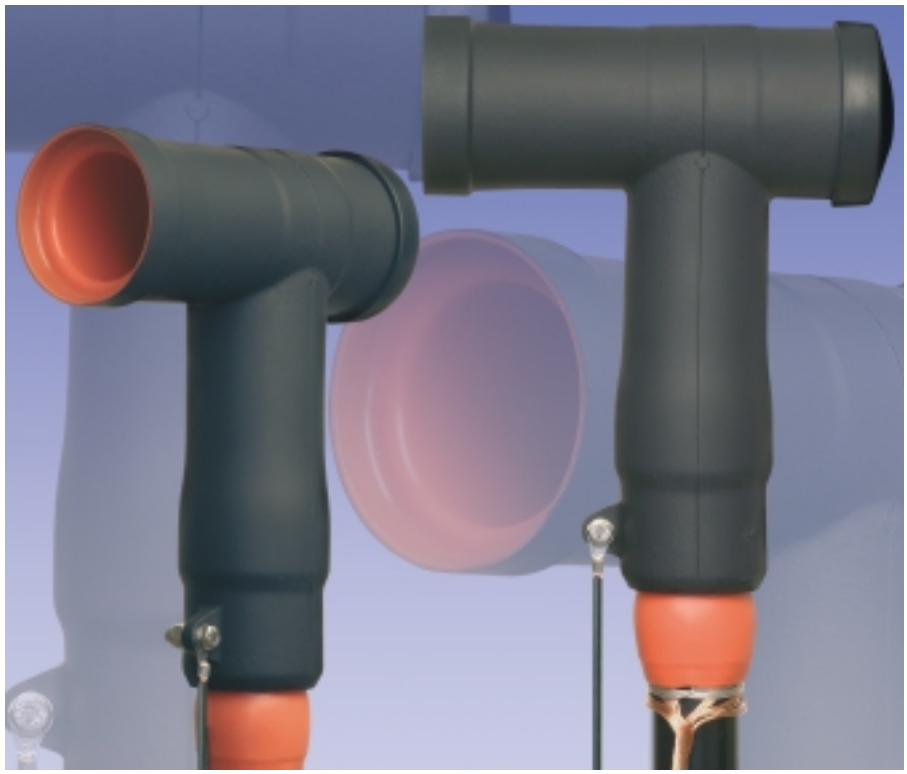
tyco Electronics

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^2.
- 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.

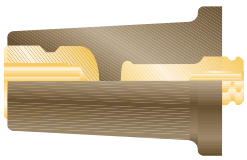
Made of a highly modified silicone rubber and protected by a thin-walled outer conductive screen connected to earth, RSTI-L connectors are equally suited for indoor and outdoor installation. Supporting a wide application range, the design incorporates one body and two stress cone adapters to cover all cross-sections from 25 to 300 mm^2. 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.

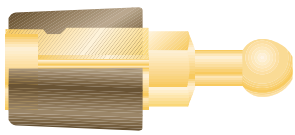
RSTI-L Accessories

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

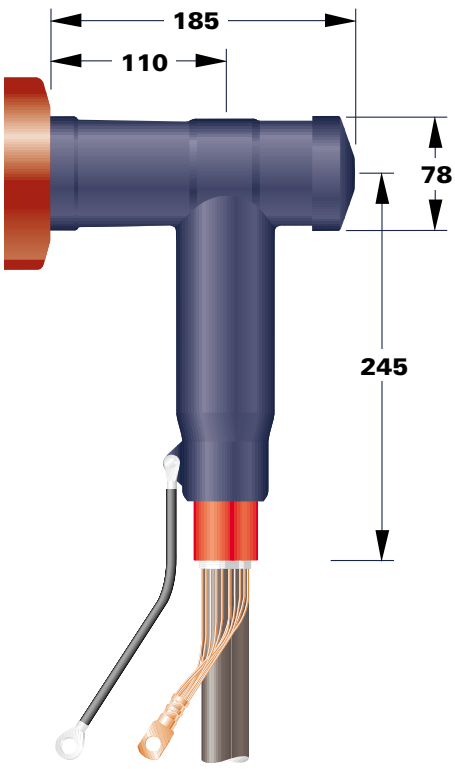


Earthing adapter
Ref. no.: RSTI-56EA20;
Ball diameter: 20 mm
RSTI-56EA25;
Ball diameter: 25 mm

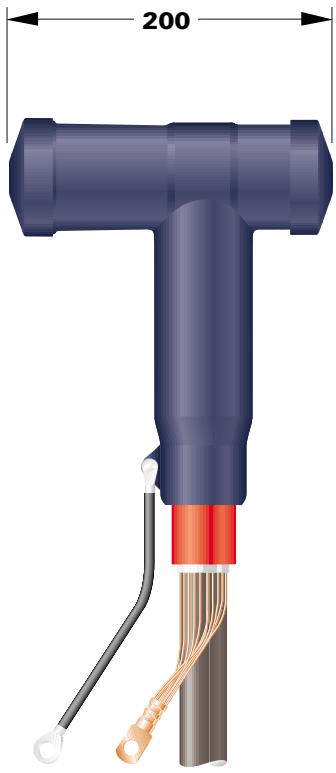


RSTI-L Applications

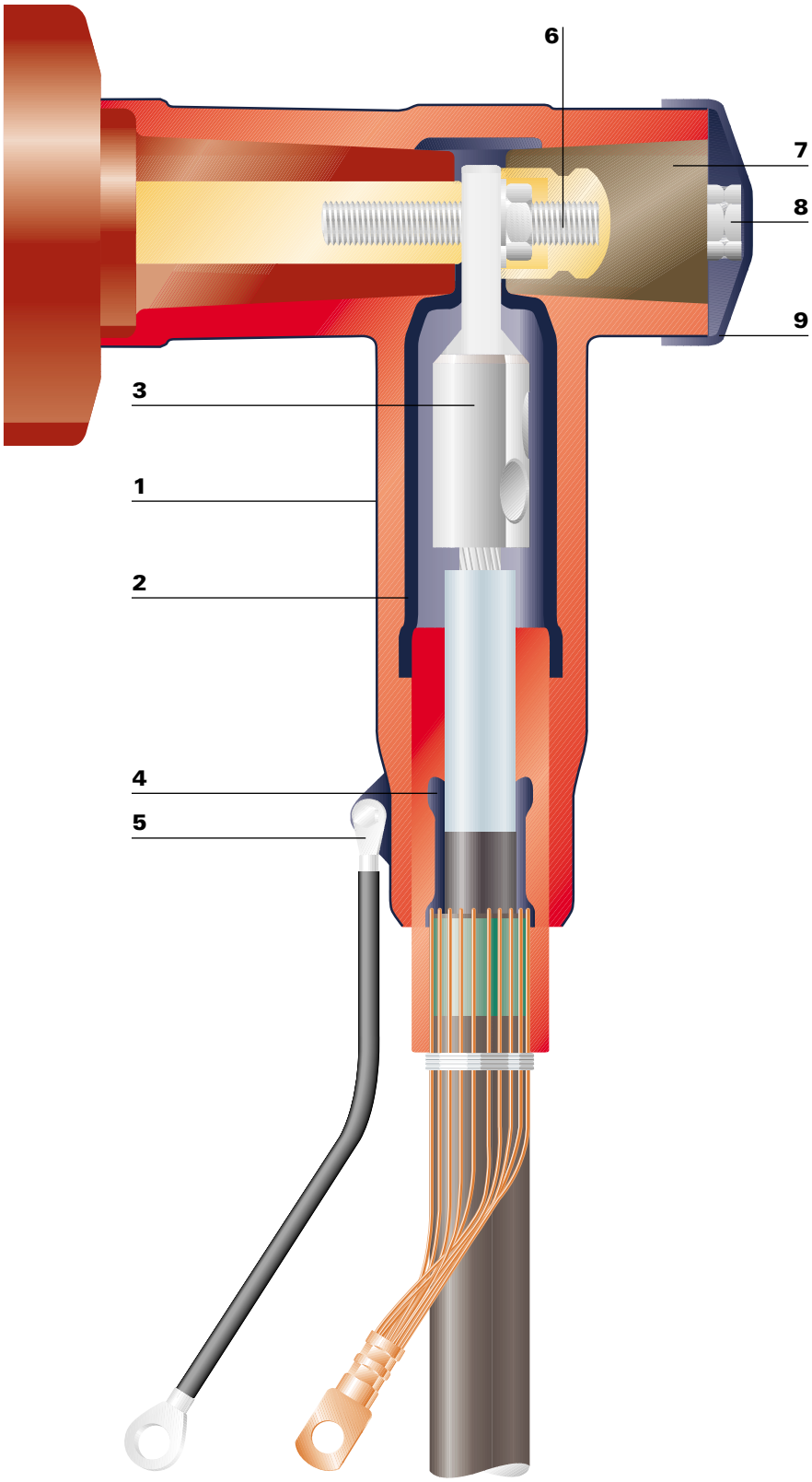
Single connection
Material requested for 3 phases:
1 x RSTI-L 56xx (kit)



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



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 (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.

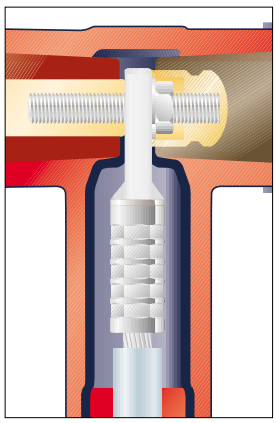
6 Threaded pin
A threaded pin together with a spring washer and hex nut ensure a high-performance electrical and mechanical contact with the bushing.

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.

Raychem

RSTI-L
Screened, separable connection system
630 A up to 24 kV

Technical data

Cable insulation diameter range	12.7 - 34.6 mm
Connector cross-section range	25 - 300 mm²
Maximum system voltage	24 kV
Continuous current rating	630 A
Basic impulse level	125 kV
Partial discharge at 2 U_0	< 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	12 kV Diameter core insulation		Reference number Conductor material	
mm²	min	max	Al	Cu
25	12.7-	25.0 mm	RSTI-L5610	RSTI-L5630
35	12.7-	25.0 mm	RSTI-L5611	RSTI-L5631
50	12.7-	25.0 mm	RSTI-L5612	RSTI-L5632
70	12.7-	25.0 mm	RSTI-L5613	RSTI-L5633
95	12.7-	25.0 mm	RSTI-L5614	RSTI-L5634
120	12.7-	25.0 mm	RSTI-L5615	RSTI-L5635
150	21.2-	34.6 mm	RSTI-L5626	RSTI-L5646
185	21.2-	34.6 mm	RSTI-L5627	RSTI-L5647
240	21.2-	34.6 mm	RSTI-L5628	RSTI-L5648
300	21.2-	34.6 mm	RSTI-L5629	RSTI-L5649

Cross section	24 kV Diameter core insulation		Reference number Conductor material	
mm²	min	max	Al	Cu
25	12.7-	25.0 mm	RSTI-L5610	RSTI-L5630
35	12.7-	25.0 mm	RSTI-L5611	RSTI-L5631
50	12.7-	25.0 mm	RSTI-L5612	RSTI-L5632
70	12.7-	25.0 mm	RSTI-L5613	RSTI-L5633
95	21.2-	34.6 mm	RSTI-L5624	RSTI-L5644
120	21.2-	34.6 mm	RSTI-L5625	RSTI-L5645
150	21.2-	34.6 mm	RSTI-L5626	RSTI-L5646
185	21.2-	34.6 mm	RSTI-L5627	RSTI-L5647
240	21.2-	34.6 mm	RSTI-L5628	RSTI-L5648
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	12 kV Diameter core insulation		Reference number Conductor material
mm²	min	max	Al or Cu
35- 95	12.7-	25.0 mm	RSTI-L5651
95-120	12.7-	25.0 mm	RSTI-L5652
95-240	17.0-	32.6 mm	RSTI-L5653
150-240	21.2-	34.6 mm	RSTI-L5654
300	21.2-	34.6 mm	RSTI-L5655

Cross section	24 kV Diameter core insulation		Reference number Conductor material
mm²	min	max	Al or Cu
35- 70	12.7-	25.0 mm	RSTI-L5651
95-185	17.0 -	32.6 mm	RSTI-L5653
95-240	21.2-	34.6 mm	RSTI-L5654
300	21.2-	34.6 mm	RSTI-L5655

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