 -	35.5	RSTI-6813	RSTI-6823
120	22.4 -	35.5	RSTI-6814	RSTI-6824
150	28.9 -	42.0	RSTI-6815	RSTI-6825
185	28.9 -	42.0	RSTI-6816	RSTI-6826
240	28.9 -	42.0	RSTI-6817	RSTI-6827
300	28.9 -	42.0	RSTI-6818	RSTI-6828

Kits with deep indent compression lugs on request. Contact your local sales representative.

### Screened separable connection system 36 kV and 42 kV with mechanical lugs and shear bolts

Cross Section mm <sup>2</sup>	Diameter Reference number Core insulation		Conductor material Al or Cu
	min mm	max mm	
35 - 95	22.4 -	35.5	RSTI-6851
95 - 150	22.4 -	35.5	RSTI-6852
120 - 240	28.9 -	42.0	RSTI-6853
185 - 300	28.9 -	42.0	RSTI-6855

Kits for 3-core applications on request. Contact your local sales representative

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