



**RPIT**

Plug in Termination System

## RAYCHEM PLUG IN TERMINATION SYSTEM

## RPIT

### Features

- Separable inline connection for high current, gas insulated switchgears up to 42 kV
- Termination mates interfaces in accordance to EN50180 and EN50181 for inner cone connections
- The contact parts are designed for stranded circular aluminium or copper conductors in accordance to IEC-60228

### Technical Information

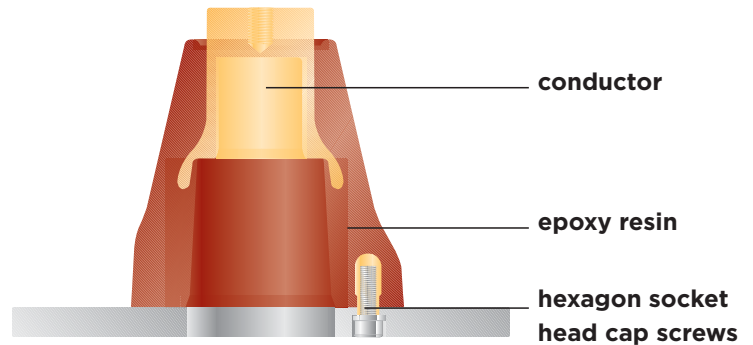
The increasing popularity of gas insulated switchgear called for the development of appropriate connection systems to standardised bushings in accordance to EN50181.

TE Connectivity Energy Division has developed two systems, one is related to the outer cone and the other one to the inner cone system. The latter is used in power switch gear and power transformers.

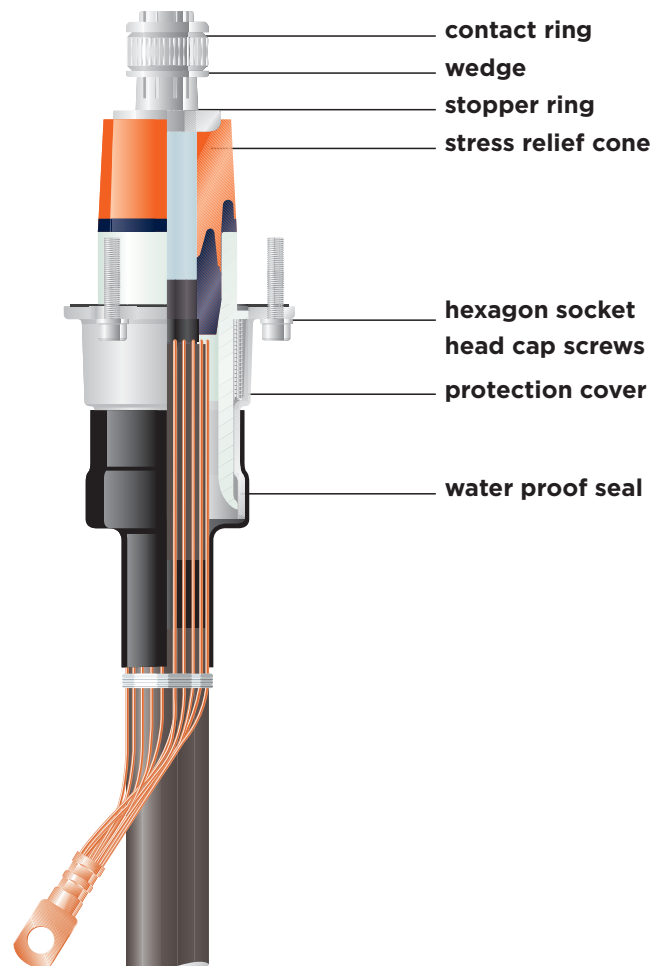
TE Connectivity Energy Division has several decades of experience in the field of hermetically insulated termination systems for medium voltage applications. Thus the bushings designed for gas insulated switchgear meet the standard EN50181 for connection type size 2 (800 A) and size 3 (1250 A) at operating voltage 12 kV up to 36 (42) kV.

The basic construction of the mating termination follows well known design principles and incorporates a lamellate contact system which ensures reliable current transmission via a cone clamp to the conductor. The interface between silicone body of the termination and the bushing is kept permanently sealed via the pressure of a spring between the insulator and the flange of the termination cover. The termination cover is sealed at the flange area with well known sealing methods and at the cable side with heat-shrinkable tubing against ingress of moisture.

### Bushing



### Termination



**RPIT**

**TECHNICAL DATA - TESTING ACCORDING TO CELENEC HD629.1.52**

Product Size	Size 2	Size 2	Size 3	
Cross Section (mm <sup>2</sup> )	300	400	630	
Diameter over insulation (mm <sup>2</sup> )	max 42	max 42	max 50	
Test	Testing Values for Rated Voltage			Results
$u_0/u$	12.7/22	20.8/36	20.8/36	
$U_m$	24	42	42	
DC withstand voltage 15 min (kV)	76	125	125	no breakdown or flashover
AC withstand voltage 5 min (kV)	57	93.5	93.5	no breakdown or flashover
PD at ambient temp (kV)	< 2pC	<2pC	< 2pC	max 10 pC at 2 $U_0$
Impulse voltage at elevated temp (kV)	150	200	200	10 impulses of each polarity, no breakdown
Disconnection / Connection	5 x pass	5 x pass	5 x pass	5 complete operations; no visible damage to contact

**Cable Terminations**

Type	Size	Nominal current (A)	System voltage (kV)	Cross section (mm <sup>2</sup> )	Dia over conductor (mm)	Dia over insulation (mm)
RPIT-32xx	2	800	12	185 - 300	15.0 - 21.6	23.5 - 30.0
RPIT-52xx	2	800	24	95 - 300	11.0 - 21.6	23.5 - 36.0
RPIT-62xx	2	800	36	50 - 400	7.0 - 24.6	23.5 - 36.0
RPIT-33xx	3	1250	12	240 - 630	17.0 - 32.0	26.0 - 39.0
RPIT-53xx	3	1250	24	150 - 630	13.0 - 32.0	26.0 - 43.0
RPIT-63xx	3	1250	36 / 42	50 - 630	7.0 - 32.0	23.0 - 50.0



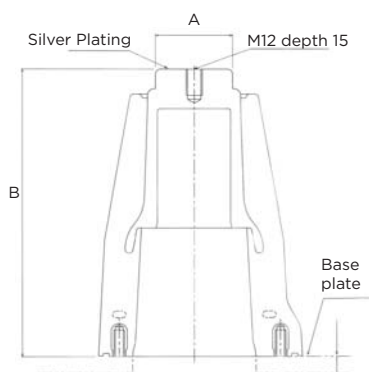
Note: Product is available with and without test point

**Bushing Part**
**Capacitive voltage tap of bushing with test point**

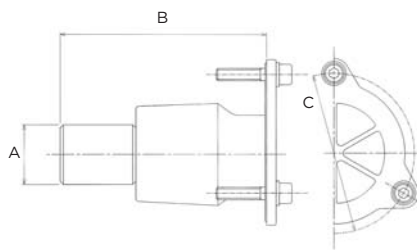
Size	2 (800A)	3 (1250A)
Capacitive voltage tap	8 ± 2 pF	23.0 - 50.0

**Dimension**

Size	2 (800A)	3 (1250A)
A	50	58
B	140	218
C	14	12.5


**Insulated Cap**
**Dimension**

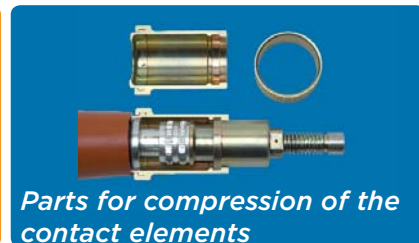
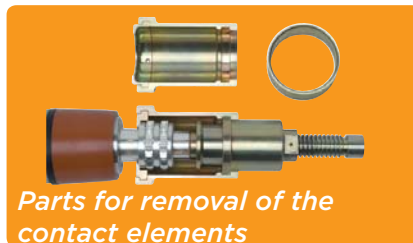
Size	2 (800A)	3 (1250A)
A	38	54
B	131	200
C	102	130



## Compression tool

Metal tool case including an easy to handle compression tool for wedge and contact ring and all necessary adaption rings.

Catalogue Reference	Description
IT-1000-025	Compression Tool Kit
IT-1000-026	Insert Lever
IT-1000-027	Support Chain
IT-1000-028	Impact device for size 2
IT-1000-029	Impact device for size 3



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Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.  
 \*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

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