# ELASTIMOLD®

CATALOG SP2
Issue Date: 03/2003



**CABLE JOINTS** 

**TERMINATIONS** 

**SURGE ARRESTERS** 

**FUSES** 

**LOADBREAK SWITCHES** 

**FAULT INTERRUPTERS** 

For 5kV-35kV Distribution Systems











# ELASTIMOLD System Planning Guide











#### INTRODUCTION

Catalog SP2 provides an easy-to-use, comprehensive listing of ELASTIMOLD products for 5kV thru 35kV underground power distribution systems. Included are separable elbow connectors, cable joints, terminations, surge arresters, fused elbows and other cable accessory components. The catalog incorporates information relative to product application, ratings and selection.

ELASTIMOLD is recognized as the leading producer of premolded cable accessory components worldwide. Utilizing specially formulated materials with 100% peroxide-cured insulation and shielding, Elastimold products represent the state-of-the-art in premolded process technology. Durable, quality construction and non-degrading, high-reliability, maintenance-free performance is assured when specifying ELASTIMOLD products.

ELASTIMOLD's broad line of premolded products offer significant advantages over field-fabricated and other alternatives, including: 100% factory assurance testing prior to delivery and installation; simplified, single-piece construction with built-in insulating, shielding and sealing surfaces; ease of installation with no special skills or tools required; and compact, lightweight, durable designs for easy handling and application.

**Separable Elbow Connectors** and their related accessories are available in 200 Amp loadbreak, 200 Amp deadbreak and 600 Amp deadbreak styles. Rated for padmount, subsurface, vault, indoor, outdoor and other applications, units feature interchangeable interfaces which can be easily engaged or separated to provide a convenient method to connect or disconnect cable and equipment to the distribution system.

**Cable Joints** are available in permanently crimped or bolted (separable) connector styles. Permanently crimped units are rated the same as the cable they are connecting and are available for all applications including direct buried.

**Cable Terminations** are available in single-piece or modular designs. Rated for indoor, outdoor or padmount applications, units allow connection and transition from shielded underground cables to bare overhead conductors and live-front equipment.

**Surge Arresters** are constructed using metal oxide blocks for overvoltage protection and 200 Amp separable connector interfaces for attachment to other ELASTIMOLD accessories.

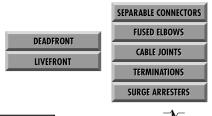
**Fused Elbows** combine replaceable current-limiting fuses for overcurrent protection and 200 Amp separable connector interfaces for attachment to other ELASTIMOLD accessories.

Loadbreak Switches, Current Limiting Fuses, Fault Interrupters, Junctions, Faulted Circuit Indicators, Secondary Underground and Transmission Products are shown on the back cover. For additional catalog information on these product lines, please contact your ELASTIMOLD Sales Representative.

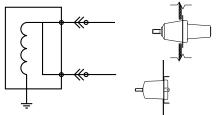
**Elastimold Special Component Services Group** provides custom products tailored to specific application requirements. Please contact the factory for further information regarding this service.

### COMPONENT APPLICATION AND SELECTION

Catalog SP2 includes component group schematics, part numbers and standard ratings of ELASTIMOLD products for application on underground power distribution systems utilizing solid dielectric cable. Go directly to the product section in the table of contents or follow the decision path outlined below for component selection and application.



 Determine if the application involves **Deadfront** (shielded) or **Livefront** (unshielded) connections. Terminations are air insulated and classified as Livefront.



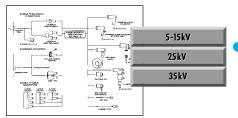
- Determine if the application requires Separable Connectors, Fused Elbows, Cable Joints, Terminations or Surge Arresters.
- If Separable Connectors are involved, determine the required current class:
   200 Amp, 600 Amp or 900 Amp. This decision is based on the conductor size, loading, and system short circuit currents. The selected connector must be compatible with the mating interface on any equipment.

200 AMP LOADBREAK

200 AMP DEADBREAK

600 SERIES DEADBREAK

200 Amp connectors are available in Loadbreak and Deadbreak styles.
 Determine which style is required. 600 Series Connectors are Deadbreak only and Fused Elbows are Loadbreak only.



Determine the part number related to the specific **Voltage Class** by utilizing the schematic layouts and product tables.



 If the component mates with cable, determine the cable insulation diameter, conductor size, type of cable shield and if jacket sealing is required.

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## **CERTIFIED TESTS AND PERFORMANCE**

Elastimold Separable Connectors, Cable Joints, Cable Terminators, Surge Arresters, Fused Elbows and other cable accessory products have been designed and tested per applicable portions of IEEE, ANSI, NEMA and other industry standards including:

- IEEE 386™ Standard For Separable Connectors
- IEEE 404™ Standard For Cable Joints and Splices
- IEEE 48™ Standard For Cable Terminations

- IEEE C62.11™ Standard For Metal Oxide Surge Arresters
- ANSI C37.41 Standard For Current Limiting Fuses
- IEEE 592™ Standard For Exposed Semiconducting Shields
- ANSI C119.4 Standard For Copper and Aluminum Conductor Connectors
- AEIC CS6 and CS8 Standards For XLP and EPR Insulated Cables

#### **CABLE JOINTS, TERMINATIONS AND ARRESTER RATINGS**

Refer to the pages listed below for rating information:

- PCJ Cable Joints, page 20.
- Cable Terminations, page 22

• Surge Arresters, page 26.

#### SEPARABLE CONNECTOR RATINGS

Table 1 shows voltage and current ratings which apply to all Separable Connectors including 200 AMP Loadbreak, 200 AMP Deadbreak and 600 Series Deadbreak products. Table 2 shows switching and fault close ratings which only apply to 200 AMP Loadbreak Connectors.

TABLE 1	15kV Class Ratings	25kV Class Ratings	35kV Class Ratings	
OPERATING VOLTAGE     Maximum line-to-ground     (See Application Info Note 1)	8.3kV	15.2kV	21.1kV	
BIL Impulse withstand 1.2 x 50 microsecond wave	95kV	125kV	150kV	
WITHSTAND VOLTAGE     AC One Minute     DC Fifteen Minute	34kV 53kV	40kV 78kV	50kV 103kV	
CORONA EXTINCTION LEVEL @ 3pC Sensitivity	11kV	19kV	26kV	
200 AMP Products Continuous Current: Symmetrical Momentary Current:	200 AMP* 10kA sym, 10 cycle duration			
600 Series Products Continuous Current: Symmetrical Momentary Current:		600 and 900 AMP* 25kA sym, 10 cycle duratio	n	
	* Designed for 90° C max	imum continuous operating to	emperature	

TABLE 2	LOADMAKE/LOADBREAK SWITCHING	FAULT CLOSE
15kV Class Ratings     • 1ø and 3ø circuits 8.3kV line to ground, 14.4kV max. across open contacts.     • 10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor.		1 fault close operation at 8.3kV or 14.4kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)
25kV Class Ratings	1ø and 3ø circuits 15.2kV line to ground, 26.3kV max. across open contacts.     10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor.	1 fault close operation at 15.2kV or 26.3kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)
35kV Class Ratings	1ø and 3ø circuits 21.1kV line to ground, 36.6kV max. across open contacts.     10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor.	1 fault close operation at 21.1kV or 36.6kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)

#### **Application Information:**

- 1. Loadbreak connectors are designed and rated for use on grounded WYE systems. For application on ungrounded WYE or delta systems, the next higher voltage class product is recommended. Examples: 5kV ungrounded: use 15kV class products; 15kV ungrounded: use 25kV class products; 25kV ungrounded: use 35kV class products; 35kV ungrounded: contact factory.
- 2. Products are designed and constructed for all applications including padmount, subsurface, vault, indoor, outdoor, direct sunlight, direct buried and continuously submerged in water.
- 3. Products are designed and rated for ambient temperatures of -40° C to +65° C. It is recommended that loadbreak connectors be hotstick operated at -20° C to +65° C ambient temperature range and at altitudes not exceeding 6000 feet.

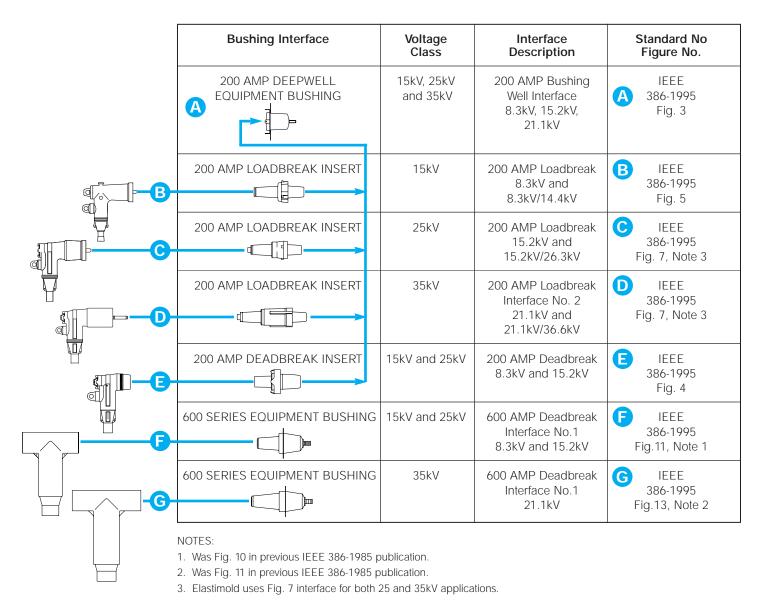


## SEPARABLE CONNECTOR INTERFACES

# STANDARD INTERFACES FOR SEPARABLE CONNECTORS, COMPONENTS AND EQUIPMENT BUSHINGS

ANSI/IEEE Standard 386 defines the specific interface dimensions that 200 Amp and 600 Series elbows, inserts, junctions, equipment bushings and any mating components must conform to insure interchangeability. The table

below provides information concerning the types of interfaces supplied by Elastimold for various applications and is useful to assure proper matching of components.





# SEPARABLE CONNECTORS 200 AMP LOADBREAK

200 Amp loadbreak connectors and accessories provide a convenient method to connect/disconnect cable and equipment on power distribution systems. Loadbreak elbows include provisions for energized operation using standard hotstick tools, allowing loadmake/break operation and a visible disconnect. Components can be isolated with insulated caps, plugs and parking bushings.

Optional accessories allow system grounding, testing, bypass, lightning surge protection and current limiting fusing. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



#### **RATINGS OVERVIEW**

See page 2 for complete information including switching and fault close ratings.

#### **CURRENT RATINGS**

200A Continuous 10kA sym. 10 Cycles

#### VOLTAGE RATINGS 15kV Class

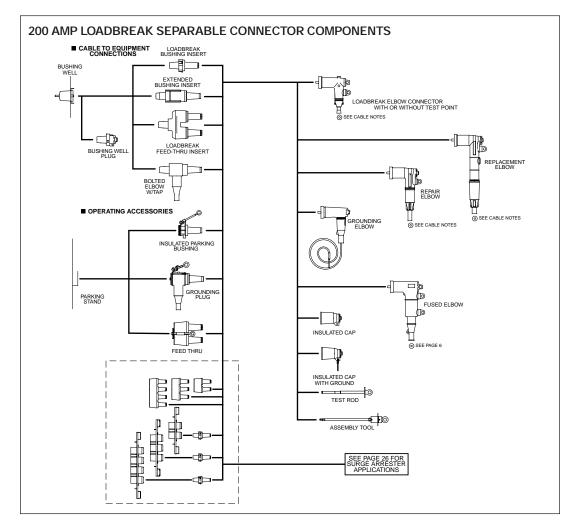
8.3kV Phase-to-Ground 14.4kV Phase-to-Phase 95kV BIL 34kV AC Withstand 53kV DC Withstand 11kV Corona Extinction

#### 25kV Class

15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL 40kV AC Withstand 78kV DC Withstand 19kV Corona Extinction

#### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



DEADFRONT

SEPARABLE CONNECTORS **FUSED ELBOWS** 

200 AMP LOADBREAK

5-15kV 25kV 35kV

PART #



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

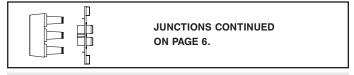
#### 200 AMP LOADBREAK

200 AMP LO	l			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Elbow	15kV	165LR-WX	N2,3,4,5
	Connector	25kV	Use Tables W1 and X1 273LR-WX	N2,3,4,5
, A		35kV	Use Tables W2 and X1 375LR-WX Use Tables W3 and X2	N2,3, 5
	Elbow	15kV	166LR-WX	N2,3,4,5
	Connector w/ Test Point	25kV	Use Tables W1 and X1 274LR-WX	N2,3,4,5
		35kV	Use Tables W2 and X1 376LR-WX Use Tables W3 and X2	N2,3, 5
	Jacket Seal	15kV	165LRJS-WX	N2,19
	Elbow Connector		Use Table W1 (B&C sizes only) and	
H	Jacket Seal	15kV	Table X1	N2,19
	Elbow	1360	Use Tables W1 (B&C	112,13
	Connector w/ Test Point		sizes only) and Table X1	
	Repair Elbow	15kV	167ELR-WX	N5,10,18
	Connector	25kV	Use Tables W5 and X1 273ELR-WX Use Tables W5 and X1	N5,10,18
	Repair Elbow	15kV	168ELR-WX	N5,10,18
	Connector w/ Test Point	25kV	Use Tables W5 and X1 274ELR-WX Use Tables W5 and X1	N5,10,18
_1	Replacement	15kV	167RLR-WX	N5,11,13
	Elbow	25kV	Use Tables W4 and X1 273RLR-WX	N5,11,13
	Replacement	15kV	Use Tables W2 and X1 168RLR-WX	N5,11,13
No.	Elbow w/ Test Point	25kV	Use Tables W4 and X1 274RLR-WX	N5,11,13
	Fused Elbow	15kV	Use Tables W2 and X1 166FLR-WX	N5,15
	(General Purpose Current Limiting)		Use W and X Tables on Page 6	
	Bolted Elbow	15kV	167LRT-WX	N17
	w/ Tap		Use Tables W4 and X1	
	Bushing Insert	15kV	1601A4	N4,8
		25kV 35kV	2701A4 3701A4	N4,8 N6
		35kV	3701A3	N8
	Extended Bushing Insert	15kV 25kV	1601EA4 2701EA4	N8 N8
	Feed-Thru	15kV	1602A3R	N16
	Insert	25kV 35kV	2702A1 3702A1	N16 N6,16
	Insulated Cap	15kV	160DR	N9
	Insulated Cap	15kV	160DRG	N9
	w/ Ground	15kV 25kV	167DRG 273DRG	N7, 9 N7, 9
ľ		35kV	375DRG	N7, 9
	Insulated Cap w/ Ground and Test Point	15kV 25kV 35kV	168DRG 274DRG 376DRG	N7 N7 N7
<b>2</b>	Grounding	15kV	161GP	
	Plug (1/0 AWG x 6' Ground Lead)	25kV	272GP	
₩	Grounding	15kV	160GLR	
	Elbow (1/0 AWG x 6'	25/35kV	370GLR	N12
-	Ground Lead)			

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Feed-Thru	15kV 25kV 35kV	164FT 274FT 373FT	
	Feed-Thru Vertical	15kV 25kV 35kV	164FTV 274FTV 373FTV	
	Feed-Thru Well	15/25kV	K1601WFT	
	Feed-Thru Well Vertical	15/25kV	K1601WFTV	
	Insulated Parking Bushing	15kV 25kV 35kV	161SOP 272SOP 372SOP	
	Test Rod	ALL	370TR	
	Bushing Well Plug	15/25kV 35kV	276BWP M276BWP	
	Assembly Tool	ALL	200AT	N8
	Contacts: Long Bi-Metal ELR Bi-Metal Copper LRT Contact RLR Contact	ALL 15/25kV ALL 15kV 15/25kV	Use Table X1 02500X 02509X 02702X 02800X 00400X	N10 N1 N11
	Elbow Probe	15kV 25kV 35kV	166LRF 274LRF 376LRF	
	Elbow Cable Entrance Insulating Plug	ALL	10EP-W Use Table W6	
	Cable Size Adapter	15kV	160CA-W Use Table W6 EB-FA Only	N14
N1. Copper lug for use on COPPER CONDUCTOR ONLY.				

- N1. Copper lug for use on COPPER CONDUCTOR ONLY.N2. Incudes 02500X long bi-metal compression lug as standard.
- N2. Includes 02500X long bi-frietal compressioning as standard.
  N3. Also available as housing only. Specify: 165BLR-W; 273BLR-W; 375BLR-W; 166BLR-W; 274BLR-W; 376BLR-W.
  N4. Also available as elbow/insert combination. Specify: 165A4-WX; 273A4-WX; 166A4-WX; 274A4-WX.
- N5. Also available with 200ECS jacket seal included. Add "S" suffix to part number.
- N6. Rated for single-phase applications only.
- N7. Equipped with insulated cuff.
- N8. Includes internal torquing feature using 200AT Assembly Tool. N9. Also available without probe. Specify "A" suffix Example: 273DRGA.
- N10. Repair elbow has extended length contact and elbow housing resulting in a net gain of 3-1/4" in length.
- N11. Replacement elbow has extended length contact and elbow housing resulting in a net gain of 9-7/8" in length.
- N12. Rated for 25kV thru 35kV applications.
- N13. Includes long bi-metal contact 00400X.
- N14. 160CA Cable Size Adapter can only be used with elbow part numbers 165LR/166LR C size only.
  N15. See page 6 for WX size tables and for fuse sizes.
- N16. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru
- insert to bushing well.

  N17. Incudes 02800X long bi-metal contact.
- N18. Incudes 02509X long bi-metal contact.
- Includes built-in jacket seal. Also available as housing only—specify: 165BLRJS-W or 166BLRJS-W. Also available as elbow/insert combination specify: 165JSA4-WX or 166JSA4-WX.



Refer to the W and X tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

#### **RATINGS OVERVIEW**

See page 2 for complete information including switching and fault close ratings.

#### **CURRENT RATINGS**

200A Continuous 10kA sym. 10 Cycles

#### VOLTAGE RATINGS 15kV Class

8.3kV Phase-to-Ground 14.4kV Phase-to-Phase 95kV BIL

34kV AC Withstand 53kV DC Withstand 11kV Corona Extinction

#### 25kV Class

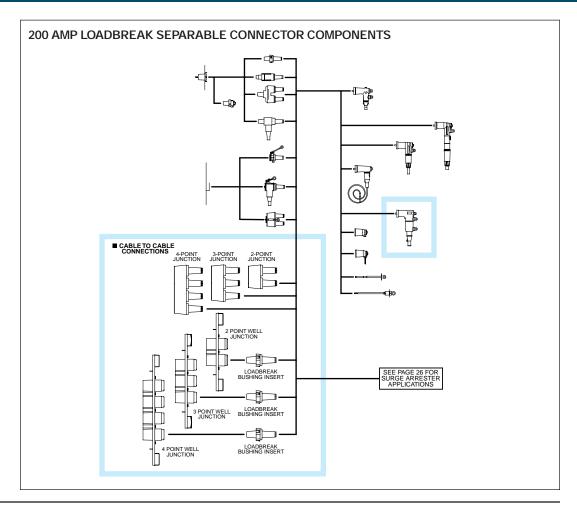
15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL 40kV AC Withstand

78kV DC Withstand

19kV Corona Extinction

#### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



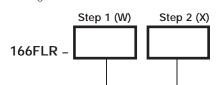
#### **FUSED ELBOW ORDERING INSTRUCTIONS**

#### Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

#### Step 2 (X)

Choose the proper connector code according to the conductor size. Insert code into the catalog number after the insulation code.



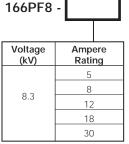
Cable Insulation Diameter Range Inches	Symbol For W
.610735	FAB
.675785	FB
.725835	FG
.775885	GA
.825935	GAB

Conductor Size*	Symbol For X			
(AWG)	Stranded/ Compr.	Solid/ Compact		
2	0220	0210		
1	0230	0220		
1/0	0240	0230		
2/0	0250	0240		
3/0	_	0250		

<sup>\*</sup>Cu or Al Conductor

### ORDERING INSTRUCTIONS FOR FUSE KIT (to be ordered separately)

Determine the ampere rating required. Insert rating into the catalog number below.



For solid link, specify 166 PF8-BUSS

### The Fused Elbow kit contains the following:

- 1 Upper elbow half
- 1 Lower elbow half
- 1 Upper connector
- 1 Lower connector
- 1 Probe
- 1 Torque-limiting wrench
- 1 Lubricant
- 1 Instruction sheet

### The Fuse Kit includes the following:

- 1 Current limiting fuse
- 1 Allen wrench
- 1 Air vent rod
- 1 Instruction sheet

### To order replacement parts, specify the following:

- For an upper elbow half, specify 166BFLR-T
- For a lower elbow half, specify 166BFLR-W
- For an upper connector, specify 166-88
- For a lower connector, specify 02600X
- For a probe, specify 166LRF

#### 200 AMP LOADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
Ţ Į	2-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ2	N2
	2-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ2-5	N1, N2
	3-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ3	N2
<b>1</b>	3-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ3-5	N1, N2
	4-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ4	N2
	4-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ4-5	N1, N2
	2-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J2 274J2 373J2	N3 N3 N3
	2-Point Junction w/"U"-straps	15kV 25kV 35kV	164J2-5 274J2-5 373J2-5	N1 N1 N1
	3-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J3 274J3 373J3	N3 N3 N3
	3-Point Junction w/"U"-straps	15kV 25kV 35kV	164J3-5 274J3-5 373J3-5	N1 N1 N1
	4-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J4 274J4 373J4	N3 N3 N3
	4-Point Junction w/"U"-straps	15kV 25kV 35kV	164J4-5 274J4-5 373J4-5	N1 N1 N1

- N1. Also available without straps. Specify suffix "-4" in place of "-5" in the part number.
- N2. Supplied with replaceable stud. Replacement stud available separately. Specify 1601RS.
- N3. Hardware packages, consisting of brackets & straps only, may be ordered separately by specifying "-6" in the part number.



# SEPARABLE CONNECTORS 200 AMP DEADBREAK

200 Amp deadbreak connectors and accessories provide a quick disconnect feature for cable and equipment connections on power distribution systems. All deadbreak connectors must be DE-ENERGIZED before operating and must be mechanically secured with bails when connected. Components can be isolated with insulated caps, plugs and parking bushings.

All deadbreak elbows are equipped with test points as standard. Optional accessories allow system grounding, bypass and lightning surge protection. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



#### **RATINGS OVERVIEW**

See page 2 for complete information.

#### **CURRENT RATINGS**

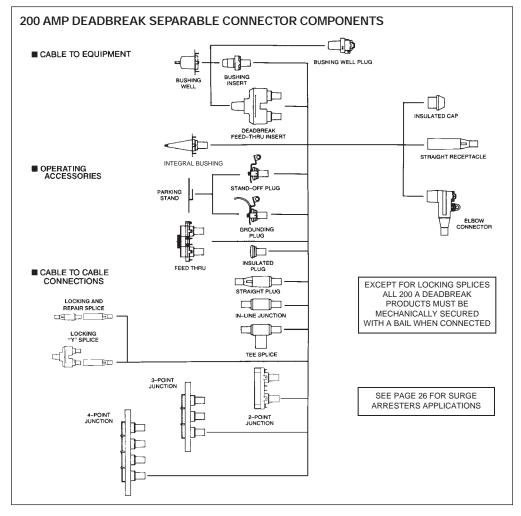
200A Continuous 10kA sym. 10 Cycles

#### VOLTAGE RATINGS 15kV Class

8.3kV Phase-to-Ground 14.4kV Phase-to-Phase 95kV BIL 34kV AC Withstand 53kV DC Withstand 11kV Corona Extinction

#### 25kV Class

15.2kV Phase-to-Ground 26.3kV Phase-to-Phase 125kV BIL 40kV AC Withstand 78kV DC Withstand 19kV Corona Extinction





Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### 200 AMP DEADBREAK

	ADBREAK			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Elbow Connector w/ Test Point	15/25kV	156LR-WX Use Tables W4 and X1	N1,2
	Bail Assembly for 156LR Elbow	15/25kV	150BA	
	Bushing Insert	15/25kV	K1501A1	N3
	Feed-thru Insert	15/25kV	K1502A1	N3,4
	Insulated Plug	15/25kV	K150DP	N3
	Insulated Cap	15/25kV	K150DR	N3
	Insulated Parking Bushing	15/25kV	K151SOP	N3
	Grounding Plug	15/25kV	151GP	N3
	Feed-Thru	15/25kV	K1501FT	N3,6
	2-Point Junction	15/25kV	K1501J2-U	N3,6
	3-Point Junction	15/25kV	K1501J3-U	N3,6,7
	4-Point Junction	15/25kV	K1501J4-U	N3,6,7
	Elbow Probe	15/25kV	156LRF	
	Straight Receptacle	15/25kV	K151SR-WX Use Tables W1 and X5	N3,12, 13,17
	Straight Plug	15/25kV	K151SP-WX Use Tables W1 and X5	N3,12,13
	Tee Splice	15/25kV	K150T	N3
	In-Line Junction	15/25kV	K150S	N3
	Locking Splice/ Repair Splice	15/25kV	K151LS-WX Use Tables W1 and X8	N8,9,13, 15,16,17
	Locking "Y" Splice	15/25kV	K151LY-WX Use Tables W1 and X8	N8,9,13, 15,17
	BAIL	15/25kV	150TB1	N5
	BAIL	15/25kV	150TB2	N5
	BAIL	15/25kV	150TB3	N5

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	BAIL	15/25kV	150TB4	N5
	BAIL	15/25kV	150TB5	N5
	Contacts: Long Bi-Metal Copper	15/25kV 15/25kV	02500X 02702X	N7
	Elbow Cable Entrance Insulating Plug	15/25kV	10EP-W Use Table W6	N10
	Cable Entrance Insulating Plug	15/25kV	152EA-W Use Table W6	N11
	Cable Size Adapter	15/25KV	160CA-W Use Table W6 EB-FA Only	N14

- N1. Includes bail assembly.
- N2. Includes 02500X long, bi-metal compression lug as standard.
- N3. Bails are required but not included. Order separately. Consult factory for bails not listed for a specific application.
- N4. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru insert to bushing well.
- N5. Refer to general catalog for application details.
- N6. Center-to-center spacing equals 4 inches.
- N7. Copper lug for copper cable only.
- N8. To order cable legs for different cable sizes, list each leg size "W" and "X". Example: K151LY-A240-A240-B220. See Tables W1 and X8 for sizes.
- N9. To order locking contacts for K151LS and K151LY, order 01401X (Al) or 01402X (Cu) for plug contact. Order 01301X (Al) or 01302X (Cu) for receptacle. See Table X8 for sizes.
- N10. For use with 156LR elbows
- N11. For use with K151SR, K151SP, K151LS, K151LY receptacles, plugs and splices.
- N12. Also available as housing only. Specify K151SPH-W or K151SRH-W.
- N13. Also available in EB-FA sizes per table W6 by using 160CA cable adapter with C size plugs & receptacles.
- N14. 160CA cable adapter can only be used with C size plugs & receptacles.
- N15. Bails are not required for locking splices.
- N16. When used as a repair splice, the assembled length allows 4" for cable-replacement/repair.
- N17. Straight receptacles are also available with test point. Specify K152 part number.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



### SEPARABLE CONNECTORS

## **600 SERIES DEADBREAK**

600 Series deadbreak elbows, straight receptacles, junctions, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

DE-ENERGIZED connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, by-pass, isolation, deadending, grounding, and testing as well as adding taps, surge arresters and circuit protection.

Hot-stick operable and separable joint systems are shown on pages 14 thru 19.



#### **RATINGS OVERVIEW**

See page 2 for complete information.

#### **CURRENT RATINGS**

(Prefixes: 650, K650, K655, K656, 750, 755, 756 & 03700)

600 Amp Continuous 25kA sym., 10 cycles

(Prefixes 675, K675, K676, 775, 776 & 03702)

900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

#### VOLTAGE RATINGS 15/25kV Class (5kV thru 28kV)

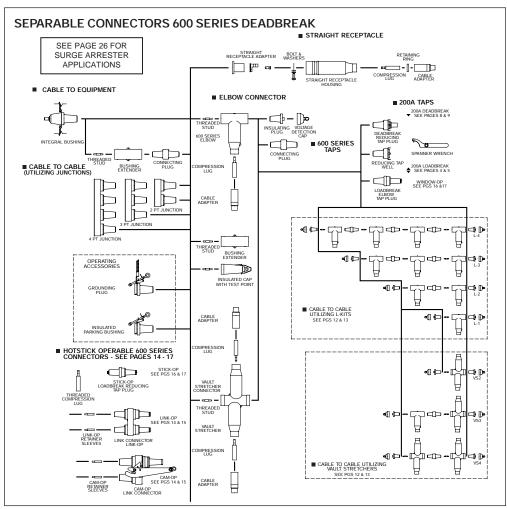
16.2kV Phase-to-Ground 28kV Phase-to Phase 140kV BIL 45kV AC Withstand 84kV DC Withstand

21.5kV Corona Extinction

#### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### **600 SERIES DEADBREAK**

DUU SEKIES	DEADBREAK			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	600 Series Elbow (w/ Insul. Plug,	15/25kV	K655LR-W0X Use Tables W7 and X6	N1,2
	Cap, Stud, Lug & Cable Adapter)	35kV	755LR-W0X Use Tables W9 and X6	N1,2
	600 Series Elbow w/ Test Point	15/25kV	K656LR-W0X Use Tables W7 and X6	N1,2
	(w/ Insul. Plug, Cap, Stud, Lug & Cable Adapter)	35kV	756LR-WOX Use Tables W9 and X6	N1,2
	600 Series Elbow Housing only (w/ Stud)	15/25kV 35kV	K655BLR 755BLR	N1,3 N1,3
A A	600 Series Elbow	15/25kV	K656BLR	N1,3
	w/ Test Point (Housing only w/ Stud)	35kV	756BLR	N1,3
	600 Series Straight Receptacle (w/Cable Adapter, Lug & Retaining Ring)		K655SR-W0X Use Tables W7 and X6	N1,2,12
	600 Series Straight Receptacle Housing (Lug & Cable Adapter not included)		K655BSR	N1,12
	Straight Receptacle Adapter	15/25kV	K650SRA	N1,4
	600 Series Vault Stretcher	15/25kV	K655BVS	N1,9
	(Housing only w/ Stud)	35kV	755BVS	N1,9
	Cable Size Adapter	15/25kV 35kV	655CA-W Use Table W7 755CA-W Use Table W9	
_	Compression Lug	ALL	03700X Use Table X6	N5
	239	ALL	03702X Use Table X6	N6
	600 Series Elbow & Vault Stretcher Size Sensitive Kit	15/25kV	655CK-W0X Use Tables W7 and X6	N2
	(Cable Adapter & Lug)	35kV	755CK-W0X Use Tables W9 and X6	N2
	Adapter Retaining Ring	ALL	650ARR-X Use Table X6	
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV	655CK-W0X-ARR Use Tables W7 and X6	N2
	Bushing Extender (w/ Stud)	15/25kV 35kV	K655BE 755BE	N1,3 N1,3
	Insulated Cap w/ Test Point (w/ Stud)	15/25kV	K656DR	N3,7
	Insulating Plug (w/ Cap)	15/25kV 35kV	K650BIP 750BIP	N1,7,8 N1,7,8
	Grounding Plug (Ground Lead 2/0 AWG x 30")	15/25kV 35kV	650GP 750GP	N1,7,8 N1,7,8
	Insulated Parking Bushing	15/25kV 35kV	K650SOP 750SOP	N7,8 N7,8
	Connecting Plug	15/25kV 35kV	K650CP 750CP	N1,7,8,9 N1,7,8
	<u> </u>			

Illustration	Description	Voltage	ELASTIMOLD	Notes
(not to scale)		Class	Part Number	
	Deadbreak Reducing Tap Plug	15/25kV	K650RTP	N1,7,8,9
	Reducing Tap Well	15/25kV	K650RTW	N1,7,8,9
	Loadbreak Elbow Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N1,7,8,10,13 N1,7,8,10,13 N1,7,8,10,13
	Vault Stretcher Threaded Stud	15/25kV 35kV	650VSA 750VSA	N1 N1
	600 Series Elbow Threaded Stud	15/25kV 35kV	650SA 750SA	N1 N1
	Assembly Tool	ALL	600AT	N10
<b>No.</b>	Spanner Wrench	ALL	600SW	N9
	2-Point Junction	15/25kV 35kV	K650J2 750J2	N1,11 N1,11
	3-Point Junction	15/25kV 35kV	K650J3 750J3	N1,11 N1,11
מממם	4-Point Junction	15/25kV 35kV	K650J4 750J4	N1,11 N1,11

- N1. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N3. Available without the stud by adding "N" to the part number.
- N4. Straight Receptacle Adapter is used to connect Straight Receptacles K655YBSR and K655YSR-W0X (Pg.14) to equipment bushings.
- N5. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N6. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute threaded 03602X lug.
- N7. Available with the stud factory-assembled by adding "SP" to the part number.
- N8. Available with a loose stud by adding suffix "S" to the part number.
- N9. 600SW spanner wrench is recommended for installation of connecting plugs, deadbreak reducing tap plugs and reducing tap wells..
- N10. 600AT assembly tool is required for installation of loadbreak reducing tap plugs
- N11. Rubber junction with stainless steel mounting plate and back plate.

  Add "-U" for rubber junction with stainless steel mounting plate, back plate and adjustable bracket.

Add "-4" for rubber junction only.

- Add "-5" for rubber junction, stainless steel U-straps and back plate.
- N12. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N13. See page 17 for Window-Op Connector Kit.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



### SEPARABLE CONNECTORS

# 600 SERIES DEADBREAK Cont'd from Pg. 11

600 Series deadbreak elbows, straight receptacles, junctions, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

DE-ENERGIZED connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, by-pass, isolation, deadending, grounding, and testing as well as adding taps, surge arresters and circuit protection.

Hot-stick operable and separable joint systems are shown on pages 14 thru 19.



#### **RATINGS OVERVIEW**

See page 2 for complete information.

#### **CURRENT RATINGS**

(Prefixes: 650, K650, K655, K656, 750, 755, 756 & 03700)

600 Amp Continuous 25kA sym., 10 cycles

### (Prefixes 675, K675, K676, 775, 776 & 03702)

900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

#### VOLTAGE RATINGS 15/25kV Class (5kV thru 28kV)

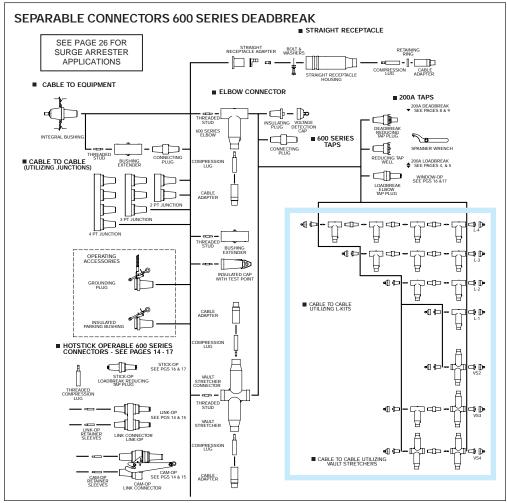
16.2kV Phase-to-Ground 28kV Phase-to Phase 140kV BIL 45kV AC Withstand

84kV DC Withstand 21.5kV Corona Extinction

#### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.











Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### **600 SERIES DEADBREAK**

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	1-way	15/25kV	K655L1	N1,2,3,4
	L-Kit	35kV	755L1	N1,2,3,4
	2-way	15/25kV	K655L2	N1,2,3,4
	L-Kit	35kV	755L2	N1,2,3,4
	2-way	15/25kV	K655VSL2	N1,2,3
	VS-Kit	35kV	755VSL2	N1,2,3
	3-way	15/25kV	K655L3	N1,2,3,4
	L-Kit	35kV	755L3	N1,2,3,4
	3-Way	15/25kV	K655VSL3	N1,2,3
	VS Kit	35kV	755VSL3	N1,2,3
	4-Way	15/25kV	K655L4	N1,2,3,4
	L-Kit	35kV	755L4	N1,2,3,4
	4-Way	15/25kV	K655VSL4	N1,2,3
	VS-Kit	35kV	755VSL4	N1,2,3
	Spanner Wrench	ALL	600SW	N2



Provides an alternate method of splicing and joining various types and styles of cables using standard 600 Series components.

- N1. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. 600SW spanner wrench is recommended for installation of connecting plugs, deadbreak reducing tap plugs and reducing tap wells.
- N3. L-Kits and VS-Kits do not include cable adapters or compression lugs. These items must be ordered separately.
- N4. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



### SEPARABLE CONNECTORS CAM-OP, LINK-OP

## **600 SERIES DEADBREAK**

Elastimold's 600 Series Cam-Op™, and Link-Op™ deadbreak connector systems incorporate provisions for hotstick operation of DE-ENERGIZED primary feeder or network circuits. Configurations allow external visible break, testing, grounding and isolation. Retrofit kits allow upgrading existing equipment.

Cam-Op systems utilize pin and socket connectors. Link-Op connectors are bolted and installed using torque controlled tools. Either system can be retrofitted to existing equipment.

The Cam-Op and Link-Op connectors are unique, allowing all hotstick operations to be completed without moving the cable, an important consideration when large, stiff cables prohibit movement.

The Cam-Op connector is easily installed or removed by hotstick operation of the cam action disconnect lever.



#### **RATINGS OVERVIEW**

See page 2 for complete information

#### **CURRENT RATINGS**

600 & 900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

#### **CONTINUOUS VOLTAGE RATINGS**

#### 15kV Class

14.4kV Phase-to Phase 95kV BIL 34kV AC Withstand 53kV DC Withstand

8.3kV Phase-to-Ground

11kV Corona Extinction

#### 25kV Class

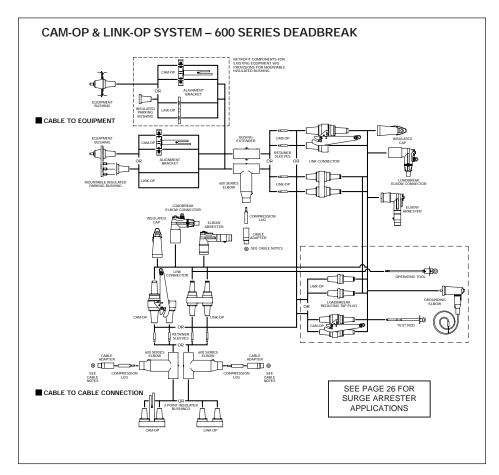
15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL 40kV AC Withstand

78kV DC Withstand

19kV Corona Extinction

#### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



5-15kV 25kV 35kV

PART #



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### CAM-OP™ & LINK-OP™

CAM-OP™ &	LINK-OF			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	CAM-OP	15kV	655LINK-C-LR-W0X-B-DRG	N1,3,11,
	CONNECTOR KIT	25kV	Use Tables W7 and X6 K655LINK-C-LR-W0X-B-DRG	13,14,18 N1,3,11,
	NII NII	2360	Use Tables W7 and X6	13,14,18
		35kV	755LINK-C-LR-W0X-B-DRG	N1,3,11,
			Use Tables W9 and X6	13,14,18
	LINK-OP	15kV	655LINK-B-LR-W0X-B-DRG	N2,3,11,12
	CONNECTOR		Use Tables W7 and X6	13,14,18
	KIT	25kV	K655LINK-B-LR-W0X-B-DRG	N2,3,11,
		35kV	Use Tables W7 and X6 755LINK-B-LR-W0X-B-DRG	13,14,18 N2,3,11,
		OOKV	Use Tables W9 and X6	13,14,18
	Mountable	25kV	K650LBM-3	N3
	Insulated	35kV	750LBM-3	N3
	Bushing			
	RETROFIT	15kV	655LINK-C-LR-W0X-A-DRG	N5,11,13
	CAM-OP CONNECTOR	25kV	Use Tables W7 and X6 K655LINK-C-LR-W0X-A-DRG	14,18
	KIT	2360	Use Tables W7 and X6	N5,11,13 14,18
	TXI I	35kV	755LINK-C-LR-W0X-A-DRG	N5,11,13
			Use Tables W9 and X6	14,18
	RETROFIT	15kV	655LINK-B-LR-W0X-A-DRG	N6,11,12,
	LINK-OP	JEIN!	Use Tables W7 and X6	13,14,18
	CONNECTOR KIT	25kV	K655LINK-B-LR-W0X-A-DRG Use Tables W7 and X6	N6,11,12, 13,14,18
	INII	35kV	755LINK-B-LR-W0X-A-DRG	N6,11,12,
			Use Tables W9 and X6	13,14,18
	Insulating	25kV	K650LB	N4
سل	Plug	35kV	750LB	N4
<u> </u>	CAM-OP		650CAB	
	Alignment Bracket	25kV	K650CAB 750CAB	
AB ABV			650AB	NI1E
AB ABV	LINK-OP Alignment	ALL	650ABV	N15 N15
	Bracket (Retrofit	/ \LL	OSOABV	1113
	LINK-OP Only)			
	Compression	ALL	03700X	N7
	Lug		Use Table X6	N8
		ALL	03702X Use Table X6	
	CAM-OP &	15/25/\/	655CK-W0X	N13
	LINK-OP Size	13/23/(1	Use Tables W7 and X6	1113
	Sensitive Kit	35kV	755CK-W0X	N13
	(Cable Adapter		Use Tables W9 and X6	
	& Lug)			
	CAM-OP Re-	ALL	650RSC	N11
	taining Sleeve	٨١١	450DS	N111
	LINK-OP Retaining	ALL	650RS	N11
	Sleeve			
	CAM-OP	15kV	655BI-LINK-C-LR-WOX-DRG	N9,11,13
G G ♣	CABLE JOINT		Use Tables W7 and X6	14,18
	KIT	25kV	K655BI-LINK-C-LR-WOX-DRG	
		35kV	Use Tables W7 and X6 755BI-LINK-C-LR-WOX-DRG	14,18 N9,11,13
		JUNV	Use Tables W9 and X6	14,18
	LINK-OP	15kV	655BI-LINK-B-LR-WOX-DRG	N10,11,12,
	CABLE JOINT		Use Tables W7 and X6	13,14,18
	KIT	25kV		
		3561/	Use Tables W7 and X6 755BI-LINK-B-LR-WOX-DRG	13,14,18 N10,11,12,
		JUKV	Use Tables W9 and X6	13,14,18
	CAM-OP	15kV	650LK-C-VB	-
	Loadbreak		K650LK-C-VB	
, all	Reducing	35kV	750LK-C-VB	
	Tap Plugs (Visi-Break)			
	LINK-OP	151//	650LT-B	N11
	Loadbreak		K650LT-B	1 1 1 1
	Reducing	35kV		
	Tap Plug			

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25kV 35kV	160GLR 370GLR 370GLR	N19 N19
	Test Rod	ALL	370TR	
	Assembly Tool	ALL	600AT	N11
- F2	CAM-OP OPERATING KIT	15kV 25kV 35kV	650CAM-OK K650CAM-OK 750CAM-OK	N16 N16 N16
	LINK-OP OPERATING KIT	15kV 25kV 35kV	650LINK-OK K650LINK-OK 750LINK-OK	N17 N17 N17

- N1. Cam-Op connector kit includes: 1- Cam-Op link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 1- insulated cap; 1- mountable insulated bushing and 1- alignment bracket.
- N2. Link-Op connector kit includes: 1- Link-Op link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 2- insulated caps; and 1- mountable insulated bushing.
- N3. Mountable insulated bushing included with Cam-Op and Link-Op connector kit. Requires 3 threaded studs on equipment faceplate for installation.
- N4. Use with the Retrofit Cam-Op and Retrofit Link-Op connector kit.
- N5. Retrofit Cam-Op connector kit includes: 1- link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 1- insulated cap; 1- insulating plug; and 1- alignment bracket.
- N6. Retrofit Link-Op connector kit includes: 1- link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 2- insulated caps; 1- insulating plug; and 1- alignment bracket.
- N7. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N8. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N9. Cam-Op Cable Joint Kit includes: 1- Cam-Op link; 1- Cam-Op BI-SOP; 2elbow housings; 2- cable adapters; 2- 0370 style lugs; 2- retainer sleeves; 1- insulated cap.
- N10. Link-Op Cable Joint Kit includes: 1- Link-Op link; 1- Link-Op BI-SOP; 2elbow housings; 2- cable adapters; 2- 0370 style lugs; 2- retainer sleeves; 2- insulated caps.
- N11. 600AT assembly tool required for operation and/or installation.
- N12. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N13. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N14. To add elbows or arresters instead of insulating caps, replace the "DRG" with "LR-WX" for elbows (with test point) or "ESA" for elbow arresters.
- N15. The 650ABV is required when the bushing horizontal spacing on the equipment or junctions is less than 5".
- N16. Cam-Op operating kit includes accessories that enable visible break, testing, isolation and grounding functions to be performed. Kit includes: 3- Cam-Op loadbreak reducing tap plugs; 3- grounding elbows; 1- assembly tool; 1- test rod; 1- carry case; 1- lubricant; 1- instructions.
- N17. Link-Op operating kit includes accessories that enable visible break, testing, isolation and grounding functions to be performed. Kit includes: 6- Link-Op loadbreak reducing tap plugs; 3- grounding elbows; 1- assembly tool; 1- test rod; 1- carry case; 1- lubricant; 1- instructions.
- N18. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N19. Rated for both 25kV and 35kV applications.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



# SEPARABLE CONNECTORS STICK-OP, WINDOW-OP 600 SERIES DEADBREAK

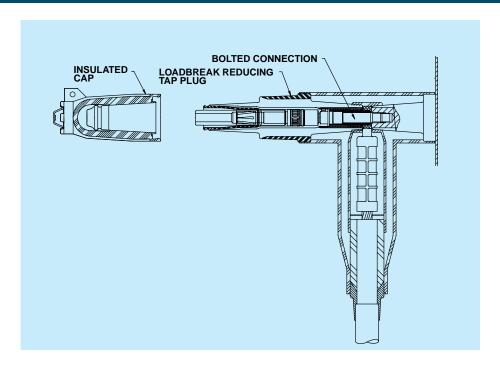
Elastimold's 600 Series Window-Op™ and Stick-Op™ deadbreak connector systems incorporate provisions for hotstick operation of DE-ENERGIZED primary feeder or network circuits.

The Window-Op and Stick-Op connectors allow direct testing and grounding with no required cable movement.

Window-Op is ideal for equipment applications which include viewing windows to provide an internal visible break that does not require hot stick removal of the elbows.

Stick-Op provides an external visible break by hot stick removal of the elbow.

Window-Op and Stick-Op connectors are bolted and installed using torque controlled tools.



#### **RATINGS OVERVIEW**

See page 2 for complete information.

#### **CURRENT RATINGS**

600 & 900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

#### CONTINUOUS VOLTAGE RATINGS

#### 15kV Class

8.3kV Phase-to-Ground 14.4kV Phase-to Phase 95kV BIL 34kV AC Withstand

53kV DC Withstand

11kV Corona Extinction

#### 25kV Class

15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL

40kV AC Withstand

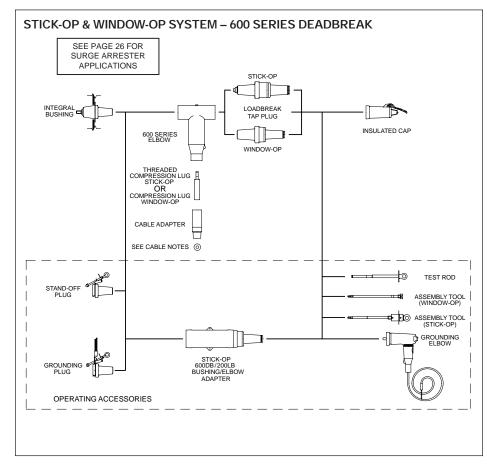
78kV DC Withstand

19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL

50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



5-15kV 25kV 35kV

PART #

Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### STICK-OP™ & WINDOW-OP™

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	WINDOW-OP CONNECTOR KIT	15kV 25kV 35kV	655ETP-W0X-DRG Use Tables W7 and X6 K655ETP-W0X-DRG Use Tables W7 and X6 755ETP-W0X-DRG Use Tables W9 and X6	N1,3,4,5, 6,13
	STICK-OP CONNECTOR KIT	15kV 25kV 35kV	655LRTP-W0X-DRG Use Tables W7 and X6 K655LRTP-W0X-DRG Use Tables W7 and X6 755LRTP-W0X-DRG Use Tables W9 and X6	N2,3,4,5, 8,13
	WINDOW-OP Loadbreak Elbow Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N4,15 N4,15 N4,15
	STICK-OP Loadbreak Reducing Tap Plug	15kV 25kV 35kV	650LRTPA3 K650LRTPA2 750LRTPA2	N3,4
	STICK-OP Bushing Adapter	15kV 25kV 35kV	650BEA3 K650BEA2 750BEA2	N3,4
	Compression Lug WINDOW-OP	ALL ALL	03700X Use Tables X6 03702X Use Tables X6	N6 N7
	Threaded Compression Lug STICK-OP	ALL ALL	03600X Use Tables X6 03602X Use Tables X6	N8 N9
	WINDOW-OP Size Sensitive Kit (Cable Adapter & Lug)	15/25kV 35kV	655CK-W0X Use Tables W7 and X6 755CK-W0X Use Tables W9 and X6	N5 N5
<b>-</b>	STICK-OP Size Sensitive Kit (Cable Adapter & Threaded Lug)	15/25kV 35kV	655TCK-W0X Use Tables W7 and X6 755TCK-W0X Use Tables W9 and X6	N5 N5
	Extraction Tool	ALL	650ET	N3,10
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25kV 35kV	160GLR 370GLR 370GLR	N14 N14
	Test Rod	ALL	370TR	
<del>- 1</del> 10	Assembly Tool (Stick-Op)	ALL	600AT	N3
	Assembly Tool (Window-Op)	ALL	600ATM	N15
	STICK-OP OPERATING KIT	15kV 25kV 35kV	650STICK-OK K650STICK-OK 750STICK-OK	N11 N11 N11
	WINDOW-OP OPERATING KIT	15kV 25kV 35kV	650WINDOW-OK K650WINDOW-OK 750WINDOW-OK	N12 N12 N12

- N1. Window-Op Kit includes: insulated cap; Window-Op reducing tap plug; 600 Series elbow housing; cable adapter; and 0370 style compression lug.
- N2. Stick-Op Kit includes insulated cap; Stick-Op Loadbreak reducing tap plug; 600A Elbow Housing; cable adapter; and threaded 0360 style compression lug.
- N3. 600AT assembly tool required for operation and/or installation.
- N4. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N5. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N6. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N7. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N8. Threaded aluminum lug (Stick-Op only) for use on copper or aluminum conductors. DO NOT substitute unthreaded 03700X lugs. DO NOT use with 675, 676, K675, K676, 775 or 776 part numbers.
- N9. Threaded copper lug (Stick-Op only) for use on copper conductors only. DO NOT substitute unthreaded 03702X lugs.
- N10. Required to disassemble Stick-Op loadbreak reducing tap plug from the threaded compression lug and 600 Series elbow after the shear-pin is broken during assembly.
- N11. Stick-Op Operating Kit includes accessories that enable visible break direct testing, isolation, and grounding functions to be performed. Kit includes: 3-insulated parking bushings; 3-grounding elbows; 3-600DB/200LB bushing/elbow adapters; 1-assembly tool; 1-test rod; 1-carry case; I-lubricant; 1-instructions.
- N12. Window-Op Operating Kit includes accessories that enable visible grounding and direct testing functions to be performed. Kit includes: 3-grounding elbows; 1-test rod; 1-carry case; 1-lubricant; 1-instructions.
- N13. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N14. Rated for both 25kV and 35kV applications.
- N15. 600ATM assembly tool required for Window-Op assembly.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

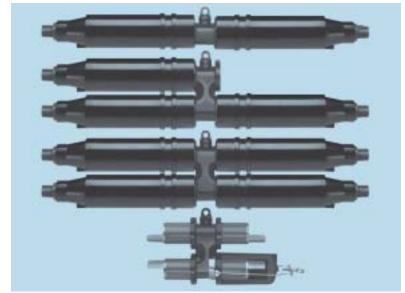


### SEPARABLE CONNECTORS CABLE JOINTS

## **600 SERIES DEADBREAK**

600 Series Separable Cable Joints are available in 2, 3 and 4-way versions and include a capacitive test point as standard. Units are interchangeable, featuring bolted connections. Designs are compact and ideally suited for small vaults and manholes.

DE-ENERGIZED joints can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Bus bars can be changed to add or remove cables from the joint. Optional accessories include insulating and grounding caps and plugs which allow visible external separation, by-pass, isolation, dead-ending, grounding and testing.



#### **RATINGS OVERVIEW**

See page 2 for complete information

#### **CURRENT RATINGS**

(Prefixes: 650, K650, K655, K656

& 03700)

600 Amp Continuous 25kA sym., 10 cycles

(Prefixes: 675, K675, K676 & 03702)

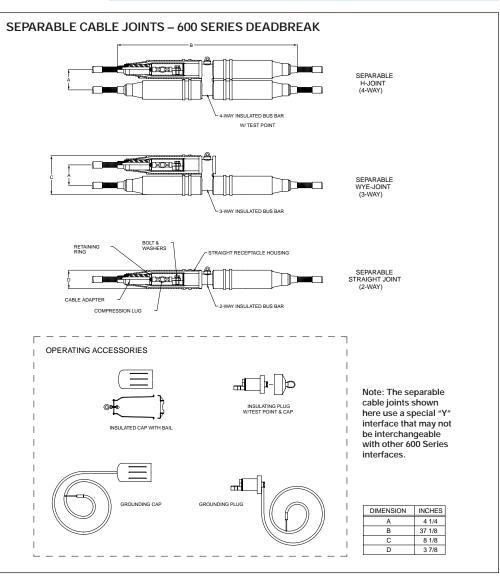
900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

#### VOLTAGE RATINGS 15/25kV Class (5kV thru 28kV)

16.2kV Phase-to-Ground 28kV Phase-to Phase 140kV BIL 45kV AC Withstand 84kV DC Withstand 21.5kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.



#### **600 SERIES DEADBREAK**

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Separable Straight Joint Pkg. (2-way) w/ Test Point	15/25kV	K656I-WOX Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. Straight Joint w/ Test Point	15/25kV	K656I-HP	N2,6
	Separable Wye Joint Pkg. (3-Way) w/ Test Point	15/25kV	K656CY-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. Wye Joint w/ Test point	15/25kV	K656CY-HP	N2,6
	Separable "H" Joint Pkg. (4-Way) w/ Test Point	15/25kV	K656CH-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. "H" Joint w/ Test Point	15/25kV	K656CH-HP	N2,6
	2-Way Insulated Bus Bar w/Test Point	15/25kV	K656I-BUS	N3,6
	3-Way Insulated Bus Bar w/Test Point	15/25kV	K656CY-BUS	N3,6
	4-Way Insulated Bus Bar w/Test Point	15/25kV	K656CH-BUS	N3,6
	Straight Receptacle	15/25kV	K655YSR-W0X Use Tables W7 and X6	N4,6,8
ī	Straight Receptacle Housing Only	15/25kV	K655YBSR	N5,6, 10
	Insulated Cap w/ Bail	15/25kV	K655YDR	
	Bail Only	15/25kV	650BA	
	Cable Adapter	15/25kV	655CA-W Use Table W7	
	Adapter Retaining Ring	15/25kV	650ARR-X Use Table X6	
	Compression Lug	15/25kV 15/25kV	03700X 03702X Use Table X6	N6,7 N6,9
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV	655CK-W0X- ARR Use Tables W7 and X6	N8

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Insulating Plug w/ Test Point & Cap	15/25kV	K650YBIP	
	Grounding Plug (4/0 AWG x 6' Ground Lead)	15/25kV	650YGP	
	Grounding Cap (4/0 AWG x 6' Ground Lead)	15/25kV	650GYDR	
	Aluminum Bolt & Washers Brass Bolt & Washers	15/25kV 15/25kV	650BAW 675BAW	N6 N6
	Assembly/ Disassembly Tool	ALL	600YADT	N11
	Assembly/ Disassembly Tool	ALL	600RRT	N11

- N1. Complete Joint Packages consisting of: insulated bus bar; straight receptacle housings, retaining rings, cable size adapters, lugs, bolts and washers.
- N2. Housing Packages consisting of the following non-size sensitive components of the joint: insulated bus bar, straight receptacle housings, bolts and washers.
- N3. Insulated bus bar only.
- N4. Straight Receptacle consisting of: straight receptacle housing, retaining ring, cable adapter, lug, bolt and washers.
- N5. Straight receptacle housing consisting of: straight receptacle housing, bolt and washers.
- N6. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N7. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N8. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N9. Copper lug for use with COPPER CONDUCTOR ONLY. DO NOT substitute threaded 03602X lug.
- N10. Available without the bolt & washers by adding "N" to the part number.
- N11. Recommended for ease of assembly/disassembly of receptacles to Bus. 600 YADT is lever drive & 600RRT is screw drive.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



### **PCJ CABLE JOINTS**

PCJ<sup>™</sup>Power Cable Joints utilize permanently crimped connectors. PCJ Housings are fully insulated, shielded and sealed for direct buried, vault, submersible and other severe service applications. Units have been designed and tested per IEEE Standard 404 to assure system matched performance and ratings equal to the cable to which the splice will be installed.

PCJ Power Cable Joints are available in 2 styles:

Style 1 uses a single piece housing that is sized to accommodate a specific range of cable. Style 1 units are ideally suited for straight splicing of the same or similar cable.

Style 2 designs incorporate a universal housing with separate cable adapters to allow transition splices of different types and sizes of cable.



#### **ELECTRICAL RATINGS SUMMARY**

The follow ratings summary is based on **IEEE Std. 404** and applies to all Elastimold PCJ Power Cable Joints.

#### VOLTAGE

- A. 15kV Class (8.7kV Phase-to-Ground)
- B. 25kV Class (14.4kV Phase-to-Ground)
- C. 35kV Class (20.2kV Phase-to-Ground)
- Impulse Withstand: A = 110kV, B = 150kV, C = 200kV BIL,1.2 x 50 microsecond wave.
- Corona Extinction Voltage: A = 13kV, B = 22kV, C = 30kV minimum, 3pC sensitivity.
- DC Withstand: During installation: A = 56kV, B = 80kV, C = 100kV (Reference AEIC CS6 and CS8, Section L.1.)
- DC Withstand:

After installation and in service for the first 5 years: A=18kV, B=25kV, C=31kV for XLPE Insulated Cables and A=45kV, B=64kV, C=80kV for EPR Insulated Cables. (Reference AEIC CS6 and CS8, Section L.2.)

#### **CURRENT**

- Continuous rating equal to the rating of the cable.
- Short-Time rating equal to the rating of the cable up to 35kA.

#### SHIELD DESIGN

 Meets IEEE standard 592 for Exposed Semiconducting Shields on Premolded High Voltage Cable Joints and Separable Insulated Connectors.

### Production tests include 100% tests of the premolded joints to assure:

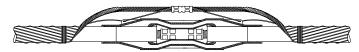
- Corona Extinction Voltage: A = 13kV, B = 22kV, C = 30kV minimum, 3pC sensitivity.
- AC Withstand: A = 35kV, B = 52kV, C = 69kV, 60 Hz, 1 minute.

### Design tests on production joints demonstrate compliance with IEEE 404 including:

- Corona Extinction Voltage: A = 13.0kV, B = 22.0kV, C = 30.0kV minimum, 3pC sensitivity.
- AC Withstand: A = 35kV, B = 52kV, C = 69kV, 60 Hz 1 minute.
- **DC Withstand**: A = 70kV, B = 100kV, C = 125kV negative polarity, 15 minutes.
- Impulse Withstand (BIL): A = 110kV, B = 150kV, C = 200kV, 10 positive and 10 negative, 1.2 x 50 microsecond wave, at conductor temperatures of 20° and 130°C, nominal.
- Short-Time Current: magnitude equal to cable up to 35kA.
- Cyclic Aging: 30 days at: A = 26.1kV, B = 43.2kV, C = 60.6kV AC continuous, load current for 8 hours per day providing 130° conductor temperature. Joints then subjected to: A = 31kV, B = 50kV, C = 71kV for 5 hours followed by: A = 39kV, B = 65kV, C = 91kV for 5 min
- Load Cycle: Connectors meet requirements of ANSI C119.4, Class A ratings.

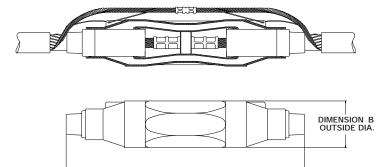
Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

## PCJ Style 1 with single-piece housing



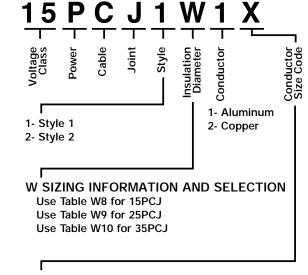
### PCJ Style 2

with universal housing and separate cable adapters that can be varied with the cable application.



DIMENSION A OVERALL LENGTH

#### **ORDERING INFORMATION**



# X SIZING INFORMATION AND SELECTION Use Table X7 for 15PCJ, 25PCJ and 35PCJ

#### **DIMENSIONAL DATA**

STYLE 1	А	В
PART NUMBER	inches	inches
15PCJ1FX	10 1/4"	1 3/4"
15PCJ1GX	10 1/4"	1 3/4"
25PCJ1GX	14 3/8"	2 7/16"
15/25/35PCJ1HX	14 3/8"	2 7/16"
15/25/35PCJ1JX	14 3/8"	2 7/16"
15/25/35PCJ1KX	14 3/8"	2 25/32"
15/25/35PCJ1LX	14 3/8"	2 25/32"
15/25/35PCJ1LMX	14 3/8"	2 25/32"
15/25/35PCJ1MX	14 3/8"	2 25/32"
15/25/35PCJ1NX	15 3/4"	3 3/16"
15/25/35PCJ1PX	15 3/4"	3 3/16"
15/25/35PCJ1QX	15 3/4"	3 3/16"

STYLE 2	А	В
PART NUMBER	inches	inches
15PCJ2EX	16 3/8"	2 25/32"
15PCJ2FX	16 3/8"	2 25/32"
15/25PCJ2GX	16 3/8"	2 25/32"
15/25/35PCJ2HX	16 3/8"	2 25/32"
15/25/35PCJ2JX	16 3/8"	2 25/32"
15/25/35PCJ2KX	21"	3 3/4"
15/25/35PCJ2LX	21"	3 3/4"
15/25/35PCJ2MX	21"	3 3/4"
15/25/35PCJ2NX	21"	3 3/4"
15/25/35PCJ2PX	21"	3 3/4"
15/25/35PCJ2QX	21"	3 3/4"

Description	Voltage Class	ELASTIMOLD Part Number	Notes
Power Cable	15kV	15PCJ1W1X	N1
Joint	15kV	15PCJ1W2X	N2
	25kV	25PCJ1W1X	N1
Style 1	25kV	25PCJ1W2X	N2
	35kV	35PCJ1W1X	N1
	35kV	35PCJ1W2X	N2
Power Cable	15kV	15PCJ2W1X	N1
Joint	15kV	15PCJ2W2X	N2
	25kV	25PCJ2W1X	N1
Style 2	25kV	25PCJ2W2X	N2
-	35kV	35PCJ2W1X	N1
	35kV	35PCJ2W2X	N2

- N1. Kit includes aluminum compression connector suitable for splicing aluminum conductor to aluminum conductor or aluminum conductor to copper conductor.
- N2. Kit includes copper compression connector suitable for splicing copper conductor to copper conductor only.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## **CABLE TERMINATIONS**

Elastimold cable terminations are available in single piece or modular designs. Terminators allow connection and transition from shielded, underground cable to bare overhead conductors and live-front equipment. Units are designed and rated per IEEE Standard 48 for riser pole, padmount, indoor and outdoor applications. PCT1, PCT2, 16THG and 35MTG terminators provide sufficient creep, strike and weather sealing for class 1 outdoor service. PCT1 and PCT2 also include an integral cable jacket seal.

The 35MTGI terminators and 35MSC stress cones are rated for class 2 and class 3 indoor service respectively. Optional mounting brackets, aerial lugs and equipment connectors are available as required.



### ELECTRICAL RATINGS SUMMARY

The following ratings summary is based on IEEE Std. 48 and applies to all the terminations on page 22 thru 25. Elastimold terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems.

#### VOLTAGE RATINGS 15kV Class

9.5kV Phase-to-Ground

110kV BIL 1.2 x 50 microsecond wave AC Withstand:

50kV 1 min. – dry

35kV 6 hr. - dry

45kV 10 sec. - wet

13kV Corona Extinction

#### 25kV Class

16kV Phase-to-Ground

150kV BIL 1.2 x 50 microsecond wave

AC Withstand:

65kV 1 min. - dry

55kV 6 hr. – dry

60kV 10 sec. - wet

21.5kV Corona Extinction

#### 35kV Class

22kV Phase-to-Ground

200kV BIL 1.2 x 50 microsecond wave

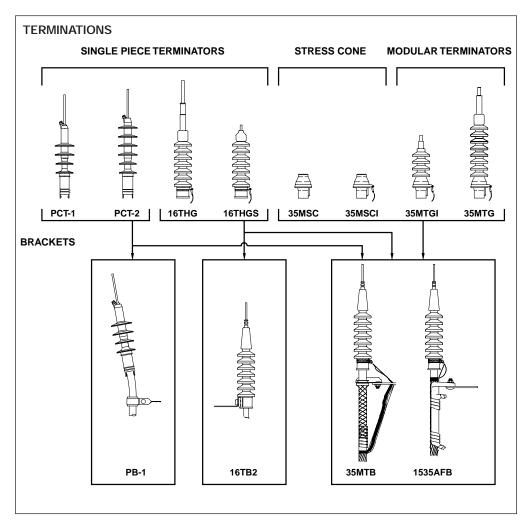
AC Withstand:

90kV 1 min. – dry

75kV 6 hr. – dry

80kV 10 sec. - wet

30kV Corona Extinction



5-15kV 25 kV 35 kV

PART #



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

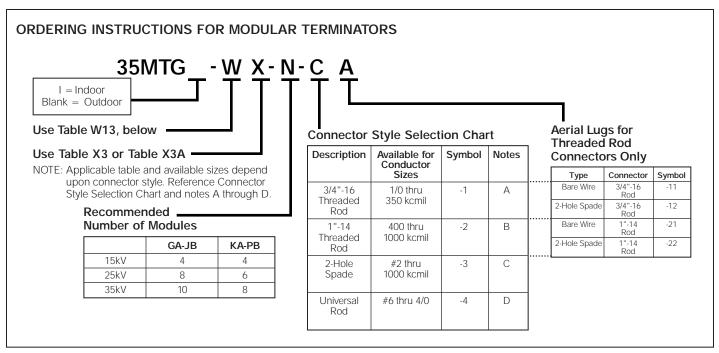
TERMINATIONS					
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes	
	Single-Piece Terminator (Class 1)	15kV 25kV	PCT1-X-4 Use Table X9 PCT2-X-4 Use Table X9	N12,14, 15, 22 N12,14, 15, 23	
	Housing only	15kV 25kV	PCT1-4 PCT2-4	N13, 22 N13, 23	
	Single-Piece Terminator (Class 1)	15/25kV	16THG-WX-4 Use Tables W12 and X8	N2,14 15	
<b>多多</b>	Housing only	15/25kV	<b>16THGH-W</b> Use Table W12		
	Single-Piece Terminator for solid conductor only (Class 1)	15/25kV	16THGS-WX Use Tables W12 and X4	N3	
A	Stress Cone (Class 3)	ALL	35MSC-W Use Table W11	N17	
	w/Grd. Strap	ALL	35MSCI-W Use Table W11	N17	
	Modules only	ALL	35MG-W Use Table W13	N11,16	
	Modular Terminator (Class 1)	15kV 25kV 35kV	35MTG-WX-4-CA Use Tables W13 and X3 35MTG-WX-8-CA Use Tables W13 and X3 35MTG-WX-10-CA Use Tables W13 and X3	N2,11 N2,5,11 N2,6,11	
	Modular Terminator (Class 2) w/o Rain Cap	15kV 25kV 35kV	35MTGI-W-4 Use Table W13 35MTGI-W-6 Use Table W13 35MTGI-W-8 Use Table W13	N11 N11 N7,11	
	Rod Contact for PCT	15/25kV	0070X Use Table X9	N1,14, 15	
	Rod Contact for 16THG	15/25kV	16TCA-X Use Table X8	N2, 8	
	Solid Conductor Package for 16THGS	15/25kV	16CAS-X Use Table X4	N3, 9	
(MANAGE   1	3/4"-16 Threaded Rod for MTG	ALL	35MTGA-WX-1 Use Tables W13 and X3	N2,10,11 18, 25	
	1"-14 Threaded Rod for MTG	ALL	35MTGA-WX-2 Use Tables W13 and X3A	N2,10,11 19, 25	
	Two-Hole Spade for MTG	ALL	35MTGA-WX-3 Use Tables W13 and X3	N4,10,11 20, 25	
	Two-Hole Spade for PCT	ALL	<b>0100X</b> Use Table X9	N1	
	One-Hole Spade for PCT	ALL	<b>0110X</b> Use Table X9	N1	
	Universal Rod for MTG	ALL	35MTGA-WX-4 Use Tables W13 and X3	N2,10,11 21, 25	
	Aerial Lugs for MTG Threaded Rod (Two-hole spade or bare wire)	ALL	35AL-A	N10, 24	

- N1. Use with PCT1 or PCT2 Terminators.
- N2. Includes contact rod, ground strap and rain cap.
- N3. Includes crimp ring, ground strap and rain cap.
- N4. Includes spade contact, ground strap and rain cap.
- N5. For KA thru PB sizes use 35MTG-WX-6-CA.
- N6. For KA thru PB sizes use 35MTG-WX-8-CA.
- N7. For KA thru PB sizes use 35MTGI-W-6.
- N8. Use with 16THG Terminators.
- N9. Use with 16THGS Terminators.
- N10. Use with 35MTG Terminators.
- N11. Refer to page 24 for detailed ordering instructions.
- N12. Includes rod contact as standard. Specify suffix "-3" in place of "-4" for two-hole spade lug. Specify suffix "-5" in place of "-4" for one-hole
- N13. Specify suffix "-3" or "-5" in place of "-4" for two-hole spade lug housing or one-hole spade style housing.
- N14. Use 1X for rod contact for aluminum conductors only.
- N15. Use 0X for rod contact for aluminum or copper conductors.
- N16. Available in sizes from GA thru PB & are supplied qty. 2 per package.
- N17. Available in sizes EB thru PB.
- N18. For conductors from 1/0 thru 350 kcmil.
- N19. For conductors from 400 kcmil thru 1000 kcmil.
- N20. For conductors from #2 to 1000 kcmil.
- N21. For conductors from #6 thru 4/0.
- N22. Use for insulation dia. range from .640" thru 1.070".
- N23. Use for insulation dia. range from .830" thru 1.180"
- N24. Select symbol for "A" from aerial lug ordering information on page 24.
- N25. W13 Table provides sizing for rain cap X10 Table provides sizing for connectors.

Refer to the  $\boldsymbol{W}$  and  $\boldsymbol{X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## CABLE TERMINATIONS cont'd



#### NOTES:

- A. Available for 1/0 through 350 conductor sizes only. Use Table X3 for size selection.
- B. Available for 400 through 1000 conductor sizes only. Use Table X3A for size selection.
- C. Available for #2 through 1000 conductor sizes only. Use Table X3 for size selection.
- D. Available for #6 through 4/0 conductor sizes only. Use Table X3 for size selection.

Table W13	Cable In Diameter i	sulation n Inches	Symbol
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.775	.885	GA
35MTG	.825	.935	GAB
35MTGI	.875	.985	GB
33111131	.930	1.040	GH
	.980	1.115	HA
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.665	1.785	PA
	1.755	1.875	PB

	Conductor	Symbo	ol for X
Table X3 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCT	#6	5	-
35MTG	#5	4	5
	#4	3	4
FOR USE WITH STYLE -1,-3, & -4	#3	2	3
CONNECTORS ONLY.	#2	1	2
	#1	0	1
SEE NOTES A, C, & D FOR	1/0	10	0
APPLICATION	2/0	20	10
INFORMATION	3/0	30	20
	4/0	40	30
	250	250	40
	300	300	250
	350	350	300
	400	400	350
	450	450	-
	500	500	400
	550	550	450
	600	600	500
	650	650	550
	700	750	600
	750	750	650
	800	800	750
	900	900	800
	1000	1000	900

Table X3A	Conductor SIZE AWG or kcmil	Symbo Strand./ Compr.	ol for X Compt./ Solid.
FOLLOWING PRODUCT	400	400	_
35MTG	450	450	400
	500	500	450
FOR USE WITH STYLE -2	550	550	500
CONNECTORS ONLY.	600	600	500
	650-700	650	550
SEE NOTE B FOR APPLICATION	750	750	600
INFORMATION	800	750	650
	1000	1000	-

PART #



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### **TERMINATIONS**

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	PCT Positioning Bracket	ALL	PB-1	N1,12
	16THG Bracket	ALL	16TB-2	N6
	Bracket for crossarm mounting 16THG	ALL	16TB-3	N6
	Bracket for riser pole mounting 16THG	ALL	16TB-4	N6
	Bracket for tri-mounting 16THG	ALL	16TB-5	N6
	KELLUMS GRIP Bracket	ALL ALL ALL ALL	35MTB1-A 35MTB1-B 35MTB1-C 35MTB1-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	KELLUMS Bracket for crossarm mounting	ALL ALL ALL ALL	35MTB3-A 35MTB3-B 35MTB3-C 35MTB3-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	Bracket (for riser pole mounting)	ALL ALL ALL ALL	35MTB4-A 35MTB4-B 35MTB4-C 35MTB4-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
•	KELLUMS Bracket for tri-mounting	ALL ALL ALL ALL	35MTB5-A 35MTB5-B 35MTB5-C 35MTB5-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	ALUMA FORM Bracket	ALL	1535AFB-1	N1,6,7
	ALUMA FORM Bracket for Crossarm mounting	ALL	1535AFB-3	N1,6,7
	ALUMA FORM Bracket for riser-pole mounting	ALL	1535AFB-4	N1,6,7
	ALUMA FORM Bracket for tri-mounting	ALL	1535AFB-5	N1,6,7

- N1. Use with PCT-1 or PCT-2 Terminators.
- N2. Fits overall cable O.D. from 1.195" to 1.625".
- N3. Fits overall cable O.D. from .925" to 1.335".
- N4. Fits overall cable O.D. from .890" to 1.185"
- N5. Fits overall cable O.D. from 1.500" to 2.000".
- N6. Use with 16THG & 16THGS Terminators.
- N7. Use with MTG, MTG1 & MSC Terminators. N8. For conductors from 1/0 thru 350 kcmil.
- N9. For conductors from 400 kcmil thru 1000 kcmil.
- N10. For conductors from #2 to 1000 kcmil.
- N11. For conductors from #6 thru 4/0.
- N12. Fits overall cable O.D. from .750" to 1.625."

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## **SURGE ARRESTERS**

ELASTIMOLD Metal Oxide Varistor (MOV) surge arresters are fully-shielded, fully-submersible and are equipped with IEEE 386 interfaces for convenient energized connection with other 200 Amp loadbreak components. Units are compact, allowing installation in existing cabinetry. For application ease, arresters are available in 3 styles: Elbow (ESA), Parking Stand (PSA) and Bushing (BSA). The PSA and BSA arresters permit direct connection eliminating the need for additional accessories.

Elastimold arresters provide high voltage lightning and switching surge protection of transformers, cable, equipment and other components typically located on underground power distribution systems. Proper placement, voltage selection and coordination with riser pole arresters minimizes damaging surge voltages by improving protective margins.

Typical applications include installing an arrester at the end of a radial system or at both ends of an open point on a loop system. Additional arresters can be added at strategic locations upstream from the end point for optimum protection. Request Form 2068 (Surge Protection Options For Underground Distribution) and Form 2069 (Arrester Applications – Underground Electrical Systems) for additional application and margin of protection information.

ESA Elbow Arresters are also available with a 200 Amp Deadbreak interface for mating with other Deadbreak accessories.

#### **ELECTRICAL RATINGS & PROTECTIVE CHARACTERISTICS**

#### Performance:

High Current Short Duration - All MOV Arresters withstand two discharges of 40kA crest.

Low Current Long Duration - All MOV Arresters withstand 20 surges of 75 amperes/2000 microsecond duration.

Duty Cycle Test - All MOV Arresters with stand 22 operations of 5kA crest at  $8 \times 20$  microsecond duration while energized at rated voltage for the initial 20 operations and at maximum continuous operating voltage (MCOV) for the final two operations.

Following each of the preceding tests, MOV Arresters demonstrate thermal recovery at MCOV.

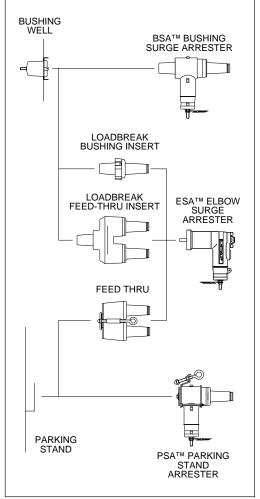
#### PROTECTIVE CHARACTERISTICS:

	MCOV (kVrms)	Duty Cycle					
	Note 1	Rating (kVrms)	1.5kA	3kA	5kA	10kA	20kA
15kV	2.55	3	10.5	11.0	11.5	13.0	14.5
CLASS	5.1	6	20.5	21.5	23.0	25.5	30.0
	8.4	10	30.5	32.5	34.5	38.5	43.5
	10.2	12	40.0	42.5	45.0	50.0	56.5
	12.7	15	48.0	51.0	54.0	60.0	68.0
	15.3	18	56.5	60.0	64.0	71.0	80.5
25kV	8.4	10	30.5	32.5	34.5	38.5	43.5
CLASS	10.2	12	40.0	42.5	45.0	50.0	56.5
	12.7	15	48.0	51.0	54.0	60.0	68.0
	15.3	18	56.5	60.0	64.0	71.0	80.5
	17.0	21	65.5	69.5	74.0	82.5	93.0
35kV	19.5	24	78.5	83.5	89.0	99.0	112.0
CLASS	22.0	27	87.5	93.0	99.0	110.0	124.5
	24.4	30	95.5	101.5	108.0	120.0	136.0

NOTES:

1. MCOV = Maximum Continuous Operating Voltage.







#### **SELECTION CHART**

Illustration (not to scale)	Description	Voltage Class	Elastimold Part Number	MCOV kVrms
(1.01 10 000.0)	BSA	15kV	167BSA-3	2.55
	Bushing	15kV	167BSA-3 167BSA-6	5.10
	Surge Arrester	15kV	167BSA-0 167BSA-10	5.10 8.40
	(includes	15kV	167BSA-10 167BSA-12	10.20
	assembly	15kV	167BSA-12 167BSA-15	12.70
	tool)	15kV	167BSA-15	15.30
	(001)	25kV	273BSA-10	8.40
		25kV	273BSA-10 273BSA-12	10.20
	See Notes	25kV 25kV	273BSA-12 273BSA-15	12.70
T-	N1, 2, 3,4	25kV 25kV	273BSA-13 273BSA-18	15.30
	101, 2, 3,4	25kV 25kV	273BSA-18 273BSA-21	17.00
		35kV	375BSA-21	17.00
		35kV	375BSA-24 375BSA-27	22.00
		35kV	375BSA-27 375BSA-30	24.40
	ESA	15kV	167ESA-3	2.55
	Elbow	15kV	167ESA-6	5.10
	Surge Arrester	15kV	167ESA-10	8.40
		15kV	167ESA-12	10.20
		15kV	167ESA-15	12.70
	See Notes	15kV	167ESA-18	15.30
	N2, 3, 5	25kV	273ESA-10	8.40
		25kV	273ESA-12	10.20
<b>─</b> ₩		25kV	273ESA-15	12.70
J		25kV	273ESA-18	15.30
		25kV	273ESA-21	17.00
		35kV	375ESA-24	19.50
		35kV	375ESA-27	22.00
		35kV	375ESA-30	24.40
	PSA	15kV	167PSA-3	2.55
	Parking Stand	15kV	167PSA-6	5.10
	Arrester	15kV	167PSA-10	8.40
_		15kV	167PSA-12	10.20
		15kV	167PSA-15	12.70
	See Notes	15kV	167PSA-18	15.30
	N1, 2, 3	25kV	273PSA-10	8.40
		25kV	273PSA-12	10.20
		25kV	273PSA-15	12.70
<b>#</b>		25kV	273PSA-18	15.30
		25kV	273PSA-21	17.00
		35kV	375PSA-24	19.50
		35kV	375PSA-27	22.00
		35kV	375PSA-30	24.40
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#### ARRESTER APPLICATION TABLE

	System Lin Voltage		MCOV (Max. C Operating Volta	
	Nominal	Max.	Solidly Grounded Neutral Circuits	3-Wire Ungrounded Circuits
15kV	2.40	2.54	2.55	2.55
Class	4.16	4.40	2.55	5.10
	4.80	5.08	5.10	5.10
	6.90	7.26	5.10	8.40
	8.32	8.80	5.10	8.40
	12.47	13.20	8.40	15.30
	13.20	13.97	8.40	15.30
	13.80	14.50	8.40*	15.30
	13.80	14.50	10.20	15.30
25kV	6.90	7.26	5.10	8.40
Class	8.32	8.80	5.10	8.40
	12.47	13.20	8.40	15.30
	13.20	13.97	8.40	15.30
	13.80	14.50	8.40*	15.30
	13.80	14.50	10.20	15.30
	20.78	22.00	12.70	_
	20.78	22.00	15.30*	_
	23.00	24.34	15.30	_
	24.94	26.40	15.30	_
	24.94	26.40	17.00*	_
	28.00	29.80	17.00	
35kV	23.00	24.34	-	22.00
Class	34.50	36.51	22.00*	_
	34.50	36.51	24.40	-

<sup>\*</sup> Preferred arrester MCOV for this system voltage

- N1. Elastimold PSA and BSA Arresters are equipped with a fully rated 200A switching and fault close loadbreak bushing.
- N2. Elastimold Arresters use high-strength silver epoxy bonded MOV blocks and shunted spring connections for the best circuit connection.
- N3. A 36 inch #4 AWG ground lead provided with each unit.
- N4. BSA installed by turning internal hex bolt (accessed thru the 200 Amp Bushing Interface) with 5/16" hex wrench supplied with each unit.
- N5. For 15kV and 25kV Class DEADBREAK system Elbow Arresters, use part number 156ESA with the appropriate Duty Cycle rating.

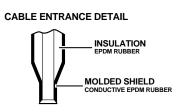
#### ORDERING INSTRUCTIONS:

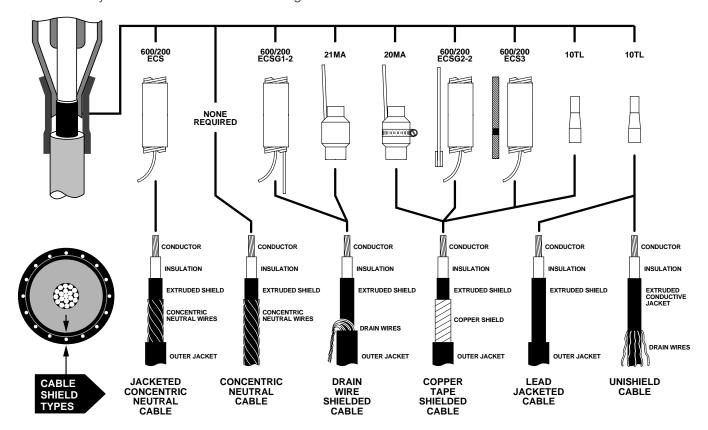
- (1.) Determine the appropriate Maximum Continuous Operating Voltage (MCOV) for your system voltage by using the ELASTIMOLD ARRESTER APPLICATION TABLE.
- (2.) Specify the appropriate ELASTIMOLD part number from the selection chart.

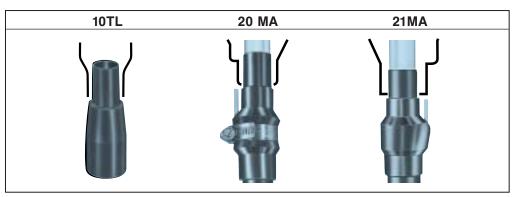


# SHIELD ADAPTERS, GROUNDING KITS AND JACKET SEALS

Elastimold elbows, cable joints and terminators have been designed for use on XLP, EPR or similar solid dielectric insulated power cables. These cables are available with a variety of optional shielding and jacket constructions. In order to properly mate and install the cable to an Elastimold product, the use of a shield adaptor, grounding kit or jacket seal may be required. The diagram below provides information concerning the application and selection of various shield adaptors, grounding kits and jacket seals for the most popular cable types. Consult the factory for recommendations concerning other cable constructions.









CABLE SHIELD ADAPTERS					
Cable 10TL 20MA 21MA Insulation Dia. inches inches inches					
min.	.495	.530	.530		
max.	1.875	1.780	1.780		

JACKET SEALS					
Jacket	200ECS	600ECS			
O.D. inches		inches			
min.	.80	1.28			
max.	1.50	2.30			

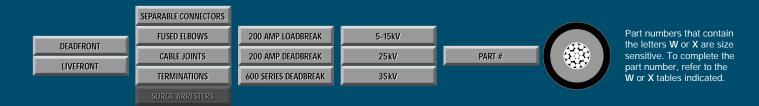


Illustration (not to scale)	Description	ELASTIMOLD Part Number	Suffix	Notes
	Cold Shrinkable Jacket Seal	200ECS	-S	N1,3
	Cold Shrinkable Jacket Seal	600ECS	-S	N1,4
	Metallic Tape Shield Adapter	20MA-W Use Table W14 for sizing	-0MA	N1,2
	Wire Shield Adapter	21MA-W Use Table W14 for sizing	-1MA	N1,2
	Shield Adapter	10TL-W Use Table W15 for sizing	-TL	N1,2
	Cold Shrinkable Seal w/ Copper Rod & Crimp Connector	200ECSG1-2	-SG1	N1,3
	Cold Shrinkable Seal w/ Copper Rod & Crimp Connector	600ECSG1-2	-SG1	N1,4
	Cold Shrinkable Seal w/ Copper Rod & Constant Force Spring	200ECSG2-2	-SG2	N1,3
	Cold Shrinkable Seal w/ Copper Rod & Constant Force Spring	600ECSG2-2	-SG2	N1,4
	Cold Shrinkable Seal w/ Copper Braid & Constant Force Spring	200ECSG3	-SG3	N1,3
	Cold Shrinkable Seal w/ Copper Braid & Constant Force Spring	600ECSG3	-SG3	N1,4

N1.	To order the kits as separate items, use the part numbers shown in the
	table. Example: To order a cold shrinkable tube as a separate item, use
	the part number 200ECS.

To order the kits as components of other items, add the suffix to the end of the part number. Example: To order a cold shrinkable jacket seal as a component of an elbow kit, use the part number 166LR-A520-S.

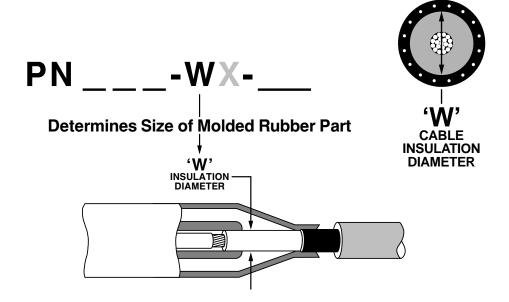
- N2. Only use this suffix with part numbers that designate a "W" housing size. Sizing the main component will also size the suffix adapter.
- N3. Size range .80" to 1.50" jacket diameters. Maximum installed diameter is approx.  $2\hbox{\ensuremath{^{\prime\prime}}}.$
- N4. Size range 1.28" to 2.30" jacket diameters. Maximum installed diameter is approx. 2.75".

Table W14	Insulation Inches		Symbol
USE FOR	MIN.	MAX.	for W
20MA	.530	.680	E
21MA	.640	.820	F
	.760	.950	G
	.850	1.050	Н
	.980	1.180	J
	1.090	1.310	K
	1.180	1.465	L
	1.370	1.630	М
	1.515	1.780	N

Table W15		ation hes	Symbol
USE FOR	MIN.	MAX.	for W
10TL	.495	.585	EB
	.525	.635	EF
	.575	.585	FA
	.625	.735	FAB
	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB
	.930	1.040	GH
	.980	1.115	HA
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.755	1.875	PB



## **How to specify Size-Sensitive Products**



#### **INSULATION DIAMETER SELECTION GUIDE**

Elastimold Elbows, cable joints and terminations are designed for application on XLP, EPR and other solid dielectric insulated power cables. These components are constructed of molded elastomer and rely on an interference fit with the cable insulation diameter in order to maintain proper dielectric strength, creep path integrity and a water seal. Elastimold components are available in a wide range of sizes in order to accommodate a variety of cable insulation diameters.

Selection of size-sensitive components requires determining the cable insulation diameter. This can be done in several ways:

- A. Refer to the cable manufacturer's spec sheet for dimensions.
- B. Measure the cable.
- C. If the cable conforms to AEIC standards with a 175, 220, 260 or 345 mil wall thickness, use the table on page 34.
- D. If the cable is constructed to the new ICEA standard, refer to the cable manufacturer's spec sheet for dimensions.

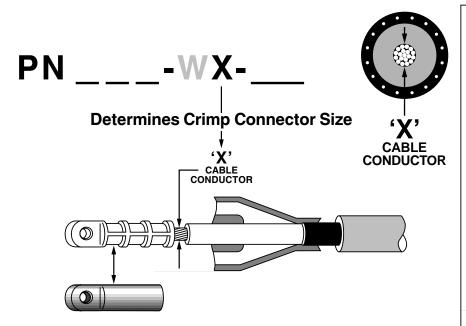
After the cable insulation diameter has been determined:

- 1. Locate the W table indicated in the part number selection chart.
- 2. Complete the ordering information by selecting and inserting the symbol (given in the W table) into the part number.

#### Ordering Example

To complete the information required to order a K655LR-W0X elbow for use on standard AEIC 500 kcmil stranded aluminum cable with .220 inch thick insulation wall.

- A. Determine that the insulation diameter (from AEIC table on page 34) is 1.325 ±.030 inches.
- B. For this elbow, the part number selection chart on page 11 indicates to use table W7 for elbow sizing and table X6 for connector sizing.
- C. From table W7 the symbol for W is L.
- D. From table X6 the symbol for X is 330.
- E. The completed part number therefore is K655LR-L0330.



#### **CONNECTOR SELECTION GUIDE**

Elastimold elbows, cable joints and terminations are furnished with crimp style cable connectors. As standard, these connectors are constructed with a tin-plated aluminum barrel filled with an oxide inhibitor. Aluminum barrel connectors are designed for use on either aluminum or copper conductor cable.

When specified, all copper crimp style connectors can be furnished. These connectors are ONLY for use on copper conductor cable and are not for use with aluminum conductor cables.

Bi-metallic connectors are constructed with a copper top and an aluminum barrel. Bi-metal connectors can be used on either aluminum or copper conductor cable and are furnished as standard with 200 Amp Loadbreak Elbows, 200 Amp Deadbreak Elbows, and PCT, 16 THG or MTG terminators with rod connectors.

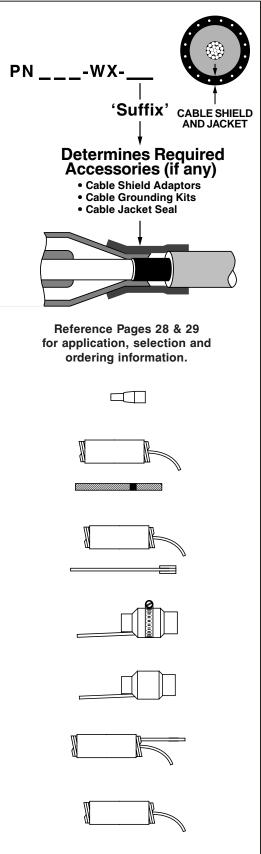
Selection and ordering the proper crimp connector requires determining information relative to the cable conductor as follows:

- A. Conductor size in AWG or kcmil
- B. Conductor type (stranded, compressed, compact or solid)
- C. Conductor material (aluminum or copper)

After the cable conductor information has been determined:

- 1. Locate the X table indicated in the part number selection chart.
- 2. Complete the ordering information by selecting and inserting the symbol (given in the X table) into the part number.

See the Ordering Example on page 30 for further information.





# **WX SIZE TABLES**

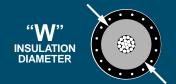


Table W1		nsulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS 165/166LR	.575	.740	Α
K151SP	.665	.905	В
K151SR K151LS	.830	1.060	С
K151LY	.930	1.220	D

Table W2		nsulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.760	.950	G
273/274LR	.850	1.050	Н
273/274RLR	.980	1.180	J
	1.090	1.310	K

Table W3		nsulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.850	1.050	Н
375/376LR	.980	1.180	J
0707070ER	1.090	1.310	K
	1.235	1.465	L

Table W4	Cable In Diameter MIN.	sulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.640	.820	F
156LR	.760	.950	G
167/168RLR	.850	1.050	Н
167LRT	.980	1.180	J
	1.090	1.310	K

Table W5	Cable In Diameter MIN.		Symbol for W
FOLLOWING PRODUCTS	.665	.895	6689
167/168ELR	.740	.950	7495
273/274ELR	.880	1.100	88110
	1.090	1.310	K

Table W6	Cable In Diameter i MIN.		Symbol for W
FOLLOWING PRODUCTS	.495	.585	EB
10EP	.525	.635	EF
152EA	.575	.685	FA
160CA*	.625	.735	FAB
(*EB-FA Only)	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB

Table W7	Cable In Diameter MIN.		Symbol for W
FOLLOWING PRODUCTS	.640	.820	F
K656I/CY/CH K655/656LR	.760	.950	G
K655/656SR	.850	1.050	Н
655/656LINK K655/656LINK	.980	1.180	J
655/656ETP	1.090	1.310	K
K655/656ETP 655/656LRTP	1.180	1.465	L
K655/656LRTP	1.280	1.430	LM
655/656BI-LINK K655/656BI-LINK	1.370	1.630	М
655CA	1.515	1.780	N
655CK 655TCK	1.725	1.935	Р

Table W8	Cable Insulation Diameter in Inches		Symbol
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.640	.820	F
15PCJ-1	.760	.950	G
15PCJ-2	.850	1.050	Н
	.980	1.180	J
	1.090	1.310	K
	1.180	1.465	L
	1.280	1.430	LM
	1.370	1.630	М
	1.515	1.780	Ν
	1.725	1.935	Р
	1.900	2.120	Q

Table W9	Cable Insulation Diameter in Inches MIN. MAX.		Symbol for W
USE FOR FOLLOWING PRODUCTS	.760	.950	G
25PCJ-1	.850	1.050	Н
25PCJ-2	.980	1.180	J
755/756LR	1.090	1.310	K
755/756LINK	1.180	1.465	L
755/756ETP	1.280	1.430	LM
755/756LRTP	1.370	1.630	М
755/756BI-LINK 755CA	1.515	1.780	N
755CK	1.725	1.935	Р
755TCK	1.900	2.120	Q

Table W10	Cable In Diameter MIN.	sulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.850	1.050	Н
35PCJ-1	.980	1.180	J
35PCJ-2	1.090	1.310	K
	1.180	1.465	L
	1.280	1.430	LM
	1.370	1.630	М
	1.515	1.780	Ν
	1.725	1.935	Р
	1.900	2.120	Q

Table W11	Cable In	Symbol	
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.495	.585	EB
35MSC	.525	.635	EF
35MSCI	.575	.685	FA
	.625	.735	FAB
	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB
	.930	1.040	GH
	.980	1.115	HA
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.665	1.785	PA
	1.755	1.875	PB

Table W12	Cable In Diameter MIN.		Symbol for W
FOLLOWING PRODUCTS	.495	.585	EB
16THG	.525	.635	EF
16THGS	.575	.685	FA
16THGH	.625	.735	FAB
	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB
	.930	1.040	GH
	.980	1.115	НА

Table W13	Cable In Diameter	Symbol	
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.775	.885	GA
35MTG	.825	.935	GAB
35MTGI	.875	.985	GB
35MTCGA	.930	1.040	GH
	.980	1.115	НА
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.665	1.785	PA
	1.755	1.875	PB



	Conductor	Symbol for X	
Table X1 USE FOR FOLLOWING	Size AWG or kcmil	Strand./ Compr.	Compt./ Solid.
PRODUCTS 167/168ELR	#4	5200	5190
273/274ELR	#3	5210	5200
156LR 165/166LR	#2	5220	5210
273/274LR	#1	5230	5220
167LRT 167/168RLR	1/0	5240	5230
273/274RLR 00400	2/0	5250	5240
02500	3/0	5260	5250
02509 02702	4/0	5270	5260
02800	250	-	5270
VO	Conductor		ol for X
Table X2 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCTS	1/0	5240	5230
375/376LR	2/0	5250	5240
	3/0	5260	5250
	4/0	5270	5260
	Conductor	Symbo	ol for X
Table X3	SIZE AWG	Strand./ Compr.	Compt./ Solid.
USE FOR FOLLOWING	#6	5	Joliu.
35MTG	#5	4	5
	#4	3	4
NOTE: SEE PAGE 24	#3	2	3
FOR DETAILED APPLICATION	#2	1	2
INFORMATION	#1	0	1
	1/0 2/0	10 20	10
	3/0	30	20
	4/0	40	30
	250	250	40
	300	300	250
	350	350 400	300
	400 450	450	350
	500	500	400
	550	550	450
	600	600	500
	650	650	550
	700 750	750 750	600 650
	800	800	750
	900	900	800
	1000	1000	900
	Conductor	Symbo	ol for X
Table X3A	SIZE AWG	Strand./	Compt./
USE FOR FOLLOWING	400	Compr.	Solid.
PRODUCT 35MTG	450	450	400
	500	500	450
NOTE: SEE PAGE 24	550	550	500
FOR DETAILED APPLICATION	600	600	500
INFORMATION	650-700	650	550
	750 800	750 750	600 650
İ			
	1000	1000	_

Table X4	Riser Conductor Size.  AWG Solid	Symbol for X
USE FOR FOLLOWING	#2	2
PRODUCT	#1	2
16THGS	1/0	10
16CAS	2/0	20
	3/0	30
	4/0	30

>/-	Conductor	Aluminum Conductors	
Table X5	AGW	Symbo	
USE FOR FOLLOWING	or kcmil	Strand./ Compr.	Compt./ Solid.
PRODUCTS K151SP	#4	2AX	-
K151SF K151SR	#2	1AX	2AX
K151LS	#1	0AX	1AX
K151LY	1/0	10AX	0AX
	2/0	20AX	10AX
	3/0	30AX	20AX
	4/0	40AX	30AX
	250	-	40AX
	Conductor	Copper Conductors	
	AGW	Symbo	l for X
	or kcmil	Strand./ Compr.	Compt./ Solid.
	#6	3	-
	#4	2	3
	#2	1	2
	#2	0	2
			_
	#1	0	1
	#1	0	1 0
	#1 1/0 2/0	0 10 20	1 0 10

	Conductor	Symbol for X	
Table X6 USE FOR FOLLOWING	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
PRODUCTS	1/0	240	230
655/656LRTP K655/656LRTP	2/0	250	240
755/756LRTP	3/0	260	250
K656I/Y/H	4/0	270	260
K655/656LR	250	280	270
755/756LR K655/656SR	300	290	280
655/656LINK	350	300	290
K655/656LINK	400	310	300
755/756LINK	450	320	310
655/656ETP K655/656ETP	500	330	320
755/756ETP	550	340	320
655/656BI-LINK	600	350	330
K655/656BI-LINK	650	360	340
755BI-LINK 655CK	700	380	350
755CK	750	380	360
655TCK	800	390	360
03600 03602	900	400	380
03602	1000	410	400
03702	1250	440	420

	Conductor	Symbo	ol for X
Table X7	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCTS	#6	180	_
15PCJ1	#5	190	180
25PCJ1	#4	200	190
35PCJ1	#3	210	200
15PCJ2	#2	220	210
25PCJ2	#1	230	220
35PCJ2	1/0	240	230
	2/0	250	240
	3/0	260	250
	4/0	270	260
	250	280	270
	300	290	280
	350	300	290
	400	310	300
	450	320	310
	500	330	310
	550	340	320
	600	350	330
	650	360	340
	700	380	350
	750	380	360
	800	390	380
	900	400	380
	1000	410	400
	1250	440	420

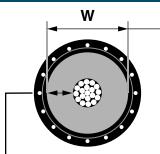
340	Conductor	Symbol for X	
Table X8	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCT	#6	180	-
16THG	#5	190	180
16TCA	#4	200	190
	#3	210	200
	#2	220	210
	#1	230	220
	1/0	240	230
	2/0	250	240
	3/0	260	250
	4/0	270	260

	Conductor	Symbo	ol for X
Table X9 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCTS	#2	220	210
PCT1	#1	230	220
PCT2	#1	1230*	ı
01000	1/0	240	230
01010	1/0	1240*	1230*
	2/0	250	240
	2/0	1250*	-
	3/0	260	250
	3/0	1260*	1250*
	4/0	270	260
	4/0	1270*	1260*

\*For aluminum conductor only.



# AEIC CABLE INSULATION DIAMETER REFERENCE



CABLE INSULATION DIAMETER

# AEIC Standard Insulation Diameters for XLP and EPR Insulated Cables with .175, .220, .260 or .345 inch wall thickness.

NOTE: The insulation diameters shown are nominal. Add  $\pm$ .030 inch tolerance to calculate maximum and minimum diameters. Example .220 inch wall, 4/0 stranded conductor cable: Nominal Diameter = 1.030"; Maximum Diameter = 1.060"; Minimum Diameter = 1.000"

	Insulation		w/stranded	w/compressed	w/compact or
AWG or	Wall Thickness	Voltage	conductor Insulation	conductor Insulation	solid conductor Insulation
kcMil	Inches	Class	Dia. (Inches)	Dia. (Inches)	Dia. (Inches)
#2	.175	15kV	_	_	.670
Solid	.220	15kV 25kV	_	_	.760
	.260 .345	25kV 35kV	_	_	_
#2	.175	15kV	.700	.695	.680
	.220	15kV	.790	.785	.770
	.260 .345	25kV 35kV	_	_	_
#1	.175	15kV	_	<u> </u>	.700
Solid	.220	15kV	_	_	.790
	.260	25kV	_	_	.870
	.345	35kV	_	_	_
#1	.175	15kV	.740	.730	.710
	.220 .260	15kV 25kV	.830 .910	.820 .900	.800 .880
	.345	35kV	.910	.900	
1/0	.175	15kV	_	_	.735
Solid	.220	15kV	_	_	.825
	.260 .345	25kV 35kV	_	_	.905 1.075
1/0	.175	15kV	.785	.770	.745
.,,	.220	15kV	.875	.860	.835
	.260	25kV	.955	.940	.915
	.345	35kV	1.125	1.110	1.085
2/0	.175 .220	15kV 15kV	.830 .920	.815 .905	.785 .875
	.260	25kV	1.000	.985	.955
	.345	35kV	1.170	1.155	1.125
3/0	.175	15kV	.880	.865	.835
	.220	15kV 25kV	.970	.955	.925
	.260 .345	35kV	1.050 1.220	1.035 1.205	1.005 1.175
4/0	.175	15kV	.940	.920	.885
	.220	15kV	1.030	1.010	.975
	.260 .345	25kV 35kV	1.110 1.280	1.090 1.260	1.055 1.225
250	.175	15kV	.995	.980	.940
200	.220	15kV	1.085	1.070	1.030
	.260	25kV	1.175	1.160	1.120
	.345	35kV	1.350	1.335	1.295
350	.175	15kV	1.100	1.080	1.035
	.220 .260	15kV 25kV	1.190 1.280	1.170 1.260	1.125 1.215
	.345	35kV	1.455	1.435	1.390

or kcMil Inches         Thickness Inches         Voltage Class         Insulation Dia. (Inches)         Insulation Dia. (Inches)         Insulation Dia. (Inches)           500         .175         15kV         1.235         1.210         1.155           .220         15kV         1.325         1.300         1.245           .260         25kV         1.415         1.390         1.335           .345         35kV         1.590         1.565         1.510           600         .175         15kV         1.325         1.295         1.245           .220         15kV         1.325         1.295         1.245           .220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .220         15kV         1.575         1.545         1.485           .345         35kV         1.430         1.400         1.340           .						
kcMil         Inches         Class         Dia. (Inches)         Dia. (Inches)           500         .175         15kV         1.235         1.210         1.155           .220         15kV         1.325         1.300         1.245           .260         25kV         1.415         1.390         1.335           .345         35kV         1.590         1.565         1.510           600         .175         15kV         1.325         1.295         1.245           .220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .220         15kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490	AWG	Wall		conductor	conductor	solid conductor
1.220						
1.260	500	.175	15kV	1.235	1.210	1.155
345   35kV   1.590   1.565   1.510		.220	15kV	1.325	1.300	1.245
600         .175         15kV         1.325         1.295         1.245           .220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1		.260	25kV	1.415	1.390	1.335
.220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1.460           .345         35kV         1.815         1.785         1.725		.345	35kV	1.590	1.565	1.510
.260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1.460           .220         15kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.615         1	600	.175	15kV	1.325	1.295	1.245
345   35kV   1.680   1.650   1.600		.220	15kV	1.415	1.385	1.335
700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1		.260	25kV	1.505	1.475	1.425
.220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785		.345	35kV	1.680	1.650	1.600
.260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15Kv         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545	700	.175	15kV	1.395	1.365	1.305
345   35kV   1.750   1.720   1.660     750   .175   15kV   1.430   1.400   1.340     .220   15kV   1.520   1.490   1.430     .260   25kV   1.610   1.580   1.520     .345   35kV   1.785   1.755   1.695     800   .175   15kV   1.460   1.430   1.370     .220   15kV   1.550   1.520   1.460     .260   25kV   1.640   1.610   1.550     .345   35kV   1.815   1.785   1.725     900   .175   15kV   1.525   1.490   1.430     .220   15kV   1.615   1.580   1.520     .260   25kV   1.705   1.670   1.610     .345   35kV   1.880   1.845   1.785     1000   .175   15kV   1.580   1.545   1.490     .220   15kV   1.670   1.635   1.580     .220   25kV   1.670   1.635   1.580     .260   25kV   1.760   1.725   1.670     .260   25kV   1.760   1.725   1.670     .260   25kV   1.760   1.725   1.670     .270   .280   .25kV   1.760   1.725   1.670     .280   .260   .25kV   1.760   1.725   1.670     .270   .280   .25kV   1.760   1.725   1.670     .280   .280   .25kV   1.760   1.725   1.670     .290   .260   .25kV   1.760   1.725   1.670     .201   .202   .203   .203   .203     .203   .203   .203   .203   .203     .204   .203   .203   .203   .203     .205   .205   .205   .205   .205   .205     .207   .207   .207   .207   .207     .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208   .208   .208     .208   .208   .208   .208   .208   .208   .208   .208   .208   .208   .		.220	15kV	1.485	1.455	1.395
750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15Kv         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .220         15kV         1.670         1.635		.260	25kV	1.575	1.545	1.485
.220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670		.345	35kV	1.750	1.720	1.660
.260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15kV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670	750	.175	15kV	1.430	1.400	1.340
345   35kV   1.785   1.755   1.695		.220	15kV		1.490	1.430
800         .175         15Kv         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670						
1.220		.345	35kV	1.785	1.755	1.695
.260     25kV     1.640     1.610     1.550       .345     35kV     1.815     1.785     1.725       900     .175     15kV     1.525     1.490     1.430       .220     15kV     1.615     1.580     1.520       .260     25kV     1.705     1.670     1.610       .345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670	800	.175	15Kv	1.460	1.430	1.370
345   35kV   1.815   1.785   1.725		.220	15kV	1.550	1.520	1.460
900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670		.260	25kV	1.640	1.610	1.550
.220     15kV     1.615     1.580     1.520       .260     25kV     1.705     1.670     1.610       .345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670		.345	35kV	1.815	1.785	1.725
.260     25kV     1.705     1.670     1.610       .345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670	900	.175	15kV	1.525	1.490	1.430
.345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670		.220	15kV	1.615	1.580	1.520
1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670		.260	25kV	1.705	1.670	1.610
.220		.345	35kV	1.880	1.845	1.785
.260 25kV 1.760 1.725 1.670	1000	.175	15kV	1.580	1.545	1.490
1200   2000   10000		.220	15kV	1.670	1.635	1.580
.345   35kV   1.935   1.900   1.845		.260	25kV	1.760	1.725	1.670
		.345	35kV	1.935	1.900	1.845

Note: If the cable is constructed to the new ICEA standard, refer to the cable manufacturer's spec sheet for dimensions.

# CABLE CONDUCTOR DIAMETER REFERENCE



### Conductor Diameters for Copper and Aluminum (Class B) Stranded, Compressed, Compact and Solid Cables

Conductor	No. of Strands	Cross-sec	tional Area	Stranded	Compressed	Compact	Solid
Size AWG or kcmil	and their Nom. Strand Dia. (in.)	Square Inches	mm² Conversion	Conductors (Inches)	Conductors (Inches)	Conductors (Inches)	Conductors (Inches)
14 12 10 8 6 4	7 x .0242 7 x .0305 7 x .0385 7 x .0486 7 x .0612 7 x .0772 7 x .0974	.0032 .0051 .0082 .0130 .0206 .0328	2.08 3.31 5.26 8.37 13.30 21.15 33.62	.073 .092 .116 .146 .184 .232	     .283	     .268	.064 .081 .102 .129 .162 .204
1 1/0 2/0 3/0 4/0	19 x .0664 19 x .0745 19 x .0837 19 x .0940 19 x .1055	.0657 .0829 .1054 .1318 .1662	42.41 53.49 67.43 85.01 107.2	.332 .373 .418 .470 .528	.322 .362 .405 .456 .512	.299 .336 .376 .423 .475	.289 .325 — — —
250 350 500	37 x.0822 37 x.0973 37 x.1162	.1964 .2749 .3924	127 177 253	.575 .681 .813	.558 .661 .789	.520 .616 .736	_ _ _
600 700 750 800 900 1000	61 x .0992 61 x .1071 61 x .1109 61 x .1145 61 x .1215 61 x .1280	.4712 .5498 .5890 .6283 .7069	304 355 380 405 456 507	.893 .964 .998 1.031 1.094 1.152	.866 .935 .968 1.000 1.061 1.117	.813 .877 .908 .938 .999	- - - - -
1100 1200 1250 1300 1400 1500	91 x .1099 91 x .1148 91 x .1172 91 x .1195 91 x .1240 91 x .1284	.8639 .9425 .9818 1.021 1.100 1.178	557 608 633 659 709 760	1.209 1.263 1.289 1.315 1.364 1.412	1.173 1.225 1.250 1.276 1.323 1.370	_ _ _ _ _	_ _ _ _ _ _
1600 1700 1750 1800 1900 2000	127 x .1122 127 x .1157 127 x .1174 127 x .1191 127 x .1223 127 x .1225	1.257 1.335 1.374 1.414 1.492 1.571	811 861 887 912 963 1010	1.459 1.504 1.526 1.548 1.590 1.632	1.415 1.459 1.480 1.502 1.542 1.583	_ _ _ _ _ _	- - - - -



## **EQUIPMENT BUSHINGS**

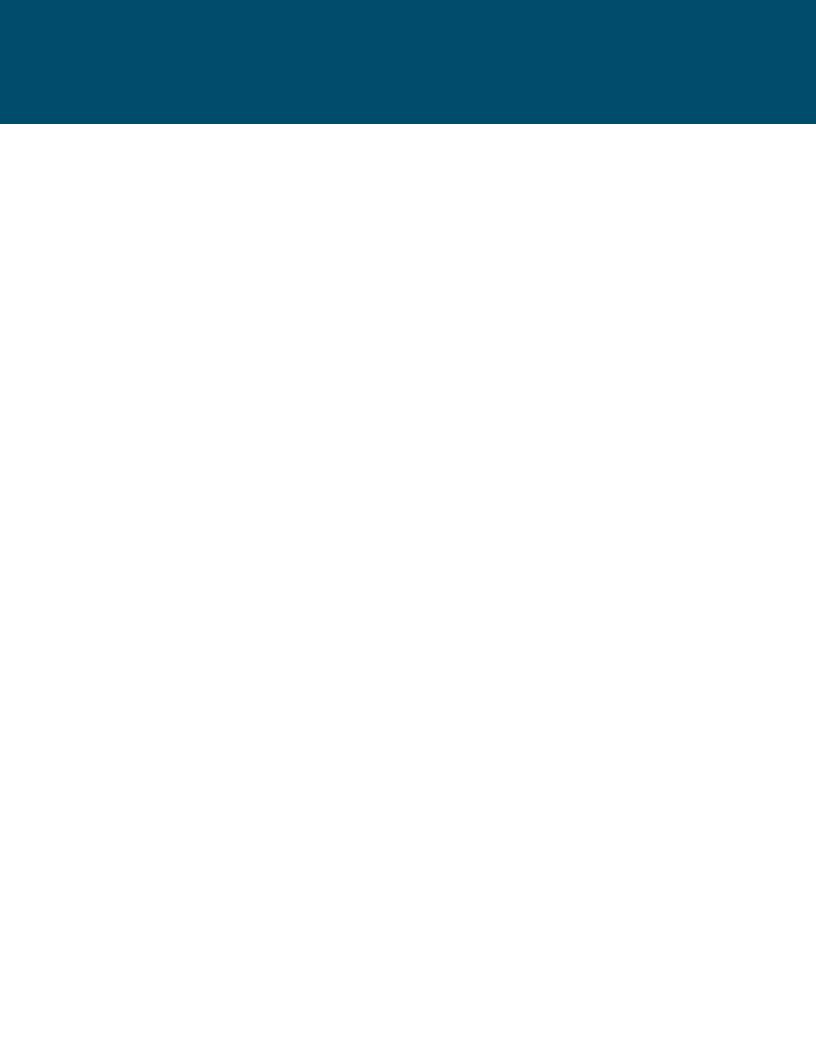
Elastimold manufactures a complete line of 200 Amp deepwell and 600 Series apparatus bushings for use on transformers, switchgear and other equipment applications. The bushings incorporate IEEE 386 standard interfaces (shown on page 3) and are constructed of molded epoxy with stainless steel flanges for mounting by welding or gasketed clamp. K1601PCC series bushings are provided with a

molded epoxy flange for gasketed clamp mounting only. Bushings are available for use on AIR, OIL or SF6 insulated equipment. Units are rated for submersible, padmount, indoor, outdoor and other applications. Options include hold-down bail tabs and replaceable studs for 200 Amp deepwell bushings.

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Bushing Shank Length	Notes
	Short Shank Well with bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-S1 L1601PC-S1	23/4"	N3,7,14
	Short Shank Well with bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-S1-R L1601PC-S1-R	23/4"	N1,3,7,14
<u></u>	Short Shank Well without bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-S2 L1601PC-S2	23/4"	N3,7,14
	Short Shank Well without bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-S2-R L1601PC-S2-R	23/4"	N1,3,7,14
	Long Shank Well with bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-T1 L1601PC-T1	91/4"	N3,7,14
<u></u>	Long Shank Well with bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-T1-R L1601PC-T1-R	91/4"	N1,3,7,14
	Long Shank Well without bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-T2 L1601PC-T2	91/4"	N3,7,14
	Long Shank Well without bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-T2-R L1601PC-T2-R	91/4"	N1,3,7,14
	Epoxy Flange Well Epoxy Flange Well with replaceable well stud	15/25kV 15/25kV	K1601PCC K1601PCC-R	23/4"	N3,7,14 N1,3,7,14
	Well w/Insert (K1601PCC-R & 1601A4) Well w/Insert (K1601PCC-R & 2701A4)	15kV 25kV	1601CABA4R 2701CABA4R	23/4"	N1,3,8,14 N1,3,9,14
	200 A Deadbreak Bushing 200 A Deadbreak Bushing 200 A Deadbreak Bushing	15/25kV 15/25kV 15/25kV	K180S4 K180T4 K180C4	2 <sup>9</sup> / <sub>16</sub> " 7 <sup>11</sup> / <sub>32</sub> " 9 <sup>1</sup> / <sub>4</sub> "	N3,10,13
	600 A Short Shank Bushing w/stud 600 A Short Shank Bushing w.o./stud 600 A Short Shank Bushing w.o./stud 600 A Cu Short Shank Bushing w.o./stud	15/25kV 15/25kV 35kV 15/25kV	K600S1 K650S1 750S1 K675S1	2 <sup>15</sup> / <sub>16</sub> "	N2,4,11,14 N2,5,11,14 N2,5,12,14 N3,5,11,14
	600 A Long Shank Bushing w/stud 600 A Long Shank Bushing w.o./stud 600 A Cu Long Shank Bushing w.o./stud 600 A 12" Long Shank Bushing w/stud 600 A Long Shank Bushing w.o./stud 600 A 12" Long Shank Bushing w.o./stud	15/25kV 15/25kV 15/25kV 15/25kV 35kV 35kV	K600T1 K650T1 K675T1 K600L12 750T1 750L12	8 <sup>9</sup> / <sub>16</sub> " 8 <sup>9</sup> / <sub>16</sub> " 8 <sup>9</sup> / <sub>16</sub> " 12" 8 <sup>9</sup> / <sub>16</sub> "	N2,4,11,14 N2,5,11,14 N3,5,11,14 N2,4,11,14 N2,5,12,14 N2,5,12,14
	600 A In-Air Long Shank Bushing w/stud 600 A Cu In-Air Long Shank Bush. w/stud Boot & Collars for K600T1 to use in air	15/25kV 15/25kV 15/25kV	K600TBC K675TBC 600BC	8 <sup>9</sup> / <sub>16</sub> "	N2,4,11,6,14 N3,5,11,6,14 N6

- N1. Replacement stud available separately. Specify 1601RS.
- N2. Equipped with standard aluminum conductor rod.
- N3. Equipped with copper conductor rod.
- N4. Includes 5/8-11 threaded stud at elbow end.
- N5. Includes 5/8-11 threaded hole at elbow end.
- N6. Provides increased creep and strike.
- N7. Includes 1601PPC1 shipping cap.
- N8. Includes 1601APC1 shipping cap.

- N9. Includes 2701-41 shipping cap.
- N10. Includes 180PPC shipping cap.
- N11. Includes 650PPC shipping cap.
- N12. Includes 750PPC1 shipping cap.
- N13. Parking stands for 200A deadbreak applications are available as separate items. Specify 151PS.
- N14. Parking stands for 200A loadbreak and 600A deadbreak applications are available as separate items. Specify 160PS.

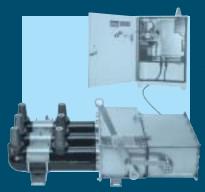




MVS Molded Vacuum Switches



MCAN Molded Fuse Canister



MVS -UAD Underground Automated Distribution Controller



MCLF
Molded Current Limiting



MVI
Molded Vacuum Fault
Interrupters



FLR 15kV Fused Loadbreak Elbow



MPJ
Molded Multi-Point
Junctions



Voltage and Faulted Circuit Indicators

Information for product lines shown above is available by contacting your Elastimold Sales Representative.





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In Canada: Thomas & Betts Ltd. 700 Thomas Avenue Iberville, QC, Canada, J2X 2M9 (450) 347-5318 Facsimile (450) 347-1978

# ELASTIMOLD®

CATALOG SP2
Issue Date: 03/2003



**CABLE JOINTS** 

**TERMINATIONS** 

**SURGE ARRESTERS** 

**FUSES** 

**LOADBREAK SWITCHES** 

**FAULT INTERRUPTERS** 

For 5kV-35kV Distribution Systems











# ELASTIMOLD System Planning Guide











### INTRODUCTION

Catalog SP2 provides an easy-to-use, comprehensive listing of ELASTIMOLD products for 5kV thru 35kV underground power distribution systems. Included are separable elbow connectors, cable joints, terminations, surge arresters, fused elbows and other cable accessory components. The catalog incorporates information relative to product application, ratings and selection.

ELASTIMOLD is recognized as the leading producer of premolded cable accessory components worldwide. Utilizing specially formulated materials with 100% peroxide-cured insulation and shielding, Elastimold products represent the state-of-the-art in premolded process technology. Durable, quality construction and non-degrading, high-reliability, maintenance-free performance is assured when specifying ELASTIMOLD products.

ELASTIMOLD's broad line of premolded products offer significant advantages over field-fabricated and other alternatives, including: 100% factory assurance testing prior to delivery and installation; simplified, single-piece construction with built-in insulating, shielding and sealing surfaces; ease of installation with no special skills or tools required; and compact, lightweight, durable designs for easy handling and application.

**Separable Elbow Connectors** and their related accessories are available in 200 Amp loadbreak, 200 Amp deadbreak and 600 Amp deadbreak styles. Rated for padmount, subsurface, vault, indoor, outdoor and other applications, units feature interchangeable interfaces which can be easily engaged or separated to provide a convenient method to connect or disconnect cable and equipment to the distribution system.

**Cable Joints** are available in permanently crimped or bolted (separable) connector styles. Permanently crimped units are rated the same as the cable they are connecting and are available for all applications including direct buried.

**Cable Terminations** are available in single-piece or modular designs. Rated for indoor, outdoor or padmount applications, units allow connection and transition from shielded underground cables to bare overhead conductors and live-front equipment.

**Surge Arresters** are constructed using metal oxide blocks for overvoltage protection and 200 Amp separable connector interfaces for attachment to other ELASTIMOLD accessories.

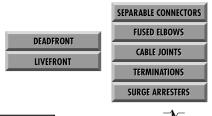
**Fused Elbows** combine replaceable current-limiting fuses for overcurrent protection and 200 Amp separable connector interfaces for attachment to other ELASTIMOLD accessories.

Loadbreak Switches, Current Limiting Fuses, Fault Interrupters, Junctions, Faulted Circuit Indicators, Secondary Underground and Transmission Products are shown on the back cover. For additional catalog information on these product lines, please contact your ELASTIMOLD Sales Representative.

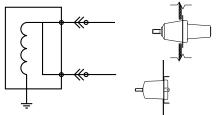
**Elastimold Special Component Services Group** provides custom products tailored to specific application requirements. Please contact the factory for further information regarding this service.

### COMPONENT APPLICATION AND SELECTION

Catalog SP2 includes component group schematics, part numbers and standard ratings of ELASTIMOLD products for application on underground power distribution systems utilizing solid dielectric cable. Go directly to the product section in the table of contents or follow the decision path outlined below for component selection and application.



 Determine if the application involves **Deadfront** (shielded) or **Livefront** (unshielded) connections. Terminations are air insulated and classified as Livefront.



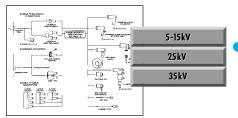
- Determine if the application requires Separable Connectors, Fused Elbows, Cable Joints, Terminations or Surge Arresters.
- If Separable Connectors are involved, determine the required current class:
   200 Amp, 600 Amp or 900 Amp. This decision is based on the conductor size, loading, and system short circuit currents. The selected connector must be compatible with the mating interface on any equipment.

200 AMP LOADBREAK

200 AMP DEADBREAK

600 SERIES DEADBREAK

200 Amp connectors are available in Loadbreak and Deadbreak styles.
 Determine which style is required. 600 Series Connectors are Deadbreak only and Fused Elbows are Loadbreak only.



Determine the part number related to the specific **Voltage Class** by utilizing the schematic layouts and product tables.



 If the component mates with cable, determine the cable insulation diameter, conductor size, type of cable shield and if jacket sealing is required.

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## **CERTIFIED TESTS AND PERFORMANCE**

Elastimold Separable Connectors, Cable Joints, Cable Terminators, Surge Arresters, Fused Elbows and other cable accessory products have been designed and tested per applicable portions of IEEE, ANSI, NEMA and other industry standards including:

- IEEE 386™ Standard For Separable Connectors
- IEEE 404™ Standard For Cable Joints and Splices
- IEEE 48™ Standard For Cable Terminations

- IEEE C62.11™ Standard For Metal Oxide Surge Arresters
- ANSI C37.41 Standard For Current Limiting Fuses
- IEEE 592™ Standard For Exposed Semiconducting Shields
- ANSI C119.4 Standard For Copper and Aluminum Conductor Connectors
- AEIC CS6 and CS8 Standards For XLP and EPR Insulated Cables

### **CABLE JOINTS, TERMINATIONS AND ARRESTER RATINGS**

Refer to the pages listed below for rating information:

- PCJ Cable Joints, page 20.
- Cable Terminations, page 22

• Surge Arresters, page 26.

### SEPARABLE CONNECTOR RATINGS

Table 1 shows voltage and current ratings which apply to all Separable Connectors including 200 AMP Loadbreak, 200 AMP Deadbreak and 600 Series Deadbreak products. Table 2 shows switching and fault close ratings which only apply to 200 AMP Loadbreak Connectors.

TABLE 1	15kV Class Ratings	25kV Class Ratings	35kV Class Ratings
OPERATING VOLTAGE     Maximum line-to-ground     (See Application Info Note 1)	8.3kV	15.2kV	21.1kV
BIL Impulse withstand 1.2 x 50 microsecond wave	95kV	125kV	150kV
WITHSTAND VOLTAGE     AC One Minute     DC Fifteen Minute	34kV 53kV	40kV 78kV	50kV 103kV
CORONA EXTINCTION LEVEL @ 3pC Sensitivity	11kV	19kV	26kV
200 AMP Products Continuous Current: Symmetrical Momentary Current:		200 AMP* 10kA sym, 10 cycle duration	n
600 Series Products Continuous Current: Symmetrical Momentary Current:	600 and 900 AMP* 25kA sym, 10 cycle duration		
	* Designed for 90° C max	imum continuous operating to	emperature

TABLE 2	LOADMAKE/LOADBREAK SWITCHING	FAULT CLOSE
15kV Class Ratings	<ul> <li>1ø and 3ø circuits 8.3kV line to ground, 14.4kV max. across open contacts.</li> <li>10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor.</li> </ul>	1 fault close operation at 8.3kV or 14.4kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)
25kV Class Ratings	1ø and 3ø circuits 15.2kV line to ground, 26.3kV max. across open contacts.     10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor.	1 fault close operation at 15.2kV or 26.3kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)
35kV Class Ratings	1ø and 3ø circuits 21.1kV line to ground, 36.6kV max. across open contacts.     10 loadmake/break operations at 200 Amps max. with 70 to 80% lagging power factor.	1 fault close operation at 21.1kV or 36.6kV; 10,000 Amps, rms, sym. 10 cycles (0.17 sec.) 1.3 max. asym factor applies to new or used mating parts (up to maximum designated switching operations.)

#### **Application Information:**

- 1. Loadbreak connectors are designed and rated for use on grounded WYE systems. For application on ungrounded WYE or delta systems, the next higher voltage class product is recommended. Examples: 5kV ungrounded: use 15kV class products; 15kV ungrounded: use 25kV class products; 25kV ungrounded: use 35kV class products; 35kV ungrounded: contact factory.
- 2. Products are designed and constructed for all applications including padmount, subsurface, vault, indoor, outdoor, direct sunlight, direct buried and continuously submerged in water.
- 3. Products are designed and rated for ambient temperatures of -40° C to +65° C. It is recommended that loadbreak connectors be hotstick operated at -20° C to +65° C ambient temperature range and at altitudes not exceeding 6000 feet.

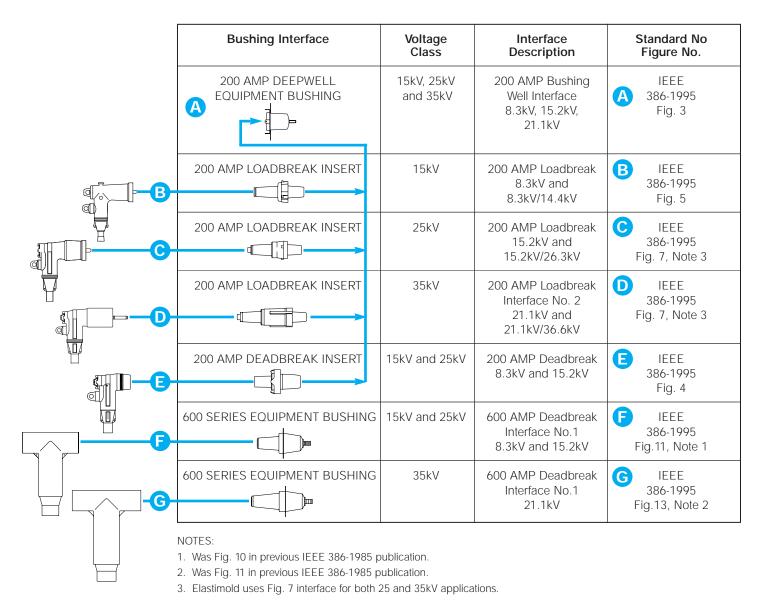


## SEPARABLE CONNECTOR INTERFACES

# STANDARD INTERFACES FOR SEPARABLE CONNECTORS, COMPONENTS AND EQUIPMENT BUSHINGS

ANSI/IEEE Standard 386 defines the specific interface dimensions that 200 Amp and 600 Series elbows, inserts, junctions, equipment bushings and any mating components must conform to insure interchangeability. The table

below provides information concerning the types of interfaces supplied by Elastimold for various applications and is useful to assure proper matching of components.





# SEPARABLE CONNECTORS 200 AMP LOADBREAK

200 Amp loadbreak connectors and accessories provide a convenient method to connect/disconnect cable and equipment on power distribution systems. Loadbreak elbows include provisions for energized operation using standard hotstick tools, allowing loadmake/break operation and a visible disconnect. Components can be isolated with insulated caps, plugs and parking bushings.

Optional accessories allow system grounding, testing, bypass, lightning surge protection and current limiting fusing. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



### **RATINGS OVERVIEW**

See page 2 for complete information including switching and fault close ratings.

### **CURRENT RATINGS**

200A Continuous 10kA sym. 10 Cycles

### VOLTAGE RATINGS 15kV Class

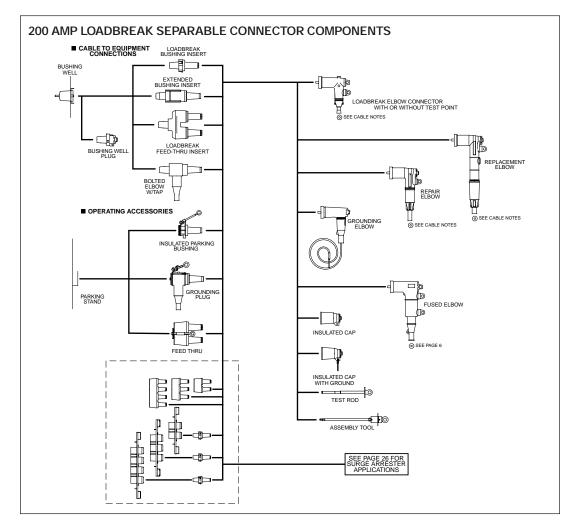
8.3kV Phase-to-Ground 14.4kV Phase-to-Phase 95kV BIL 34kV AC Withstand 53kV DC Withstand 11kV Corona Extinction

#### 25kV Class

15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL 40kV AC Withstand 78kV DC Withstand 19kV Corona Extinction

### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



DEADFRONT

SEPARABLE CONNECTORS **FUSED ELBOWS** 

200 AMP LOADBREAK

5-15kV 25kV 35kV

PART #



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

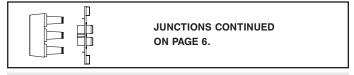
#### 200 AMP LOADBREAK

200 AMP LO	l			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Elbow	15kV	165LR-WX	N2,3,4,5
	Connector	25kV	Use Tables W1 and X1  273LR-WX	N2,3,4,5
, A		35kV	Use Tables W2 and X1 375LR-WX Use Tables W3 and X2	N2,3, 5
	Elbow	15kV	166LR-WX	N2,3,4,5
	Connector w/ Test Point	25kV	Use Tables W1 and X1 274LR-WX	N2,3,4,5
		35kV	Use Tables W2 and X1 376LR-WX Use Tables W3 and X2	N2,3, 5
	Jacket Seal	15kV	165LRJS-WX	N2,19
	Elbow Connector		Use Table W1 (B&C sizes only) and	
H	Jacket Seal	15kV	Table X1	N2,19
	Elbow	1360	Use Tables W1 (B&C	112,13
	Connector w/ Test Point		sizes only) and Table X1	
	Repair Elbow	15kV	167ELR-WX	N5,10,18
	Connector	25kV	Use Tables W5 and X1 273ELR-WX Use Tables W5 and X1	N5,10,18
	Repair Elbow	15kV	168ELR-WX	N5,10,18
	Connector w/ Test Point	25kV	Use Tables W5 and X1 274ELR-WX Use Tables W5 and X1	N5,10,18
_1	Replacement	15kV	167RLR-WX	N5,11,13
	Elbow	25kV	Use Tables W4 and X1 273RLR-WX	N5,11,13
	Replacement	15kV	Use Tables W2 and X1 168RLR-WX	N5,11,13
No.	Elbow w/ Test Point	25kV	Use Tables W4 and X1 274RLR-WX	N5,11,13
	Fused Elbow	15kV	Use Tables W2 and X1 166FLR-WX	N5,15
	(General Purpose Current Limiting)		Use W and X Tables on Page 6	
	Bolted Elbow	15kV	167LRT-WX	N17
	w/ Tap		Use Tables W4 and X1	
	Bushing Insert	15kV	1601A4	N4,8
		25kV 35kV	2701A4 3701A4	N4,8 N6
		35kV	3701A3	N8
	Extended Bushing Insert	15kV 25kV	1601EA4 2701EA4	N8 N8
	Feed-Thru	15kV	1602A3R	N16
	Insert	25kV 35kV	2702A1 3702A1	N16 N6,16
	Insulated Cap	15kV	160DR	N9
	Insulated Cap	15kV	160DRG	N9
	w/ Ground	15kV 25kV	167DRG 273DRG	N7, 9 N7, 9
ľ		35kV	375DRG	N7, 9
	Insulated Cap w/ Ground and Test Point	15kV 25kV 35kV	168DRG 274DRG 376DRG	N7 N7 N7
<b>2</b>	Grounding	15kV	161GP	
	Plug (1/0 AWG x 6' Ground Lead)	25kV	272GP	
₩	Grounding	15kV	160GLR	
	Elbow (1/0 AWG x 6'	25/35kV	370GLR	N12
-	Ground Lead)			

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Feed-Thru	15kV 25kV 35kV	164FT 274FT 373FT	
	Feed-Thru Vertical	15kV 25kV 35kV	164FTV 274FTV 373FTV	
	Feed-Thru Well	15/25kV	K1601WFT	
	Feed-Thru Well Vertical	15/25kV	K1601WFTV	
	Insulated Parking Bushing	15kV 25kV 35kV	161SOP 272SOP 372SOP	
	Test Rod	ALL	370TR	
	Bushing Well Plug	15/25kV 35kV	276BWP M276BWP	
	Assembly Tool	ALL	200AT	N8
	Contacts: Long Bi-Metal ELR Bi-Metal Copper LRT Contact RLR Contact	ALL 15/25kV ALL 15kV 15/25kV	Use Table X1 02500X 02509X 02702X 02800X 00400X	N10 N1 N11
<b>©</b>	Elbow Probe	15kV 25kV 35kV	166LRF 274LRF 376LRF	
	Elbow Cable Entrance Insulating Plug	ALL	10EP-W Use Table W6	
	Cable Size Adapter	15kV	160CA-W Use Table W6 EB-FA Only	N14
N1. Copper luc	g for use on COPPE	R CONDUC	CTOR ONLY.	

- N1. Copper lug for use on COPPER CONDUCTOR ONLY.N2. Incudes 02500X long bi-metal compression lug as standard.
- N2. Includes 02500X long bi-frietal compressioning as standard.
  N3. Also available as housing only. Specify: 165BLR-W; 273BLR-W; 375BLR-W; 166BLR-W; 274BLR-W; 376BLR-W.
  N4. Also available as elbow/insert combination. Specify: 165A4-WX; 273A4-WX; 166A4-WX; 274A4-WX.
- N5. Also available with 200ECS jacket seal included. Add "S" suffix to part number.
- N6. Rated for single-phase applications only.
- N7. Equipped with insulated cuff.
- N8. Includes internal torquing feature using 200AT Assembly Tool. N9. Also available without probe. Specify "A" suffix Example: 273DRGA.
- N10. Repair elbow has extended length contact and elbow housing resulting in a net gain of 3-1/4" in length.
- N11. Replacement elbow has extended length contact and elbow housing resulting in a net gain of 9-7/8" in length.
- N12. Rated for 25kV thru 35kV applications.
- N13. Includes long bi-metal contact 00400X.
- N14. 160CA Cable Size Adapter can only be used with elbow part numbers 165LR/166LR C size only.
  N15. See page 6 for WX size tables and for fuse sizes.
- N16. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru
- insert to bushing well.

  N17. Incudes 02800X long bi-metal contact.
- N18. Incudes 02509X long bi-metal contact.
- Includes built-in jacket seal. Also available as housing only—specify: 165BLRJS-W or 166BLRJS-W. Also available as elbow/insert combination specify: 165JSA4-WX or 166JSA4-WX.



Refer to the W and X tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

### **RATINGS OVERVIEW**

See page 2 for complete information including switching and fault close ratings.

#### **CURRENT RATINGS**

200A Continuous 10kA sym. 10 Cycles

### VOLTAGE RATINGS 15kV Class

8.3kV Phase-to-Ground 14.4kV Phase-to-Phase 95kV BIL

34kV AC Withstand 53kV DC Withstand 11kV Corona Extinction

### 25kV Class

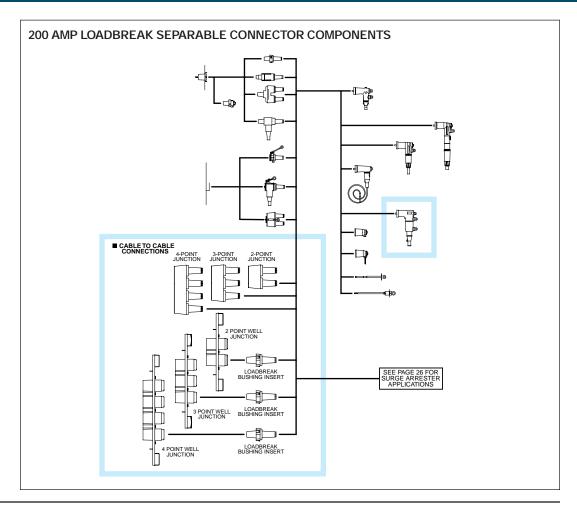
15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL 40kV AC Withstand

78kV DC Withstand

19kV Corona Extinction

### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



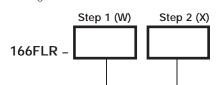
### **FUSED ELBOW ORDERING INSTRUCTIONS**

### Step 1 (W)

Determine the insulation diameter of the cable. Select the insulation letter code that best straddles the insulation diameter. Insert code into catalog number.

### Step 2 (X)

Choose the proper connector code according to the conductor size. Insert code into the catalog number after the insulation code.



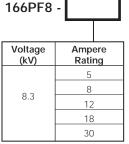
Cable Insulation Diameter Range Inches	Symbol For W
.610735	FAB
.675785	FB
.725835	FG
.775885	GA
.825935	GAB

Conductor Size*	Symbol For X		
(AWG)	Stranded/ Compr.	Solid/ Compact	
2	0220	0210	
1	0230	0220	
1/0	0240	0230	
2/0	0250	0240	
3/0	_	0250	

<sup>\*</sup>Cu or Al Conductor

## ORDERING INSTRUCTIONS FOR FUSE KIT (to be ordered separately)

Determine the ampere rating required. Insert rating into the catalog number below.



For solid link, specify 166 PF8-BUSS

### The Fused Elbow kit contains the following:

- 1 Upper elbow half
- 1 Lower elbow half
- 1 Upper connector
- 1 Lower connector
- 1 Probe
- 1 Torque-limiting wrench
- 1 Lubricant
- 1 Instruction sheet

## The Fuse Kit includes the following:

- 1 Current limiting fuse
- 1 Allen wrench
- 1 Air vent rod
- 1 Instruction sheet

## To order replacement parts, specify the following:

- For an upper elbow half, specify 166BFLR-T
- For a lower elbow half, specify 166BFLR-W
- For an upper connector, specify 166-88
- For a lower connector, specify 02600X
- For a probe, specify 166LRF

### 200 AMP LOADBREAK

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	2-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ2	N2
	2-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ2-5	N1, N2
	3-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ3	N2
<b>1</b>	3-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ3-5	N1, N2
	4-Way Well Junction w/ s.s. Bracket	15/25kV	K1601WJ4	N2
	4-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ4-5	N1, N2
	2-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J2 274J2 373J2	N3 N3 N3
	2-Point Junction w/"U"-straps	15kV 25kV 35kV	164J2-5 274J2-5 373J2-5	N1 N1 N1
	3-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J3 274J3 373J3	N3 N3 N3
	3-Point Junction w/"U"-straps	15kV 25kV 35kV	164J3-5 274J3-5 373J3-5	N1 N1 N1
	4-Point Junction with/stainless steel bracket	15kV 25kV 35kV	164J4 274J4 373J4	N3 N3 N3
	4-Point Junction w/"U"-straps	15kV 25kV 35kV	164J4-5 274J4-5 373J4-5	N1 N1 N1

- N1. Also available without straps. Specify suffix "-4" in place of "-5" in the part number.
- N2. Supplied with replaceable stud. Replacement stud available separately. Specify 1601RS.
- N3. Hardware packages, consisting of brackets & straps only, may be ordered separately by specifying "-6" in the part number.



# SEPARABLE CONNECTORS 200 AMP DEADBREAK

200 Amp deadbreak connectors and accessories provide a quick disconnect feature for cable and equipment connections on power distribution systems. All deadbreak connectors must be DE-ENERGIZED before operating and must be mechanically secured with bails when connected. Components can be isolated with insulated caps, plugs and parking bushings.

All deadbreak elbows are equipped with test points as standard. Optional accessories allow system grounding, bypass and lightning surge protection. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



### **RATINGS OVERVIEW**

See page 2 for complete information.

### **CURRENT RATINGS**

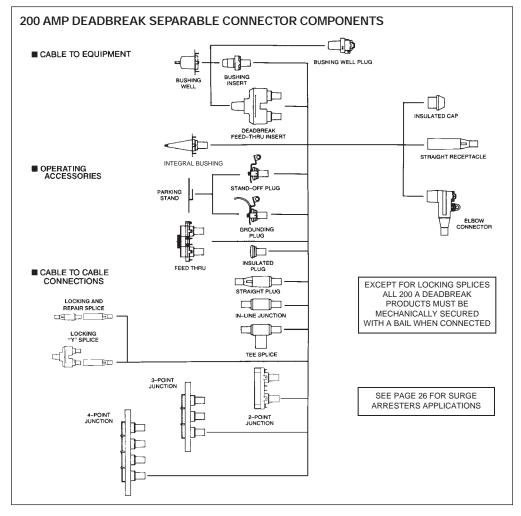
200A Continuous 10kA sym. 10 Cycles

### VOLTAGE RATINGS 15kV Class

8.3kV Phase-to-Ground 14.4kV Phase-to-Phase 95kV BIL 34kV AC Withstand 53kV DC Withstand 11kV Corona Extinction

### 25kV Class

15.2kV Phase-to-Ground 26.3kV Phase-to-Phase 125kV BIL 40kV AC Withstand 78kV DC Withstand 19kV Corona Extinction





Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

### 200 AMP DEADBREAK

	ADBREAK			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Elbow Connector w/ Test Point	15/25kV	156LR-WX Use Tables W4 and X1	N1,2
	Bail Assembly for 156LR Elbow	15/25kV	150BA	
	Bushing Insert	15/25kV	K1501A1	N3
	Feed-thru Insert	15/25kV	K1502A1	N3,4
	Insulated Plug	15/25kV	K150DP	N3
	Insulated Cap	15/25kV	K150DR	N3
	Insulated Parking Bushing	15/25kV	K151SOP	N3
	Grounding Plug	15/25kV	151GP	N3
	Feed-Thru	15/25kV	K1501FT	N3,6
	2-Point Junction	15/25kV	K1501J2-U	N3,6
	3-Point Junction	15/25kV	K1501J3-U	N3,6,7
	4-Point Junction	15/25kV	K1501J4-U	N3,6,7
	Elbow Probe	15/25kV	156LRF	
	Straight Receptacle	15/25kV	K151SR-WX Use Tables W1 and X5	N3,12, 13,17
	Straight Plug	15/25kV	K151SP-WX Use Tables W1 and X5	N3,12,13
	Tee Splice	15/25kV	K150T	N3
	In-Line Junction	15/25kV	K150S	N3
	Locking Splice/ Repair Splice	15/25kV	K151LS-WX Use Tables W1 and X8	N8,9,13, 15,16,17
	Locking "Y" Splice	15/25kV	K151LY-WX Use Tables W1 and X8	N8,9,13, 15,17
	BAIL	15/25kV	150TB1	N5
	BAIL	15/25kV	150TB2	N5
	BAIL	15/25kV	150TB3	N5

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	BAIL	15/25kV	150TB4	N5
	BAIL	15/25kV	150TB5	N5
	Contacts: Long Bi-Metal Copper	15/25kV 15/25kV	02500X 02702X	N7
	Elbow Cable Entrance Insulating Plug	15/25kV	10EP-W Use Table W6	N10
	Cable Entrance Insulating Plug	15/25kV	152EA-W Use Table W6	N11
	Cable Size Adapter	15/25KV	160CA-W Use Table W6 EB-FA Only	N14

- N1. Includes bail assembly.
- N2. Includes 02500X long, bi-metal compression lug as standard.
- N3. Bails are required but not included. Order separately. Consult factory for bails not listed for a specific application.
- N4. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru insert to bushing well.
- N5. Refer to general catalog for application details.
- N6. Center-to-center spacing equals 4 inches.
- N7. Copper lug for copper cable only.
- N8. To order cable legs for different cable sizes, list each leg size "W" and "X". Example: K151LY-A240-A240-B220. See Tables W1 and X8 for sizes.
- N9. To order locking contacts for K151LS and K151LY, order 01401X (Al) or 01402X (Cu) for plug contact. Order 01301X (Al) or 01302X (Cu) for receptacle. See Table X8 for sizes.
- N10. For use with 156LR elbows
- N11. For use with K151SR, K151SP, K151LS, K151LY receptacles, plugs and splices.
- N12. Also available as housing only. Specify K151SPH-W or K151SRH-W.
- N13. Also available in EB-FA sizes per table W6 by using 160CA cable adapter with C size plugs & receptacles.
- N14. 160CA cable adapter can only be used with C size plugs & receptacles.
- N15. Bails are not required for locking splices.
- N16. When used as a repair splice, the assembled length allows 4" for cable-replacement/repair.
- N17. Straight receptacles are also available with test point. Specify K152 part number.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



### SEPARABLE CONNECTORS

## **600 SERIES DEADBREAK**

600 Series deadbreak elbows, straight receptacles, junctions, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

DE-ENERGIZED connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, by-pass, isolation, deadending, grounding, and testing as well as adding taps, surge arresters and circuit protection.

Hot-stick operable and separable joint systems are shown on pages 14 thru 19.



### **RATINGS OVERVIEW**

See page 2 for complete information.

#### **CURRENT RATINGS**

(Prefixes: 650, K650, K655, K656, 750, 755, 756 & 03700)

600 Amp Continuous 25kA sym., 10 cycles

(Prefixes 675, K675, K676, 775, 776 & 03702)

900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

### VOLTAGE RATINGS 15/25kV Class (5kV thru 28kV)

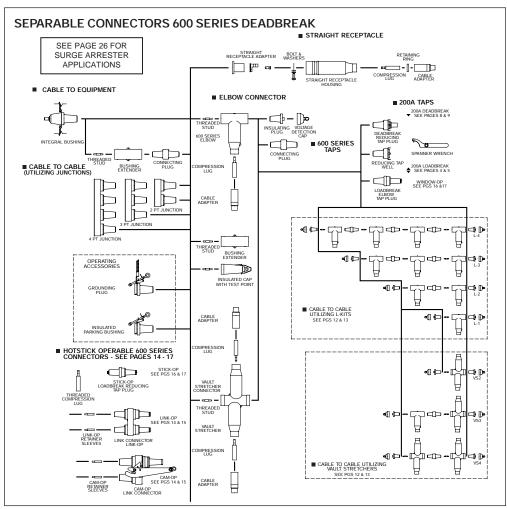
16.2kV Phase-to-Ground 28kV Phase-to Phase 140kV BIL 45kV AC Withstand 84kV DC Withstand

21.5kV Corona Extinction

### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

#### **600 SERIES DEADBREAK**

DUU SEKIES	DEADBREAK			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	600 Series Elbow (w/ Insul. Plug,	15/25kV	K655LR-W0X Use Tables W7 and X6	N1,2
	Cap, Stud, Lug & Cable Adapter)	35kV	755LR-W0X Use Tables W9 and X6	N1,2
	600 Series Elbow w/ Test Point	15/25kV	K656LR-W0X Use Tables W7 and X6	N1,2
	(w/ Insul. Plug, Cap, Stud, Lug & Cable Adapter)	35kV	756LR-WOX Use Tables W9 and X6	N1,2
	600 Series Elbow Housing only (w/ Stud)	15/25kV 35kV	K655BLR 755BLR	N1,3 N1,3
A A	600 Series Elbow	15/25kV	K656BLR	N1,3
	w/ Test Point (Housing only w/ Stud)	35kV	756BLR	N1,3
	600 Series Straight Receptacle (w/Cable Adapter, Lug & Retaining Ring)		K655SR-W0X Use Tables W7 and X6	N1,2,12
	600 Series Straight Receptacle Housing (Lug & Cable Adapter not included)		K655BSR	N1,12
	Straight Receptacle Adapter	15/25kV	K650SRA	N1,4
	600 Series Vault Stretcher	15/25kV	K655BVS	N1,9
	(Housing only w/ Stud)	35kV	755BVS	N1,9
	Cable Size Adapter	15/25kV 35kV	655CA-W Use Table W7 755CA-W Use Table W9	
_	Compression Lug	ALL	03700X Use Table X6	N5
	239	ALL	03702X Use Table X6	N6
	600 Series Elbow & Vault Stretcher Size Sensitive Kit	15/25kV	655CK-W0X Use Tables W7 and X6	N2
	(Cable Adapter & Lug)	35kV	755CK-W0X Use Tables W9 and X6	N2
	Adapter Retaining Ring	ALL	650ARR-X Use Table X6	
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV	655CK-W0X-ARR Use Tables W7 and X6	N2
	Bushing Extender (w/ Stud)	15/25kV 35kV	K655BE 755BE	N1,3 N1,3
	Insulated Cap w/ Test Point (w/ Stud)	15/25kV	K656DR	N3,7
	Insulating Plug (w/ Cap)	15/25kV 35kV	K650BIP 750BIP	N1,7,8 N1,7,8
	Grounding Plug (Ground Lead 2/0 AWG x 30")	15/25kV 35kV	650GP 750GP	N1,7,8 N1,7,8
	Insulated Parking Bushing	15/25kV 35kV	K650SOP 750SOP	N7,8 N7,8
	Connecting Plug	15/25kV 35kV	K650CP 750CP	N1,7,8,9 N1,7,8
	<u> </u>			

Illustration	Description	Voltage	ELASTIMOLD	Notes
(not to scale)		Class	Part Number	
	Deadbreak Reducing Tap Plug	15/25kV	K650RTP	N1,7,8,9
	Reducing Tap Well	15/25kV	K650RTW	N1,7,8,9
	Loadbreak Elbow Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N1,7,8,10,13 N1,7,8,10,13 N1,7,8,10,13
	Vault Stretcher Threaded Stud	15/25kV 35kV	650VSA 750VSA	N1 N1
	600 Series Elbow Threaded Stud	15/25kV 35kV	650SA 750SA	N1 N1
	Assembly Tool	ALL	600AT	N10
<b>No.</b>	Spanner Wrench	ALL	600SW	N9
	2-Point Junction	15/25kV 35kV	K650J2 750J2	N1,11 N1,11
	3-Point Junction	15/25kV 35kV	K650J3 750J3	N1,11 N1,11
מממם	4-Point Junction	15/25kV 35kV	K650J4 750J4	N1,11 N1,11

- N1. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N3. Available without the stud by adding "N" to the part number.
- N4. Straight Receptacle Adapter is used to connect Straight Receptacles K655YBSR and K655YSR-W0X (Pg.14) to equipment bushings.
- N5. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N6. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute threaded 03602X lug.
- N7. Available with the stud factory-assembled by adding "SP" to the part number.
- N8. Available with a loose stud by adding suffix "S" to the part number.
- N9. 600SW spanner wrench is recommended for installation of connecting plugs, deadbreak reducing tap plugs and reducing tap wells..
- N10. 600AT assembly tool is required for installation of loadbreak reducing tap plugs
- N11. Rubber junction with stainless steel mounting plate and back plate.

  Add "-U" for rubber junction with stainless steel mounting plate, back plate and adjustable bracket.

Add "-4" for rubber junction only.

- Add "-5" for rubber junction, stainless steel U-straps and back plate.
- N12. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N13. See page 17 for Window-Op Connector Kit.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



### SEPARABLE CONNECTORS

# 600 SERIES DEADBREAK Cont'd from Pg. 11

600 Series deadbreak elbows, straight receptacles, junctions, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

DE-ENERGIZED connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, by-pass, isolation, deadending, grounding, and testing as well as adding taps, surge arresters and circuit protection.

Hot-stick operable and separable joint systems are shown on pages 14 thru 19.



### **RATINGS OVERVIEW**

See page 2 for complete information.

### **CURRENT RATINGS**

(Prefixes: 650, K650, K655, K656, 750, 755, 756 & 03700)

600 Amp Continuous 25kA sym., 10 cycles

## (Prefixes 675, K675, K676, 775, 776 & 03702)

900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

### VOLTAGE RATINGS 15/25kV Class (5kV thru 28kV)

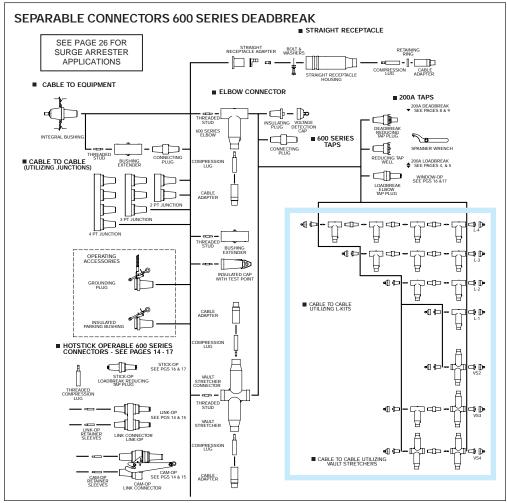
16.2kV Phase-to-Ground 28kV Phase-to Phase 140kV BIL 45kV AC Withstand

84kV DC Withstand 21.5kV Corona Extinction

#### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.











Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

### **600 SERIES DEADBREAK**

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	1-way	15/25kV	K655L1	N1,2,3,4
	L-Kit	35kV	755L1	N1,2,3,4
	2-way	15/25kV	K655L2	N1,2,3,4
	L-Kit	35kV	755L2	N1,2,3,4
	2-way	15/25kV	K655VSL2	N1,2,3
	VS-Kit	35kV	755VSL2	N1,2,3
	3-way	15/25kV	K655L3	N1,2,3,4
	L-Kit	35kV	755L3	N1,2,3,4
	3-Way	15/25kV	K655VSL3	N1,2,3
	VS Kit	35kV	755VSL3	N1,2,3
	4-Way	15/25kV	K655L4	N1,2,3,4
	L-Kit	35kV	755L4	N1,2,3,4
	4-Way	15/25kV	K655VSL4	N1,2,3
	VS-Kit	35kV	755VSL4	N1,2,3
	Spanner Wrench	ALL	600SW	N2



Provides an alternate method of splicing and joining various types and styles of cables using standard 600 Series components.

- N1. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. 600SW spanner wrench is recommended for installation of connecting plugs, deadbreak reducing tap plugs and reducing tap wells.
- N3. L-Kits and VS-Kits do not include cable adapters or compression lugs. These items must be ordered separately.
- N4. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## SEPARABLE CONNECTORS CAM-OP, LINK-OP

## **600 SERIES DEADBREAK**

Elastimold's 600 Series Cam-Op™, and Link-Op™ deadbreak connector systems incorporate provisions for hotstick operation of DE-ENERGIZED primary feeder or network circuits. Configurations allow external visible break, testing, grounding and isolation. Retrofit kits allow upgrading existing equipment.

Cam-Op systems utilize pin and socket connectors. Link-Op connectors are bolted and installed using torque controlled tools. Either system can be retrofitted to existing equipment.

The Cam-Op and Link-Op connectors are unique, allowing all hotstick operations to be completed without moving the cable, an important consideration when large, stiff cables prohibit movement.

The Cam-Op connector is easily installed or removed by hotstick operation of the cam action disconnect lever.



### **RATINGS OVERVIEW**

See page 2 for complete information

### **CURRENT RATINGS**

600 & 900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

### CONTINUOUS **VOLTAGE RATINGS**

### 15kV Class

14.4kV Phase-to Phase 95kV BIL 34kV AC Withstand 53kV DC Withstand

8.3kV Phase-to-Ground

11kV Corona Extinction

### 25kV Class

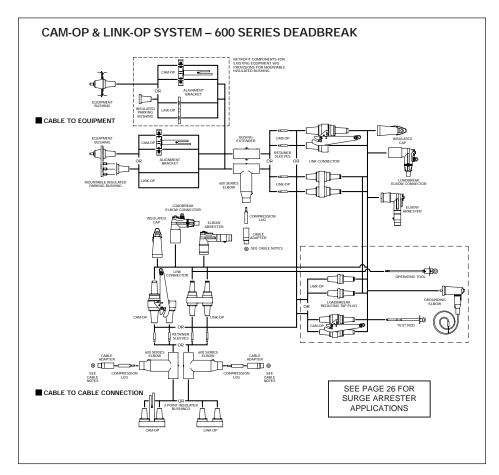
15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL 40kV AC Withstand

78kV DC Withstand

19kV Corona Extinction

### 35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL 50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



5-15kV 25kV 35kV

PART #



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

### CAM-OP™ & LINK-OP™

CAM-OP™ &	LINK-OF			
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	CAM-OP	15kV	655LINK-C-LR-W0X-B-DRG	N1,3,11,
	CONNECTOR KIT	25kV	Use Tables W7 and X6 K655LINK-C-LR-W0X-B-DRG	13,14,18 N1,3,11,
	NII NII	2360	Use Tables W7 and X6	13,14,18
		35kV	755LINK-C-LR-W0X-B-DRG	N1,3,11,
			Use Tables W9 and X6	13,14,18
	LINK-OP	15kV	655LINK-B-LR-W0X-B-DRG	N2,3,11,12
	CONNECTOR		Use Tables W7 and X6	13,14,18
	KIT	25kV	K655LINK-B-LR-W0X-B-DRG	N2,3,11,
		35kV	Use Tables W7 and X6 755LINK-B-LR-W0X-B-DRG	13,14,18 N2,3,11,
		OOKV	Use Tables W9 and X6	13,14,18
	Mountable	25kV	K650LBM-3	N3
	Insulated	35kV	750LBM-3	N3
	Bushing			
	RETROFIT	15kV	655LINK-C-LR-W0X-A-DRG	N5,11,13
	CAM-OP CONNECTOR	25kV	Use Tables W7 and X6 K655LINK-C-LR-W0X-A-DRG	14,18
	KIT	2360	Use Tables W7 and X6	N5,11,13 14,18
	TXI I	35kV	755LINK-C-LR-W0X-A-DRG	N5,11,13
			Use Tables W9 and X6	14,18
	RETROFIT	15kV	655LINK-B-LR-W0X-A-DRG	N6,11,12,
	LINK-OP	JEIN!	Use Tables W7 and X6	13,14,18
	CONNECTOR KIT	25kV	K655LINK-B-LR-W0X-A-DRG Use Tables W7 and X6	N6,11,12, 13,14,18
	INII	35kV	755LINK-B-LR-W0X-A-DRG	N6,11,12,
			Use Tables W9 and X6	13,14,18
	Insulating	25kV	K650LB	N4
سل	Plug	35kV	750LB	N4
<u> </u>	CAM-OP		650CAB	
	Alignment Bracket	25kV	K650CAB 750CAB	
AB ABV			650AB	NI1E
AB ABV	LINK-OP Alignment	ALL	650ABV	N15 N15
	Bracket (Retrofit	/ \LL	OSOABV	1113
	LINK-OP Only)			
	Compression	ALL	03700X	N7
	Lug		Use Table X6	N8
		ALL	03702X Use Table X6	
	CAM-OP &	15/25/\/	655CK-W0X	N13
	LINK-OP Size	13/23/(1	Use Tables W7 and X6	1113
	Sensitive Kit	35kV	755CK-W0X	N13
	(Cable Adapter		Use Tables W9 and X6	
	& Lug)			
	CAM-OP Re-	ALL	650RSC	N11
	taining Sleeve	٨١١	450DS	N111
	LINK-OP Retaining	ALL	650RS	N11
	Sleeve			
	CAM-OP	15kV	655BI-LINK-C-LR-WOX-DRG	N9,11,13
G G ♣	CABLE JOINT		Use Tables W7 and X6	14,18
	KIT	25kV	K655BI-LINK-C-LR-WOX-DRG	
		35kV	Use Tables W7 and X6 755BI-LINK-C-LR-WOX-DRG	14,18 N9,11,13
		JUNV	Use Tables W9 and X6	14,18
	LINK-OP	15kV	655BI-LINK-B-LR-WOX-DRG	N10,11,12,
	CABLE JOINT		Use Tables W7 and X6	13,14,18
	KIT	25kV		
		3561/	Use Tables W7 and X6 755BI-LINK-B-LR-WOX-DRG	13,14,18 N10,11,12,
		JUKV	Use Tables W9 and X6	13,14,18
	CAM-OP	15kV	650LK-C-VB	-
	Loadbreak		K650LK-C-VB	
, all	Reducing	35kV	750LK-C-VB	
	Tap Plugs (Visi-Break)			
	LINK-OP	151//	650LT-B	N11
	Loadbreak		K650LT-B	1 1 1 1
	Reducing	35kV		
	Tap Plug			

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25kV 35kV	160GLR 370GLR 370GLR	N19 N19
	Test Rod	ALL	370TR	
	Assembly Tool	ALL	600AT	N11
- F2	CAM-OP OPERATING KIT	15kV 25kV 35kV	650CAM-OK K650CAM-OK 750CAM-OK	N16 N16 N16
	LINK-OP OPERATING KIT	15kV 25kV 35kV	650LINK-OK K650LINK-OK 750LINK-OK	N17 N17 N17

- N1. Cam-Op connector kit includes: 1- Cam-Op link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 1- insulated cap; 1- mountable insulated bushing and 1- alignment bracket.
- N2. Link-Op connector kit includes: 1- Link-Op link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 2- insulated caps; and 1- mountable insulated bushing.
- N3. Mountable insulated bushing included with Cam-Op and Link-Op connector kit. Requires 3 threaded studs on equipment faceplate for installation.
- N4. Use with the Retrofit Cam-Op and Retrofit Link-Op connector kit.
- N5. Retrofit Cam-Op connector kit includes: 1- link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 1- insulated cap; 1- insulating plug; and 1- alignment bracket.
- N6. Retrofit Link-Op connector kit includes: 1- link; 1- elbow housing; 1-cable adapter; 1-0370 style lug; 1- bushing extender; 2- retainer sleeves; 2- insulated caps; 1- insulating plug; and 1- alignment bracket.
- N7. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N8. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N9. Cam-Op Cable Joint Kit includes: 1- Cam-Op link; 1- Cam-Op BI-SOP; 2elbow housings; 2- cable adapters; 2- 0370 style lugs; 2- retainer sleeves; 1- insulated cap.
- N10. Link-Op Cable Joint Kit includes: 1- Link-Op link; 1- Link-Op BI-SOP; 2elbow housings; 2- cable adapters; 2- 0370 style lugs; 2- retainer sleeves; 2- insulated caps.
- N11. 600AT assembly tool required for operation and/or installation.
- N12. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N13. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N14. To add elbows or arresters instead of insulating caps, replace the "DRG" with "LR-WX" for elbows (with test point) or "ESA" for elbow arresters.
- N15. The 650ABV is required when the bushing horizontal spacing on the equipment or junctions is less than 5".
- N16. Cam-Op operating kit includes accessories that enable visible break, testing, isolation and grounding functions to be performed. Kit includes: 3- Cam-Op loadbreak reducing tap plugs; 3- grounding elbows; 1- assembly tool; 1- test rod; 1- carry case; 1- lubricant; 1- instructions.
- N17. Link-Op operating kit includes accessories that enable visible break, testing, isolation and grounding functions to be performed. Kit includes: 6- Link-Op loadbreak reducing tap plugs; 3- grounding elbows; 1- assembly tool; 1- test rod; 1- carry case; 1- lubricant; 1- instructions.
- N18. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N19. Rated for both 25kV and 35kV applications.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



# SEPARABLE CONNECTORS STICK-OP, WINDOW-OP 600 SERIES DEADBREAK

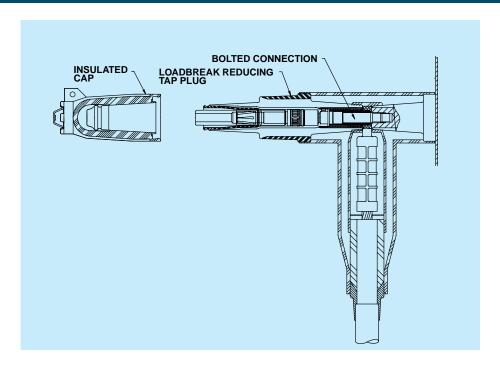
Elastimold's 600 Series Window-Op™ and Stick-Op™ deadbreak connector systems incorporate provisions for hotstick operation of DE-ENERGIZED primary feeder or network circuits.

The Window-Op and Stick-Op connectors allow direct testing and grounding with no required cable movement.

Window-Op is ideal for equipment applications which include viewing windows to provide an internal visible break that does not require hot stick removal of the elbows.

Stick-Op provides an external visible break by hot stick removal of the elbow.

Window-Op and Stick-Op connectors are bolted and installed using torque controlled tools.



### **RATINGS OVERVIEW**

See page 2 for complete information.

### **CURRENT RATINGS**

600 & 900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

### CONTINUOUS VOLTAGE RATINGS

### 15kV Class

8.3kV Phase-to-Ground 14.4kV Phase-to Phase 95kV BIL 34kV AC Withstand

53kV DC Withstand

11kV Corona Extinction

### 25kV Class

15.2kV Phase-to-Ground 26.3kV Phase-to Phase 125kV BIL

40kV AC Withstand

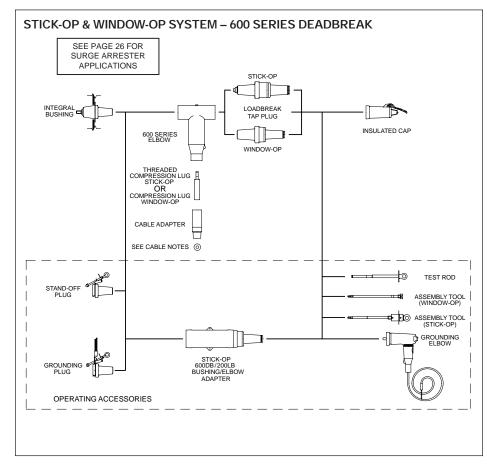
78kV DC Withstand

19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground 36.6kV Phase-to-Phase 150kV BIL

50kV AC Withstand 103kV DC Withstand 26kV Corona Extinction



5-15kV 25kV 35kV

PART #

Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

### STICK-OP™ & WINDOW-OP™

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	WINDOW-OP CONNECTOR KIT	15kV 25kV 35kV	655ETP-W0X-DRG Use Tables W7 and X6 K655ETP-W0X-DRG Use Tables W7 and X6 755ETP-W0X-DRG Use Tables W9 and X6	N1,3,4,5, 6,13
	STICK-OP CONNECTOR KIT	15kV 25kV 35kV	655LRTP-W0X-DRG Use Tables W7 and X6 K655LRTP-W0X-DRG Use Tables W7 and X6 755LRTP-W0X-DRG Use Tables W9 and X6	N2,3,4,5, 8,13
	WINDOW-OP Loadbreak Elbow Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N4,15 N4,15 N4,15
	STICK-OP Loadbreak Reducing Tap Plug	15kV 25kV 35kV	650LRTPA3 K650LRTPA2 750LRTPA2	N3,4
	STICK-OP Bushing Adapter	15kV 25kV 35kV	650BEA3 K650BEA2 750BEA2	N3,4
	Compression Lug WINDOW-OP	ALL ALL	03700X Use Tables X6 03702X Use Tables X6	N6 N7
	Threaded Compression Lug STICK-OP	ALL ALL	03600X Use Tables X6 03602X Use Tables X6	N8 N9
	WINDOW-OP Size Sensitive Kit (Cable Adapter & Lug)	15/25kV 35kV	655CK-W0X Use Tables W7 and X6 755CK-W0X Use Tables W9 and X6	N5 N5
<b>-</b>	STICK-OP Size Sensitive Kit (Cable Adapter & Threaded Lug)	15/25kV 35kV	655TCK-W0X Use Tables W7 and X6 755TCK-W0X Use Tables W9 and X6	N5 N5
	Extraction Tool	ALL	650ET	N3,10
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25kV 35kV	160GLR 370GLR 370GLR	N14 N14
	Test Rod	ALL	370TR	
<del>- 1</del> 10	Assembly Tool (Stick-Op)	ALL	600AT	N3
	Assembly Tool (Window-Op)	ALL	600ATM	N15
	STICK-OP OPERATING KIT	15kV 25kV 35kV	650STICK-OK K650STICK-OK 750STICK-OK	N11 N11 N11
	WINDOW-OP OPERATING KIT	15kV 25kV 35kV	650WINDOW-OK K650WINDOW-OK 750WINDOW-OK	N12 N12 N12

- N1. Window-Op Kit includes: insulated cap; Window-Op reducing tap plug; 600 Series elbow housing; cable adapter; and 0370 style compression lug.
- N2. Stick-Op Kit includes insulated cap; Stick-Op Loadbreak reducing tap plug; 600A Elbow Housing; cable adapter; and threaded 0360 style compression lug.
- N3. 600AT assembly tool required for operation and/or installation.
- N4. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N5. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N6. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N7. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N8. Threaded aluminum lug (Stick-Op only) for use on copper or aluminum conductors. DO NOT substitute unthreaded 03700X lugs. DO NOT use with 675, 676, K675, K676, 775 or 776 part numbers.
- N9. Threaded copper lug (Stick-Op only) for use on copper conductors only. DO NOT substitute unthreaded 03702X lugs.
- N10. Required to disassemble Stick-Op loadbreak reducing tap plug from the threaded compression lug and 600 Series elbow after the shear-pin is broken during assembly.
- N11. Stick-Op Operating Kit includes accessories that enable visible break direct testing, isolation, and grounding functions to be performed. Kit includes: 3-insulated parking bushings; 3-grounding elbows; 3-600DB/200LB bushing/elbow adapters; 1-assembly tool; 1-test rod; 1-carry case; I-lubricant; 1-instructions.
- N12. Window-Op Operating Kit includes accessories that enable visible grounding and direct testing functions to be performed. Kit includes: 3-grounding elbows; 1-test rod; 1-carry case; 1-lubricant; 1-instructions.
- N13. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the part number.
- N14. Rated for both 25kV and 35kV applications.
- N15. 600ATM assembly tool required for Window-Op assembly.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.

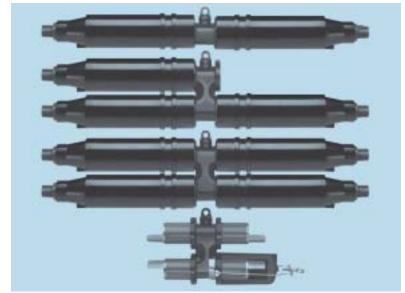


### SEPARABLE CONNECTORS CABLE JOINTS

## **600 SERIES DEADBREAK**

600 Series Separable Cable Joints are available in 2, 3 and 4-way versions and include a capacitive test point as standard. Units are interchangeable, featuring bolted connections. Designs are compact and ideally suited for small vaults and manholes.

DE-ENERGIZED joints can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Bus bars can be changed to add or remove cables from the joint. Optional accessories include insulating and grounding caps and plugs which allow visible external separation, by-pass, isolation, dead-ending, grounding and testing.



### **RATINGS OVERVIEW**

See page 2 for complete information

### **CURRENT RATINGS**

(Prefixes: 650, K650, K655, K656

& 03700)

600 Amp Continuous 25kA sym., 10 cycles

(Prefixes: 675, K675, K676 & 03702)

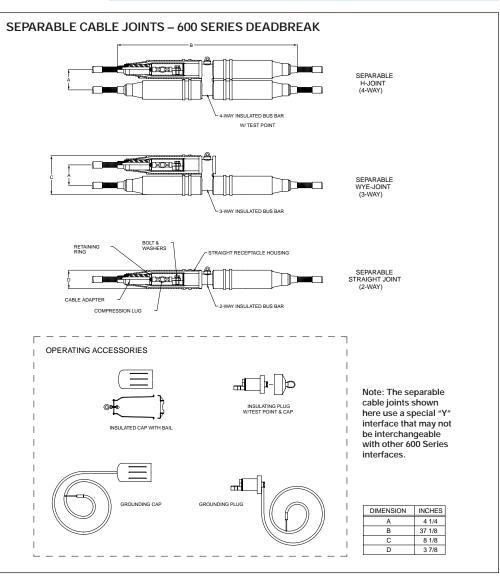
900 Amp Continuous 25kA sym., 10 cycles

NOTE: 900 Amp ratings require copper cable and copper current-carrying components.

### VOLTAGE RATINGS 15/25kV Class (5kV thru 28kV)

16.2kV Phase-to-Ground 28kV Phase-to Phase 140kV BIL 45kV AC Withstand 84kV DC Withstand 21.5kV Corona Extinction

Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.



### **600 SERIES DEADBREAK**

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Separable Straight Joint Pkg. (2-way) w/ Test Point	15/25kV	K656I-WOX Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. Straight Joint w/ Test Point	15/25kV	K656I-HP	N2,6
	Separable Wye Joint Pkg. (3-Way) w/ Test Point	15/25kV	K656CY-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. Wye Joint w/ Test point	15/25kV	K656CY-HP	N2,6
	Separable "H" Joint Pkg. (4-Way) w/ Test Point	15/25kV	K656CH-W0X Use Tables W7 and X6	N1,6,8
	Basic Housing Pkg. "H" Joint w/ Test Point	15/25kV	K656CH-HP	N2,6
	2-Way Insulated Bus Bar w/Test Point	15/25kV	K656I-BUS	N3,6
	3-Way Insulated Bus Bar w/Test Point	15/25kV	K656CY-BUS	N3,6
	4-Way Insulated Bus Bar w/Test Point	15/25kV	K656CH-BUS	N3,6
	Straight Receptacle	15/25kV	K655YSR-W0X Use Tables W7 and X6	N4,6,8
ī	Straight Receptacle Housing Only	15/25kV	K655YBSR	N5,6, 10
	Insulated Cap w/ Bail	15/25kV	K655YDR	
	Bail Only	15/25kV	650BA	
	Cable Adapter	15/25kV	655CA-W Use Table W7	
	Adapter Retaining Ring	15/25kV	650ARR-X Use Table X6	
	Compression Lug	15/25kV 15/25kV	03700X 03702X Use Table X6	N6,7 N6,9
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV	655CK-W0X- ARR Use Tables W7 and X6	N8

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	Insulating Plug w/ Test Point & Cap	15/25kV	K650YBIP	
	Grounding Plug (4/0 AWG x 6' Ground Lead)	15/25kV	650YGP	
	Grounding Cap (4/0 AWG x 6' Ground Lead)	15/25kV	650GYDR	
	Aluminum Bolt & Washers Brass Bolt & Washers	15/25kV 15/25kV	650BAW 675BAW	N6 N6
	Assembly/ Disassembly Tool	ALL	600YADT	N11
	Assembly/ Disassembly Tool	ALL	600RRT	N11

- N1. Complete Joint Packages consisting of: insulated bus bar; straight receptacle housings, retaining rings, cable size adapters, lugs, bolts and washers.
- N2. Housing Packages consisting of the following non-size sensitive components of the joint: insulated bus bar, straight receptacle housings, bolts and washers.
- N3. Insulated bus bar only.
- N4. Straight Receptacle consisting of: straight receptacle housing, retaining ring, cable adapter, lug, bolt and washers.
- N5. Straight receptacle housing consisting of: straight receptacle housing, bolt and washers.
- N6. For 900 Amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the part number. The 900 Amp rating requires copper current-carrying connector components and copper conductor cable.
- N7. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N8. Add suffix symbol from page 29 to include cable shield grounding kit and/or cable jacket sealing kit.
- N9. Copper lug for use with COPPER CONDUCTOR ONLY. DO NOT substitute threaded 03602X lug.
- N10. Available without the bolt & washers by adding "N" to the part number.
- N11. Recommended for ease of assembly/disassembly of receptacles to Bus. 600 YADT is lever drive & 600RRT is screw drive.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## **PCJ CABLE JOINTS**

PCJ<sup>™</sup>Power Cable Joints utilize permanently crimped connectors. PCJ Housings are fully insulated, shielded and sealed for direct buried, vault, submersible and other severe service applications. Units have been designed and tested per IEEE Standard 404 to assure system matched performance and ratings equal to the cable to which the splice will be installed.

PCJ Power Cable Joints are available in 2 styles:

Style 1 uses a single piece housing that is sized to accommodate a specific range of cable. Style 1 units are ideally suited for straight splicing of the same or similar cable.

Style 2 designs incorporate a universal housing with separate cable adapters to allow transition splices of different types and sizes of cable.



### **ELECTRICAL RATINGS SUMMARY**

The follow ratings summary is based on **IEEE Std. 404** and applies to all Elastimold PCJ Power Cable Joints.

#### VOLTAGE

- A. 15kV Class (8.7kV Phase-to-Ground)
- B. 25kV Class (14.4kV Phase-to-Ground)
- C. 35kV Class (20.2kV Phase-to-Ground)
- Impulse Withstand: A = 110kV, B = 150kV, C = 200kV BIL,1.2 x 50 microsecond wave.
- Corona Extinction Voltage: A = 13kV, B = 22kV, C = 30kV minimum, 3pC sensitivity.
- DC Withstand: During installation: A = 56kV, B = 80kV, C = 100kV (Reference AEIC CS6 and CS8, Section L.1.)
- DC Withstand:

After installation and in service for the first 5 years: A=18kV, B=25kV, C=31kV for XLPE Insulated Cables and A=45kV, B=64kV, C=80kV for EPR Insulated Cables. (Reference AEIC CS6 and CS8, Section L.2.)

### **CURRENT**

- Continuous rating equal to the rating of the cable.
- Short-Time rating equal to the rating of the cable up to 35kA.

### SHIELD DESIGN

 Meets IEEE standard 592 for Exposed Semiconducting Shields on Premolded High Voltage Cable Joints and Separable Insulated Connectors.

## Production tests include 100% tests of the premolded joints to assure:

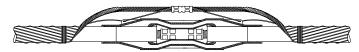
- Corona Extinction Voltage: A = 13kV, B = 22kV, C = 30kV minimum, 3pC sensitivity.
- AC Withstand: A = 35kV, B = 52kV, C = 69kV, 60 Hz, 1 minute.

## Design tests on production joints demonstrate compliance with IEEE 404 including:

- Corona Extinction Voltage: A = 13.0kV, B = 22.0kV, C = 30.0kV minimum, 3pC sensitivity.
- AC Withstand: A = 35kV, B = 52kV, C = 69kV, 60 Hz 1 minute.
- **DC Withstand**: A = 70kV, B = 100kV, C = 125kV negative polarity, 15 minutes.
- Impulse Withstand (BIL): A = 110kV, B = 150kV, C = 200kV, 10 positive and 10 negative, 1.2 x 50 microsecond wave, at conductor temperatures of 20° and 130°C, nominal.
- Short-Time Current: magnitude equal to cable up to 35kA.
- Cyclic Aging: 30 days at: A = 26.1kV, B = 43.2kV, C = 60.6kV AC continuous, load current for 8 hours per day providing 130° conductor temperature. Joints then subjected to: A = 31kV, B = 50kV, C = 71kV for 5 hours followed by: A = 39kV, B = 65kV, C = 91kV for 5 min
- Load Cycle: Connectors meet requirements of ANSI C119.4, Class A ratings.

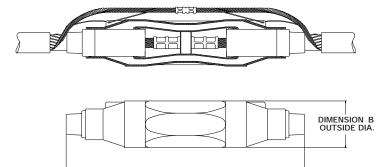
Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

## PCJ Style 1 with single-piece housing



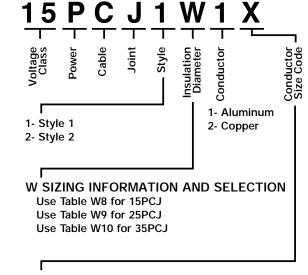
### PCJ Style 2

with universal housing and separate cable adapters that can be varied with the cable application.



DIMENSION A OVERALL LENGTH

### **ORDERING INFORMATION**



# X SIZING INFORMATION AND SELECTION Use Table X7 for 15PCJ, 25PCJ and 35PCJ

### **DIMENSIONAL DATA**

STYLE 1	Α	В
PART NUMBER	inches	inches
15PCJ1FX	10 1/4"	1 3/4"
15PCJ1GX	10 1/4"	1 3/4"
25PCJ1GX	14 3/8"	2 7/16"
15/25/35PCJ1HX	14 3/8"	2 7/16"
15/25/35PCJ1JX	14 3/8"	2 7/16"
15/25/35PCJ1KX	14 3/8"	2 25/32"
15/25/35PCJ1LX	14 3/8"	2 25/32"
15/25/35PCJ1LMX	14 3/8"	2 25/32"
15/25/35PCJ1MX	14 3/8"	2 25/32"
15/25/35PCJ1NX	15 3/4"	3 3/16"
15/25/35PCJ1PX	15 3/4"	3 3/16"
15/25/35PCJ1QX	15 3/4"	3 3/16"

STYLE 2	А	В
PART NUMBER	inches	inches
15PCJ2EX	16 3/8"	2 25/32"
15PCJ2FX	16 3/8"	2 25/32"
15/25PCJ2GX	16 3/8"	2 25/32"
15/25/35PCJ2HX	16 3/8"	2 25/32"
15/25/35PCJ2JX	16 3/8"	2 25/32"
15/25/35PCJ2KX	21"	3 3/4"
15/25/35PCJ2LX	21"	3 3/4"
15/25/35PCJ2MX	21"	3 3/4"
15/25/35PCJ2NX	21"	3 3/4"
15/25/35PCJ2PX	21"	3 3/4"
15/25/35PCJ2QX	21"	3 3/4"

Description	Voltage Class	ELASTIMOLD Part Number	Notes
Power Cable	15kV	15PCJ1W1X	N1
Joint	15kV	15PCJ1W2X	N2
	25kV	25PCJ1W1X	N1
Style 1	25kV	25PCJ1W2X	N2
	35kV	35PCJ1W1X	N1
	35kV	35PCJ1W2X	N2
Power Cable	15kV	15PCJ2W1X	N1
Joint	15kV	15PCJ2W2X	N2
	25kV	25PCJ2W1X	N1
Style 2	25kV	25PCJ2W2X	N2
-	35kV	35PCJ2W1X	N1
	35kV	35PCJ2W2X	N2

- N1. Kit includes aluminum compression connector suitable for splicing aluminum conductor to aluminum conductor or aluminum conductor to copper conductor.
- N2. Kit includes copper compression connector suitable for splicing copper conductor to copper conductor only.

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## **CABLE TERMINATIONS**

Elastimold cable terminations are available in single piece or modular designs. Terminators allow connection and transition from shielded, underground cable to bare overhead conductors and live-front equipment. Units are designed and rated per IEEE Standard 48 for riser pole, padmount, indoor and outdoor applications. PCT1, PCT2, 16THG and 35MTG terminators provide sufficient creep, strike and weather sealing for class 1 outdoor service. PCT1 and PCT2 also include an integral cable jacket seal.

The 35MTGI terminators and 35MSC stress cones are rated for class 2 and class 3 indoor service respectively. Optional mounting brackets, aerial lugs and equipment connectors are available as required.



## ELECTRICAL RATINGS SUMMARY

The following ratings summary is based on IEEE Std. 48 and applies to all the terminations on page 22 thru 25. Elastimold terminations are designed for use on three-phase systems, either 3-wire or 4-wire and the single-phase laterals of these systems.

### VOLTAGE RATINGS 15kV Class

9.5kV Phase-to-Ground

110kV BIL 1.2 x 50 microsecond wave AC Withstand:

50kV 1 min. – dry

35kV 6 hr. - dry

45kV 10 sec. - wet

13kV Corona Extinction

### 25kV Class

16kV Phase-to-Ground

150kV BIL 1.2 x 50 microsecond wave

AC Withstand:

65kV 1 min. - dry

55kV 6 hr. – dry

60kV 10 sec. - wet

21.5kV Corona Extinction

### 35kV Class

22kV Phase-to-Ground

200kV BIL 1.2 x 50 microsecond wave

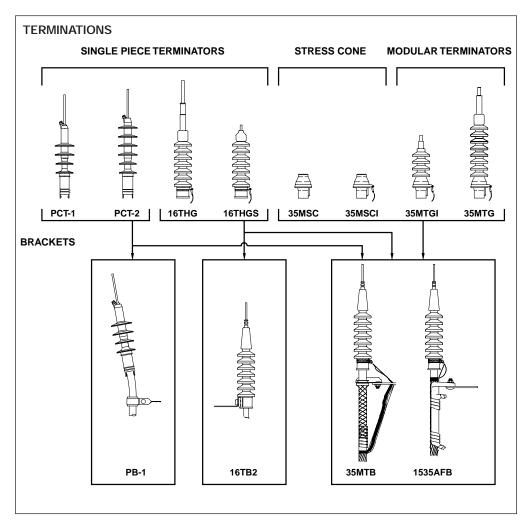
AC Withstand:

90kV 1 min. – dry

75kV 6 hr. – dry

80kV 10 sec. - wet

30kV Corona Extinction



5-15kV 25 kV 35 kV

PART #



Part numbers that contain the letters W or X are size sensitive. To complete the part number, refer to the W or X tables indicated.

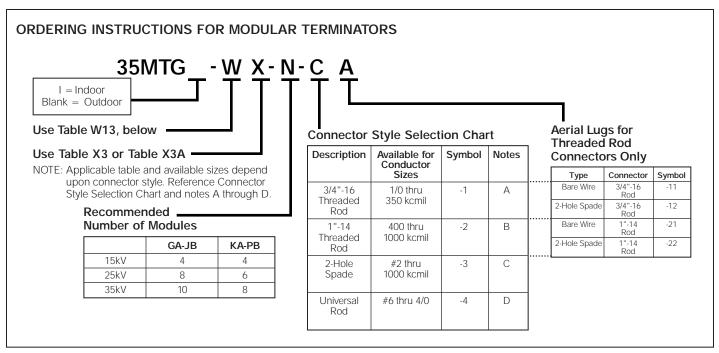
TERMINATIONS						
Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes		
	Single-Piece Terminator (Class 1)	15kV 25kV	PCT1-X-4 Use Table X9 PCT2-X-4 Use Table X9	N12,14, 15, 22 N12,14, 15, 23		
	Housing only	15kV 25kV	PCT1-4 PCT2-4	N13, 22 N13, 23		
	Single-Piece Terminator (Class 1)	15/25kV	16THG-WX-4 Use Tables W12 and X8	N2,14 15		
<b>多名</b>	Housing only	15/25kV	<b>16THGH-W</b> Use Table W12			
	Single-Piece Terminator for solid conductor only (Class 1)	15/25kV	16THGS-WX Use Tables W12 and X4	N3		
A	Stress Cone (Class 3)	ALL	35MSC-W Use Table W11	N17		
	w/Grd. Strap	ALL	35MSCI-W Use Table W11	N17		
	Modules only	ALL	35MG-W Use Table W13	N11,16		
	Modular Terminator (Class 1)	15kV 25kV 35kV	35MTG-WX-4-CA Use Tables W13 and X3 35MTG-WX-8-CA Use Tables W13 and X3 35MTG-WX-10-CA Use Tables W13 and X3	N2,11 N2,5,11 N2,6,11		
	Modular Terminator (Class 2) w/o Rain Cap	15kV 25kV 35kV	35MTGI-W-4 Use Table W13 35MTGI-W-6 Use Table W13 35MTGI-W-8 Use Table W13	N11 N11 N7,11		
	Rod Contact for PCT	15/25kV	0070X Use Table X9	N1,14, 15		
	Rod Contact for 16THG	15/25kV	16TCA-X Use Table X8	N2, 8		
	Solid Conductor Package for 16THGS	15/25kV	16CAS-X Use Table X4	N3, 9		
(MANAGE   1	3/4"-16 Threaded Rod for MTG	ALL	35MTGA-WX-1 Use Tables W13 and X3	N2,10,11 18, 25		
	1"-14 Threaded Rod for MTG	ALL	35MTGA-WX-2 Use Tables W13 and X3A	N2,10,11 19, 25		
	Two-Hole Spade for MTG	ALL	35MTGA-WX-3 Use Tables W13 and X3	N4,10,11 20, 25		
	Two-Hole Spade for PCT	ALL	<b>0100X</b> Use Table X9	N1		
	One-Hole Spade for PCT	ALL	<b>0110X</b> Use Table X9	N1		
	Universal Rod for MTG	ALL	35MTGA-WX-4 Use Tables W13 and X3	N2,10,11 21, 25		
	Aerial Lugs for MTG Threaded Rod (Two-hole spade or bare wire)	ALL	35AL-A	N10, 24		

- N1. Use with PCT1 or PCT2 Terminators.
- N2. Includes contact rod, ground strap and rain cap.
- N3. Includes crimp ring, ground strap and rain cap.
- N4. Includes spade contact, ground strap and rain cap.
- N5. For KA thru PB sizes use 35MTG-WX-6-CA.
- N6. For KA thru PB sizes use 35MTG-WX-8-CA.
- N7. For KA thru PB sizes use 35MTGI-W-6.
- N8. Use with 16THG Terminators.
- N9. Use with 16THGS Terminators.
- N10. Use with 35MTG Terminators.
- N11. Refer to page 24 for detailed ordering instructions.
- N12. Includes rod contact as standard. Specify suffix "-3" in place of "-4" for two-hole spade lug. Specify suffix "-5" in place of "-4" for one-hole
- N13. Specify suffix "-3" or "-5" in place of "-4" for two-hole spade lug housing or one-hole spade style housing.
- N14. Use 1X for rod contact for aluminum conductors only.
- N15. Use 0X for rod contact for aluminum or copper conductors.
- N16. Available in sizes from GA thru PB & are supplied qty. 2 per package.
- N17. Available in sizes EB thru PB.
- N18. For conductors from 1/0 thru 350 kcmil.
- N19. For conductors from 400 kcmil thru 1000 kcmil.
- N20. For conductors from #2 to 1000 kcmil.
- N21. For conductors from #6 thru 4/0.
- N22. Use for insulation dia. range from .640" thru 1.070".
- N23. Use for insulation dia. range from .830" thru 1.180"
- N24. Select symbol for "A" from aerial lug ordering information on page 24.
- N25. W13 Table provides sizing for rain cap X10 Table provides sizing for connectors.

Refer to the  $\boldsymbol{W}$  and  $\boldsymbol{X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## CABLE TERMINATIONS cont'd



### NOTES:

- A. Available for 1/0 through 350 conductor sizes only. Use Table X3 for size selection.
- B. Available for 400 through 1000 conductor sizes only. Use Table X3A for size selection.
- C. Available for #2 through 1000 conductor sizes only. Use Table X3 for size selection.
- D. Available for #6 through 4/0 conductor sizes only. Use Table X3 for size selection.

Table W13	Cable In Diameter i	sulation n Inches	Symbol
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.775	.885	GA
35MTG	.825	.935	GAB
35MTGI	.875	.985	GB
	.930	1.040	GH
	.980	1.115	HA
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.665	1.785	PA
	1.755	1.875	PB

	Conductor	Symbo	ol for X
Table X3 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCT	#6	5	-
35MTG	#5	4	5
	#4	3	4
FOR USE WITH STYLE -1,-3, & -4	#3	2	3
CONNECTORS ONLY.	#2	1	2
	#1	0	1
SEE NOTES A, C, & D FOR	1/0	10	0
APPLICATION	2/0	20	10
INFORMATION	3/0	30	20
	4/0	40	30
	250	250	40
	300	300	250
	350	350	300
	400	400	350
	450	450	-
	500	500	400
	550	550	450
	600	600	500
	650	650	550
	700	750	600
	750	750	650
	800	800	750
	900	900	800
	1000	1000	900

Table X3A	Conductor SIZE AWG or kcmil	Symbo Strand./ Compr.	ol for X Compt./ Solid.
FOLLOWING PRODUCT	400	400	_
35MTG	450	450	400
500 H05 WITH	500	500	450
FOR USE WITH STYLE -2	550	550	500
CONNECTORS ONLY.	600	600	500
	650-700	650	550
SEE NOTE B FOR APPLICATION	750	750	600
INFORMATION	800	750	650
	1000	1000	-

PART #



Part numbers that contain the letters **W** or **X** are size sensitive. To complete the part number, refer to the **W** or **X** tables indicated.

### **TERMINATIONS**

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Notes
	PCT Positioning Bracket	ALL	PB-1	N1,12
	16THG Bracket	ALL	16TB-2	N6
	Bracket for crossarm mounting 16THG	ALL	16TB-3	N6
	Bracket for riser pole mounting 16THG	ALL	16TB-4	N6
	Bracket for tri-mounting 16THG	ALL	16TB-5	N6
	KELLUMS GRIP Bracket	ALL ALL ALL ALL	35MTB1-A 35MTB1-B 35MTB1-C 35MTB1-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	KELLUMS Bracket for crossarm mounting	ALL ALL ALL ALL	35MTB3-A 35MTB3-B 35MTB3-C 35MTB3-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	Bracket (for riser pole mounting)	ALL ALL ALL ALL	35MTB4-A 35MTB4-B 35MTB4-C 35MTB4-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
•	KELLUMS Bracket for tri-mounting	ALL ALL ALL ALL	35MTB5-A 35MTB5-B 35MTB5-C 35MTB5-D	N1,2,6,7 N1,3,6,7 N1,4,6,7 N1,5,6,7
	ALUMA FORM Bracket	ALL	1535AFB-1	N1,6,7
	ALUMA FORM Bracket for Crossarm mounting	ALL	1535AFB-3	N1,6,7
	ALUMA FORM Bracket for riser-pole mounting	ALL	1535AFB-4	N1,6,7
	ALUMA FORM Bracket for tri-mounting	ALL	1535AFB-5	N1,6,7

- N1. Use with PCT-1 or PCT-2 Terminators.
- N2. Fits overall cable O.D. from 1.195" to 1.625".
- N3. Fits overall cable O.D. from .925" to 1.335".
- N4. Fits overall cable O.D. from .890" to 1.185"
- N5. Fits overall cable O.D. from 1.500" to 2.000".
- N6. Use with 16THG & 16THGS Terminators.
- N7. Use with MTG, MTG1 & MSC Terminators. N8. For conductors from 1/0 thru 350 kcmil.
- N9. For conductors from 400 kcmil thru 1000 kcmil.
- N10. For conductors from #2 to 1000 kcmil.
- N11. For conductors from #6 thru 4/0.
- N12. Fits overall cable O.D. from .750" to 1.625."

Refer to the  ${\bf W}$  and  ${\bf X}$  tables on pages 32 and 33 for sizing to cable insulation diameter and conductor size.



## **SURGE ARRESTERS**

ELASTIMOLD Metal Oxide Varistor (MOV) surge arresters are fully-shielded, fully-submersible and are equipped with IEEE 386 interfaces for convenient energized connection with other 200 Amp loadbreak components. Units are compact, allowing installation in existing cabinetry. For application ease, arresters are available in 3 styles: Elbow (ESA), Parking Stand (PSA) and Bushing (BSA). The PSA and BSA arresters permit direct connection eliminating the need for additional accessories.

Elastimold arresters provide high voltage lightning and switching surge protection of transformers, cable, equipment and other components typically located on underground power distribution systems. Proper placement, voltage selection and coordination with riser pole arresters minimizes damaging surge voltages by improving protective margins.

Typical applications include installing an arrester at the end of a radial system or at both ends of an open point on a loop system. Additional arresters can be added at strategic locations upstream from the end point for optimum protection. Request Form 2068 (Surge Protection Options For Underground Distribution) and Form 2069 (Arrester Applications – Underground Electrical Systems) for additional application and margin of protection information.

ESA Elbow Arresters are also available with a 200 Amp Deadbreak interface for mating with other Deadbreak accessories.

### **ELECTRICAL RATINGS & PROTECTIVE CHARACTERISTICS**

### Performance:

High Current Short Duration - All MOV Arresters withstand two discharges of 40kA crest.

Low Current Long Duration - All MOV Arresters withstand 20 surges of 75 amperes/2000 microsecond duration.

Duty Cycle Test - All MOV Arresters with stand 22 operations of 5kA crest at  $8 \times 20$  microsecond duration while energized at rated voltage for the initial 20 operations and at maximum continuous operating voltage (MCOV) for the final two operations.

Following each of the preceding tests, MOV Arresters demonstrate thermal recovery at MCOV.

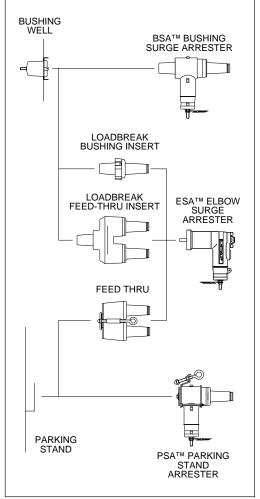
### PROTECTIVE CHARACTERISTICS:

	MCOV (kVrms)	Duty Cycle		Maximum Discharge Voltage (kV crest) 8x20 microsecond current wave			
	Note 1	Rating (kVrms)	1.5kA	3kA	5kA	10kA	20kA
15kV	2.55	3	10.5	11.0	11.5	13.0	14.5
CLASS	5.1	6	20.5	21.5	23.0	25.5	30.0
	8.4	10	30.5	32.5	34.5	38.5	43.5
	10.2	12	40.0	42.5	45.0	50.0	56.5
	12.7	15	48.0	51.0	54.0	60.0	68.0
	15.3	18	56.5	60.0	64.0	71.0	80.5
25kV	8.4	10	30.5	32.5	34.5	38.5	43.5
CLASS	10.2	12	40.0	42.5	45.0	50.0	56.5
	12.7	15	48.0	51.0	54.0	60.0	68.0
	15.3	18	56.5	60.0	64.0	71.0	80.5
	17.0	21	65.5	69.5	74.0	82.5	93.0
35kV	19.5	24	78.5	83.5	89.0	99.0	112.0
CLASS	22.0	27	87.5	93.0	99.0	110.0	124.5
	24.4	30	95.5	101.5	108.0	120.0	136.0

NOTES:

1. MCOV = Maximum Continuous Operating Voltage.







### **SELECTION CHART**

Illustration (not to scale)	Description	Voltage Class	Elastimold Part Number	MCOV kVrms
(1.01 10 000.0)	BSA	15kV	167BSA-3	2.55
	Bushing	15kV	167BSA-3 167BSA-6	5.10
	Surge Arrester	15kV	167BSA-0 167BSA-10	5.10 8.40
	(includes	15kV	167BSA-10 167BSA-12	10.20
	assembly	15kV	167BSA-12 167BSA-15	12.70
	tool)	15kV	167BSA-15	15.30
	(001)	25kV	273BSA-10	8.40
		25kV	273BSA-10 273BSA-12	10.20
	See Notes	25kV 25kV	273BSA-12 273BSA-15	12.70
T-	N1, 2, 3,4	25kV 25kV	273BSA-13 273BSA-18	15.30
	101, 2, 3,4	25kV 25kV	273BSA-18 273BSA-21	17.00
		35kV	375BSA-21	17.00
		35kV	375BSA-24 375BSA-27	22.00
		35kV	375BSA-27 375BSA-30	24.40
	ESA	15kV	167ESA-3	2.55
	Elbow	15kV	167ESA-6	5.10
	Surge Arrester	15kV	167ESA-10	8.40
		15kV	167ESA-12	10.20
		15kV	167ESA-15	12.70
	See Notes	15kV	167ESA-18	15.30
	N2, 3, 5	25kV	273ESA-10	8.40
		25kV	273ESA-12	10.20
<b>─</b> ₩		25kV	273ESA-15	12.70
J		25kV	273ESA-18	15.30
		25kV	273ESA-21	17.00
		35kV	375ESA-24	19.50
		35kV	375ESA-27	22.00
		35kV	375ESA-30	24.40
	PSA	15kV	167PSA-3	2.55
	Parking Stand	15kV	167PSA-6	5.10
	Arrester	15kV	167PSA-10	8.40
_		15kV	167PSA-12	10.20
		15kV	167PSA-15	12.70
	See Notes	15kV	167PSA-18	15.30
	N1, 2, 3	25kV	273PSA-10	8.40
		25kV	273PSA-12	10.20
		25kV	273PSA-15	12.70
<b>#</b>		25kV	273PSA-18	15.30
		25kV	273PSA-21	17.00
		35kV	375PSA-24	19.50
		35kV	375PSA-27	22.00
		35kV	375PSA-30	24.40
	1	I .	I	

### ARRESTER APPLICATION TABLE

	System Line-to-Line Voltage kV rms		MCOV (Max. C Operating Volta	
	Nominal	Max.	Solidly Grounded Neutral Circuits	3-Wire Ungrounded Circuits
15kV	2.40	2.54	2.55	2.55
Class	4.16	4.40	2.55	5.10
	4.80	5.08	5.10	5.10
	6.90	7.26	5.10	8.40
	8.32	8.80	5.10	8.40
	12.47	13.20	8.40	15.30
	13.20	13.97	8.40	15.30
	13.80	14.50	8.40*	15.30
	13.80	14.50	10.20	15.30
25kV	6.90	7.26	5.10	8.40
Class	8.32	8.80	5.10	8.40
	12.47	13.20	8.40	15.30
	13.20	13.97	8.40	15.30
	13.80	14.50	8.40*	15.30
	13.80	14.50	10.20	15.30
	20.78	22.00	12.70	_
	20.78	22.00	15.30*	_
	23.00	24.34	15.30	_
	24.94	26.40	15.30	_
	24.94	26.40	17.00*	_
	28.00	29.80	17.00	
35kV	23.00	24.34	-	22.00
Class	34.50	36.51	22.00*	_
	34.50	36.51	24.40	-

<sup>\*</sup> Preferred arrester MCOV for this system voltage

- N1. Elastimold PSA and BSA Arresters are equipped with a fully rated 200A switching and fault close loadbreak bushing.
- N2. Elastimold Arresters use high-strength silver epoxy bonded MOV blocks and shunted spring connections for the best circuit connection.
- N3. A 36 inch #4 AWG ground lead provided with each unit.
- N4. BSA installed by turning internal hex bolt (accessed thru the 200 Amp Bushing Interface) with 5/16" hex wrench supplied with each unit.
- N5. For 15kV and 25kV Class DEADBREAK system Elbow Arresters, use part number 156ESA with the appropriate Duty Cycle rating.

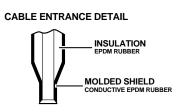
### ORDERING INSTRUCTIONS:

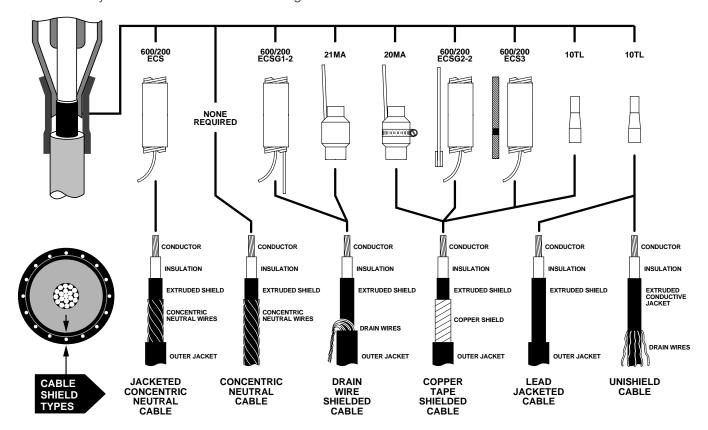
- (1.) Determine the appropriate Maximum Continuous Operating Voltage (MCOV) for your system voltage by using the ELASTIMOLD ARRESTER APPLICATION TABLE.
- (2.) Specify the appropriate ELASTIMOLD part number from the selection chart.

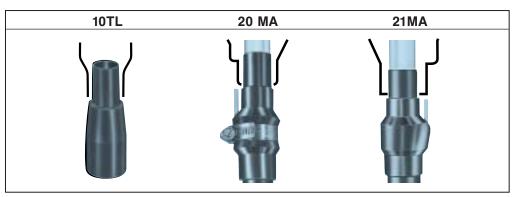


# SHIELD ADAPTERS, GROUNDING KITS AND JACKET SEALS

Elastimold elbows, cable joints and terminators have been designed for use on XLP, EPR or similar solid dielectric insulated power cables. These cables are available with a variety of optional shielding and jacket constructions. In order to properly mate and install the cable to an Elastimold product, the use of a shield adaptor, grounding kit or jacket seal may be required. The diagram below provides information concerning the application and selection of various shield adaptors, grounding kits and jacket seals for the most popular cable types. Consult the factory for recommendations concerning other cable constructions.









CABLE SHIELD ADAPTERS				
Cable 10TL 20MA 21MA Insulation Dia. inches inches inches				
min.	.495	.530	.530	
max.	1.875	1.780	1.780	

JACKET SEALS				
Jacket	200ECS	600ECS		
O.D.	inches	inches		
min.	.80	1.28		
max.	1.50	2.30		

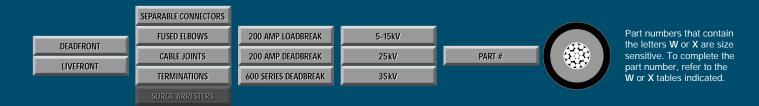


Illustration (not to scale)	Description	ELASTIMOLD Part Number	Suffix	Notes
	Cold Shrinkable Jacket Seal	200ECS	-S	N1,3
	Cold Shrinkable Jacket Seal	600ECS	-S	N1,4
	Metallic Tape Shield Adapter	20MA-W Use Table W14 for sizing	-0MA	N1,2
	Wire Shield Adapter	21MA-W Use Table W14 for sizing	-1MA	N1,2
	Shield Adapter	10TL-W Use Table W15 for sizing	-TL	N1,2
	Cold Shrinkable Seal w/ Copper Rod & Crimp Connector	200ECSG1-2	-SG1	N1,3
	Cold Shrinkable Seal w/ Copper Rod & Crimp Connector	600ECSG1-2	-SG1	N1,4
	Cold Shrinkable Seal w/ Copper Rod & Constant Force Spring	200ECSG2-2	-SG2	N1,3
	Cold Shrinkable Seal w/ Copper Rod & Constant Force Spring	600ECSG2-2	-SG2	N1,4
	Cold Shrinkable Seal w/ Copper Braid & Constant Force Spring	200ECSG3	-SG3	N1,3
	Cold Shrinkable Seal w/ Copper Braid & Constant Force Spring	600ECSG3	-SG3	N1,4

N1.	To order the kits as separate items, use the part numbers shown in the
	table. Example: To order a cold shrinkable tube as a separate item, use
	the part number 200ECS.

To order the kits as components of other items, add the suffix to the end of the part number. Example: To order a cold shrinkable jacket seal as a component of an elbow kit, use the part number 166LR-A520-S.

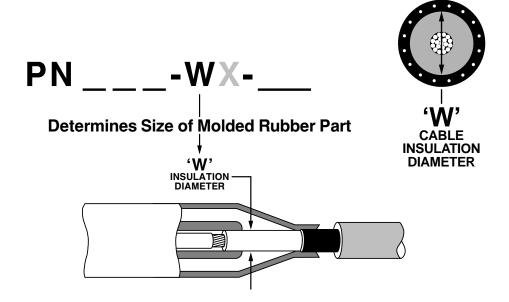
- N2. Only use this suffix with part numbers that designate a "W" housing size. Sizing the main component will also size the suffix adapter.
- N3. Size range .80" to 1.50" jacket diameters. Maximum installed diameter is approx.  $2\hbox{\ensuremath{^{\prime\prime}}}.$
- N4. Size range 1.28" to 2.30" jacket diameters. Maximum installed diameter is approx. 2.75".

Table W14	Insulation Inches		Symbol
USE FOR	MIN.	MAX.	for W
20MA	.530	.680	Е
21MA	.640	.820	F
	.760	.950	G
	.850	1.050	Н
	.980	1.180	J
	1.090	1.310	K
	1.180	1.465	L
	1.370	1.630	М
	1.515	1.780	N

Table W15		ation hes	Symbol
USE FOR	MIN.	MAX.	for W
10TL	.495	.585	EB
	.525	.635	EF
	.575	.585	FA
	.625	.735	FAB
	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB
	.930	1.040	GH
	.980	1.115	HA
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.755	1.875	PB



## **How to specify Size-Sensitive Products**



### **INSULATION DIAMETER SELECTION GUIDE**

Elastimold Elbows, cable joints and terminations are designed for application on XLP, EPR and other solid dielectric insulated power cables. These components are constructed of molded elastomer and rely on an interference fit with the cable insulation diameter in order to maintain proper dielectric strength, creep path integrity and a water seal. Elastimold components are available in a wide range of sizes in order to accommodate a variety of cable insulation diameters.

Selection of size-sensitive components requires determining the cable insulation diameter. This can be done in several ways:

- A. Refer to the cable manufacturer's spec sheet for dimensions.
- B. Measure the cable.
- C. If the cable conforms to AEIC standards with a 175, 220, 260 or 345 mil wall thickness, use the table on page 34.
- D. If the cable is constructed to the new ICEA standard, refer to the cable manufacturer's spec sheet for dimensions.

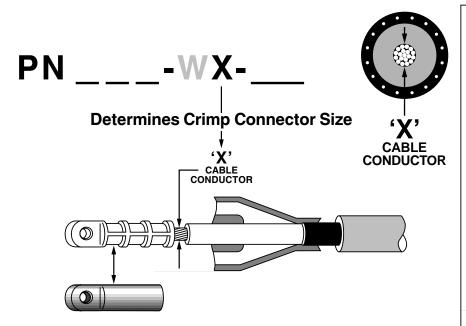
After the cable insulation diameter has been determined:

- 1. Locate the W table indicated in the part number selection chart.
- 2. Complete the ordering information by selecting and inserting the symbol (given in the W table) into the part number.

### **Ordering Example**

To complete the information required to order a K655LR-W0X elbow for use on standard AEIC 500 kcmil stranded aluminum cable with .220 inch thick insulation wall.

- A. Determine that the insulation diameter (from AEIC table on page 34) is 1.325 ±.030 inches.
- B. For this elbow, the part number selection chart on page 11 indicates to use table W7 for elbow sizing and table X6 for connector sizing.
- C. From table W7 the symbol for W is L.
- D. From table X6 the symbol for X is 330.
- E. The completed part number therefore is K655LR-L0330.



### **CONNECTOR SELECTION GUIDE**

Elastimold elbows, cable joints and terminations are furnished with crimp style cable connectors. As standard, these connectors are constructed with a tin-plated aluminum barrel filled with an oxide inhibitor. Aluminum barrel connectors are designed for use on either aluminum or copper conductor cable.

When specified, all copper crimp style connectors can be furnished. These connectors are ONLY for use on copper conductor cable and are not for use with aluminum conductor cables.

Bi-metallic connectors are constructed with a copper top and an aluminum barrel. Bi-metal connectors can be used on either aluminum or copper conductor cable and are furnished as standard with 200 Amp Loadbreak Elbows, 200 Amp Deadbreak Elbows, and PCT, 16 THG or MTG terminators with rod connectors.

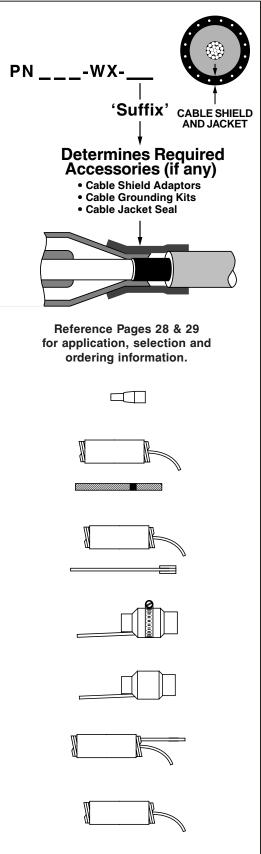
Selection and ordering the proper crimp connector requires determining information relative to the cable conductor as follows:

- A. Conductor size in AWG or kcmil
- B. Conductor type (stranded, compressed, compact or solid)
- C. Conductor material (aluminum or copper)

After the cable conductor information has been determined:

- 1. Locate the X table indicated in the part number selection chart.
- 2. Complete the ordering information by selecting and inserting the symbol (given in the X table) into the part number.

See the Ordering Example on page 30 for further information.





# **WX SIZE TABLES**

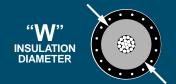


Table W1		nsulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS 165/166LR	.575	.740	Α
K151SP	.665	.905	В
K151SR K151LS	.830	1.060	С
K151LY	.930	1.220	D

Table W2		nsulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.760	.950	G
273/274LR	.850	1.050	Н
273/274RLR	.980	1.180	J
	1.090	1.310	K

Table W3		nsulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.850	1.050	Н
375/376LR	.980	1.180	J
0707070ER	1.090	1.310	K
	1.235	1.465	L

Table W4	Cable In Diameter MIN.	sulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.640	.820	F
156LR	.760	.950	G
167/168RLR	.850	1.050	Н
167LRT	.980	1.180	J
	1.090	1.310	K

Table W5	Cable In Diameter MIN.		Symbol for W
FOLLOWING PRODUCTS	.665	.895	6689
167/168ELR	.740	.950	7495
273/274ELR	.880	1.100	88110
	1.090	1.310	K

Table W6	Cable In Diameter i MIN.		Symbol for W
FOLLOWING PRODUCTS	.495	.585	EB
10EP	.525	.635	EF
152EA	.575	.685	FA
160CA*	.625	.735	FAB
(*EB-FA Only)	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB

Table W7	Cable In Diameter MIN.		Symbol for W
FOLLOWING PRODUCTS	.640	.820	F
K656I/CY/CH K655/656LR	.760	.950	G
K655/656SR	.850	1.050	Н
655/656LINK K655/656LINK	.980	1.180	J
655/656ETP	1.090	1.310	K
K655/656ETP 655/656LRTP	1.180	1.465	L
K655/656LRTP	1.280	1.430	LM
655/656BI-LINK K655/656BI-LINK	1.370	1.630	М
655CA	1.515	1.780	N
655CK 655TCK	1.725	1.935	Р

Table W8	Diameter		Symbol
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.640	.820	F
15PCJ-1	.760	.950	G
15PCJ-2	.850	1.050	Н
	.980	1.180	J
	1.090	1.310	K
	1.180	1.465	L
	1.280	1.430	LM
	1.370	1.630	М
	1.515	1.780	Ν
	1.725	1.935	Р
	1.900	2.120	Q

Table W9	Cable In Diameter MIN.	sulation in Inches MAX.	Symbol for W
USE FOR FOLLOWING PRODUCTS	.760	.950	G
25PCJ-1	.850	1.050	Н
25PCJ-2	.980	1.180	J
755/756LR	1.090	1.310	K
755/756LINK	1.180	1.465	L
755/756ETP	1.280	1.430	LM
755/756LRTP	1.370	1.630	М
755/756BI-LINK 755CA	1.515	1.780	N
755CK	1.725	1.935	Р
755TCK	1.900	2.120	Q

Table W10	Cable In Diameter MIN.	sulation in Inches MAX.	Symbol for W
FOLLOWING PRODUCTS	.850	1.050	Н
35PCJ-1	.980	1.180	J
35PCJ-2	1.090	1.310	K
	1.180	1.465	L
	1.280	1.430	LM
	1.370	1.630	М
	1.515	1.780	Ν
	1.725	1.935	Р
	1.900	2.120	Q

Table W11		Cable Insulation		
USE FOR	MIN.	MAX.	Symbol for W	
FOLLOWING PRODUCTS	.495	.585	EB	
35MSC	.525	.635	EF	
35MSCI	.575	.685	FA	
	.625	.735	FAB	
	.675	.785	FB	
	.725	.835	FG	
	.775	.885	GA	
	.825	.935	GAB	
	.875	.985	GB	
	.930	1.040	GH	
	.980	1.115	HA	
	1.040	1.175	HAB	
	1.095	1.240	НВ	
	1.160	1.305	HJ	
	1.220	1.375	JA	
	1.285	1.395	JAB	
	1.355	1.520	JB	
	1.485	1.595	KA	
	1.530	1.640	KAB	
	1.575	1.685	KB	
	1.665	1.785	PA	
	1.755	1.875	PB	

Table W12	Cable In Diameter MIN.		Symbol for W
FOLLOWING PRODUCTS	.495	.585	EB
16THG	.525	.635	EF
16THGS	.575	.685	FA
16THGH	.625	.735	FAB
	.675	.785	FB
	.725	.835	FG
	.775	.885	GA
	.825	.935	GAB
	.875	.985	GB
	.930	1.040	GH
	.980	1.115	НА

Table W13	Diameter		Symbol
USE FOR	MIN.	MAX.	for W
FOLLOWING PRODUCTS	.775	.885	GA
35MTG	.825	.935	GAB
35MTGI	.875	.985	GB
35MTCGA	.930	1.040	GH
	.980	1.115	НА
	1.040	1.175	HAB
	1.095	1.240	НВ
	1.160	1.305	HJ
	1.220	1.375	JA
	1.285	1.395	JAB
	1.355	1.520	JB
	1.485	1.595	KA
	1.530	1.640	KAB
	1.575	1.685	KB
	1.665	1.785	PA
	1.755	1.875	PB



	Conductor	Symbo	ol for X
Table X1 USE FOR FOLLOWING	Size AWG or kcmil	Strand./ Compr.	Compt./ Solid.
PRODUCTS 167/168ELR	#4	5200	5190
273/274ELR	#3	5210	5200
156LR 165/166LR	#2	5220	5210
273/274LR	#1	5230	5220
167LRT 167/168RLR	1/0	5240	5230
273/274RLR 00400	2/0	5250	5240
02500	3/0	5260	5250
02509 02702	4/0	5270	5260
02800	250	-	5270
VO	Conductor		ol for X
Table X2 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCTS	1/0	5240	5230
375/376LR	2/0	5250	5240
	3/0	5260	5250
	4/0	5270	5260
	Conductor	Symbo	ol for X
Table X3	SIZE AWG	Strand./ Compr.	Compt./ Solid.
USE FOR FOLLOWING	#6	5	Joliu.
35MTG	#5	4	5
	#4	3	4
NOTE: SEE PAGE 24	#3	2	3
FOR DETAILED APPLICATION	#2	1	2
INFORMATION	#1	0	1
	1/0 2/0	10 20	10
	3/0	30	20
	4/0	40	30
	250	250	40
	300	300	250
	350	350 400	300
	400 450	450	350
	500	500	400
	550	550	450
	600	600	500
	650	650	550
	700 750	750 750	600 650
	800	800	750
	900	900	800
	1000	1000	900
	Conductor	Symbo	ol for X
Table X3A	SIZE AWG	Strand./	Compt./
USE FOR FOLLOWING	400	Compr.	Solid.
PRODUCT 35MTG	450	450	400
	500	500	450
NOTE: SEE PAGE 24	550	550	500
FOR DETAILED APPLICATION	600	600	500
INFORMATION	650-700	650	550
	750 800	750 750	600 650
İ			
	1000	1000	_

Table X4	Riser Conductor Size.  AWG Solid	Symbol for X
USE FOR FOLLOWING	#2	2
PRODUCT	#1	2
16THGS	1/0	10
16CAS	2/0	20
	3/0	30
	4/0	30

3/-	Conductor	Aluminum (	Conductors	
Table X5	AGW	Symbo		
USE FOR FOLLOWING	or kcmil	Strand./ Compr.	Compt./ Solid.	
PRODUCTS K151SP	#4	2AX	-	
K151SF K151SR	#2	1AX	2AX	
K151LS	#1	0AX	1AX	
K151LY	1/0	10AX	0AX	
	2/0	20AX	10AX	
	3/0	30AX	20AX	
	4/0	40AX	30AX	
	250	-	40AX	
	Conductor	Copper Conductor		
	AGW	Symbol for X		
	or kcmil	Strand./ Compr.	Compt./ Solid.	
	#6	3	-	
	#4	2	3	
	#2			
	#2	1	2	
	#1	0	1	
			_	
	#1	0	1	
	#1	0	1 0	
	#1 1/0 2/0	0 10 20	1 0 10	

	Conductor	Symbol for X		
Table X6 USE FOR FOLLOWING	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.	
PRODUCTS	1/0	240	230	
655/656LRTP K655/656LRTP	2/0	250	240	
755/756LRTP	3/0	260	250	
K656I/Y/H	4/0	270	260	
K655/656LR	250	280	270	
755/756LR K655/656SR	300	290	280	
655/656LINK	350	300	290	
K655/656LINK	400	310	300	
755/756LINK	450	320	310	
655/656ETP K655/656ETP	500	330	320	
755/756ETP	550	340	320	
655/656BI-LINK	600	350	330	
K655/656BI-LINK	650	360	340	
755BI-LINK 655CK	700	380	350	
755CK	750	380	360	
655TCK	800	390	360	
03600	900	400	380	
03602 03700	1000	410	400	
03702	1250	440	420	

	Conductor	Symbo	ol for X
Table X7	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.
FOLLOWING PRODUCTS	#6	180	_
15PCJ1	#5	190	180
25PCJ1	#4	200	190
35PCJ1	#3	210	200
15PCJ2	#2	220	210
25PCJ2	#1	230	220
35PCJ2	1/0	240	230
	2/0	250	240
	3/0	260	250
	4/0	270	260
	250	280	270
	300	290	280
	350	300	290
	400	310	300
	450	320	310
	500	330	310
	550	340	320
	600	350	330
	650	360	340
	700	380	350
	750	380	360
	800	390	380
	900	400	380
	1000	410	400
	1250	440	420

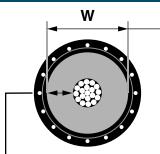
340	Conductor	Symbol for X		
Table X8 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.	
FOLLOWING PRODUCT	#6	180	-	
16THG	#5	190	180	
16TCA	#4	200	190	
	#3	210	200	
	#2	220	210	
	#1	230	220	
	1/0	240	230	
	2/0	250	240	
	3/0	260	250	
	4/0	270	260	

	Conductor	Symbol for X		
Table X9 USE FOR	SIZE AWG or kcmil	Strand./ Compr.	Compt./ Solid.	
FOLLOWING PRODUCTS	#2	220	210	
PCT1	#1	230	220	
PCT2	#1	1230*	ı	
01000	1/0	240	230	
01010	1/0	1240*	1230*	
	2/0	250	240	
	2/0	1250*	-	
	3/0	260	250	
	3/0	1260*	1250*	
	4/0	270	260	
	4/0	1270*	1260*	

\*For aluminum conductor only.



# AEIC CABLE INSULATION DIAMETER REFERENCE



CABLE INSULATION DIAMETER

# AEIC Standard Insulation Diameters for XLP and EPR Insulated Cables with .175, .220, .260 or .345 inch wall thickness.

NOTE: The insulation diameters shown are nominal. Add  $\pm .030$  inch tolerance to calculate maximum and minimum diameters. Example .220 inch wall, 4/0 stranded conductor cable: Nominal Diameter = 1.030"; Maximum Diameter = 1.060"; Minimum Diameter = 1.000"

	Insulation		w/stranded	w/compressed	w/compact or
AWG or	Wall Thickness	Voltage	conductor Insulation	conductor Insulation	solid conductor Insulation
kcMil	Inches	Class	Dia. (Inches)	Dia. (Inches)	Dia. (Inches)
#2	.175	15kV	_	_	.670
Solid	.220	15kV 25kV	_	_	.760
	.260 .345	35kV	_	_	_
#2	.175	15kV	.700	.695	.680
	.220	15kV	.790	.785	.770
	.260	25kV 35kV	_	_	_
Д.4	.175		_	<u> </u>	700
#1 Solid	.220	15kV 15kV	_	_	.700 .790
Cona	.260	25kV	_	_	.870
	.345	35kV	_	_	_
#1	.175	15kV	.740	.730	.710
	.220	15kV	.830	.820	.800
	.260 .345	25kV 35kV	.910 —	.900	.880
1/0	.175	15kV	_	_	.735
Solid	.220			.825	
	.260	25kV	_	_	.905
1/0	.345	35kV	705	770	1.075
1/0	.175 .220	15kV 15kV	.785 .875	.770 .860	.745 .835
	.260	25kV	.955	.940	.915
	.345	35kV	1.125	1.110	1.085
2/0	.175	15kV	.830	.815	.785
	.220 .260	15kV 25kV	.920 1.000	.905 .985	.875 .955
	.345	35kV	1.170	1.155	1.125
3/0	.175	15kV	.880	.865	.835
	.220	15kV	.970	.955	.925
	.260 .345	25kV 35kV	1.050 1.220	1.035 1.205	1.005 1.175
4/0	.175	15kV	.940	.920	.885
7/0	.220	15kV	1.030	1.010	.975
	.260	25kV	1.110	1.090	1.055
	.345	35kV	1.280	1.260	1.225
250	.175	15kV	.995	.980	.940
	.220 .260	15kV 25kV	1.085 1.175	1.070 1.160	1.030 1.120
	.345	35kV	1.350	1.335	1.295
350	.175	15kV	1.100	1.080	1.035
	.220	15kV	1.190	1.170	1.125
	.260 .345	25kV 35kV	1.280 1.455	1.260 1.435	1.215 1.390
	.070	JOIN	1.700	1.700	1.000

or kcMil Inches         Thickness Inches         Voltage Class         Insulation Dia. (Inches)         Insulation Dia. (Inches)         Insulation Dia. (Inches)           500         .175         15kV         1.235         1.210         1.155           .220         15kV         1.325         1.300         1.245           .260         25kV         1.415         1.390         1.335           .345         35kV         1.590         1.565         1.510           600         .175         15kV         1.325         1.295         1.245           .220         15kV         1.325         1.295         1.245           .220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .220         15kV         1.575         1.545         1.485           .345         35kV         1.430         1.400         1.340           .						
kcMil         Inches         Class         Dia. (Inches)         Dia. (Inches)           500         .175         15kV         1.235         1.210         1.155           .220         15kV         1.325         1.300         1.245           .260         25kV         1.415         1.390         1.335           .345         35kV         1.590         1.565         1.510           600         .175         15kV         1.325         1.295         1.245           .220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .220         15kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490	AWG	Wall		conductor	conductor	solid conductor
1.220						
1.260	500	.175	15kV	1.235	1.210	1.155
345   35kV   1.590   1.565   1.510		.220	15kV	1.325	1.300	1.245
600         .175         15kV         1.325         1.295         1.245           .220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1		.260	25kV	1.415	1.390	1.335
.220         15kV         1.415         1.385         1.335           .260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1.460           .345         35kV         1.815         1.785         1.725		.345	35kV	1.590	1.565	1.510
.260         25kV         1.505         1.475         1.425           .345         35kV         1.680         1.650         1.600           700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1.460           .220         15kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.615         1	600	.175	15kV	1.325	1.295	1.245
345   35kV   1.680   1.650   1.600		.220	15kV	1.415	1.385	1.335
700         .175         15kV         1.395         1.365         1.305           .220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1		.260	25kV	1.505	1.475	1.425
.220         15kV         1.485         1.455         1.395           .260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785		.345	35kV	1.680	1.650	1.600
.260         25kV         1.575         1.545         1.485           .345         35kV         1.750         1.720         1.660           750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15Kv         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545	700	.175	15kV	1.395	1.365	1.305
345   35kV   1.750   1.720   1.660     750   .175   15kV   1.430   1.400   1.340     .220   15kV   1.520   1.490   1.430     .260   25kV   1.610   1.580   1.520     .345   35kV   1.785   1.755   1.695     800   .175   15kV   1.460   1.430   1.370     .220   15kV   1.550   1.520   1.460     .260   25kV   1.640   1.610   1.550     .345   35kV   1.815   1.785   1.725     900   .175   15kV   1.525   1.490   1.430     .220   15kV   1.615   1.580   1.520     .260   25kV   1.705   1.670   1.610     .345   35kV   1.880   1.845   1.785     1000   .175   15kV   1.580   1.545   1.490     .220   15kV   1.670   1.635   1.580     .220   25kV   1.670   1.635   1.580     .260   25kV   1.760   1.725   1.670     .260   25kV   1.760   1.725   1.670     .260   25kV   1.760   1.725   1.670     .270   .280   .25kV   1.760   1.725   1.670     .280   .260   .25kV   1.760   1.725   1.670     .270   .280   .25kV   1.760   1.725   1.670     .280   .280   .25kV   1.760   1.725   1.670     .290   .260   .25kV   1.760   1.725   1.670     .201   .202		.220	15kV	1.485	1.455	1.395
750         .175         15kV         1.430         1.400         1.340           .220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15Kv         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .220         15kV         1.670         1.635		.260	25kV	1.575	1.545	1.485
.220         15kV         1.520         1.490         1.430           .260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15KV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670		.345	35kV	1.750	1.720	1.660
.260         25kV         1.610         1.580         1.520           .345         35kV         1.785         1.755         1.695           800         .175         15kV         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670	750	.175	15kV	1.430	1.400	1.340
345   35kV   1.785   1.755   1.695		.220	15kV		1.490	1.430
800         .175         15Kv         1.460         1.430         1.370           .220         15kV         1.550         1.520         1.460           .260         25kV         1.640         1.610         1.550           .345         35kV         1.815         1.785         1.725           900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670						
1.220		.345	35kV	1.785	1.755	1.695
.260     25kV     1.640     1.610     1.550       .345     35kV     1.815     1.785     1.725       900     .175     15kV     1.525     1.490     1.430       .220     15kV     1.615     1.580     1.520       .260     25kV     1.705     1.670     1.610       .345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670	800	.175	15Kv	1.460	1.430	1.370
345   35kV   1.815   1.785   1.725		.220	15kV	1.550	1.520	1.460
900         .175         15kV         1.525         1.490         1.430           .220         15kV         1.615         1.580         1.520           .260         25kV         1.705         1.670         1.610           .345         35kV         1.880         1.845         1.785           1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670		.260	25kV	1.640	1.610	1.550
.220     15kV     1.615     1.580     1.520       .260     25kV     1.705     1.670     1.610       .345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670		.345	35kV	1.815	1.785	1.725
.260     25kV     1.705     1.670     1.610       .345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670	900	.175	15kV	1.525	1.490	1.430
.345     35kV     1.880     1.845     1.785       1000     .175     15kV     1.580     1.545     1.490       .220     15kV     1.670     1.635     1.580       .260     25kV     1.760     1.725     1.670		.220	15kV	1.615	1.580	1.520
1000         .175         15kV         1.580         1.545         1.490           .220         15kV         1.670         1.635         1.580           .260         25kV         1.760         1.725         1.670		.260	25kV	1.705	1.670	1.610
.220		.345	35kV	1.880	1.845	1.785
.260 25kV 1.760 1.725 1.670	1000	.175	15kV	1.580	1.545	1.490
1200   2000   10000		.220	15kV	1.670	1.635	1.580
345   35kV   1935   1900   1845		.260	25kV	1.760	1.725	1.670
		.345	35kV	1.935	1.900	1.845

Note: If the cable is constructed to the new ICEA standard, refer to the cable manufacturer's spec sheet for dimensions.

# CABLE CONDUCTOR DIAMETER REFERENCE



### Conductor Diameters for Copper and Aluminum (Class B) Stranded, Compressed, Compact and Solid Cables

Conductor	No. of Strands	Cross-sec	tional Area	Stranded	Compressed	Compact	Solid
Size AWG or kcmil	and their Nom. Strand Dia. (in.)	Square Inches	mm² Conversion	Conductors (Inches)	Conductors (Inches)	Conductors (Inches)	Conductors (Inches)
14 12 10 8 6 4	7 x .0242 7 x .0305 7 x .0385 7 x .0486 7 x .0612 7 x .0772 7 x .0974	.0032 .0051 .0082 .0130 .0206 .0328	2.08 3.31 5.26 8.37 13.30 21.15 33.62	.073 .092 .116 .146 .184 .232	     .283	     .268	.064 .081 .102 .129 .162 .204
1 1/0 2/0 3/0 4/0	19 x .0664 19 x .0745 19 x .0837 19 x .0940 19 x .1055	.0657 .0829 .1054 .1318 .1662	42.41 53.49 67.43 85.01 107.2	.332 .373 .418 .470 .528	.322 .362 .405 .456 .512	.299 .336 .376 .423 .475	.289 .325 — — —
250 350 500	37 x.0822 37 x.0973 37 x.1162	.1964 .2749 .3924	127 177 253	.575 .681 .813	.558 .661 .789	.520 .616 .736	_ _ _
600 700 750 800 900 1000	61 x .0992 61 x .1071 61 x .1109 61 x .1145 61 x .1215 61 x .1280	.4712 .5498 .5890 .6283 .7069	304 355 380 405 456 507	.893 .964 .998 1.031 1.094 1.152	.866 .935 .968 1.000 1.061 1.117	.813 .877 .908 .938 .999	- - - - -
1100 1200 1250 1300 1400 1500	91 x .1099 91 x .1148 91 x .1172 91 x .1195 91 x .1240 91 x .1284	.8639 .9425 .9818 1.021 1.100 1.178	557 608 633 659 709 760	1.209 1.263 1.289 1.315 1.364 1.412	1.173 1.225 1.250 1.276 1.323 1.370	_ _ _ _ _	_ _ _ _ _ _
1600 1700 1750 1800 1900 2000	127 x .1122 127 x .1157 127 x .1174 127 x .1191 127 x .1223 127 x .1225	1.257 1.335 1.374 1.414 1.492 1.571	811 861 887 912 963 1010	1.459 1.504 1.526 1.548 1.590 1.632	1.415 1.459 1.480 1.502 1.542 1.583	_ _ _ _ _ _	- - - - -



## **EQUIPMENT BUSHINGS**

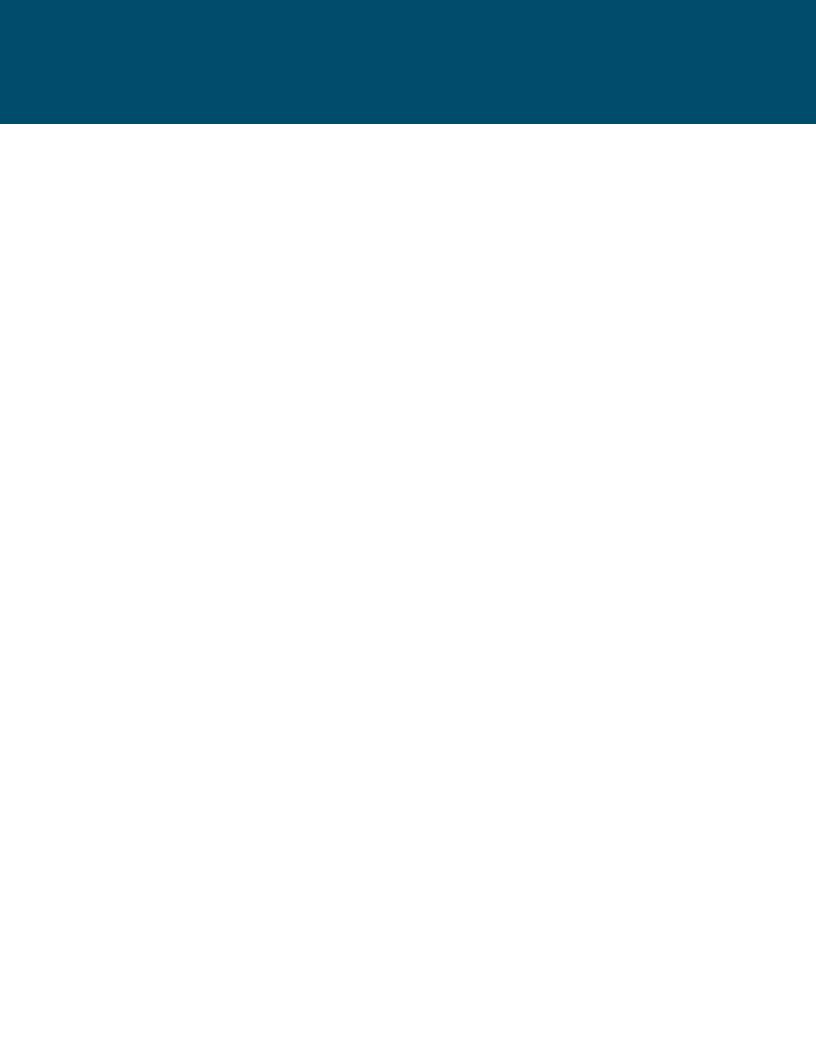
Elastimold manufactures a complete line of 200 Amp deepwell and 600 Series apparatus bushings for use on transformers, switchgear and other equipment applications. The bushings incorporate IEEE 386 standard interfaces (shown on page 3) and are constructed of molded epoxy with stainless steel flanges for mounting by welding or gasketed clamp. K1601PCC series bushings are provided with a

molded epoxy flange for gasketed clamp mounting only. Bushings are available for use on AIR, OIL or SF6 insulated equipment. Units are rated for submersible, padmount, indoor, outdoor and other applications. Options include hold-down bail tabs and replaceable studs for 200 Amp deepwell bushings.

Illustration (not to scale)	Description	Voltage Class	ELASTIMOLD Part Number	Bushing Shank Length	Notes
	Short Shank Well with bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-S1 L1601PC-S1	23/4"	N3,7,14
	Short Shank Well with bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-S1-R L1601PC-S1-R	23/4"	N1,3,7,14
	Short Shank Well without bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-S2 L1601PC-S2	23/4"	N3,7,14
	Short Shank Well without bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-S2-R L1601PC-S2-R	23/4"	N1,3,7,14
	Long Shank Well with bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-T1 L1601PC-T1	91/4"	N3,7,14
	Long Shank Well with bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-T1-R L1601PC-T1-R	91/4"	N1,3,7,14
	Long Shank Well without bail tabs and non-replaceable well stud	15/25kV 35kV	K1601PC-T2 L1601PC-T2	91/4"	N3,7,14
	Long Shank Well without bail tabs and with replaceable well stud	15/25kV 35kV	K1601PC-T2-R L1601PC-T2-R	91/4"	N1,3,7,14
	Epoxy Flange Well Epoxy Flange Well with replaceable well stud	15/25kV 15/25kV	K1601PCC K1601PCC-R	23/4"	N3,7,14 N1,3,7,14
	Well w/Insert (K1601PCC-R & 1601A4) Well w/Insert (K1601PCC-R & 2701A4)	15kV 25kV	1601CABA4R 2701CABA4R	23/4"	N1,3,8,14 N1,3,9,14
	200 A Deadbreak Bushing 200 A Deadbreak Bushing 200 A Deadbreak Bushing	15/25kV 15/25kV 15/25kV	K180S4 K180T4 K180C4	2 <sup>9</sup> / <sub>16</sub> " 7 <sup>11</sup> / <sub>32</sub> " 9 <sup>1</sup> / <sub>4</sub> "	N3,10,13
	600 A Short Shank Bushing w/stud 600 A Short Shank Bushing w.o./stud 600 A Short Shank Bushing w.o./stud 600 A Cu Short Shank Bushing w.o./stud	15/25kV 15/25kV 35kV 15/25kV	K600S1 K650S1 750S1 K675S1	2 <sup>15</sup> / <sub>16</sub> "	N2,4,11,14 N2,5,11,14 N2,5,12,14 N3,5,11,14
	600 A Long Shank Bushing w/stud 600 A Long Shank Bushing w.o./stud 600 A Cu Long Shank Bushing w.o./stud 600 A 12" Long Shank Bushing w/stud 600 A Long Shank Bushing w.o./stud 600 A 12" Long Shank Bushing w.o./stud	15/25kV 15/25kV 15/25kV 15/25kV 35kV 35kV	K600T1 K650T1 K675T1 K600L12 750T1 750L12	8 <sup>9</sup> / <sub>16</sub> " 8 <sup>9</sup> / <sub>16</sub> " 8 <sup>9</sup> / <sub>16</sub> " 12" 8 <sup>9</sup> / <sub>16</sub> "	N2,4,11,14 N2,5,11,14 N3,5,11,14 N2,4,11,14 N2,5,12,14 N2,5,12,14
	600 A In-Air Long Shank Bushing w/stud 600 A Cu In-Air Long Shank Bush. w/stud Boot & Collars for K600T1 to use in air	15/25kV 15/25kV 15/25kV	K600TBC K675TBC 600BC	8 <sup>9</sup> / <sub>16</sub> "	N2,4,11,6,14 N3,5,11,6,14 N6

- N1. Replacement stud available separately. Specify 1601RS.
- N2. Equipped with standard aluminum conductor rod.
- N3. Equipped with copper conductor rod.
- N4. Includes 5/8-11 threaded stud at elbow end.
- N5. Includes 5/8-11 threaded hole at elbow end.
- N6. Provides increased creep and strike.
- N7. Includes 1601PPC1 shipping cap.
- N8. Includes 1601APC1 shipping cap.

- N9. Includes 2701-41 shipping cap.
- N10. Includes 180PPC shipping cap.
- N11. Includes 650PPC shipping cap.
- N12. Includes 750PPC1 shipping cap.
- N13. Parking stands for 200A deadbreak applications are available as separate items. Specify 151PS.
- N14. Parking stands for 200A loadbreak and 600A deadbreak applications are available as separate items. Specify 160PS.

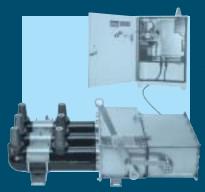




MVS Molded Vacuum Switches



MCAN Molded Fuse Canister



MVS -UAD Underground Automated Distribution Controller



MCLF
Molded Current Limiting



MVI
Molded Vacuum Fault
Interrupters



FLR 15kV Fused Loadbreak Elbow



MPJ
Molded Multi-Point
Junctions



Voltage and Faulted Circuit Indicators

Information for product lines shown above is available by contacting your Elastimold Sales Representative.





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