

Energy Division

Raychem insulated adapter termination system RICS for SF<sub>6</sub>-insulated switchgear up to 24 kV

## Raychem insulated adapter termination system RICS for SF<sub>6</sub>-insulated switchgear up to 24 kV

The increasing popularity of gas insulated switchgear called for the development of an appropriate connection to the bushing.

The Tyco Electronics Energy Division has developed two systems for this purpose. The Raychem insulating adapter RICS (630 A) is compatible with all Raychem terminations and can thus be used to connect any type of cable, irrespective of whether it is paper or plastic insulated or has one or three cores.

### Simplified installation

The compact design of the adapters and their clear cut profiles simplify installation. The electrical connection with the aid of a stud renders additional fastening systems unnecessary.

### Reliability

Tyco Electronics Energy Division has several decades of experience in the field of hermetically insulated termination systems for medium voltage applications.

The adapters are water tight and guarantee uninterrupted operation, even under extreme environmental conditions with severe pollution.

### Tests

The adapters conform to IEC 540, VDE 0278 and ANSI IEEE 386 specifications, as well as to the Raychem specification PPS 3013. The test requirements and results are summarized in Raychem Test Report PPR 1106, which is available on request.

### Different cables...

New materials and new production methods have changed the face of medium voltage cables completely over the years, resulting in increased complexity. Paper and plastic insulated cables with one or three cores, round or sector shape, and many different types of shielding, water blocking systems, as well as varying insulation thickness can be found in today's networks.

### ...need different terminations...

Catering for a wide range of cables with as few fittings as possible, while optimising the products for specific applications and maximising their reliability, was the logical consequence.

### ...or Tyco Electronics Energy Division flexibility.

Heat-shrink technology makes it possible to use a single size of fittings for a large number of cable cross sections and types.

This universal technology not only reduces the requirement for jointer training but also the installation time, at the same time increasing the reliability, irrespective of the type of cable used in the network.

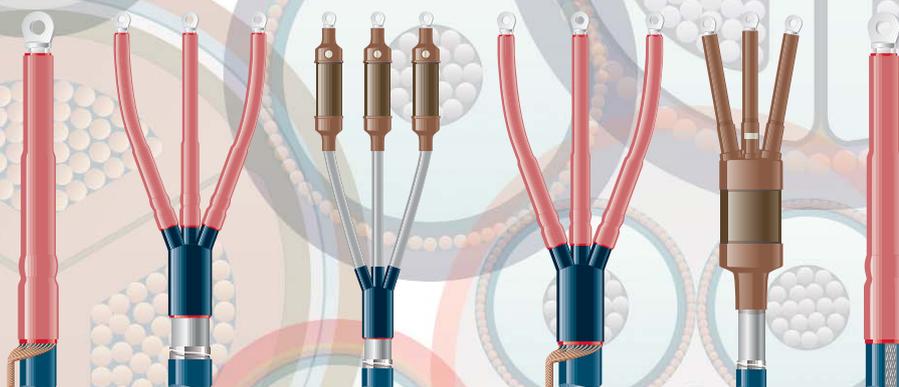
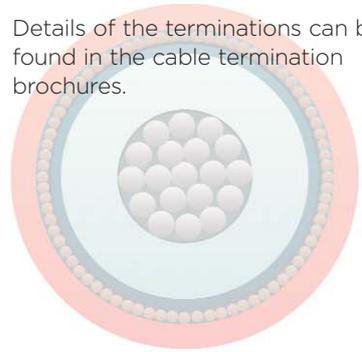
The insulated adapter termination system provides perfect sealing, electrical insulation and an electrical connection between Raychem terminations and SF<sub>6</sub>-insulated switchgear up to 24 kV.

Its lead-in insulator (630 A) conforms to DIN 47636 and ANSI IEEE 386.

The cable box of the switchgear must be provided with suitable protection against electric shock.

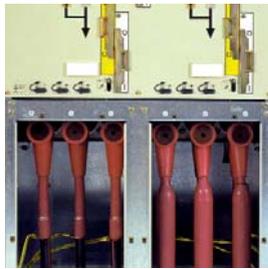
The insulating adapter is compatible with all Raychem terminations.

Details of the terminations can be found in the cable termination brochures.





**Merlin Gerin RM6+**



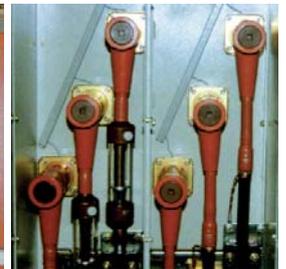
**Siemens 8DJ10**



**Calor Emag Z L4**



**Driescher Minex C**



**Felten & Guillaume GA**



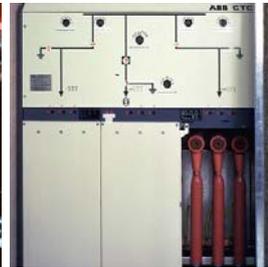
**GEC Alstom T&D BTL**



**AEG FBA**



**Driescher Minex D**



**ABB CTC**

### T-adapter with or without surge arrester

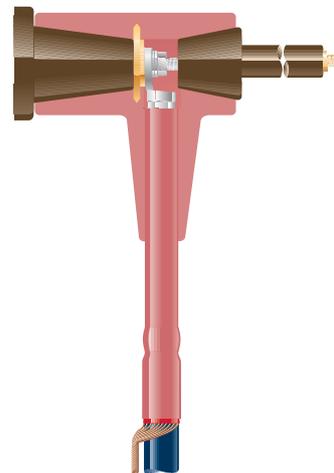
#### Design

Thick walled insulator made of high quality elastomer with sealing face over the termination, bushing cone and plug. The electrical connection is made with a terminal stud and the cable lug of the termination. Two cable connection is possible. A special plug which allows cable testing without disconnecting the adapter is also offered. The design of the adapter for connecting the surge arrester is basically identical. The elastomer insulator has an additional lead-in duct for the surge arrester. Details of the surge arresters can be found in the brochure EPP 0533.

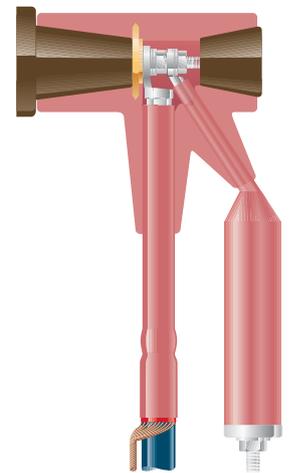
Scope of supply (for three phases)  
Insulator, plug, terminal stud, small accessories and installation instructions.



T-adapter for perpendicular connection of the termination to SF<sub>6</sub>-insulated switchgear



T-adapter fitted with testing plug



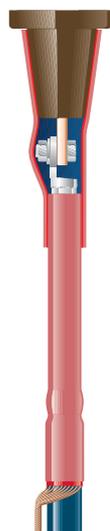
T-adapter for perpendicular connection of termination and surge arrester to SF<sub>6</sub>-insulated switchgear

### Straight adapter

#### Design

A thick walled, heat-shrinkable insulating sleeve provides a hermetic seal over the cone of the bushing and the termination. The adapter area is smoothed with a meltable filler strip.

Scope of supply (for three phases)  
Heat-shrinkable insulating sleeving, filler strip, small accessories and installation instructions. Terminal stud and lug must be enclosed.



Straight adapter for vertical connection of the termination to SF<sub>6</sub>-insulated switchgear

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**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.**

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