

## Raychem Screened Adaptor System RSES/RSSS 250 A, 24 kV

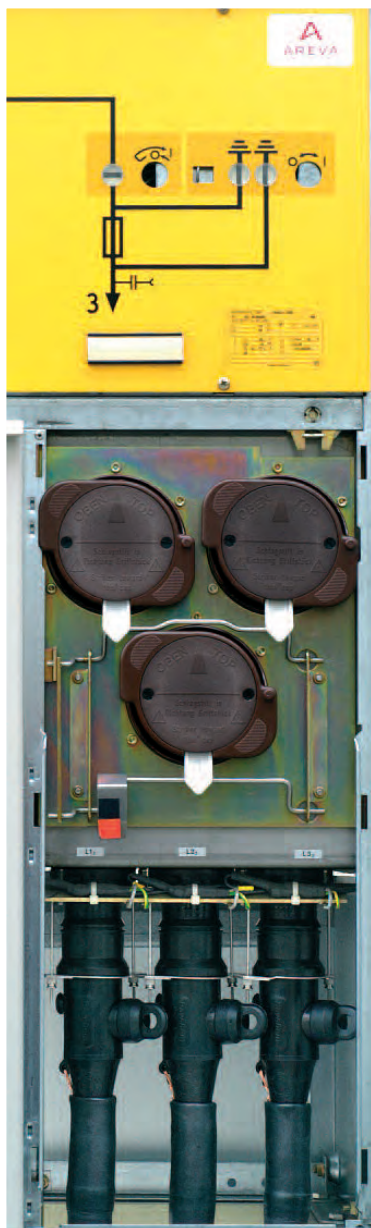
**Raychem**  
from TE Connectivity

**WOKING**  
Unit 19, Woking Business Park  
Albert Drive, Woking GU21 5JY  
Tel: 01483 747747 • Fax: 01483 747001

**BRISTOL**  
The Alpha Centre, Armstrong Way,  
Great Western Business Park, Yate, Bristol BS37 5NG  
Tel: 01454 322555 • Fax: 01454 323555

**NORTON CANES**  
Unit 15-16, Bellsizes Close, Norton Canes,  
Staffordshire WS11 9TQ  
Tel: 01543 450555 • Fax: 01543 450600

## Raychem Screened Adaptor System RSES/RSSS 250 A, 24 kV



Raychem separable Screened Adaptors are designed to connect single-core polymeric cables to medium voltage equipment (transformers, switchgears, motors etc.) up to 24 kV.

Made of crosslinked EPDM and protected with a minimum 3 mm moulded conductive shield connected to earth, Raychem deadbreak adaptors are suitable for both indoor and outdoor installations.

Their wide application range allows a minimum number of bodies to cover several different cable cross-sections without the need for additional cable adaptors. The cut-back dimensions for all cable sizes are the same for our Raychem RSSS and Raychem RSES adaptors.

Raychem Screened Adaptors are equipped with a capacitive test point to ensure that the circuit is not energised before disconnection. The capacitive test point is protected by a conductive cap. A range of high strength bimetallic compression connectors tested to VDE 0220 are offered to connect both aluminium and copper conductor cables. After cable preparation and lubrication, the Raychem Screened Adaptors can simply be slid into place under virtually all conditions. A separable mounting system provides for an easy installation of the adaptor onto the bushing.



In addition, Rayvolve tubing or heat-shrink phase-marking sleeves are offered as an option, to provide a superior environmental seal.



### Rayvolve Sealing

Cold applied technology. Rayvolve is used in conjunction with a pressure sensitive mastic and is simply rolled into place. Thus a reliable moisture seal is achieved. The use of Rayvolve is particularly recommended for applications where a torch is unavailable or cannot be used.

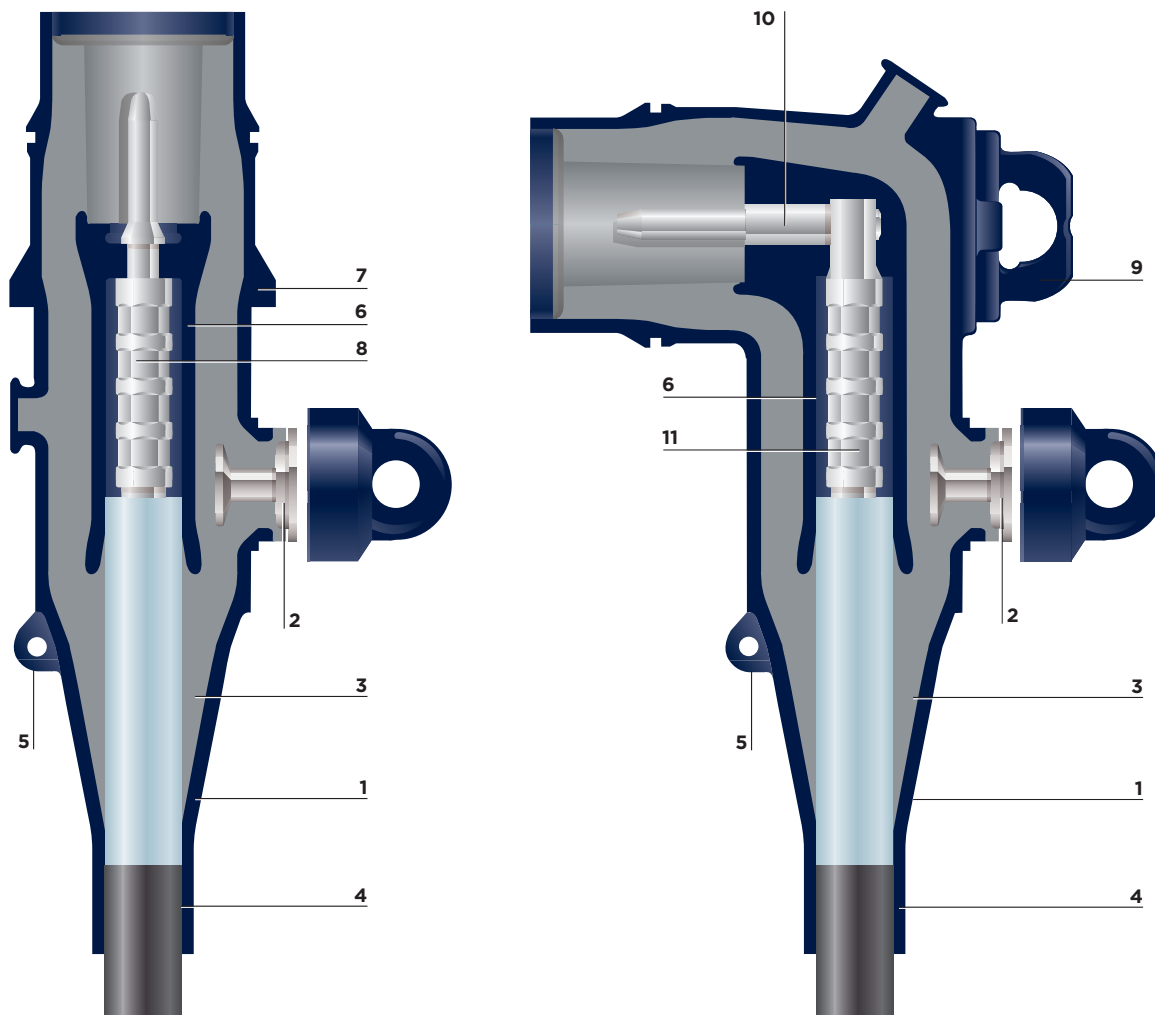


### Heat-Shrinkable Sealing

Moisture seal and phase marking. A reliable moisture seal can also be produced by using a mastic in conjunction with a heat-shrinkable sleeve. This solution has the additional advantage of providing phase marking. A standard torch carried by most jointers is used.

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## Construction and Design



### 1 Screened Body

A 3 mm conductive moulded outer screen is permanently bonded to the EPDM insulating material of the body.

### 2 Capacitive Test Point

Used to determine if the circuit is energised; can also be used for phasing. Electrically protected by a cap made of EPDM.

### 3 Stress cone

Computer designed, it relieves electrical stress at the cable screen cut of the termination.

### 4 Conductive Cable Entrance

The 25 mm conductive end provides a connection to the cable screen.

### 5 Earthing Eye

Provides a connection point for the screen of the body to the earth.

### 6 Inner Screen

Conductive insert provides a "Faraday cage" around the compression connector and eliminates corona at rated voltage.

### 7 Retaining Shoulder

To fix a retaining collar onto the adaptor for easy installation with two screws.

### 8 Compression Pin-Connector

Bimetallic compression pin-connector designed with locking ring, to connect both aluminium and copper conductor cables.

### 9 Lifting Eye

A lifting eye firmly attached to a moulded-in insert provides a secure disconnection point.

### 10 Pin

Tin plated copper electrode, designed and tested to carry 250 A continuous current. The hexagonal wrench to fix the pin onto connector is supplied with each kit.

### 11 Compression Connector

Bimetallic compression connector to connect both aluminium and copper conductor cables.

| Technical data                        | RSES                     | RSSS                    |
|---------------------------------------|--------------------------|-------------------------|
| Cable Insulation Diameter Range       | 13.5 - 33.5 mm           | 13.5 - 26.5 mm          |
| Connector Cross section Range         | 16 - 120 mm <sup>2</sup> | 16 - 95 mm <sup>2</sup> |
| Maximum System Voltage                | 24 kV                    | 24 kV                   |
| Continuous Current Rating             | 250 A                    | 250 A                   |
| Basic Impulse Level                   | 125 kV                   | 125 kV                  |
| Partial Discharge at 2 U <sub>0</sub> | < 5 pc                   | < 5 pc                  |
| AC Voltage Withstand, 1 min           | 50 kV                    | 50 kV                   |
| DC Voltage Withstand, 30 min          | 96 kV                    | 96 kV                   |

The adaptors have been tested in accordance with the international specifications (e.g. ANSI/IEEE 386, IEC 540, VDE 0278). The bimetallic connectors have been tested in accordance with VDE 0220 on aluminium and copper conductors. All adaptors pass the routine tests including: AC Voltage Withstand, Partial Discharge Extinction and Test Point Voltage Test.

## Selection Table

### Screened Elbow Adaptors

| Diameter over insulation | Cross section (Al or Cu conductor) |                    |                    |                    |                    |                    |                     |
|--------------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
|                          | 16 mm <sup>2</sup>                 | 25 mm <sup>2</sup> | 35 mm <sup>2</sup> | 50 mm <sup>2</sup> | 70 mm <sup>2</sup> | 95 mm <sup>2</sup> | 120 mm <sup>2</sup> |
| 13.5 - 17.4 mm           | RSES 5201                          | RSES 5202          | RSES 5203          | RSES 5205          | -                  | -                  | -                   |
| 16.3 - 20.8 mm           | RSES 5211                          | RSES 5212          | RSES 5213          | RSES 5215          | RSES 5217          | RSES 5219          | -                   |
| 19.6 - 24.1 mm           | -                                  | -                  | RSES 5223          | RSES 5225          | RSES 5227          | RSES 5229          | RSES 5224           |
| 23.1 - 27.7 mm           | -                                  | -                  | -                  | RSES 5235          | RSES 5237          | RSES 5239          | RSES 5234           |
| 27.9 - 33.5 mm           | -                                  | -                  | -                  | -                  | -                  | RSES 5249          | RSES 5244           |

### Screened Straight Adaptors

| Diameter over insulation | Cross section (Al or Cu conductor) |                    |                    |                    |                    |                    |
|--------------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                          | 16 mm <sup>2</sup>                 | 25 mm <sup>2</sup> | 35 mm <sup>2</sup> | 50 mm <sup>2</sup> | 70 mm <sup>2</sup> | 95 mm <sup>2</sup> |
| 13.5 - 17.4 mm           | RSSS 5201                          | RSSS 5202          | RSSS 5203          | RSSS 5205          | -                  | -                  |
| 16.3 - 20.8 mm           | RSSS 5211                          | RSSS 5212          | RSSS 5213          | RSSS 5215          | RSSS 5217          | RSSS 5219          |
| 19.6 - 24.1 mm           | -                                  | -                  | RSSS 5223          | RSSS 5225          | RSSS 5227          | RSSS 5229          |
| 21.0 - 26.5 mm           | -                                  | -                  | -                  | RSSS 5255          | RSSS 5257          | RSSS 5259          |

Add mod. code -R to kit number for cold applied tubing Rayvolve.  
Add mod. code -P to kit number for heat shrink tubing with phase marking.

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Tyco Electronics Raychem GmbH  
a TE Connectivity Ltd. Company  
TE Energy  
Finsinger Feld 1  
85521 Ottobrunn/Munich, Germany

Phone: +49-89-6089-0  
Fax: +49-89-6096345

energy.te.com

