

Raychem Cold Shrinkable Termination CSTI/CSTO for Polymeric Insulated Cables up to 24 kV

Raychem
from TE Connectivity

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General

Raychem terminations CSTI/O cold shrink terminations are made from a high performance, liquid silicone material which is specially formulated for excellent tracking and split resistance. The extra-long, silicone stress cone is integrated within the termination which ensures correct positioning. Moisture sealing at the lug is integrated into the termination body, eliminating the need for additional sealing tapes.

They offer a reliable, fast and easy-to-install system to ensure trouble free service and maintain high network reliability. All key components are pre-expanded on one holdout system, allowing neat installation in compact environment on the prepared cable.

Raychem terminations CSTI/O are designed to cover a wide range of applications and to accommodate the variety of cable and conductor types used in the networks. Range-taking, mechanical lugs ensuring reliable installation and service can be supplied with the kit.



Features:

- Easy to install spiral holdout
- Integrated sealing mastic
- Outstanding weathering, UV and Ozone Resistance
- Chemically resistant
- Resistant to fungi
- Excellent electrical properties, including good tracking resistance and high dielectric strength
- Electrical stress control of the screen cut area using integrated conductive geometrical stress cones
- Hydrophobic (water hating/repelling)
- Non-Flammable
- Self Extinguishing
- Retains performance over wide temperature range -45 to $+150^{\circ}\text{C}$
- Excellent resistance to splitting and permanent set
- All components have full traceability back to raw materials
- Mechanical shear bolt lug and compression lug to IEC 61238-1 can be supplied
- CENELEC HD 629.1.S2, requirements which include IEC, BS, VDE and other international specifications, IEEE-48
- Manufacturing site ISO 9001 & ISO 14001 qualified

Benefits:

- Pre-expanded Termination body with integrated stress control deflector and sealing mastic
- Single piece silicone termination body with optimal mechanical expansion ratio allows a wide application range
- The extra-long silicone stress cone is integrated with the termination and reduces positioning
- Moisture sealing at the lug is integrated
- Well-known and easy-to-install holdout system, rip cord pulling direction towards the lug not the bottom of the termination
- Easy to install in tight switchgear compartments
- Accommodates Mechanical shear bolt lug and compression lug

Mechanical shear bolt connectors

Raychem terminations CSTI/O can be provided with TE BLMT mechanical shear bolt lugs to ensure a reliable connection for different conductor materials, shapes and types used in today’s network. The pre-set shear torque of the bolts ensures that the correct contact pressure is always achieved. The specially designed contact surface on the inside of the lug breaks up any oxide layer and ensures reliable service over the entire service life of the termination. Different sizes of mechanical lugs with wide application ranges are available. They have been tested in accordance with IEC-61238-1 class A.

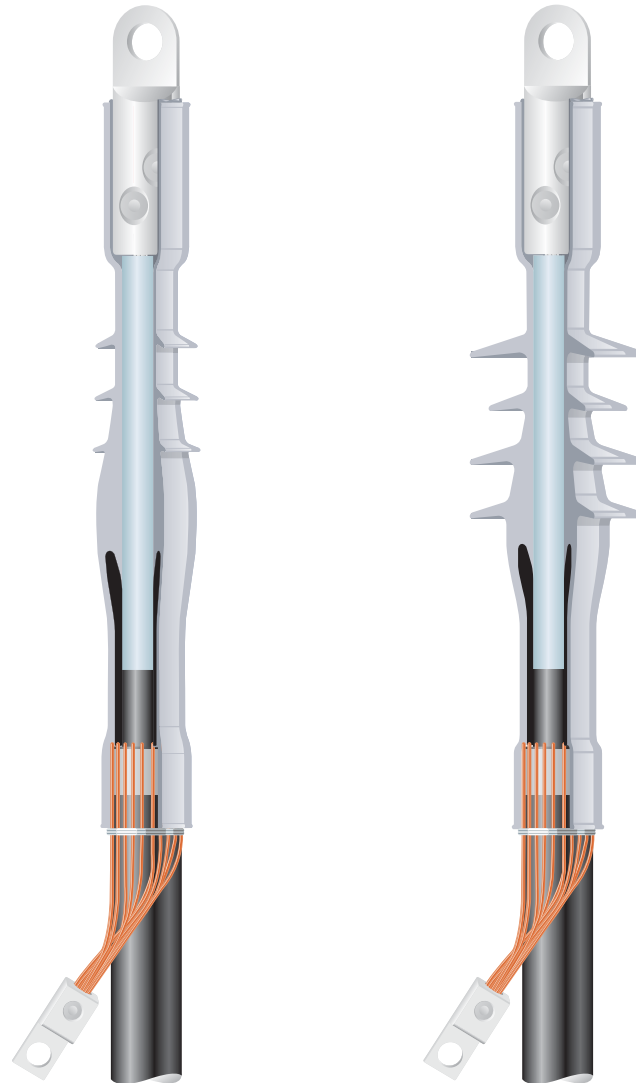
The installation shear-head bolts can be ruptured manually by usage of ring spanner and or facilitated by the usage of a cordless impact wrench supplied (IT-1000-023).

Pre-expanded silicone termination body

The silicone termination body is delivered in a pre-expanded condition on a spiral holdout system. Silicone materials with excellent mechanical properties allow high expansion forces and therefore guarantee a wide application range. Integrated stress control deflector and sealing mastic on the top end of the termination provide exceptional electrical performance. The termination body can be easily removed from the spiral holdout with low release forces, particularly designed for termination applications.

Electrical stress control

Electrical stress control deflector is fully integrated within the silicone termination body. Conductive cone with an exactly defined geometrical design over the screen cut area provide excellent electrical stress control.



Technical data

Voltage class	[kV]	6.35/11(12)	8.7/15(17.5)	12.7/22(24)
Cable insulation diameter	[mm]	13.7 - 40.0	15.7 - 50.0	17.9 - 52.0
Cross section range	[mm ²]	25 - 630	25 - 630	25 - 630
Max system voltage U _m	[kV]	12	17.5	24
Basic impulse level	[kV]	95	95	125
Partial discharge at 2 U ₀	[pC]	<10	<10	<10
AC Voltage withstand, 5 min	[kV]	28.5	39	57
DC Voltage withstand, 15min	[kV]	38	52	76

Cordless impact wrench

For the installation of mechanical connectors a cordless impact wrench is available. For more details see brochure EPP 1297.



Application range single core cable

Voltage class	Kit description	Application range	Diameter over insulation min	Diameter over insulation max	Diameter over sheath max
6.35/11(12)kV		[mm²]	[mm]	[mm]	[mm]
Indoor	CSTI-3122	25 - 95	13.7	20.8	22
	CSTI-3132	95 - 240	20.8	28.4	34
	CSTI-3142	300 - 400	28.4	33.6	50
	CSTI-3152	500 - 630	34.0	40.0	58
Outdoor	CSTO-3122	25 - 95	13.7	20.8	22
	CSTO-3132	95 - 240	20.8	28.4	34
	CSTO-3142	300 - 400	28.4	33.6	50
	CSTO-3152	500 - 630	34.0	40.0	58
8.7/15(17.5)kV		[mm²]	[mm]	[mm]	[mm]
Indoor	CSTI-4122	25 - 95	15.7	22.8	22
	CSTI-4132	95 - 240	20.7	30.4	34
	CSTI-4142	300 - 400	29.9	35.6	50
	CSTI-4152	500 - 630	35.9	41.9	58
Outdoor	CSTO-4122	25 - 95	15.7	22.8	22
	CSTO-4132	95 - 240	20.7	30.4	34
	CSTO-4142	300 - 400	29.9	35.6	50
	CSTO-4152	500 - 630	35.9	41.9	58
12.7/22(24)kV		[mm²]	[mm]	[mm]	[mm]
Indoor	CSTI-5122	25 - 95	17.9	25.0	34
	CSTI-5132	95 - 240	23.0	32.6	50
	CSTI-5142	300 - 400	31.9	37.8	58
	CSTI-5152	500 - 630	37.9	44.0	58
Outdoor	CSTO-5122	25 - 95	17.9	25.0	34
	CSTO-5132	95 - 240	23.0	32.6	50
	CSTO-5142	300 - 400	31.9	37.8	58
	CSTO-5152	500 - 630	37.9	44.0	58

The application range given in the table is based on polymeric insulated cable according to CENELEC HD 620 A2 (2004) standard with stranded circular conductors.

Trifurcation system available. Please contact your sales representative

Test reports

The products are type tested in accordance with CENELEC HD629.1.S2:2009 and IEC 60502-4 specifications.

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