

# Couplers Teflon Insulators

## 415TF/515TF Portable High-Voltage Cable Couplers

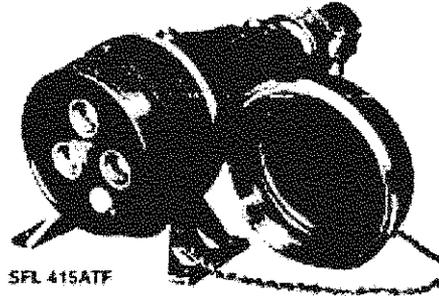
### ADALET-PLM NOW OFFERS AN IMPROVED HIGH VOLTAGE MINING COUPLER INSULATOR SYSTEM

Combining a non-tracking, easy-to-clean hydrophobic material with an internal O-ring seal between tubes.

**500 AMPERES  
15.000 VOLTS MAXIMUM**

#### Features

- Corrosion-Resistant Aluminum
- Rigid, Non-Breakable -ITFW, Insulators
- 500 Amp Contacts



• Portable Cable

SFL 415ATF

#### Electrical Characteristics

	Compound	With Compound
Maximum Voltage Phase-to-Ground	5.5 kV rms	8.7 kV rms
1 Minute Dry Withstand AC	35.0 kV rms	45.0 kV rms
6 Hour Dry Withstand AC	25.0 kV rms	35.0 kV rms
15 Minute Dry Withstand DC	65.0 kV aver	75.0 kV aver
corona Extinction Level	7.5 kV rms	11.0 kV rms
Basic Impulse Level	75.0 kV crest	95.0 kJ crest

All tests per IEEE Standard 48-1990

#### Benefits

- Superior Electrical and Physical Protection
- Fewer Mating Problems
- Quicker Installation
- Quick Connect-Disconnect
- Versatile Application

Compound is NOT included and is not required up to 7,500 Volts. ABOVE 7,500 Volts and when compound asphalt compound.

Series 415 and 515 are recommended for all existing installations where 375, 475, 575, 154, and 155 series couplers have been used and will these couplers. The Q prefix 2 1/2 turn QuikThread or threadless Quik-Turn is suggested for new applications or those customers presently using such couplers. Quik-Thread, Quik-Turn and 8 pitch couplers will not interface.

#### Catalog Number Suffix

Catalog Number Suffix	Additeneal Options
-A	Ground Check Circuit Contact (1) Included
-AA	Two Ground Check Circuit Contacts
-B	Cover Interlock for Plug
-BB	Cover Interlock for Socket
-C	Kirk Interlock (Key Typel-Sockets Only)
-E	Electrolytic Copper Contacts-Female
-L	Options Available at Additional Co:
-N	Non-Interchangeable Amperage or Voltage Index
-P	Padlock Provision-Socket
-R	Cover/Insulator Assembly for Socket
-X	Extended End Bell for Larger Cable Sizes
-Z	Beryllium Contacts-Male

11A3

NOTE:	Male/Female insulator and contact assemblies are interchangeable within coupler housings. Catalog Number and Description Specify PF or SM in catalog selection or consult factory. On initial orders, one coupling wrench and one contact wrench will be required. See page 11A9. For	Catalog No. Stand. Threads	Catalog No. Quik-Thread	Catalog No. Quik-Turn	Description	Ship Wt.
		SEG 41 SATE	QSEG 415ATF	TSGF 415ATF	Socket, Female Contacts	34
		PMG 41 SATE	OPMG 415ATF	TPMG 415ATF	Plug, Male Contacts	34
					<b>UNE-MOUNTED COUPLERS</b>	
					1.50-3.50 OD. Cables	
		SEL 41 SATE	OSEL 41SATF	TSEL 41 SATE	Socket, Female Contacts	51
		PML 41 SATE	QPML 41 SATE	TSFL 41SATF	Plug, Male Contacts	51
					3.50-4.50 0.0. Cables	
		5FL SiSATE	QSFL 51SATF-	TSEL SiSATE	Socket, Female Contacts	53
		PML SiSATE	OPML SiSATE	TPML SiSATE	Plug, Male Contacts	53

# Quick Tap Modular Splicing Kit 5815-T

**For 15 kV Class Power  
Cable**

For use with 3M Quick Modular Adapter Kit, 5815-A Series (sized according to cable size)

For connecting to (adding-on to) other 3M

Quick Modular Splicing System "Tee Modules" (5815-D, 5815-E and 5815-S)

For new installation of 3-way, 4-way, etc., splice when used with 3M 5815-S Quick Modular Splicing Kit

**For 15 kV Power Cables:**

Tape Shield (Ribbon Shield)

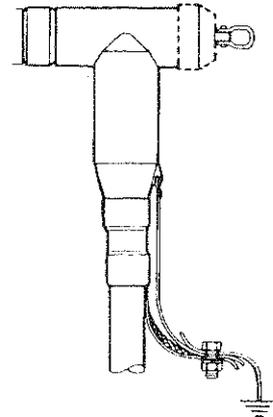
Wire Shield

\*UniShield®

EP-Lead/XLP-Lead

Concentric Neutral (ON)

Jacketed Concentric Neutral (JON)



\*Unishield~ is a registered trademark of Cablec Corporation

## Kit Contents:

- 1 Tee Module
- 1 Connecting Stud
- 1 Connecting Plug Assembly
- 2 Instruction Booklets
- (Plus silicone lubricant and solvent wipe)

## Also Required:

- 5815-A Series Adapter Kit

## Special Tools Required:

- 3M Quick Modular Spanner Wrench, 5800-SW
- Torque Wrench, 1/2" drive, 1" hex socket, 60 ft. lbs. (80 N.M)

## Danger

**All apparatus must be de-energized during installation or removal of part(s) to avoid electric shock. Inspect parts for damage, ratings and compatibility with mating parts.**

**The products should be installed only by competent personnel familiar with good safety practices in handling high-voltage electrical equipment.**

**These instructions are not intended as a substitute for adequate training or experience in good safety practices.**

**Technical Information:**  
— 15 kV rated: 110 kV BIL

Issue	Date	Rev	Ch
1		3/30/88	

**3M Quick Kit**

**Tap  
Modular  
Splicing  
(Add-on Kit)  
5815-T**

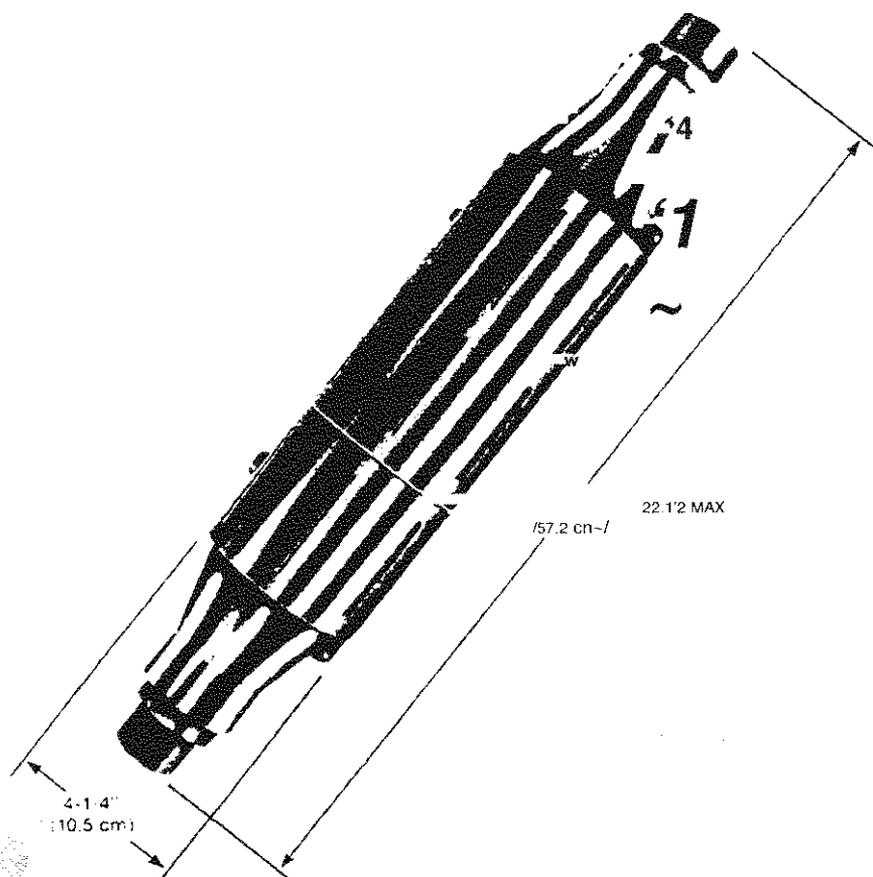
- 600-Amp dead front connection
- For use on tape, wire, UniShield-EP-Lead/XLP-Lead, ON and JON type power cables
  - Copper or Aluminum Conductors
- Conductor size range: 2 AWG-750 kcmil
- ANSI/IEEE Std. 386-1985

Not to scale	Cs
A	App
J.F. Krenik -	
<b><i>fifa~ F-4</i></b> <b><i>EU'41 101</i></b>	
<b>3M Electrical Products Division</b> St. Paul, MN 55144-1000 Made in U.S.A.	

# Elastimold

# 650S

# and K650S Straight Splices



### APPLICATION

The 650S and K650S splices provide a permanent, fully-shielded, fully-submersible, straight splice with a current rating equal to that of the cable on which it is installed. Installed either directly buried or in a vault, the 650S and K650S can be used on all power distribution systems. The 650S is for 15-ky operation; the K650S is for 25-ky use.

These products are designed for use on dry (solid) dielectric cables, and can be applied directly on cables with extruded semi-conductive shields whether full-neutral concentric or drain-wire types.

Installation diameters from .640" to 1.935" and conductors in the range of 1/0 to 1000 kcmil can be accommodated. Cable adapters, sized to fit the cable insulation, are included with the 650S and K650S.

### INSTALLATION

Installation is accomplished by positioning the housings and adapters on the cable ends. After proper cable preparation, the conductors are then crimped together. The housings are joined to complete the splice. The use of the 650ATY assembly tool is recommended for ease of installation.

### ELECTRICAL RATINGS

15kV RATINGS      25kV RATINGS

OPERATING VOLTAGE (max. Continuous line-to-ground, 100% insulation system)	8.3kv	15.2kv
3IL (@ 1.2 x 50 microsecond wave)	95kv	125kv
WITHSTAND VOLTAGE AC (1 minute)	34kv	42kv
DC (15 minutes)	53kv	80kv
CORONA EXTINCTION LEVEL (mm. @ 3pC)	11kv	19kv
CURRENT	Equal to cable rating	

Designed for g-@- maximum continuous operating temperature  
 Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.

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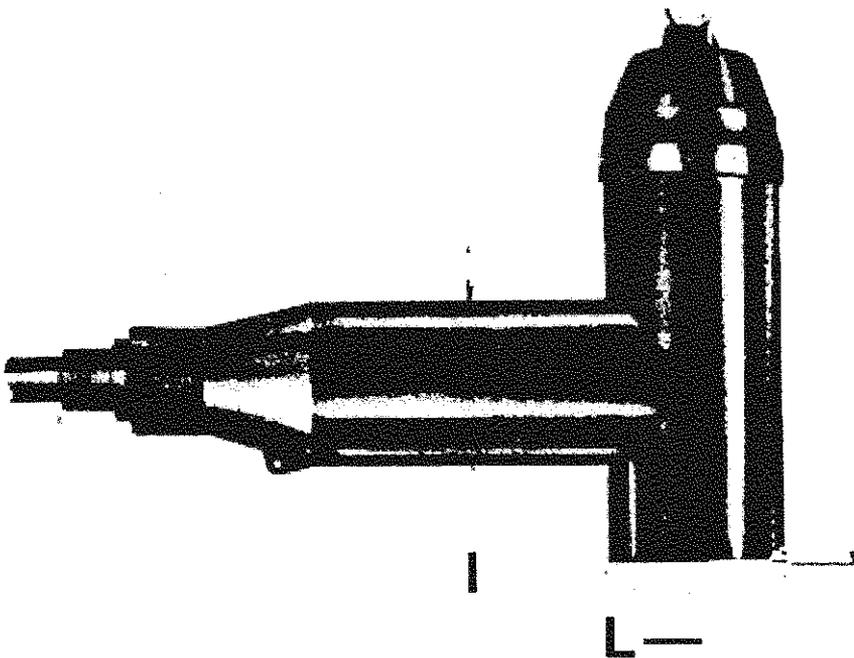
ISSUE DATE 3/91  
 PRINTED 3/91

# ELASTIMOLD

Route 24, Hackettstown, New Jersey  
 07840 USA (908) 852-1122 FAX: (908)  
 852-6158

# Elastimold

# Connectors



3-1'S 13- 12: 16

## ELECTRICAL RATINGS

	15kV RATINGS	25kV RATINGS
<b>OPERATING VOLTAGE</b> (max. continuous line-to-ground, 100% insulation system)	8.3kV	15.2kV
<b>BIL</b> (@ 1.2 x 50 microsecond wave)	95kV	125kV
<b>WITHSTAND VOLTAGE AC</b> (1 minute)	34kV	42kV
<b>DC</b> (15 minutes)	53kV	80kV
<b>CORONA EXTINGUISHION LEVEL</b> (mm. @ 3pC)	11kV	19kV
<b>CURRENT</b> Continuous: Momentary:	600 Amps RMS 25,000 Amps RMS, sym, 10 cycles	
Designed for 90°C maximum continuous operating temperature. Ratings are based on industry standards and do not reflect maximum levels. For compliance with other standards, consult your ELASTIMOLD representative.		

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ISSUE DATE: 3/91

PRINTED 3/91

# 655LR and K655LR Power Distribution

## APPLICATION

The 655LR and K655LR are designed to provide fully-shielded, dead-front submersible cable connections to high-voltage apparatus. The 655LR is used through 15 kv; the K655LR is used through 25 kv. These connectors can be used in:

- Submersible oil switches
- Dry-tape transformers
- Subway transformers
- Network transformers
- Vacuum switches
- Switchgear
- Electric motors

These connectors are designed for easy installation on extruded shield cable or metallic tape shielded cable. The conductor range is from 1/0 to 1000 kcmil for aluminum and copper conductors with insulation diameters from .640" to 1.935". When used on metallic tape shield or drain wire cable, a 20MA or 21MA grounding device or an ECS cable seal is recommended. (See Section 600.)

## INSTALLATION

Reliable installation is accomplished in the field with a minimum of skill. After proper cable preparation, a spade terminal is crimped on the conductor. This is then inserted into the elbow housing. The housing is placed on the apparatus bushing and an epoxy plug with a voltage test point secures the connection using the supplied threaded stud assembly. Installation requires a torque wrench with a 1" hex socket attachment. Connectors must be torqued to a level of 60 ft-lb. A conductive cap placed over the plug completes the installation.

## ELASTIMOLD

Route 24 Hackettstown New Jersey 07840  
USA

0-AV 000 C00-0

Catalog Number	Description	Ship Wt. (lbs.)
Guik-Turn		
	<i>Equipment-mounted Couplers</i>	
TSFG 415A	Socket, Female Contacts 34	TPMG 415A
Plug, Male Contacts 34		
	<i>Line-mounted Couplers</i>	
	<i>1.50-3.50 O.D. Cables</i>	
TSFL 415A	Socket, Female Contacts	51
TPML 415A	Plug, Male Contacts	51
	<i>3.50-4.50 O.D. Cables</i>	
TSFL 515A	Socket, Female Contacts	53
TPML SiSA	Plug, Male Contacts	53

# Cable Couplers T415, T515 Quik-Turn

## Application

- New installations where maximum convenience and speed is required
- Existing installations where abusive conditions cause thread damage

## Features (Quik-Turn Couplers)

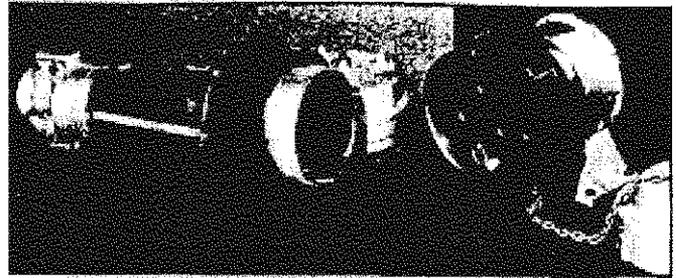
- 1/4 turn engagement for fast connection.
- Stainless steel pin and sleeve for corrosion resistance.
- Color coded orange for high visibility identification.
- Fully interchangeable with other threadless couplers using EPDM insulators.
- Spare parts common to PLM 8 pitch and Quik-Thread coupler designs.

## Ratings

500 Amperes, 1 5000 Volts Max.

## Approvals

Pennsylvania Bureau of Deep Mines Safety - BOTE 1363-92



## Features (Common to All PLM Couplers)

- 1 Heavy duty Ecoalube coated aluminum castings for high strength and corrosion protection.
- 2 Completely metal enclosed insulators, 0-ring sealed.
- 3 Rigid non-breakable DURATUBE EPDM insulator tubes eliminate mating problems. Grey color provides easy check of cleanliness.
- 4 Close tolerance, silver plated contacts provide reliable connections and assured conductivity.
- 5 Smooth profile end bell resists snags.
- 6 Solid one piece flame retardant flange with 0-rings on both sides insures against the entrance of moisture.
- 7 FSD stress relief pads provide fast, safe, dependable cable terminations within coupler housing.
- 8 Easy access chamber for COLD-POUR filling compound when required.
- 9 Rugged cable entrance clamp and thick neoprene gasket for excellent moisture seal at cable entrance.
- 10 Ground check circuit contact is included. Additional contacts available.
- ii Captive metal covers to keep insulators clean and dry when disconnected.

## Electrical Characteristics

	No Compound	With Compound
Maximum voltage Phase-to-Ground	5.5 KV rms	8.7 KV rms
1 Minute Dry Withstand AC	35.0 KV rms	45.0 KV rms
6 Hour Dry Withstand DC	25.0 KY rms	35.0 KY rms
15 Minute Dry Withstand DC	65.0 KV rms	75.0 KY rms
Corona Extinction Level	7.5 KY rms	11.0 Ky rms
Basic Impulse Level	75.0 KY crest	95.0 KY crest

All tests per IEEE Standard 48-1990