

## **RSTI-L** **Screened, separable connection system** **630 A up to 24 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 unintentional contact.
- The screened connector need not be removed for oversheath testing.
- The screened cable connector exceeds CENELEC HD 629.1 S1 requirements, which includes BS, VDE and other international specifications.
- Design fits 630 A bushings as specified by CENELEC HD506 S1, DIN 47636, 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 25 to 300 mm<sup>2</sup>.
- Conductor connection with mechanical or DIN 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.



## RSTI-L

## Screened, separable connection system 630 A up to 24 kV



Raychem RSTI-L 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 specified for 630 A up to 24 kV.

Made of a highly modified silicone rubber and protected by a thin-walled outer conductive screen connected to earth, RSTI-L 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 25 to 300 mm<sup>2</sup>. The overall and cut-back dimensions are designed to take up

minimum space in the terminal box. RSTI-L connectors are equipped with a capacitive test point for determining whether the circuit is energised. This test point is protected by a conductive cap.

After cable preparation and lubrication, the stress control adapter is simply slid into place, followed by the screened connector body. These two components can be installed under virtually any conditions. A separable mounting system ensures easy installation of the connector onto the bushing. All kits include high-performance multi-range mechanical or DIN compression lugs matching the design of the RSTI-L connector.

### RSTI-L Accessories

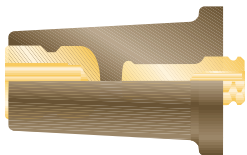
#### Test rod

Ref. no.: RSTI-56TR; Length: 310 mm  
RSTI-56TRL; Length: 460 mm  
RSTI-56TRA; Kit includes  
2 short and 1 long testrod



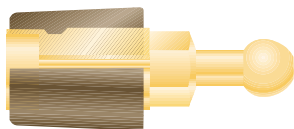
#### Terminating plug

Ref. no.: RSTI-56TP



#### Earthing adapter

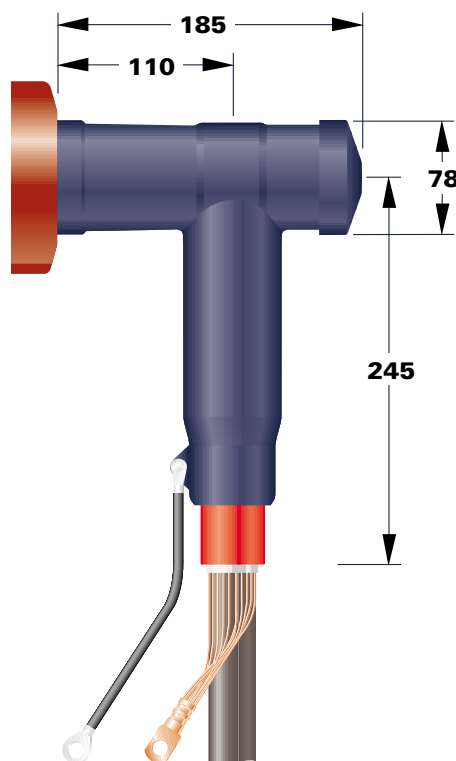
Ref. no.: RSTI-56EA20;  
Ball diameter: 20 mm  
RSTI-56EA25;  
Ball diameter: 25 mm



### RSTI-L Applications

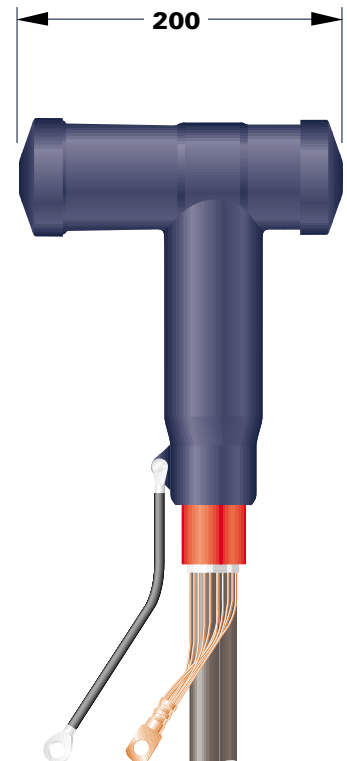
#### Single connection

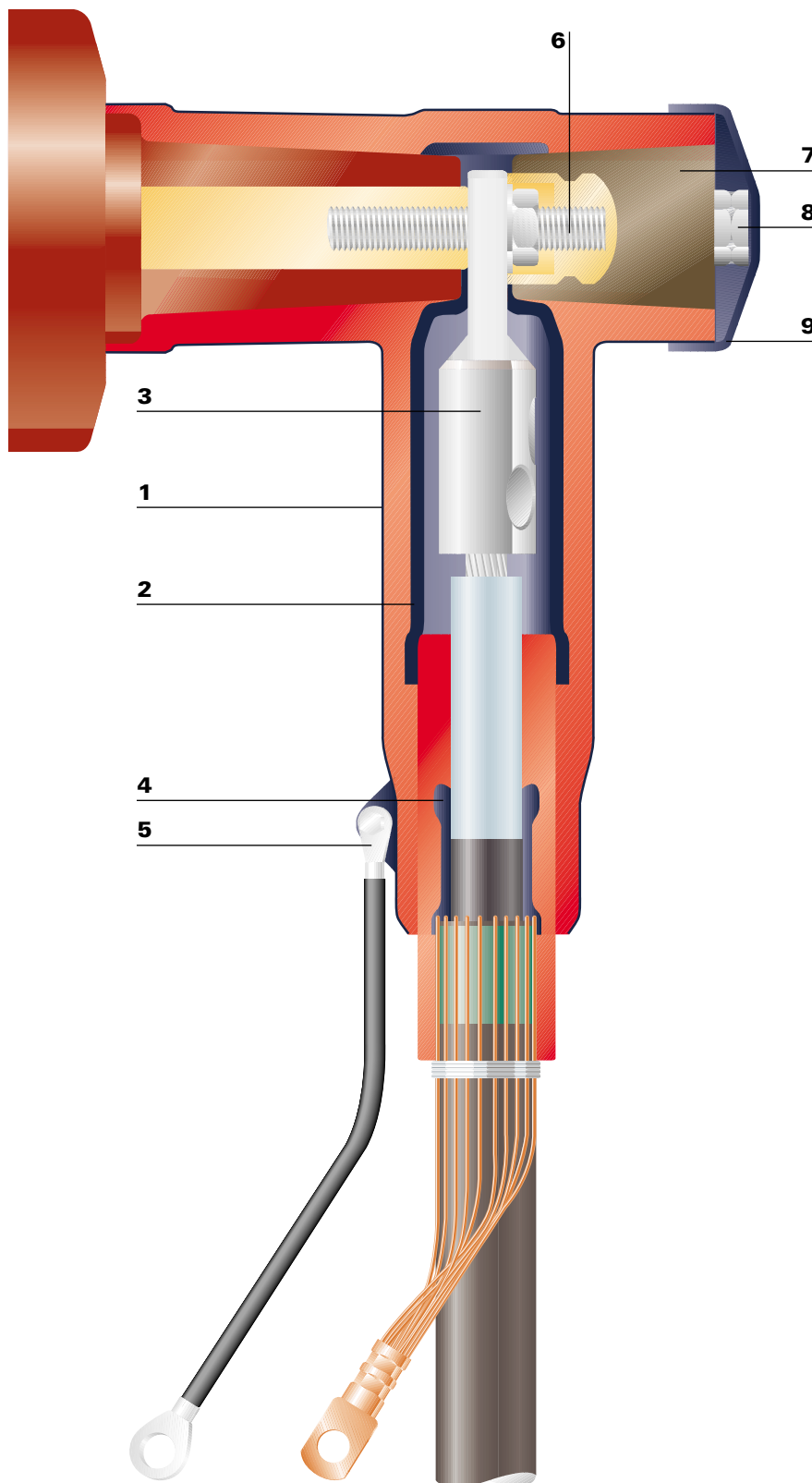
Material requested for 3 phases:  
1 x RSTI-L 56xx (kit)



#### Live end seal

Material requested for 3 phases:  
1 x RSTI-L 56xx (kit)  
1 x RSTI 56TP (terminating plug-kit)



**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 (see detail below) and deep indent compression lugs, as well as 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 oversheath 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 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.

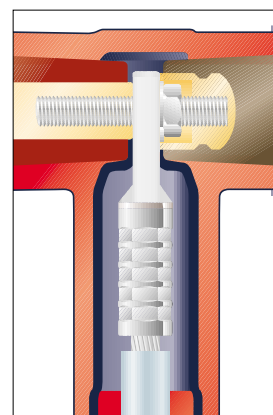
**8 Test point**

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

**9 Conductive endcap**

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

## DIN compression technology



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

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**Technical data**

Cable insulation diameter range	12.7 - 34.6 mm
Connector cross-section range	25 - 300 mm <sup>2</sup>
Maximum system voltage	24 kV
Continuous current rating	630 A
Basic impulse level	125 kV
Partial discharge at 2 U <sub>0</sub>	< 6 pC
AC voltage withstand, 1 min	57 kV
DC voltage withstand, 15 min	76 kV
Thermal short circuit, 1 s	33 kA
Dynamic short circuit	84 kA

The adapters meet the international CENELEC HD 629.1 S1 specification.

**Selection table**

**Screened separable connection system with DIN compression lugs**

Cross section mm <sup>2</sup>	12 kV Diameter core insulation		Reference number Conductor material		Cross section mm <sup>2</sup>	24 kV Diameter core insulation		Reference number Conductor material	
	min	max	Al	Cu		min	max	Al	Cu
25	12.7-	25.0 mm	RSTI-L5610	RSTI-L5630	25	12.7-	25.0 mm	RSTI-L5610	RSTI-L5630
35	12.7-	25.0 mm	RSTI-L5611	RSTI-L5631	35	12.7-	25.0 mm	RSTI-L5611	RSTI-L5631
50	12.7-	25.0 mm	RSTI-L5612	RSTI-L5632	50	12.7-	25.0 mm	RSTI-L5612	RSTI-L5632
70	12.7-	25.0 mm	RSTI-L5613	RSTI-L5633	70	12.7-	25.0 mm	RSTI-L5613	RSTI-L5633
95	12.7-	25.0 mm	RSTI-L5614	RSTI-L5634	95	21.2-	34.6 mm	RSTI-L5624	RSTI-L5644
120	12.7-	25.0 mm	RSTI-L5615	RSTI-L5635	120	21.2-	34.6 mm	RSTI-L5625	RSTI-L5645
150	21.2-	34.6 mm	RSTI-L5626	RSTI-L5646	150	21.2-	34.6 mm	RSTI-L5626	RSTI-L5646
185	21.2-	34.6 mm	RSTI-L5627	RSTI-L5647	185	21.2-	34.6 mm	RSTI-L5627	RSTI-L5647
240	21.2-	34.6 mm	RSTI-L5628	RSTI-L5648	240	21.2-	34.6 mm	RSTI-L5628	RSTI-L5648
300	21.2-	34.6 mm	RSTI-L5629	RSTI-L5649	300	21.2-	34.6 mm	RSTI-L5629	RSTI-L5649

Kits including deep indent lugs are on request

**Screened separable connection system with mechanical lugs and shear bolts**

Cross section mm <sup>2</sup>	12 kV Diameter core insulation		Reference number Conductor material	Cross section mm <sup>2</sup>	24 kV Diameter core insulation		Reference number Conductor material
	min	max			Al or Cu	min	
35- 95	12.7-	25.0 mm	RSTI-L5651	35- 70	12.7-	25.0 mm	RSTI-L5651
95-120	12.7-	25.0 mm	RSTI-L5652	95-185	17.0 - 32.6 mm	RSTI-L5653	RSTI-L5653
95-240	17.0-	32.6 mm	RSTI-L5653	95-240	21.2-	34.6 mm	RSTI-L5654
150-240	21.2-	34.6 mm	RSTI-L5654	300	21.2-	34.6 mm	RSTI-L5655
300	21.2-	34.6 mm	RSTI-L5655				



Electronics

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