



Energy Division

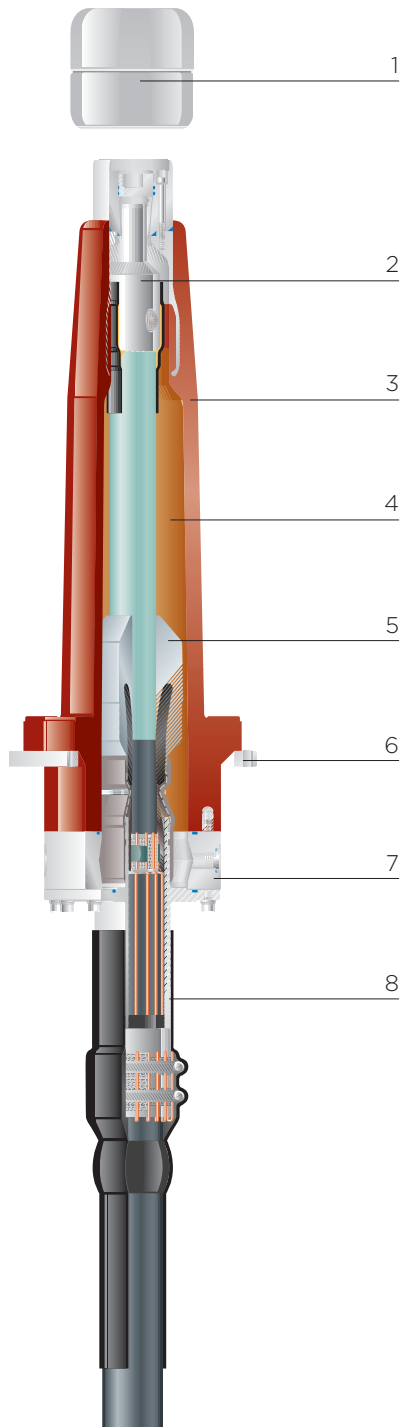
## Raychem Switchgear & Transformer Termination SHVT & THVT for 72 kV up to 170 kV



59B Apostolopoulou str.  
15231 Chalandri – Athens Greece  
Tel: +30 210 6754801, Fax: +30 210 6754804  
[info@enia.gr](mailto:info@enia.gr)  
[www.enia.gr](http://www.enia.gr)



# Raychem Switchgear & Transformer Termination SHVT & THVT for 72 kV up to 170 kV



## Application

The switchgear termination for voltage classes up to 170 kV is designed to be installed in cable entry housings of gas-insulated switchgear (GIS). It complies with IEC 60859 and IEEE 1300 standards, which essentially specify the interfaces between the termination and the switchgear. Therefore the termination will fit into all GIS complying with these standards. The termination operates in SF<sub>6</sub> but also in insulating liquids like transformer oil. A corona shield at the top of the transformer termination then provides the necessary shielding of the terminal.

## Features

- Si-oil filling
- Dimensions comply with IEC 60859 and IEEE 1300
- Pressure-tight resin housing
- Operates in SF<sub>6</sub> and insulating liquids
- Pre-fabricated and factory tested Si-rubber stress cone
- Torque-controlled conductor bolt
- No special tools required to install the termination
- Isolated cable gland for sectionalization
- Type tested according to IEC 60840, IEC 60859 and IEEE 1300 standards

## Major Design Elements of Raychem Switchgear & Transformer Termination

The epoxy-resin insulator (3) with embedded electrode forms the gas pressure-tight interface between GIS or transformer cable entry and the oil-filled cable compartment of the termination. It is attached to the cable entry housing with the fixing ring (6). To fit the cable conductor, torque-controlled shear-off bolt connectors (2) or crimp-type connectors are available. The connector is suitable for stranded aluminium and copper conductors and can be modified to accept solid conductors as well. No special tool is required to install the mechanical connector. Heat-shrinkable polymeric tubing containing oil-resistant sealant encapsulates the connector barrel and the polymeric insulation transition. The silicone rubber stress cone (5) provides the electrical field control and can easily be applied without tools owing to its excellent elasticity. The interface between stress cone, cable insulation and resin housing is filled with silicone oil (4). Filling and venting nozzles are available at the top bolt assembly and at the base of the termination. A corona shield (1) can be easily attached to the transformer termination for use in insulating liquids. Compared with IEC 60859 and IEEE 1300 wider clearances apply in this application. The cable outer serving is adapted through a gland system (8), which addresses the individual shielding and armouring. Heat-shrinkable tubings are used to seal the cable gland. The conventional mounting position is vertical. For horizontal or upside-down mounting an optional oil expansion vessel is available.

- 1 Corona shield (THVT only)
- 2 Connector (mechanical or crimp)
- 3 Resin housing
- 4 Oil-filling
- 5 Stress cone
- 6 Fixing ring
- 7 Base plate
- 8 Gland and sealing

While Tyco Electronics and its affiliates referenced herein have made every reasonable effort to ensure the accuracy of the information contained in this catalog, Tyco Electronics cannot assure that this information is error free. For this reason, Tyco Electronics does not make any representation or offer any guarantee that such information is accurate, correct, reliable or current. Tyco Electronics reserves the right to make any adjustments to the information at any time. Tyco Electronics expressly disclaims any implied warranty regarding the information contained herein, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose. Tyco Electronics' only obligations are those stated in Tyco Electronics' Standard Terms and Conditions of Sale. Tyco Electronics will in no case be liable for any incidental, indirect or consequential damages arising from or in connection with, including, but not limited to, the sale, resale, use or misuse of its products. Users should rely on their own judgement to evaluate the suitability of a product for a certain purpose and test each product for its intended application. In case of any potential ambiguities or questions, please don't hesitate to contact us for clarification. Raychem, TE (logo) and Tyco Electronics are trademarks of the Tyco Electronics group of companies and its licensors.

**Energy Division – innovative and economical solutions for the electrical power industry: cable accessories, connectors & fittings, insulators & insulation, surge arresters, switching equipment, lighting controls, power measurement and control.**

Tyco Electronics Raychem GmbH  
Energy Division  
Finsinger Feld 1  
85521 Ottobrunn/Munich, Germany

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

<http://energy.tycoelectronics.com>

 **Tyco Electronics**

Our commitment. Your advantage.