



C\_TFT-R

## TFFT-R 1/C Terminations for Shielded and Non-Shielded Power Cable (5-35 kV)

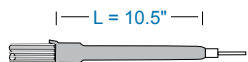
TE Connectivity's Raychem TFFT-R and TFFT-RG/SG tool-free termination kits have been developed to provide a quick and easy, cold-applied method of terminating 5-35 kV, single conductor polymeric cables. Both the TFFT-R and TFFT-R-SG are designed for indoor and outdoor conditions.

TFFT-R kits are for non-shielded cable applications. TFFT-R-G kits do not have rain sheds and should be used for 5/8 kV indoor or outdoor applications and 15 kV indoor only applications.

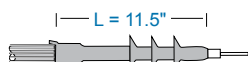
- Advanced Metal Oxide Matrix stress control
- Positive placement of stress control patch
- Provided on a crush-resistant core
- Easy installation — allows for repositioning
- Rated to IEEE-48, class 1 termination requirements.

### Selection Information: dimensions in inches (millimeters)

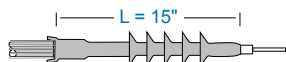
Installed Length  
5/8/15 kV (without sheds)



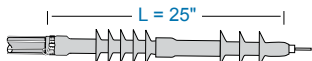
15 kV (with sheds)



25 kV (with sheds)



35 kV (with sheds)



Catalog Number	Cable Range (AWG/kcmil)	Insulation Diameter (Min./Max.)	Number of Skirts	Std. Pack (Kits/Box)
<b>TFFT-P-R Shielded, Indoor - Push on Installation (5 kV/8 kV)</b>				
TFFT-P-80R	#6 - #2 AWG	0.39 - 0.61 (10-16)		
<b>TFFT-R Non-Shielded, Indoor/Outdoor - Without Sheds (5 kV)</b>				
TFFT-50R	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-51R	1/0-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-52R	250-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-53R	350-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-G Shielded, Indoor/Outdoor - Without Sheds (5 kV)</b>				
TFFT-150R-G	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-151R-G	2/0-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-152R-G	350-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-153R-G	500-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-G Shielded, Indoor/Outdoor - Without Sheds (8 kV)</b>				
TFFT-150R-G	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-151R-G	1/0-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-152R-G	250-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-153R-G	500-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-G Shielded, Indoor Only - Without Sheds (15 kV)</b>				
TFFT-150R-G	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-151R-G	#2-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-152R-G	4/0-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-153R-G	500-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-SG Shielded, Indoor/Outdoor (15 kV)</b>				
TFFT-151R-SG	#2-250 kcmil	0.64-1.09 (16-28)	3	3
TFFT-152R-SG	4/0-500 kcmil	0.85-1.45 (22-37)	3	3
TFFT-153R-SG	500-750 kcmil	1.06-1.70 (27-43)	3	3
TFFT-154R-SG	1000-1250 kcmil	1.49-2.20 (38-56)	3	3
<b>TFFT-R-SG Shielded, Indoor/Outdoor (25 kV)</b>				
TFFT-251R-SG	#1-3/0 AWG	0.64-1.09 (16-28)	5	3
TFFT-252R-SG	#2/0-500 kcmil	0.85-1.45 (22-37)	5	3
TFFT-253R-SG	250-750 kcmil	1.06-1.70 (27-43)	5	3
TFFT-254R-SG	750-1250 kcmil	1.49-2.20 (38-56)	5	3
<b>TFFT-R-SG Shielded, Indoor/Outdoor (35 kV)</b>				
TFFT-352R-SG	1/0-250 kcmil	0.85-1.45 (22-37)	8	3
TFFT-353R-SG	4/0-500 kcmil	1.06-1.70 (27-43)	8	3
TFFT-354R-SG	500-1250 kcmil	1.49-2.20 (38-56)	8	3

### Ordering Information

1. All shielded cable kits contain a solder-blocked ground braid and a solderless ground clamp.
2. Selections are based on the typical dimensions of 100% insulated cables and the dimensions of commonly used connectors manufactured in accordance with AEIC standard. Nominal insulation thickness (100%): 15 kV: 175 mils, 25 kV: 260 mils, 35 kV: 345 mils
3. For cables manufactured to other specifications, confirm cable dimensions.
4. Kits do not contain connectors; order compression or solder connectors separately.
5. Related test reports: 15 kV: EDR-5302 (outdoor), 15 kV: EDR-5306 (indoor), 25 kV: EDR-5303, 35 kV: EDR-5299
6. Cable mounting brackets are available to accommodate cable diameters from 0.80-2.40 inches (20-61 mm).
7. For three conductor cables, order MOD-3-TFFT kits.



C\_MOD\_3\_TFT

### MOD-3-TFT 3/C Modification Kits for Raychem Medium-Voltage Tool Free Terminations (5-35 kV)

Use Raychem MOD-3-TFT kits in conjunction with three Raychem 1/C tool free terminations (TFT) to seal and re-jacket the cable terminations.

MOD-3Z-TFT is for re-jacketing of phase conductors. MOD-3C-TFT and MOD-3D-TFT provide re-jacketing, plus an environmental crotch sealing boot.

Each -3C and -3D kit includes six 1.5 foot pre-stretched tubes on holdouts for the phases. (Tubing can be field-cut to appropriate length). A three-legged cable breakout boot is also pre-stretched on holdouts and has a domed crown. Sealing is insured by pressure sensitive mastic to be applied under the breakout boot body as well as at the tubing interfaces.

The -3Z kit contains three 1.5 foot re-jacketing tubes.

*Note: MOD-3-TFT kits should be installed prior to installing Raychem TFT kits.*

**Selection Information: dimensions in inches (millimeters)**

Indoor (Without Breakout Boot)		Outdoor/Indoor (Includes Breakout Boot)	
1/C Termination Indoor	MOD-3-TFT Kit	1/C Termination Outdoor	MOD-3-TFT Kit
<b>5/8 kV</b>			
TFT-50R	MOD-3Z-TFT*	TFT-50R	MOD-3C-TFT*
TFT-51R	MOD-3Z-TFT	TFT-51R	MOD-3C-TFT
TFT-52R	MOD-3Z-TFT	TFT-52R	MOD-3C-TFT
TFT-53R	MOD-3Z-TFT	TFT-53R	MOD-3D-TFT
TFT-150R-G	MOD-3Z-TFT*	TFT-150R-G	MOD-3C-TFT*
TFT-151R-G	MOD-3Z-TFT	TFT-151R-G	MOD-3C-TFT
TFT-152R-G	MOD-3Z-TFT	TFT-152R-G	MOD-3C-TFT
TFT-153R-G	MOD-3Z-TFT	TFT-153R-G	MOD-3D-TFT
<b>15 kV</b>			
TFT-150R-G	MOD-3Z-TFT*	TFT-151R-SG	MOD-3C-TFT*
TFT-151R-G	MOD-3Z-TFT	TFT-152R-SG	MOD-3C-TFT
TFT-152R-G	MOD-3Z-TFT	TFT-153R-SG	MOD-3D-TFT
TFT-153R-G	MOD-3Z-TFT	TFT-154R-SG	MOD-3D-TFT
<b>25 kV</b>			
TFT-251R-SG	MOD-3Z-TFT	TFT-251R-SG	MOD-3C-TFT
TFT-252R-SG	MOD-3Z-TFT	TFT-252R-SG	MOD-3C-TFT
TFT-253R-SG	MOD-3Z-TFT	TFT-253R-SG	MOD-3D-TFT
TFT-254R-SG	MOD-3Z-TFT*	TFT-254R-SG	MOD-3D-TFT*
<b>35 kV</b>			
TFT-352R-SG	MOD-3Z-TFT	TFT-352R-SG	MOD-3C-TFT
TFT-353R-SG	MOD-3Z-TFT	TFT-353R-SG	MOD-3D-TFT
TFT-354R-SG	MOD-3Z-TFT*	TFT-354R-SG	MOD-3D-TFT*

\* Refer to Selection information (#3) below this table.

Breakout Catalog Number	Insulation Diameter (Min.-Max.)	Jacket O.D. (Min.-Max.)	Components Jacketing	
			Tubes	Boot
MOD-3Z-TFT	0.60-1.72 (15-43)		3	0
MOD-3C-TFT	0.60-1.40 (15-35)	1.30-3.50 (33-89)	6	1
MOD-3D-TFT	1.20-1.72 (30-43)	2.70-4.50 (69-114)		

**Ordering Information**

1. Select three TFT single-conductor terminations.
2. To select the appropriate modification kit for the TFT terminations, use the MOD-3-TFT selection table above.
3. Use the MOD-3-TFT dimensions table to confirm the insulation and jacket diameters.
4. Related installation instructions: MOD-3-TFT.



C\_TFT-R

## TFFT-R 1/C Terminations for Shielded and Non-Shielded Power Cable (5-35 kV)

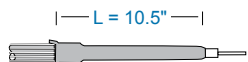
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TFFT-R kits are for non-shielded cable applications. TFFT-R-G kits do not have rain sheds and should be used for 5/8 kV indoor or outdoor applications and 15 kV indoor only applications.

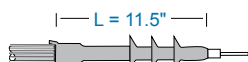
- Advanced Metal Oxide Matrix stress control
- Positive placement of stress control patch
- Provided on a crush-resistant core
- Easy installation — allows for repositioning
- Rated to IEEE-48, class 1 termination requirements.

### Selection Information: dimensions in inches (millimeters)

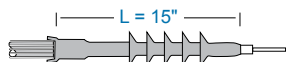
Installed Length  
5/8/15 kV (without sheds)



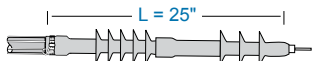
15 kV (with sheds)



25 kV (with sheds)



35 kV (with sheds)



Catalog Number	Cable Range (AWG/kcmil)	Insulation Diameter (Min./Max.)	Number of Skirts	Std. Pack (Kits/Box)
<b>TFFT-P-R Shielded, Indoor - Push on Installation (5 kV/8 kV)</b>				
TFFT-P-80R	#6 - #2 AWG	0.39 - 0.61 (10-16)		
<b>TFFT-R Non-Shielded, Indoor/Outdoor - Without Sheds (5 kV)</b>				
TFFT-50R	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-51R	1/0-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-52R	250-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-53R	350-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-G Shielded, Indoor/Outdoor - Without Sheds (5 kV)</b>				
TFFT-150R-G	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-151R-G	2/0-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-152R-G	350-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-153R-G	500-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-G Shielded, Indoor/Outdoor - Without Sheds (8 kV)</b>				
TFFT-150R-G	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-151R-G	1/0-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-152R-G	250-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-153R-G	500-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-G Shielded, Indoor Only - Without Sheds (15 kV)</b>				
TFFT-150R-G	#2-3/0 AWG	0.53-0.80 (13-20)	0	3
TFFT-151R-G	#2-250 kcmil	0.64-1.09 (16-28)	0	3
TFFT-152R-G	4/0-500 kcmil	0.85-1.45 (22-37)	0	3
TFFT-153R-G	500-750 kcmil	1.06-1.70 (27-43)	0	3
<b>TFFT-R-SG Shielded, Indoor/Outdoor (15 kV)</b>				
TFFT-151R-SG	#2-250 kcmil	0.64-1.09 (16-28)	3	3
TFFT-152R-SG	4/0-500 kcmil	0.85-1.45 (22-37)	3	3
TFFT-153R-SG	500-750 kcmil	1.06-1.70 (27-43)	3	3
TFFT-154R-SG	1000-1250 kcmil	1.49-2.20 (38-56)	3	3
<b>TFFT-R-SG Shielded, Indoor/Outdoor (25 kV)</b>				
TFFT-251R-SG	#1-3/0 AWG	0.64-1.09 (16-28)	5	3
TFFT-252R-SG	#2/0-500 kcmil	0.85-1.45 (22-37)	5	3
TFFT-253R-SG	250-750 kcmil	1.06-1.70 (27-43)	5	3
TFFT-254R-SG	750-1250 kcmil	1.49-2.20 (38-56)	5	3
<b>TFFT-R-SG Shielded, Indoor/Outdoor (35 kV)</b>				
TFFT-352R-SG	1/0-250 kcmil	0.85-1.45 (22-37)	8	3
TFFT-353R-SG	4/0-500 kcmil	1.06-1.70 (27-43)	8	3
TFFT-354R-SG	500-1250 kcmil	1.49-2.20 (38-56)	8	3

### Ordering Information

1. All shielded cable kits contain a solder-blocked ground braid and a solderless ground clamp.
2. Selections are based on the typical dimensions of 100% insulated cables and the dimensions of commonly used connectors manufactured in accordance with AEIC standard. Nominal insulation thickness (100%): 15 kV: 175 mils, 25 kV: 260 mils, 35 kV: 345 mils
3. For cables manufactured to other specifications, confirm cable dimensions.
4. Kits do not contain connectors; order compression or solder connectors separately.
5. Related test reports: 15 kV: EDR-5302 (outdoor), 15 kV: EDR-5306 (indoor), 25 kV: EDR-5303, 35 kV: EDR-5299
6. Cable mounting brackets are available to accommodate cable diameters from 0.80-2.40 inches (20-61 mm).
7. For three conductor cables, order MOD-3-TFFT kits.



C\_MOD\_3\_TFT

### MOD-3-TFT 3/C Modification Kits for Raychem Medium-Voltage Tool Free Terminations (5-35 kV)

Use Raychem MOD-3-TFT kits in conjunction with three Raychem 1/C tool free terminations (TFT) to seal and re-jacket the cable terminations.

MOD-3Z-TFT is for re-jacketing of phase conductors. MOD-3C-TFT and MOD-3D-TFT provide re-jacketing, plus an environmental crotch sealing boot.

Each -3C and -3D kit includes six 1.5 foot pre-stretched tubes on holdouts for the phases. (Tubing can be field-cut to appropriate length). A three-legged cable breakout boot is also pre-stretched on holdouts and has a domed crown. Sealing is insured by pressure sensitive mastic to be applied under the breakout boot body as well as at the tubing interfaces.

The -3Z kit contains three 1.5 foot re-jacketing tubes.

*Note: MOD-3-TFT kits should be installed prior to installing Raychem TFT kits.*

**Selection Information: dimensions in inches (millimeters)**

Indoor (Without Breakout Boot)		Outdoor/Indoor (Includes Breakout Boot)	
1/C Termination Indoor	MOD-3-TFT Kit	1/C Termination Outdoor	MOD-3-TFT Kit
<b>5/8 kV</b>			
TFT-50R	MOD-3Z-TFT*	TFT-50R	MOD-3C-TFT*
TFT-51R	MOD-3Z-TFT	TFT-51R	MOD-3C-TFT
TFT-52R	MOD-3Z-TFT	TFT-52R	MOD-3C-TFT
TFT-53R	MOD-3Z-TFT	TFT-53R	MOD-3D-TFT
TFT-150R-G	MOD-3Z-TFT*	TFT-150R-G	MOD-3C-TFT*
TFT-151R-G	MOD-3Z-TFT	TFT-151R-G	MOD-3C-TFT
TFT-152R-G	MOD-3Z-TFT	TFT-152R-G	MOD-3C-TFT
TFT-153R-G	MOD-3Z-TFT	TFT-153R-G	MOD-3D-TFT
<b>15 kV</b>			
TFT-150R-G	MOD-3Z-TFT*	TFT-151R-SG	MOD-3C-TFT*
TFT-151R-G	MOD-3Z-TFT	TFT-152R-SG	MOD-3C-TFT
TFT-152R-G	MOD-3Z-TFT	TFT-153R-SG	MOD-3D-TFT
TFT-153R-G	MOD-3Z-TFT	TFT-154R-SG	MOD-3D-TFT
<b>25 kV</b>			
TFT-251R-SG	MOD-3Z-TFT	TFT-251R-SG	MOD-3C-TFT
TFT-252R-SG	MOD-3Z-TFT	TFT-252R-SG	MOD-3C-TFT
TFT-253R-SG	MOD-3Z-TFT	TFT-253R-SG	MOD-3D-TFT
TFT-254R-SG	MOD-3Z-TFT*	TFT-254R-SG	MOD-3D-TFT*
<b>35 kV</b>			
TFT-352R-SG	MOD-3Z-TFT	TFT-352R-SG	MOD-3C-TFT
TFT-353R-SG	MOD-3Z-TFT	TFT-353R-SG	MOD-3D-TFT
TFT-354R-SG	MOD-3Z-TFT*	TFT-354R-SG	MOD-3D-TFT*

\* Refer to Selection information (#3) below this table.

Breakout Catalog Number	Insulation Diameter (Min.-Max.)	Jacket O.D. (Min.-Max.)	Components Jacketing	
			Tubes	Boot
MOD-3Z-TFT	0.60-1.72 (15-43)		3	0
MOD-3C-TFT	0.60-1.40 (15-35)	1.30-3.50 (33-89)	6	1
MOD-3D-TFT	1.20-1.72 (30-43)	2.70-4.50 (69-114)		

**Ordering Information**

1. Select three TFT single-conductor terminations.
2. To select the appropriate modification kit for the TFT terminations, use the MOD-3-TFT selection table above.
3. Use the MOD-3-TFT dimensions table to confirm the insulation and jacket diameters.
4. Related installation instructions: MOD-3-TFT.