Capnut Terminations

For single and three conductor underground cable systems through 46kV

G&W Electric

Engineered to order. Built to last.

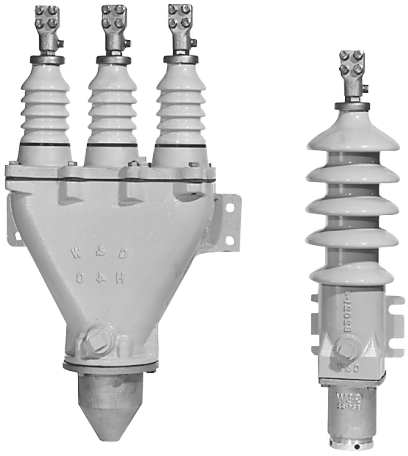
G&W Electric Capnut terminations offer field proven reliability, field assembled units which offer complete system flexibility. Interchangeable aerial lugs\hoodnut connector assemblies, porcelains, bodies and cable entrance fittings enable these terminations to accept any construction of extruded dielectric, paper insulated or armored cable on distribution systems up to 46kV. Various styles of single and three conductor units are available. Capnut terminations are designed and tested in accordance with IEEE-48, 1975 standards for Class 1 terminations.

Features and Benefits:

- **Maximum external insulation** - High grade, wet process porcelain provides excellent mechanical strength and electrical characteristics. Porcelains are designed with a thick wall construction and maintain safe creepage and strike distances. Various styles of petticoated or corrugated type porcelains are available for either indoor, outdoor, inverted or equipment mounted applications.

- **Reliable stress control** - Stress relief cone kits consisting of insulating tapes and shielding braid are available depending upon cable construction. Varioui:. compounds or oils are available as an internal insulating medium for the terminators depending upon the application.

- **Versatility -** Interchangeable aerial lugs, hood nut connector assemblies, porcelains, bodies and cable entrance fittings provide maximum system flexibility. Terminations are avalfaole tor any size and "type of· paper insulated, extruded dielectric and armored cable rated up to 46kV.



Components

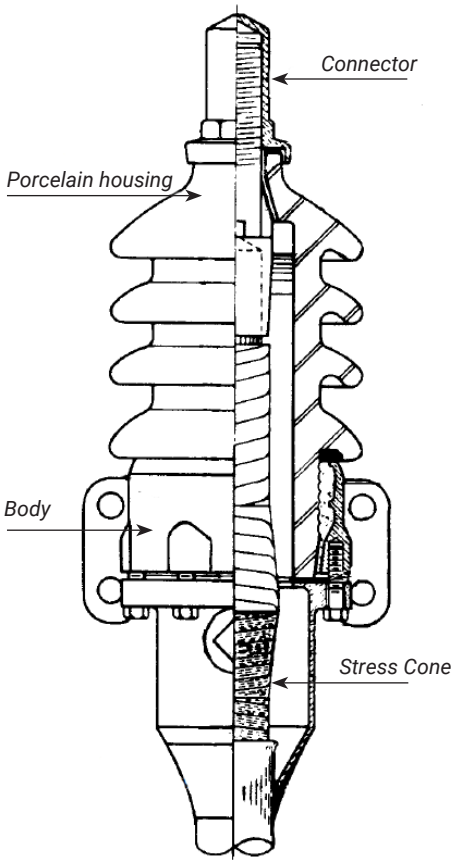
- **External insulation** - High strength, wet process porcelains for outdoor, indoor or inverted application are gasket sealed to the body or lid of the termination. Outdoor and inverted type porcelains are petticoat designed to provide additional external creepage and strike distance. Corrugated style porcelains are used for indoor and oil filled equipment applications. Detachable porcelains are available for certain style
- terminations.

- **Bodies** - Bodies are made of nonmagnetic cast aluminum for cool operating temperatures and ease of handling. Cast iron or bronze
- bodies are available. Various multi-conductor body shapes are
- available depending upon the application and cable training

- **Lids** - Multi-conductor lids are made of non-magnetic cast aluminum. Bronze lids are available. Various styles of three conductor lids are available using either parallel mounted or diverging type porcelains.

- **Entrance fittings** - Interchangeable cable entrance fittings are available to match the cable construction.

- **Connectors** - Copper solder type connector assemblies are standard and for use on copper cable. Copper or bimetallic compression
- connector assemblies are available for press type application on copper or aluminum cable.

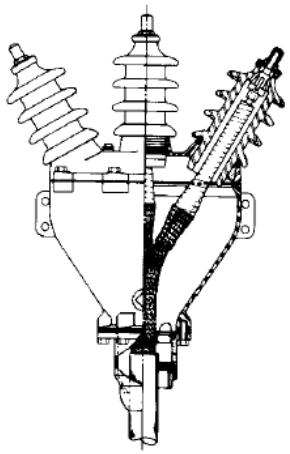


Components con't

- **Aerial lugs** - Copper aerial lugs for clamp, solder and bus connections are available. Lugs can be silver plated or tinned.
- **Stress relief** - Hand taped stress relief cones effectively control electrical stresses in the cable. Various kits consisting of insulating tapes and shielding braid are available depending upon the cable construction and voltage ratings.
- **Internal insulating material** - Insulating compound (or oil) is required for all Capnut termination installations. Various compound materials are available depending upon the cable constr,uction and voltage rating.
- **Brackets** - Vertical style mounting brackets are welded or cast into the body of the termination. Flange style units incorporate welded or cast on mounting flanges. Bracket and flange insulators and mounting gaskets are available.

Spreader Heads

Various styles of spreader heads are available for use with single conductor terminations when a greater phase-to-phase aerial spacing is required for 3/C cable applications.



Ordering Information

The following steps are needed for ordering:

1. Specify system voltage, BIL, and whether 1/C or 3/C, indoor,
2. outdoor, or equipment application.
3. Provide a complete description of the cable including construction, maximum conductor sizes, maximum diameters over insulation, cable jacket or sheath and cable manufacturer (if known).
4. Specify aerial lug, connector (solder or compression), cable entrance, stress cone kit and compound required.

Typical Specifications

General - This specification covers the requirements for a cable termination for (bracket) (flange) mounted installation. The termination shall be as manufactured by G&W Electric Co. per product designation Capnut Termination. The termination shall be a (single) (three) conductor unit with shape (B) (B Detachable) (B Plate Mtd.) (C Plate Mtd.).
Electrical Ratings - The termination shall be for service on a (15kV) (25kV) (34.5kV) (46kV) voltage rated, (single) (three) (three single) conductor cable system. The termination shall have a BIL rating of (11 0kV) (150kV) (200kV) (250kV). The termination shall meet all the design requirements as specified by IEEE-48, 1975 standards for Class 1 terminations.
Construction - The termination shall use high strength, wet process porcelain for external insulation. The porcelain shall be a (petticoat) (corrugated) design for use in an (indoor) (outdoor) (inverted) application. Stress relief cones and insulating compound shall be used to effectively control electrical stresses in the cable. The design shall incorporate interchangeable cable entrance fittings for system flexibility.
Accessories - Connectors shall be (copper solder) (copper compression) (bi-metallic compression) type. Entrance fittings shall be (wiping sleeve) (stuffing box) (armor) style. Aerial lugs shall be copper (solder) (clamp) (bus) type per designation (style 3D) (style 8) (style 18).

Electrical Characteristics				
Voltage (kV)	15	25	34.5	46
BIL (kV)	110	150	200	250
Current Rating	Same as cable	Same as cable	Same as cable	Same as cable
1 minute dry, ac (kV)	50	65	90	120
6 hour dry, ac (kV)	35	55	75	100
10 second wet, ac (kV)	45	60	80	100
15 minute dry, de (kV)	75	105	140	170

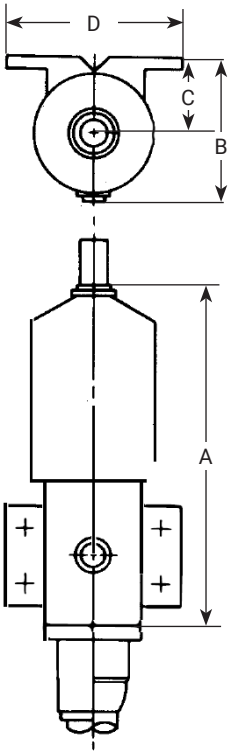
I/C Bracket Mounted

Catalog numbers are for copper, single conductor cable and include unassembled units with cemented porcelain and base gasket only. Required connector, entrance(s), aerial lugs, compound or stress cone kits are ordered separately. Optional connector styles, entrance fittings and ground lugs are available. Aluminum conductor cables require compression style connectors.

Note: For aluminum cable over 250 kcmil, use the next larger size termination for correct internal clearances.

Body Information	
Symbol Number	**Part Number**
3E4F	B2021-4F
4F4X	B2020X
4F4J	B2020J
5G4X	B2017X
5G4J	B2017J
4H4J	B2026J

Body Code Numbering Ex: 4F4X	
4	Base size
F	Porcelain size
4	Bracket style
X *(Body material)*	F- Cast iron
	X - Aluminum
	J - Bronze



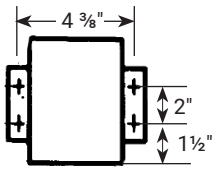


Fig.1, *4 Bolts - ½" Dia.*

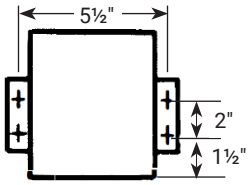


Fig.2, *4 Bolts - ½" Dia.*

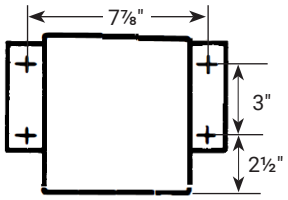


Fig.3, *4 Bolts - ½" Dia.*

Max. Conduit Size		Max. Cable OD In. (mm)	Catalog Outdoor	Approx. Comp. Req'd. Gal. (L)	Approx. Shpg wt. lbs. (kg)	Hoodnut Connector Assembly	Approx. Dimensions - In. (mm)					Body Porcelain Assembly*				Body†
												Outdoor		Indoor		
AWG (mm)	mm²						A	B	C	D	Fig.	Assem #	Porcelain	Assem #	Porcelain	
15kV (110kV BIL)																
1/0	53	1⅞ (48)	UT17031	⅜(1)	24 (11)	AT20	13½ (343)	5¼ (133)	2⅝ (67)	5½ (140)	1	A6300-26	EE	A6300-25	EF	3E4F
250	127	1⅞ (48)	UT17231	⅜(1)	25 (11)	AT22	13⅝ (346)	5¼ (133)	2⅝ (67)	5½ (140)	1	A6300-26	EE	A6300-25	EF	3E4F
500	253	2⅞ (73)	UT17541	⅝(2)	27 (12)	AT35	13¼ (337)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-19	FD	A6300-18	FE	4F4X
750	380	2⅞ (73)	T17741	⅝(2)	29 (13)	AT37	13⅜ (340)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-19	FD	A6300-18	FE	4F4X
1000	507	2⅞ (73)	T17841	⅝(2)	34 (15)	AT38	13⅜ (340)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-19	FD	A6300-18	FE	4F4X
1500	760	3⅞ (98)	T17951	1 (4)	46 (20)	AT49	15⅜ (391)	7⅝ (194)	3¾ (95)	6¾ (171)	2	A6300-9	GA	A6300-8	GB	5G4X
2000	1013	3⅞ (98)	T17X51	1 (4)	51 (23)	AT4X	15⅜ (391)	7⅝ (194)	3¾ (95)	6¾ (171)	2	A6300-9	GA	A6300-8	GB	5G4X
25kV (150kV BIL)																
1/0	53	1⅞ (48)	UT18031	½ (2)	28 (13)	AT20	16⅛ (410)	5¼ (133)	2⅝ (67)	5½ (140)	1	A6300-28	EK	A6300-27	EL	3E4F
250	127	2⅞ (73)	UT18241	⅝ (2)	31 (14)	AT32	16¼ (413)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-21	FF	A6300-20	FG	4F4X
500	253	2⅞ (73)	AT18541	⅝ (2)	31 (14)	AT35	16¼ (413)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-21	FF	A6300-20	FG	4F4X
750	380	2⅞ (73)	T18741	⅝ (2)	45 (20)	AT37	16⅜ (416)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-23	FF	A6300-22	FG	4F4J
1000	507	2⅞ (73)	T18841	⅝ (2)	50 (23)	AT38	16⅜ (416)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-23	FF	A6300-22	FG	4F4J
1500	760	3⅞ (98)	T18951	1 (4)	64 (29)	AT49	17⅜ (441)	7⅝ (194)	3¾ (95)	6¾ (171)	2	A6300-11	GC	A6300-10	GD	5G4J
2000	1013	3⅞ (98)	T18X51	1 (4)	69 (31)	AT4X	17⅜ (441)	7⅝ (194)	3¾ (95)	6¾ (171)	2	A6300-11	GC	A6300-10	GD	5G4J
34.5kV (200kV BIL)																
250	127	27⅞ (73)	T19241	¾ (3)	51 (23)	AT32	21¼ (540)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-24	FM	A6300-24	FM	4F4J
500	253	27⅞ (73)	UT19541	¾ (3)	52 (24)	AT35	21¼ (540)	7¼ (184)	3¾ (95)	6¾ (171)	2	A6300-24	FM	A6300-24	FM	4F4J
500	253	27⅞ (73)	XT19541	1½ (6)	73 (33)	AT45	22⅛ (562)	7⅞ (200)	4 (102)	6¾ (171)	3	A6300-33	HA	--	--	4H4J
46 kV (250 kV BIL)-Requires oil filling																
250	127	27⅞ (73)	T10241	1¾ (7)	75 (34)	AT32	28⅜ (721)	7⅞ (200)	4 (102)	9 (229)	3	A6300-72	HB	--	--	4H4J
500	253	27⅞ (73)	T10541	1¾ (7)	78 (35)	AT35	29$^{3}/_{16}$ (741)	7⅞ (200)	4 (102)	9 (229)	3	A6300-80	HG	--	--	4H4J

**For porcelain dimensions refer to page 20.*

†Base size required for selection of cable entrance fittings. Refer to body ID chart on this page. Body material subject to availability.

I/C Flange Mounted

Catalog numbers are for copper, single conductor cable and include unassembled units with cemented porcelain and base gasket only. Required connector, entrance(s), aerial lugs, compound or stress cone kits are ordered separately. Optional connector styles, entrance fittings and ground lugs are available.
Aluminum conductor cables require compression style connectors.
Note: For aluminum cable over 250 kcmil, use the next larger size termination for correct internal clearances.

Body Information	
Symbol Number	**Part Number**
4E5MF	B2011-F
4F6MX	B2012X
5G6MX	B2013-1X

Body Code Numbering Ex: 4E5MF	
4	Base size
E	Porcelain size
5	Flange size
M	Flange mounting
F (Body Material)	F - Cast iron
	X - Aluminum
	J - Bronze

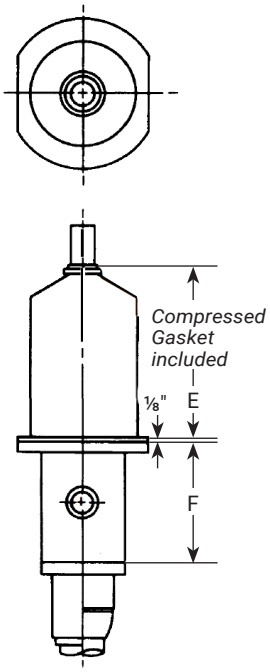
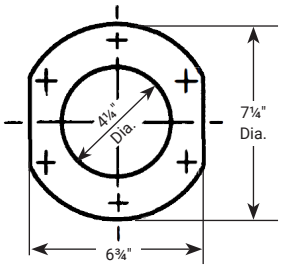


Fig.1 *(size 5)*
(6 bolts - ½" dia.-6⅛" B.C.)



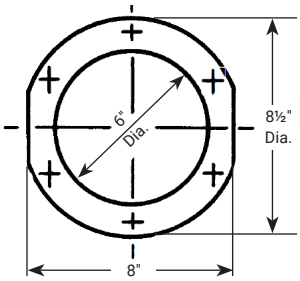


Fig.2 *(size 6)*
(6 bolts - ½" dia.-7¼" B.C.)

For Equipment Applications

Max. Conduit Size		Max. Cable OD In. (mm)	Catalog Outdoor	Approx. Comp. Req'd. Gal. (L)	Approx. Shpg wt. lbs. (kg)	Hoodnut Connector Assembly				Body Porcelain Assembly*			Body†
AWG (mm)	mm²						E	F	Fig.	Assem #	Porcelain	Flange gasket Part #	
15kV (110kV BIL)													
1/0	53	2⅞ (73)	UTR17045	⅜ (1)	26 (12)	AT20	8 (203)	5½(140)	1	A6301-9	EF	A1093-5	4E5MF
250	127	2⅞ (73)	UTR17245	⅜ (1)	27 (12)	AT22	8⅛ (206)	5½(140)	1	A6301-9	EF	A1093-5	4E5MF
500	253	2⅞ (73)	UTR17246	⅝ (2)	27 (12)	AT35	7¾ (197)	5½(140)	2	A6301-15	FE	A1602-3B	4F6MX
750	380	2⅞ (73)	TR17746	⅝ (2)	29 (13)	AT37	7⅞ (200)	5½(140)	2	A6301-15	FE	A1602-3B	4F6MX
1000	507	2⅞ (73)	TR17846	⅝ (2)	35 (16)	AT38	7⅞ (200)	5½(140)	2	A6301-15	FE	A1602-3B	4F6MX
1500	760	3⅞ (98)	TR17956	1 (4)	45 (20)	AT49	7⅞ (200)	6½(165)	2	A6301-17	GB	A1602-3B	5G6MX
2000	1013	3⅞ (98)	TR17X56	1 (4)	49 (22)	AT4X	7⅞ (200)	6½(165)	2	A6301-17	GB	A1602-3B	5G6MX
25kV (150kV BIL)													
1/0	53	2⅞ (73)	TR18045	½ (2)	31 (14)	AT20	10⅝ (270)	5½ (140)	1	A6301-10	EL	A1093-5	4E5MF
250	127	2⅞ (73)	UTR18246	⅝ (2)	31 (14)	AT32	10¾ (273)	5½ (140)	2	A6301-16	FG	A1093-5	4F6MX
500	253	2⅞ (73)	TR18546	⅝ (2)	33 (15)	AT35	10¾ (273)	5½ (140)	2	A6301-16	FG	A1602-3B	4F6MX
750	380	2⅞ (73)	TR18746	⅝ (2)	36 (16)	AT37	10⅞ (276)	5½ (140)	2	A6301-16	FG	A1602-3B	4F6MX
1000	507	2⅞ (73)	TR18846	⅝ (2)	41 (19)	AT38	10⅞ (276)	5½ (140)	2	A6301-16	FG	A1602-3B	4F6MX
1500	760	3⅞ (98)	TR18956	1 (4)	49 (22)	AT49	10⅞ (276)	6½ (165)	2	A6301-18	GD	A1602-3B	5G6MX
2000	1013	3⅞ (98)	TR18X56	1 (4)	55 (25)	AT4X	10⅞ (276)	6½ (165)	2	A6301-18	GD	A1602-3B	5G6MX
34.5kV (200kV BIL)													
250	127	3⅞ (98)	TR19256	1¼ (5)	47 (21)	AT32	17¼ (438)	6½ (165)	2	A6301-19	GF	A1602-3B	5G6MX
500	253	3⅞ (98)	TR19556	1¼ (5)	48 (22)	AT35	17¼ (438)	6½ (165)	2	A6301-19	GF	A1602-3B	5G6MX

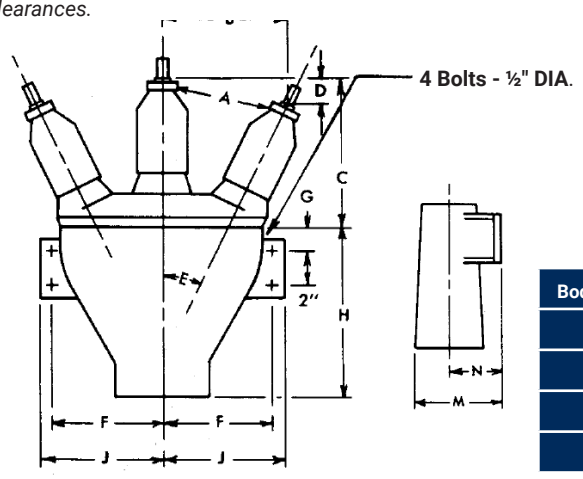
**For porcelain dimensions refer to page 20.*
†Base size required for selection of cable entrance fittings. Refer to body ID chart on this page. Body material subject to availability.

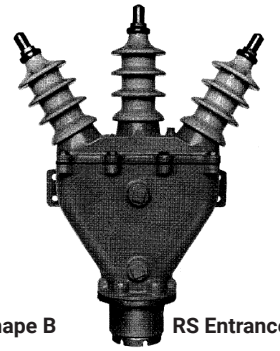
3/C Shape B

Catalog numbers are for copper, three conductor cable and include unassembled units with cemented porcelain and base gasket only. Required connector, entrance(s), aerial lugs, compound or stress cone kits are ordered separately. Optional connector styles, entrance fittings and ground lugs are available.

Aluminum conductor cables require compression style connectors.

Note: For aluminum cable over 250 kcmil, use the next larger size termination for correct internal clearances.





Shape B RS Entrance

Body Code #	E Degrees	F	G	H	J	M	N
J4C	30	7¾ (197)	1½ (38)	10 (245)	8½ (216)	7 (179)	3¾ (95)
J5C	30	7¾ (197)	1½ (38)	11½ (292)	8½ (216)	7 (179)	3¾ (95)
K5C	26	10½ (267)	2 (51)	15 (381)	11¼ (286)	7⅜ (187)	3¾ (95)
L5C	30	10½ (267)	3 (76)	16 (406)	11¼ (286)	8⅛ (208)	4¼ (108)

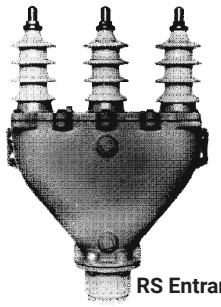
Max Cond. Size		Max. Cable OD in. (mm)	Catalog No. Outdoor	Approx. Compd Req'd Gal. (L)	Approx. Shpg. Wt. lbs. (kg)	Hoodnut Conn. Assembly	Approx. Dimensions				Lid Assembly					
											Outdoor		Indoor			
AWG KCM	mm²						A	B	C	D	Assembly No.	Porcelain	Assembly No.	Porcelain	Lid	Body
15kV (110kV BIL)																
1/0	53	2⅞ (73)	JT3704B	3 (11)	90 (41)	AT20	7¾ (197)	9¾ (248)	11¾ (298)	2⅛ (108)	A6304-13	EE	A6304-14	EF	EJ3B-2	J4C
250	127	3⅜ (98)	UT3725B	3½ (13)	100 (45)	AT22	7¾ (197)	9¾ (248)	11¾ (298)	2⅛ (108)	A6304-13	EE	A6304-14	EF	EJ3B-2	J5C
500	253	3⅜ (98)	JT3755B	3½ (13)	95 (43)	AT25	7¾ (197)	9⅞ (251)	11⅞ (302)	2⅛ (108)	A6304-17	EE	A6304-18	EF	EJ3B-2X	J5C
750	380	3⅜ (98)	JT3755B	3½ (13)	105 (48)	AT37	7⅜ (200)	9⅞ (251	11⅞ (302)	2⅛ (108)	A6304-19	EG	A6304-20	EH	EJ3B-2X	J5C
1000	507	3⅜ (98)	JT3785B	3½ (13)	112 (51)	AT38	7⅜ (200)	9⅞ (251	12 (305)	2⅛ (108)	A6304-19	EG	A6304-20	EH	EJ3B-2X	J5C
25kV (150kV BIL)																
1/0	53	3⅜ (98)	T3805B	5½ (21)	157 (71)	AT20	11⅝ (295)	13⅝ (346)	16⅛ (410)	2⅞ (73)	A6304-24	EK	A6304-23	EL	EK3B-1	K5C
250	127	3⅜ (98)	T3825B	5½ (21)	160(73)	AT22	11⅝ (295)	13⅝ (346)	16¼ (410)	2⅞ (73)	A6304-24	EK	A6304-23	EL	EK3B-1	K5C
500	253	3⅜ (98)	T3855B	5½ (21)	150 (68)	AT25	11⅝ (295)	13⅝ (346)	16¼ (410)	2⅞ (73)	A6304-30	EK	A6304-29	EL	EK3B-1X	K5C
34.5kV (150kV BIL)																
250	127	3⅜ (98)	T3925B	8 (30)	180 (82)	AT32	13¾ (349)	16 (406	20⅞ (530)	3½ (89)	A6304-31	FM	A6304-31	FM	FL3B	L5C
500	253	3⅜ (98)	T3955B	8 (30)	170 (77)	AT35	13¾ (349)	16⅛ (410)	20⅞ (530)	3½ (89)	A6304-32	FM	A6304-32	FM	FL3BX	L5C

For porcelain dimensions refer to page 20.

Base size is the second digit in the body code number: Base size is required for selection of cable entrance fittings. Body material is cast aluminum. Cast iron or bronze is optional subject to availability.

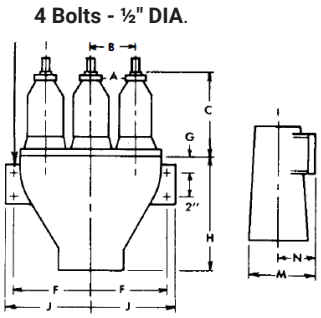
3/C Shape B

Catalog numbers are for copper, three conductor cable and include unassembled units with cemented porcelain and base gasket only. Required connector, entrance(s), aerial lugs, compound or stress cone kits are ordered separately. Optional connector styles, entrance fittings and ground lugs are available.
Aluminum conductor cables require compression style connectors.
Note: For aluminum cable over 250 kcmil, use the next larger size termination for correct internal clearances.



RS Entrance

Body Code #	E Degrees	F	G	H	J	M	N
J5C	31	7¾ (197)	1½ (38)	11½ (254)	8½ (216)	7 (179)	3¾ (95)
K5C	26	10½ (267)	2 (51)	15 (381)	11¼ (286)	7⅜ (187)	3¾ (95)



15kV (110kV BIL)															
Max Cond. Size		Max. Cable OD in. (mm)	Catalog No. Outdoor	Approx. Compd Req'd Gal. (L)	Approx. Shpg. Wt. lbs. (kg)	Hoodnut Conn. Assembly	Approx. Dimensions			Lid Assembly					
										Outdoor		Indoor		Lid	Body
AWG KCM	mm²						A	B	C	Assembly No.	Porcelain	Assembly No.	Porcelain		
1/0	53	3⅞ (98)	T3705C	5 (19)	90 (41)	AT20	5½ (120)	7⅝ (194)	10 (245)	A6305-12	EE	A6305-13	EF	EK3C	K5C
250	127	3⅞ (98)	T3725C	3½ (13)	5 (19)	AT22	5½ (120)	7⅝ (194)	10⅛ (257)	A6305-12	EE	A6305-13	EF	EK3C	K5C
500	253	3⅞ (98)	T3755C	3½ (13)	5 (19)	AT25	5½ (120)	7⅝ (194)	10⅛ (257)	A6305-16	EE	A6305-17	EF	EK3CX	K5C
750	380	3⅞ (98)	T3775C	3½ (13)	5 (19)	AT37	5⅛ (130)	7⅝ (194)	10¼ (260)	A6305-18	EG	A6305-19	EH	EK3CX	K5C
1000	507	3⅞ (98)	T3785C	3½ (13)	5 (19)	AT38	5⅛ (130)	7⅝ (194)	10¼ (260)	A6305-18	EG	A6305-19	EH	EK3CX	K5C

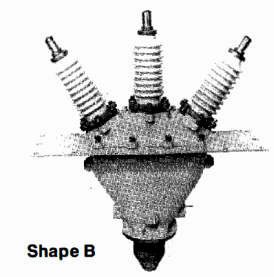
Shape B - Detachable

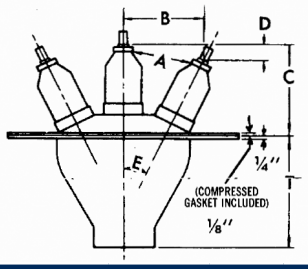
Catalog numbers are for copper, three conductor cable and include unassembled units with detachable porcelain and base gasket only. Required connector, entrance (s), aerial lugs, compound or stress cone kits are ordered separately. Optional connector styles, entrance fittings and ground lugs are available. Aluminum conductor cables require compression style connectors.
Note: For aluminum cable over 250 kcmil, use the next larger size termination for correct internal clearances.

15kV (110kV BIL)																
Max Cond. Size		Max. Cable OD in. (mm)	Catalog No. Outdoor	Approx. Compd Req'd Gal. (L)	Approx. Shpg. Wt. lbs. (kg)	Hoodnut Conn. Assembly	Approx. Dimensions				Lid Assembly					
											Outdoor		Indoor		Lid	Body
AWG KCM	mm						A	B	C	D	Assembly No.	Porcelain	Assembly No.	Porcelain		
250	127	3⅞ (98)	UTA3725B	3½ (13)	95 (43)	AT32	8¾ (222)	11⅛ (283)	14⅜ (365)	2¾ (70)	A6311-13	EAG	A6311-22	EAH	EJ3BA	J5C
500	253	3⅞ (98)	JTA3755B	3½ (13)	108 (49)	AT35	8¾ (222)	11⅛ (283)	14½ (368)	2¾ (70)	A6311-11	EAG	A6311-12	EAH	EJ3BAX	J5C
750	380	3⅞ (98)	JTA3755B	3½ (13)	112 (51)	AT37	8¾ (222)	11¼ (286)	14½ (368)	2¾ (70))	A6311-11	EAG	A6311-12	EAH	EJ3BAX	J5C
1000	507	3⅞ (98)	JTA3785B	3½ (13)	120 (54)	AT38	8¾ (222)	11¼ (286)	14⅝ (371)	2¾ (70))	A6311-11	EAG	A6311-12	EAH	EJ3BAX	J5C
25kV (150kV BIL)																
1/0	53	3⅞ (98)	TA3805B	5½ (21)	170 (77)	AT20	11⅞ (302)	14⅛ (359)	17⅜ (441)	3 (76)	A6311-15	EAK	A6311-17	EAL	EK3BA	K5C
250	127	3⅞ (98)	TA3825B	5½ (21)	172 (78)	AT22	11⅞ (302)	14⅛ (359)	17⅜ (441)	3 (76)	A6311-15	EAK	A6311-17	EAL	EK3BA	K5C
500	253	3⅞ (98)	TA3855B	5½ (21)	155 (70)	AT25	11⅞ (302)	14¼ (362)	17½ (445)	3 (76)	A6311-19	EAK	A6311-21	EAL	EK3BAX	K5C

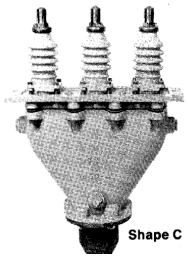
3/C Plate Mounted, Type TRA

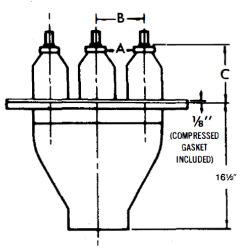
Catalog numbers are for copper, three conductor cable and include_ unasserohled_ units with detachable porcelain and base gasket only. Required connector, entrance(s), stress cone kits, insulating compound and aerial lugs are ordered separately. Optional connector styles, entrance fittings and ground lugs are available. Aluminum conductor cables require compression style connectors. ***Note: For aluminum cable over 250 kcmil, .use the next larger size termination for correct internal clearances. Terminations are for indoor mounting in air and/or ventilated compartments.***



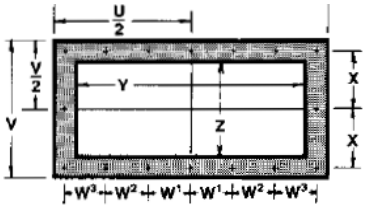


Max Cond. Size		Max. Cable OD in. (mm)	Catalog No. Outdoor	Approx. Compd Req'd Gal. (L)	Approx. Shpg. Wt. lbs. (kg)	Hoodnut Conn. Assembly	Mftg. Plate Symbol	Approx. Dimensions in. (mm)						Lid Assembly			
														Outdoor			
AWG KCM	mm²							A	B	C	D	E Degree	T	Assembly No.	Porcelain	Lid	Body
15kV (110kV BIL)																	
250	127	3⅞ (98)	UTR-A3725B	3½(13)	107 (49)	AT32	JB-2	8¾ (222)	11⅛ (283)	14⅜ (365)	2¾ (70)	31	11⅞ (302)	A6311-22	EAH	EJ3BA	J5C-1
500	253	3⅞ (98)	TR-A3755B	3½(13)	115 (52)	AT35	JB-2	8¾ (222)	11⅛ (283)	14½ (368)	2¾ (70)	31	11⅞ (302)	A6311-121	EAH	EJ3BAX	J5C-1
25kV (150kV BIL)																	
1/0	53	3⅞ (98)	TR-A3805B	5½(21)	157 (71)	AT20	KB-2	11⅞ (302)	14⅛ (359)	17⅜ (441)	3 (76)	26	15⅜ (391)	A6311-17	EAL	EK3BA	K5C-1
250	127	3⅞ (98)	TR-A3825B	5½(21)	160 (73)	AT22	KB-2	11⅞ (302)	14⅛ (359)	17⅜ (441)	3 (76)	26	15⅜ (391)	A6311-17	EAL	EK3BA	K5C-1
500	253	3⅞ (98)	TR-A3855B	5½(21)	154 (70)	AT25	KB-2	11⅞ (302)	14¼ (362)	17½ (445)	3 (76)	26	15⅜ (391)	A6311-21	EAL	EK3BAX	K5C-1





Type TRA
FOR EQUIPMENT APPLICATIONS
Terminations are for indoor mounting in air or with porcelains completely immersed in oil. For mounting in air all live parts (hoodnut and aerial lugs) should be taped, using tape kit A50801267000.



Holes are for ½" dia. bolts

Max Cond. Size		Max. Cable OD in. (mm)	Catalog No. Outdoor	Ap-prox. Com-pd Req'd Gal. (L)	Approx. Shpg. Wt. lbs. (kg)	Hoodnut Conn. Assem-bly	Mfg. Plate Sym-bol	Approx. Dimensions - in. (mm)			Lid Assembly			Body
											Outdoor			
AWG KCM	mm²							A	B	C	Assembly No.	Porcelain	Lid	
15kV (110kV BIL)														
250	127	3⅞ (98)	TRA3725C	5 (19)	170 (77)	AT32	4	5⅛ (130)	7⅝ (194)	9⅞ (251)	A6312-13	EAH	EK3CA	K5C-2
500	253	3⅞ (98)	TRA3755C	5 (19)	178 (81)	AT35	4	5⅛ (130)	7⅝ (194)	10 (254)	A6312-11	EAH	EK3CAX	K5C-2
25kV (150kV BIL)														
1/0	53	3⅞ (98)	TRA3805B	5 (19)	178 (81)	AT20	4	5½ (140)	7⅝ (194)	12⅝ (321)	A6312-14	EAL	EK3CA	K5C-2
250	127	3⅞ (98)	TRA3825B	5 (19)	180 (82)	AT22	4	5½ (140)	7⅝ (194)	12⅝ (321)	A6312-14	EAL	EK3CA	K5C-2
500	253	3⅞ (98)	TRA3855B	5 (19)	158 (72)	AT25	4	5½ (140)	7⅝ (194)	12⅝ (321)	A6312-12	EAL	EK3CAX	K5C-2

Mfg. Plate Symbol	No. Bolt Holes	Mfg. Plate Gasket	Approx. Dimensions - in. (mm)						
			U	V	W1	W2/W3	X	Y	Z
JB-2	16	B1463-57	29¼ (749)	10 (254)	4⅝ (117)	4⅝ (117)	4¼ (108)	26½ (673)	7¼ (184)
KB-2	16	B1463-90	35¼ (895)	10½ (267)	5⅝ (143)	5⅝ (143)	4½ (114)	32¼ (819)	7½ (190)
4	16	B1627-16	25½ (648)	8¼ (210)	4 (102)	4⅛ (105)	3½ (89)	22¾ (578)	5½ (140)

Base size is the second digit in the body code number. Base size is required for selection of cable entrance fittings. Body material is cast aluminum. Cast iron or bronze is optional subject to availability.

Connectors

Connectors and hoodnuts are made from high grade copper alloy and have a cross sectional area large enough to carry the rated current of the conductor without excessive heating. Locking fins on the connector engage slots in the porcelain to prevent rotation of the connector on the cable when installing the hoodnut. Connector ears rest on the inner shoulder of the porcelain and prevent the fins from becoming wedged in the slots.

Thinwall hoodnuts insure maximum current capacity by pressure contact on connector threads when clamped with an aerial lug.

Solder type connectors are standard for copper cable. Compression type internal connectors may be furnished for terminating either copper or aluminum conductors.

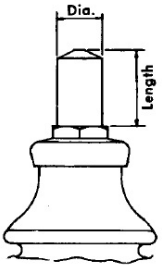
Connector Size AWG (kcm)			Connector Hoodnut Assembly	Hoodnut Dimensions in. (mm)		Gasket Part #	Approx. Shpg Wt lbs. (kg)
Min.	Max.	Max (mm^2)		Diameter	Length		
Solder (Copper)							
4	1/0	53	AT10	.68 (17)	⅞ (22)	A1647	1 (.45)
4	1/0	53	AT20	.68 (17)	⅞ (22)	A1625-2	1 (.45)
1/0	250	127	AT12	.80 (20)	1 3/16 (30)	A1647	1½ (.68)
1/0	250	127	AT22	.80 (20)	1 3/16 (30)	A1625-2	1½ (.68)
1/0	250	127	AT32	.80 (20)	1 3/16 (30)	A1626	1½ (.68)
250	500	253	AT25	1.05 (27)	1⅝ (41)	A1625-2	2½ (1.14)
250	500	253	AT35	1.05 (27)	1⅝ (41)	A1626	2½ (1.14)
250	500	253	AT45	1.05 (27)	1½ (38)	A1835	2½ (1.14)
500	750	380	AT37	1.24 (31)	1 15/16 (49)	A1626	3½ (1.59)
500	750	380	AT47	1.24 (31)	1⅞ (48)	A1835	3½ (1.59)
750	1000	507	AT38	1.37 (35)	2½ (64)	A1626	4½ (2.04)
750	1000	507	AT48	1.37 (35)	2½ (64)	A1835	4½ (2.04)
1000	1500	760	AT49	1.74 (44)	2¾ (70)	A1835	8 (3.63)
1500	2000	1013	AT4X	1.93 (49)	2½ (64)	A1835	11 (4.99)
Compression (Copper)							
4	1/0	53	AT10H	.68 (17)	⅞ (22)	A1647	1 (.45)
4	250	127	AT12H	.80 (20)	1 3/16 (30)	A1647	1½ (.68)
4	1/0	53	AT20H	.68 (17)	⅞ (22)	A1625-2	1 (.45)
4	250	127	AT22H	.80 (20)	1 3/16 (30)	A1625-2	1½ (.68)
4	500	253	AT25H	1.05 (27)	1⅝ (41)	A1625-2	2½ (1.14)
4	250	127	AT32H	.80 (20)	1 3/16 (30)	A1626	1½ (.68)
4	500	253	AT35H	1.05 (27)	1⅝ (41)	A1626	2½ (1.14)
4/0	750	380	AT37H	1.24 (31)	1 15/16 (30)	A1626	3½ (1.59)
300	1000	507	AT38H	1.37 (35)	2½ (64)	A1626	4½ (2.04)
4	500	253	AT45H	1.05 (27)	1½ (38)	A1835	2½ (1.14)
4/0	750	380	AT47H	1.24 (31)	1⅞ (48)	A1835	3½ (1.59)
300	1000	507	AT48H	1.37 (35)	2½ (64)	A1835	4½ (2.04)
500	1500	760	AT49H	1.74 (44)	2¾ (70)	A1835	8 (3.63)
500	2000	1013	AT4XH	1.93 (49)	2½ (64)	A1835	11 (4.99)

Solder Type

Compression Type

Hoodnut

Gasket



Standard Hoodnut

Connectors

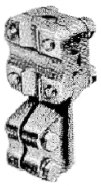
Connector Size AWG (kcm)			Connector Hoodnut Assembly	Hoodnut Dimensions in. (mm)		Gasket Part #	Approx. Shpg Wt lbs. (kg)
Min	Max.	Max (mm^2)		Diameter	Length		
Compression (Aluminum)							
4	1/0	53	AT10A	.68 (17)	⅞ (22)	A1647	1 (.45)
4	250	127	AT12A	.80 (20)	1 3/16 (30)	A1647	1½ (.68)
4	1/0	53	AT20A	.68 (17)	⅞ (22)	A1625-2	1 (.45)
4	250	127	AT22A	.80 (20)	1 3/16 (30)	A1625-2	1½ (.68)
4	500	253	AT25A	1.05 (27)	1⅝ (41)	A1625-2	2½ (1.14)
4	250	127	AT32A	.80 (20)	1 3/16 (30)	A1626	1½ (.68)
4	500	253	AT35A	1.05 (27)	1⅝ (41)	A1626	2½ (1.14)
4	750	380	AT37A	1.24 (31)	1 15/16 (30)	A1626	3½ (1.59)
300	1000	507	AT38A	1.37 (35)	2½ (64)	A1626	4½ (2.04)
4	500	253	AT45A	1.05 (27)	1½ (38)	A1835	2½ (1.14)
4	750	380	AT47A	1.24 (31)	1⅞ (48)	A1835	3½ (1.59)
300	1000	507	AT48A	1.37 (35)	2½ (64)	A1835	4½ (2.04)
500	1500	760	AT49A	1.74 (44)	2¾ (70)	A1835	8 (3.63)
500	2000	1013	AT4XA	1.93 (49)	2½ (64)	A1835	11 (4.99)

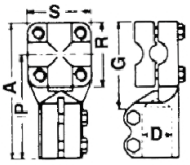
Compression Type

Aerial Lugs

Style 3-D. Adjustable Clamp Type, Horizontal or Vertical Take-off

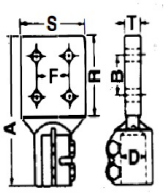
Max. Cond. Size		For Hoodnut Diam. D.	Part Number	Apporoximate Dimensions - in. (mm)					Standard Clamping Range	Approx. Shpg. Weight lbs. (kg.)
AWG/ KCM	mm^2			G	A	P	R	S		
1/0	53	0.684"	3D10	1⅞ (48)	2¾ (70)	2 1/16 (52)	1⅜ (35)	1⅜ (35)	#4AWG to #2/0AWG	1¼ (.57)
250	127	0.809"	3D21	2 (51)	3¼ (83)	2½ (64)	1½ (38)	1½ (38)	#8AWG to 250KCM	1½ (.68)
500	253	1.057"	3D55	2 11/16 (68)	4⅜ (111)	3 5/16 (84)	2⅛ (54)	2⅛ (54)	#2AWG to 500KCM	2½ (1.1)
750	380	1.245"	3D75	2 13/16 (71)	4¾ (121)	3⅝ (92)	2¼ (57)	2¼ (57)	#2AWG to 500KCM	4¼ (1.4)
750	380	1.245"	3D77	2 13/16 (71)	4¾ (121)	3⅝ (92)	2¼ (57)	2¼ (57)	250KCM to 750 KCM	4½ (2.0)
1000	507	1.370'	3D88	3½ (90)	5¾ (148)	4⅜ (111)	2¾ (70)	2¾ (70)	600KCM to1000 KCM	7 (3.2)





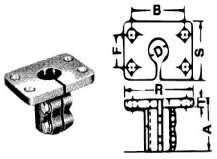
Style 8. Bus Type, Vertical Surface

Max. Cond. Size		For Hoodnut Diam. D.	Part Number	No. and Size of holes in pad	Apporoximate Dimensions - in. (mm)						Approx. Shpg. Weight lbs. (kg.)
AWG/ KCM	mm^2				B	F	R	S	T	A	
1/0	53	0.684"	A478- 5	1-9/16	-	-	1½ (38)	1 (25)	½ (13)	2⅞ (73)	1 (.45)
250	127	0.809"	A479-32	1-9/16	-	-	1½ (38)	1½ (38)	½ (13)	3¼ (83)	1¾ (.79)
500	253	1.057"	A480-23	2-9/16	1¾ (45)	-	3 (76)	2 (51)	⅝ (16)	5 5/16 (135)	2½ (1.1)
750	380	1.245"	A481-23	4-9/16	1¾ (45)	1¾ (45)	3 (76)	3 (76)	⅝ (16)	5 5/16 (135)	4 (1.8)
1000	507	1.370"	A482-23	4-9/16	1¾ (45)	1¾ (45)	3 (76)	3 (76)	⅝ (16)	6 (152)	4½ (2.0)
1500	760	1.745"	A483-11	4-9/16	1¾ (45)	1¾ (45)	4 (102)	3 (76)	¾ (19)	7⅝ (194)	7 (3.2)
2000	1013	1.932"	A484- 8	4-9/16	1¾ (45)	1¾ (45)	4 (102)	4 (102)	¾ (19)	7½ (191)	12 (5.5)



Style 18. Bus Type, Horizontal Surface

Max. Cond. Size		For Hoodnut Diam. D.	Part Number	No. and Size of holes in pad	Apporoximate Dimensions - in. (mm)						Approx. Shpg. Weight lbs. (kg.)
AWG/ KCM	mm^2				B	F	R	S	T	A	
1/0	53	0.684"	A521	1-9/16	-	*	1 1/16 (25)	2 5/16 (59)	¼ (6)	1 (25)	¾ (.34)
250	127	0.809"	A522	2-5/16	1⅞ (48)	-	2½ (64)	1½ (38)	¼ (6)	1 5/16 (33)	1(.45)
500	253	1.057"	A523	2-7/16	2½ (65)	-	3¼ (83)	3 (76)	5/16 (8)	2 (51)	1¾ (.79)
750	380	1.245"	A524	4-9/16	3⅛ (79)	1½ (38)	4 (102)	3 (76)	⅜ (10)	2⅜ (60)	2½ (1.1)
1000	507	1.370"	A525	4-9/16	3⅛ (79)	1½ (38)	4 (102)	3 (76)	⅜ (10)	2 11/16 (68)	3½ (1.6)
1500	760	1.745"	A526	4-9/16	3⅛ (79)	1½ (38)	4 (102)	3 (76)	½ (13)	3½ (89)	5 (2.3)
2000	1013	1.932"	A527	4-9/16	3¾ (95)	1½ (38)	5 (127)	3 (76)	⅜ (10)	2⅝ (67)	5 (2.3)



** 1" Spacing between centerline of drilled hole and centerline of hoodnut.*

Entrance Fitting Appliction Chart

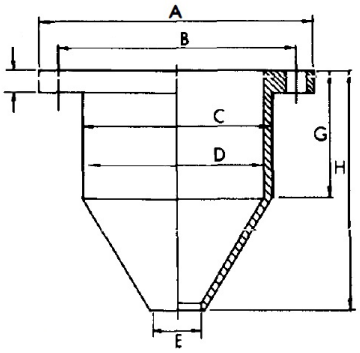
Cable Type	WS- Wiping Sleeve	WSV-CC- Inverted Wiping Sleeve & Conduit Coupling	WSV-AC- Inverted Wiping Sleeve & Armor Clamp	WSC-WAF- Inverted Wiping Sleeve & Wire Armor Fitting	RS- Stuffing Box	RSF-CC- Stuffing Box & Conduit Coupling
PILC VCLC RILC	1 or 3 Conductor	3 Conductor	-	-	1 or 3 Conductor	3 Conductor
EPR XLP					1 or 3 Conductor	3 Conductor
High mole Polyethlene and Kerite					1 or 3 Conductor May require tube seal	3 Conductor May require tube seal
Flat Steel Armored			3 Conductor			
Interlocked* Armor						
Wire Armor				3 Conductor		
Type CCE Split Conduit Extension Adaptable		✓	✓	✓		✓

Application on cables with a solid Jacket under the armor. For cables with a Jacket over the armor, a cable entrance f1ttIng combination (DP3-EE-EE-GL-ACC-DP-1) can be used

Cable Type	RSF-AC- Stuffing Box & Armor Clamp	RSF-WAF- Stuffing Box & Wire Armor Fitting	RSA- Stuffing Box and Wire Clamp	DP- Double Plate Compression Fitting	DP-CC- DP Fitting & Conduit Coupling	DP-EE-AC- DP Fitting Entrance Extension & Armor Clamp	DP-EE-WAF- DP Entrance Extension & Wire Armor Fitting
PILC VCLC RILC				3 single conductors	3 single conductors		
EPR XLP				3 single conductors	3 single conductors		
High mole Polyethlene and Kerite				3 single conductors May require tube seal	3 single conductors May require tube seal		
Flat Steel Armored	3 Conductor					1 or 3 conductors	
Interlocked* Armor							
Wire Armor		3 Conductor	3 Conductor				1 or 3 conductors
Type CCE Split Conduit Extension Adaptable	✓	✓			✓	✓	✓

WS
Wiping Sleeve

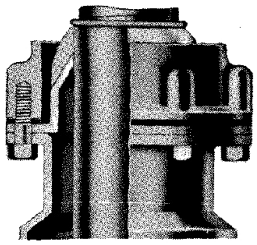
Wiping sleeves are cast bronze. The conical end is sawed off to fit the cable on the job. Wiping sleeves are furnished untinned. (Add suffix G1 to WS catalog number for tinning.)

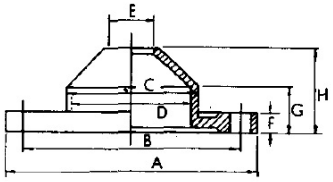


Dimensions in Inches	Base Size			
	3	4	5	6
A	3 7/16	5 9/16	7 3/16	8½
B	2 5/8	4¾	6⅛	7¼
C	2 9/16	3¾	4 5/16	5¾
D	2 5/16	3 7/16	4 1/16	5½
E	5/8	1	1½	2
F	7/16	7/16	7/16	½
G	2⅜	2 9/16	3 5/16	3⅜
H	3⅞	4 11/16	5 13/16	6
Mounting Holes	4-⅜	6-7/16	6-9/16	6 -9/16
Catalog No.	WS31	WS41	WS51	WS61
Max. OD Cable	2¼	3⅜	4	5¼
Shpg. Wgt.- lbs	2¾	5	8¼	12

WSV
Inverted Wiping Sleeve

Inverted wiping sleeves are cast bronze and normally furnished uncut and untinned unless otherwise indicated when ordered. Add suffix G1 to WSV to catalog number for tinning.

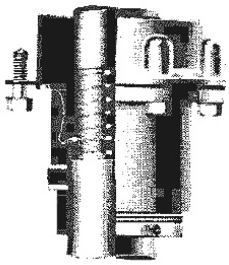


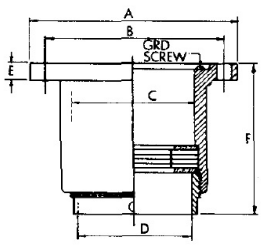


Dimensions in Inches	Base Size			
	3	4	5	6
A	3 7/16	5 9/16	7 3/16	X
B	2⅝	4¾	6⅛	X
C	1⅞	2⅞	3⅞	X
D	1⅝	2 9/16	3 9/16	X
E	23/32	1	1½	X
F	⅜	7/16	7/16	X
G	1	1	1	X
H	1⅝	1⅞	2¼	X
Mounting Holes	4-⅜	6-7/16	6-9/16	X
Catalog No.	WSV31	WSV41	WSV51	X
Max. OD Cable	1⅜	2 5/16	3 5/16	X
Shpg. Wgt.- lbs	2	4	6	X

RS
Stuffing Box

Stuffing box fittings are cast aluminum with an aluminum gland nut, two aluminum washers and four resistoyl gaskets. They may be furnished in bronze if desired. The RS fitting is furnished with one hole factory drilled for one single conductor or one multiple conductor cable. (Please specifiy the cable diameter). (Add G1 to RS catalog number for bronze fitting.

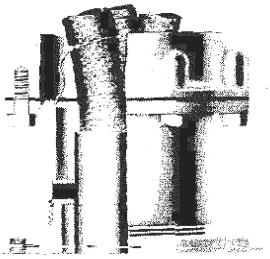


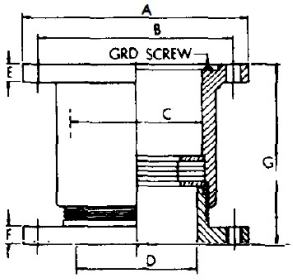


Dimensions in Inches	Base Size			
	3	4	5	6
A	3 7/16	5 ½	7 ¼	8 7/16
B	2⅝	4¾	6⅛	7¼
C	2 3/16	3 3/16	4½	5½
D	2	3	4	5
E	⅜	7/16	7/16	7/16
F	4⅛	4⅛	4⅛	4⅞
Mounting Holes	4-⅜	6-7/16	6-9/16	6-9/16
Catalog No.	RS33	RS44	RS55	RS66
Max. OD Cable	1⅞	2⅞	3⅞	4⅞
Shpg. Wgt.- lbs	3	4	6	7

RSF
Flanged Stuffing Box

Stuffing box fittings are cast aluminum with cast iron flanged washers and four resistoyl gaskets. (Aluminum flanged gland nut is furnished when used with single conductor cables 500 KCM and larger, or when specified on order.) Available also in bronze. (Add suffix G1 to catalog number.) Material subject to availability. Furnished with one hole factory drilled for one single or one multiple conductor cable. (Specify cable diameter on order.)

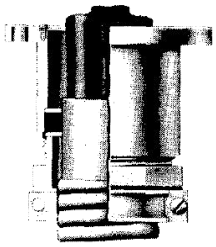


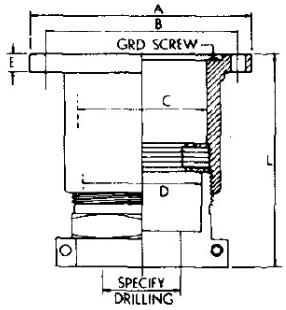


Dimensions in Inches	Base Size		
	3	4	5
A	3½	5½	7 ¼
B	2 ⅝	4¾	6⅛
C	2 3/16	3 3/16	4½
D	2	3	3
E	⅜	7/16	7/16
F	⅜	7/16	½
G	4¼	4⅜	4 7/16
Mounting Holes	4-⅜	6-7/16	6-9/16
Catalog No.	RSF33	RSF44	RFS55
Max. OD Cable	1⅞	2⅞	3⅞
Shpg. Wgt.- lbs	4	5	7

RSA
Stuffing Box and Armored Clamp

Stuffing box fittings are cast aluminum with aluminum combination armor clamp, gland nut, two aluminum washers and four resistoyl gaskets. Furnished with one hole in washers and sealing gaskets factory drilled to diameter of cable jacket or sheath and one hole in armor clamp factory drilled to. diameter of interlocked armor. (Specify cable diameters over interlocked armor and over the impervious jacket under the armor when ordering. Available in bronze, if desired. (Add suffix G1 to RSA catalog number for bronze fitting).

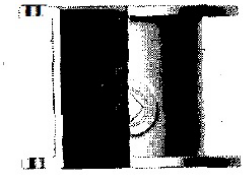


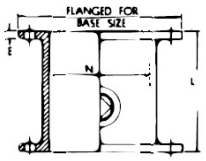


Dimensions in Inches	Base Size		
	3	4	5
A	3½	5½	7¼
B	2 ⅝	4¾	6⅛
C	3 3/16	3 3/16	4½
D	2	3	3¾
E	⅜	7/16	7/16
L	5¼	5¼	5¼
Mounting Holes	4-⅜	6-7/16	6-9/16
Catalog No.	RSA33	RSA44	RFA55
Max. OD over Armor	1⅞	2⅞	3⅞
Max. OD over Jacket	1¾	2¾	3½
Shpg. Wgt.- lbs	3	4	6

EE
Entrance Extension

Entrance extensions are cast iron and are flanged on each end to accept entrance fittings of the same base size. Available also in bronze (add suffix "G1" to catalog number) or aluminum (add suffix "G2" to catalog number) if desired. Material subject to availability.

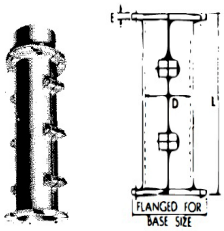




Base Size	Catalog Number	Part Number	Dimensions in.			Shpg. Wt. lbs.
			E	N	L	
3	EE3	A3274-15	⅜	2¾	4	5
4	EE4	A3274- 5	¼	3½	4	6
5	EE5	A3274- 9	5/16	4½	5	11
6	EE6	A3274-16	5/16	5½	5	15

CCE
Split Conduit Extension

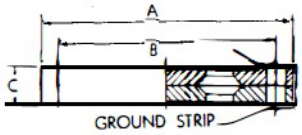
Split conduit extensions are cast iron and are flanged on each end to accept entrance fittings of the same base size. Material subject to availability. The two halves of the extension are joined by bolts to permit removal so that the pothead can be backed away during cable installation. Available in either 10 or 15 inch lengths. Two or more units may be used in series where longer extensions are required.



Base Size	Catalog #	Part # (one half)	Dimensions in.			Shpg. Wt. lbs.
			D	E	L	
3	CC3E-10F	B310-5	2 9/16	5/16	10	9
4	CC4E-10F	B310	3⅜	5/16	10	12
4	CC4E-15F	B310-10	3⅜	5/16	15	16
5	CC5E-10F	B310-1	4⅜	5/16	10	18
5	CC5E-15F	B310-11	4⅜	5/16	15	24
6	CC6E-10F	B310-28	5¾	5/16	10	20
6	CC6E-15F	B310	5¾	5/16	15	25

DP
Double Plate Stuffing Box

Type "DP" plates are cast aluminum as standard for each size. Available also in bronze, if desired. (Add suffix G1 to catalog number.) Holes are factory drilled to fit cables. (Specify cable diameter on order.)



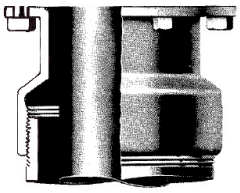
Dimensions in Inches	Base Size			
	3	4	5	6
A	3½	5½	7¼	8
B	2 5/8	4¾	6⅛	7¼
C	⅞	⅞	⅞	1¼
Mounting Holes	4-⅜	6-7/16	6-9/16	6-9/16
Cat.* Number	DP3___	DP4___	DP5___	DP6___
Max. OD Cable	See table corresponding to Base Size			
Shpg. Wgt.- lbs	2	2	3	6

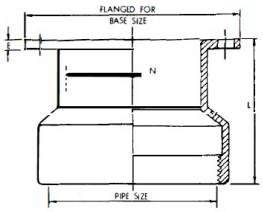
*Add suffix digit for No. of cable holes.
Ex: DP30 is blank & DP34 has 4 holes.*

Base Size	No. of holes	Maximum Drilling with "CC" Conduit Coupling										Without "CC"
		1	1¼	1½	2	2½	3	3½	4	4½	5	6	
3	1	1 5/16	15/16 7/16	1 9/16 9/16	2 ⅞ 11/16	2⅜ 1 15/16	2 7/16 1 15/16	2 7/16 1 15/16	2 7/16 1 15/16				2⅝
3	2	5/16	3/8	½	5/8	¾	¾	¾	¾				1⅛
3	3		5/16	7/16									1 1/32
3	4	¼											⅞
4	1			1 9/16	2	2⅜	3	3⅜	3⅜	3⅜	3⅜		
4	2			9/16	⅞	1 1/16	1 5/16	1½	1½	1½	1½		
4	3			½	11/16	15/16	1 3/16	1⅜	1⅜	1⅜	1⅜		
4	4			7/16	5/8	¾	1	1 3/16	1 3/16	1 3/16	1 3/16		
5	1						3	3½	3 15/16	4 7/16	4½	4½	4⅞
5	2						1 5/16	1½	1 13/16	2 1/16	2 1/16	2 1/16	2¼
5	3						1 3/16	1⅜	1⅝	1⅞	1⅞	1⅞	2 1/16
5	4						1	1 3/16	1 7/16	1⅝	1⅝	1⅝	1 13/16
6	1											5½	5⅞
6	2											2 9/16	2¾
6	3											2⅜	2 17/32
6	4											2	2 7/32

CC
Conduit Coupling

Conduit Couplings are cast iron and are threaded for use on metal conduit. Available also in bronze (add suffix "G1" to catalog number) or aluminum (add suffix "G2" to catalog number) if desired. Material subject to availability. Also may be furnished with set screws to hold in place on fiber duct.

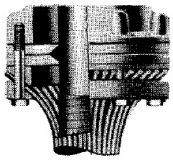


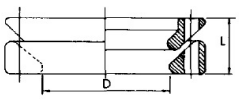


Base size	Pipe Size	Catalog No.	Part	Dimensions (inches)			Shpg. Wt. lbs.
				E	N	L	
3	1	CC310	A70-F	¼	2 9/16	2	1½
3	1¼	CC312	A70-1F	¼	2 9/16	2	1½
3	1½	CC314	A70-2F	¼	2 9/16	2	2
3	2	CC320	A70-3F	¼	2 9/16	2	2
3	2½	CC324	A70-4F	¼	2 9/16	2	2
3	3	CC330	A70-5F	¼	2 9/16	3	2
3	3½	CC334	A70-6F	¼	2 9/16	3¼	4
3	4	CC340	A70-6F	¼	2 9/16	3⅝	5
4	1½	CC414	B610-F	¼	3½	2¼	2½
4	2	CC420	B611-F	¼	3½	2¼	2¾
4	2½	CC424	B612-F	¼	3½	2½	3½
4	3	CC430	B613-F	¼	3½	2¾	3¾
4	3½	CC434	B614-F	¼	3½	3¼	4½
4	4	CC440	B615-F	¼	3½	3¾	6
4	4½	CC444	B616-F	¼	3½	4¼	7
4	5	CC450	B617-F	¼	3½	4¼	8
5	3	CC530	B620-F	⅜	4⅝	3	6
5	3½	CC534	B621-F	⅜	4⅝	3	6½
5	4	CC540	B622-F	⅜	4⅝	3	7
5	4½	CC544	B623-F	⅜	4⅝	3	8
5	5	CC550	B624-F	⅜	4⅝	4½	10
5	6	CC560	B625-F	⅜	4⅝	5	11
6	6	CC660	B625-7F	⅜	5⅝	5¼	15

WAF Wire Armor Clamp

Type "WAF" wire armor clamps are bronze and consist of two mating rings which bolt together to clamp the armor wires. Only one size "WAF" fitting is required for each base size pothead.

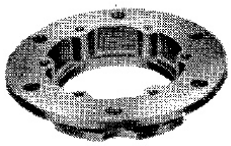


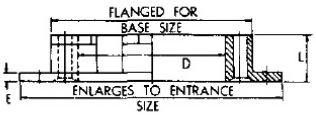


Base Size	Catalog No.	Part No.	Dimensions (inches)		Shpg. Wt. lbs.
			D	L	
3	WAF31	B318-44J/45J	2¾	1⅝	5
4	WAF41	B318-38J/45J	3½	1⅝	6
5	WAF51	B318-36J/45J	5	25	8

BE Base Enlarger

Base enlargers are cast iron. (Base size #5 to #6 enlarger fabricated from mild steel:) Available also in bronze, if desired. (Add suffix "G1" to catalog number.) Material subject to availability.

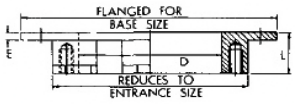




Enlarges base size from	Cat. No.	Part No.	Dimensions (inches)			Shpg. Wt. lbs
			D	E	L	
3 to 4	BE34	A3017-115	2¾	⅝	⅝	4
4 to 5	BE45	A3017-18	4	¼	1¼	6
5 to 6	BE56	B1573-26	5	¾	¾	14

BE Base Reducer

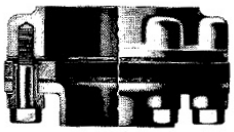
Base reducers are cast iron. The bottom half of the fitting is drilled and tapped to receive entrance fittings of a smaller base size. Available also in bronze, if desired. (Add suffix "G1" to catalog number.) Material subject to availability.

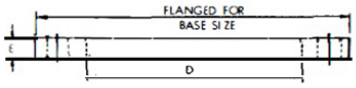


Enlarges base size from	Cat. No.	Part No.	Dimensions (inches)			Shpg. Wt. lbs.
			D	E	L	
4 to 3	BR43	A3017-2	2¾	11/16	11/16	4
5 to 3	BR53	A3017-11	2¾	¼	⅞	5
5 to 4	BR54	A3017-3	4	¼	1¼	6
6 to 5	BR65	B1178-2	5	½	1½	14

EF Entrance Flange Insulator

Type "EF" flange insulators are normally furnished in bakelite with bakelite bushings for the cap screws. Available also in plexiglass for most applications other than askarel filled devices. Special wiping sleeves (larger holes in the flange) are required to accommodate insulating bushings.

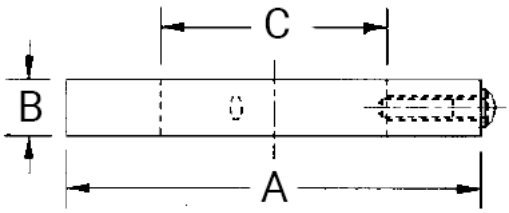




Base Size	Catalog No.	Dimensions (inches)		Shpg. Wt. lbs
		D	E	
3	EF13	2 9/16	¾	1
4	EF14	3¾	¾	1½
5	EF15	4½	⅜	2
6	EF16	6	⅜	3

ACC Armor Clamping Collar

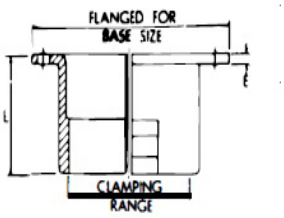
For clamping an interlocked armor cable. The clamping collar is fastened by using setscrews which are tightened into the crevices of the armor.



Dimensions in Inches	Base Size		
	3	4	5
A	3½	5½	7¼
B	¾	¾	¾
C Max	2 7/16	3⅞	4⅞
Mounting Holes	4-⅜	6 7/16	7 9/16
Catalog Number	ACC31	ACC41	ACC51
Max. OD over armor	1 15/16	3¾	4¾
Shipping Wt.-lbs	2	4	6

AC Armor Clamp

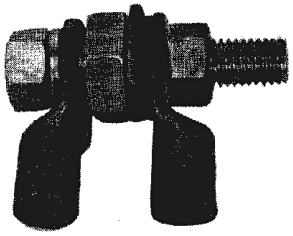
Type "AC" armor clamps are cast iron and are split (one fitting consists of two halves) for bolting together to clamp armor. Available also in bronze (add suffix "G1" to catalog number) if desired. Material subject to availability.

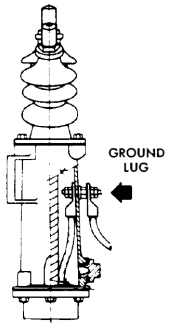


Base Size	Clamping Range (Diameters)	Catalog No.	Part No.	Dimensions		Shipping Wt. lbs
				E	L	
3	Up to 1"	AC310	A170	7/16	2½	3
3	1" to 1⅜	AC313	A170-1	7/16	2½	2½
3	1⅜ to 1⅝	AC315	A170-2	7/16	2½	2½
3	1⅝ to 1⅞	AC317	A170-3	7/16	2½	2½
3	1⅞ to 2⅛	AC321	A170-4	7/16	2½	3
4	Up to 1⅞	AC417	B307-6	¼	2¾	4½
4	1⅞ to 2¼	AC422	B307-5	¼	2¾	4
4	2¼ to 2⅝	AC425	B307-4	¼	2¾	4
4	2⅝ to 3	AC430	B307-6	¼	2¾	5
4	3 to 3⅜	AC433	B307-3	¼	2¾	5
4	3⅜ to 3¾	AC426	B307-2	¼	2¾	5
4	3¾ to 4	AC440	B307-1	¼	2¾	5
5	Up to 2¾	AC526	B308-6	¼	3½	7
5	2¾ to 3	AC530	B308-2	¼	3½	8
5	3 to 3⅜	AC533	B308-1	¼	3½	10
5	3⅜ to 3¾	AC536	B308	¼	3½	9
5	3¾ to 4⅛	AC541	B308-3	¼	3½	8
5	4⅛ to 4½	AC544	B308-4	¼	3½	8
5	4½ to 4 ⅞	AC547	B308-5	¼	3½	7

Ground Lugs

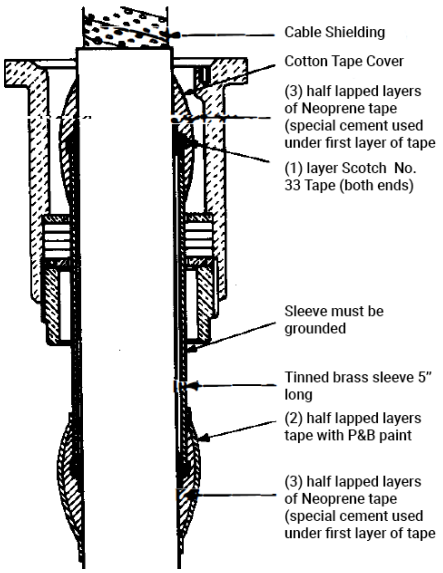
Ground lugs are used on 3/C terminations to accommodate a fourth conductor when one of the conductors is a grounded neutral. The maximum neutral conductor size is 4/0 AWG. To order, add the suffix "GL" to the catalog number of the 3/C termination selected. Specify conductor size.



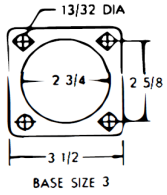
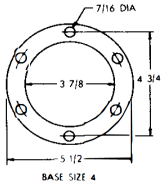
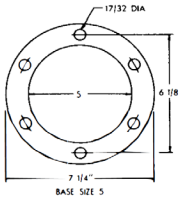
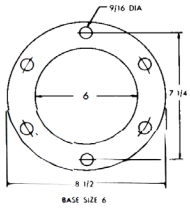


Tube Seal Kits

Tube seal kits are required for terminating cables of soft insulation such as high molecular we ight polyethylene which may deform when sealed by a stuffing box entrance. The kit consists of a tinned brass sleeve, a special cement material and a sufficient quantity of cotton, neoprene and PVC sealing tapes. The kit is applied around the cable jacket to provide a positive sealing surface at the cable entrance fitting.



Entrance Fitting Gaskets

Base Size	3	4	5	6
Dimensions: Actual dimensions of entrance gaskets for each base size are shown				
Gasket number	A-1846-10	A-1758	A-1093	A-1602-3
Mounting screws	Four 5/16"-18 screws	Six 3/8" -16 screws	Six ½" -13 screws	Six ½" -13 screws

Stress Cone Kits

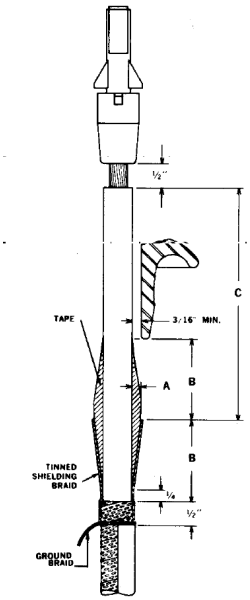
Cross Linked Polyethelene or EPR Insulated

Cable	Conductor Size		kV		
	AWG/KCM	mm²	15	25	34.5
(1) 1/C	1/0 500 1000 2000	53 253 507 1013	1D10 1D10 2D10 2D15	2D10 2D15 2D15 3D20	3D15 3D15 4D20 4D25
(1) 1/C (3) 1/C	1/0 500 1000 2000	53 253 507 1013	2D20 3D25 4D30 5D40	4D25 5D35 6D40 8D50	7D35 9D45 10D55 12D65

kV	Dimensions - Inches			
	A	B	C min	P
15	¼	3½	5	-
25	5/16	4	8	-
34.5	3/8	4¾	12	-

Dry packed varnish Dacron glass tape and tinned copper shielding braid are recommended for use on cross linked polyethylene insulated cables.

"A" Thickness of applied insulation
"B" Length of cone
"C" Minimum creepage from live conductor to end at shielding



EPR and Cross Linked Polyethylene Insulated

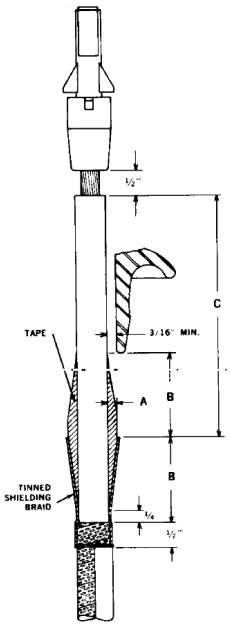
Varnished Cambric or Paper Insulated

Cable	Conductor Size		kV		
	AWG/KCM	mm²	15	25	34.5
(1) 1/C	1/0 500 1000 2000	53 253 507 1013	1S5 1S10 1S10 2S10	2S10 2S10 2S10 2S15	2S10 3S15 3S15 4S20
(1) 3/C (3) 1/C	1/0 500 1000 2000	53 253 507 1013	2S15 3S20 3S20 4S30	3S20 4S25 5S30 6S40	6S30 7S35 8S40 10S50

kV	Dimensions - Inches			
	A	B	C min	P
15	¼	2¼	5	-
25	5/16	3	8	-
34.5	3/8	3½	12	-

Oil packed varnished cambric type and tinned copper shielding braid are recommended for use on both varnished cambric and paper insulated cables.

"A" Thickness of applied insulation
"B" Length of cone
"C" Minimum creepage from live conductor to end at shielding



Varnish Cambric and Paper Insulated

Rubber Insulated and Kerite

Cable	Conductor Size		kV		
	AWG/KCM	mm²	15	25	34.5
(1) 1/C	1/0 500 1000 2000	53 253 507 1013	1V5 1V5 1V10 1V10	1V10 2V10 2V10 2V15	3V10 3V15 3V15 4V20
(1) 3/C (3) 1/C	1/0 500 1000 2000	53 253 507 1013	2V15 2V15 3V20 3V25	3V20 4V25 5V30 5V35	7V30 8V35 9V45 10V55

kV	Dimensions - Inches			
	A	B	C min	P
15 25 34.5	3/16 ¼ 5/16	1¾ 2¼ 3	5 8 12	- - -

Dry packed varnished cambric tape and tinned copper shielding braid are recommended for use on rubber insulated cables, or if desired, "Nozone" rubber insulating tapes may be used.

"A" Thickness of applied insulation
"B" Length of cone
"C" Minimum creepage from live conductor to end at shielding

High Molecular Polyethylene Insulated

Cable	Conductor Size		kV		
	AWG/KCM	mm²	15	25	34.5
(1) 1/C	1/0 500 1000 2000	53 253 507 1013	1P10 2P10 2P10 2P20	2P10 2P20 3P20 3P20	3P20 4P20 4P20 5P20
(1) 3/C (3) 1/C	1/0 500 1000 2000	53 253 507 1013	3P20 4P40 4P40 5P40	4P40 6P40 6P40 9P60	8P60 10P60 11P60 13P60

kV	Dimensions - Inches			
	A	B	C min	P
15 25 34.5	¼ 5/16 ⅜	3½ 4 4¾	5 8 12	1 1½ 2

Dry packed polyethylene tape, polyethylene semi-con tape, and dry cotton tape are recommended for use on high molecular polyethylene insulated cables. Tube seals are required.

"A" Thickness of applied insulation
"B" Length of cone
"C" Minimum creepage from live conductor to end of shielding
"P" Pencil length

Thermometers

Thermometers have a stainless steel stem, adjustable clip handle and temperature scale in either Centigrade or Fahrenheit.

Catalog Number	Temperature Range	Stem Length (in.)
CT3	150°F. to 750°F.	6
CT3-12	150°F. to 750°F.	12
CT3-18	150°F. to 750°F.	18
CT3-C	0°C. to 300°C.	6
CT3-C-12	0°C. to 300°C.	12
CT3-C-18	0°C. to 300°C.	18

Compounds

Compounds are a high dielectric strength filler material used in terminations, cableheads, cable boxes and cable joints. An ideal compound should be chemically inert, adhesive and tacky; have low melting point to permit flow into all unoccupied space before solidfying, low moisture absorption, low dielectric loss, high dielectric strength and high flash and fire point for personnel safety. The selection of the proper compound for a particular installation depends upon:

1. Cable type and kind of insulation
2. Operating voltage and temperatures
3. Cable system elevation differentials (PILC cable only).

Types of Compounds

NOVOID "A" is a medium soft asphaltic base compound recommended for use in most termination and cablehead (switch or box) installations at 38kV or below.

NOVOID "C" is a medium hard asphaltic base compound recommended for use in terminations and cableheads for application in hot climates or hot exposureat voltages up to and including 38kV.

NOVOID "X" is a hard resin-base, oil insoluble compound recommended for use in terminations, cableheads and joints where migration of the cable-tape impregnant may be a problem. There are temperature limitations.

NOVOID #224 is a heavy polybutene base compound recommended for use in terminations, cableheads and joints for polyethylene and EPR insulated cables.

NOVOID "9A" is a very soft asphaltic base compound recommended for use in spreaderhead installations up to 38kV where the compound must be very fluid to rise up in lead or copper tubes. The lower part of the spreaderhead may be filled with Novoid "X" to provide a barrier to help prevent migration of the Novoid "9A" down into the cable.

NOVOID #219 is a medium viscosity oil recommended for use as a "flushing compound" for building cable splices or terminating where such "flushing" is re guired. It may also be used as filling compound in terminations and joints on solid type paper insulated cables where oil filled accessories are desired.

OZITE "B" is a medium soft asphaltic base compound recommended for use in terminations or cableheads.

Compound Selection Chart

Type of cable insulation	Compounds			
	Novoid A	Novoid C	Novoid X	Novoid 224
Paper Insulated, Lead Covered P.I.L.C.	Yes	Yes Note 1	Yes Note 2	No
Varnish Cambric, Lead Covered V.C.L.C.	Yes	Yes	Yes	No
Butyl Rubber 1.1.R. Type	Yes Note 3	Yes Note 3	No	No
Cross Linked Polyethylene X-LPoly.	Yes	No	No	Yes
Ethylene Propylene Rubber E.P.R.	Yes Note 3	No	No	Yes
Hi-Molecular Weight Poly	No	No	No	Yes
Kerite Insulation Permashield Type	Yes	Yes	No	No

***Note 1*:** *For abnormal temperatures -30° C (-22 ° F) to above 40°C (104 °F).*

***Note 2**: Not recommended for terminations and cableheads operating above 15 kV where temperature may fall below -12 °C (+ 10 °F), or 15 kV and below, where temperature may fall below -24 °C (-10 °F). No temperature limitation for compound used in joints.*

***Note 3:** Maximum pouring temperature 150 °C (302 °F).*

Temperature ranges are specified in IEEE 48-1975 standards.

Test	ASTM Designation	Novoid A	Novoid C	Novoid 9A	Novoid X	Novoid 219	Novoid 224	Ozite B
Flash Point (ºC)	D92	320	293	204	232	160	221	320
Fire Point (ºC)	D92	370	307	252	269	170	273	370
Softening Point (ºC)	D36	35	90	32	54	—	—	35
Pouring Temp (ºC) Max Normal	 — —	 227 149	 232 149	 149 121	 177 149	 121 110	 121 88	 227 149
Loss of Heating %	D6	.26	.27	.22	.12	.40	.30	.26
Vol. Coef. of Exp. (in ³/ºC)	D1168	.0006	.00056	.0007	.0006	.00065	.00065	.0006
Specific Gravity	D70	.98	.97	.99	1.14	.86	.90	.98
Dielectric Str (v/mil) 25º C	D149 & D176	1000	920	800	900	400	500	1000
Power Factor (%) 25º C 50º C 75º C	D150	1.9 2.5 14.4	1.5 2.9 12.0	1.8 5.2 20.0	9.0 7.8 19.3	.001 .001 .002	.015 .025 .028	1.9 2.5 14.4
S.I.C. 25º C 50º C 75º C	D150	2.6 2.7 2.8	2.6 2.7 2.7	2.8 2.9 3.0	4.7 6.6 7.5	2.4 2.3 2.2	2.1 2.2 2.2	2.6 2.7 2.8
Consistency at 25º C	—	Semi-solid	Med-hard	Soft	Hard	Fluid	Fluid	Semi-solid
Color	—	black	black	black	Brown	Clear	Clear	Black
Weight (lbs. / gal/)	—	10	10	10	11.5	7.2	7.5	10

All test data are typical values.

Need for Compound

Compound is used in cable terminations to fill the internal space around the prepared cable end with an insulating material superior to that of air. Considering air as the insulating medium, when sufficient potential exists between the live conductor and the cut back ground shielding, ionization of the air (corona) will begin at the shielding end. The effects of weather and atmospheric contamination materially decrease the effective surface insulation and may result in failure (flashover) of the cable under normal operating voltage.

Proper Compound Filling Procedures

1. Proper compound filling is essential to the performance of the cable termination. The following techniques and considerations should be noted:
2. Always fill the termination compartment from the bottom up. Compounding should never be done with terminations in a horizontal position.
3. A 3/16 inch minimum clearance must be provided between the porcelain wall and cable or stress cone to permit the compound to rise into the porcelain.
4. Preheat the termination compartment body to at least 70°F to prevent premature cooling of the compound. This can be done using hot oil, hot air or infra-red lights. DO NOT apply an open flame directly onto the porcelain.
5. Use a large diameter riser pipe (see figure 1). The pipe should extend approximately one foot above the high point of the porcelain to provide a static pressure head. The riser pipe should be the same size as the pipe boss or larger.
6. To vent the porcelain, loosen but do not remove the porcelain hoodnut and gasket.
7. For better and safer compounding, the compound should be heated and poured at the recommended temperature as shown on the compound container lable or corresponding chart printed in this catalog. Always use a thermometer to assure proper pouring temperature.

   If the pouring temperature is too low, the compound may bridge across the smaller cavities and leave voids or clog up the filling and venting pipes. Also, all moisture laden air might not be driven out. When installing terminations in cold weather, it may be necessary to preheat the porcelain insulator and metal parts with a heating blanket, hot air oven or immersion in hot oil. If the pouring temperature is too high, the compound may injure the cable insulation or even reach the flash point of the compound and ignite. Also, the hotter the compound, the more it will shrink while cooling. Compound shrinkage should always be kept to a minimum.

Proper Compound Filling Procedures con't

8. Keep the riser pipe full of hot compound during the complete filling operation, including porcelain cooling time.
9. Field compounded terminations will always have shrinkage voids at the top of the vertically·mounted porcelains above the cable insulation. A small shrinkage void in this area is not objectionable. This shrinkage space is in a low stress area and provides room for compound expansion and contraction due to changes in ambient temperatures and load cycling. DO NOT "top off" terminations.
10. Let the compound cool down in the terminations and riser pipe.
11. Remove the riser pipe and secure the termination body plug.
12. Remove the hoodnut. Be certain to wipe the porcelain neck surface clean. Clean the porcelain of any spilled compound-
13. Install the hoodnut and gasket. The gasket must be clean, dry and oil free. Apply torque to the hoodnut to insure proper gasket seal. Torque and check the entrance bolts between the terminations body and entrance fittings.
14. Make the required hoodnut aerial connections.

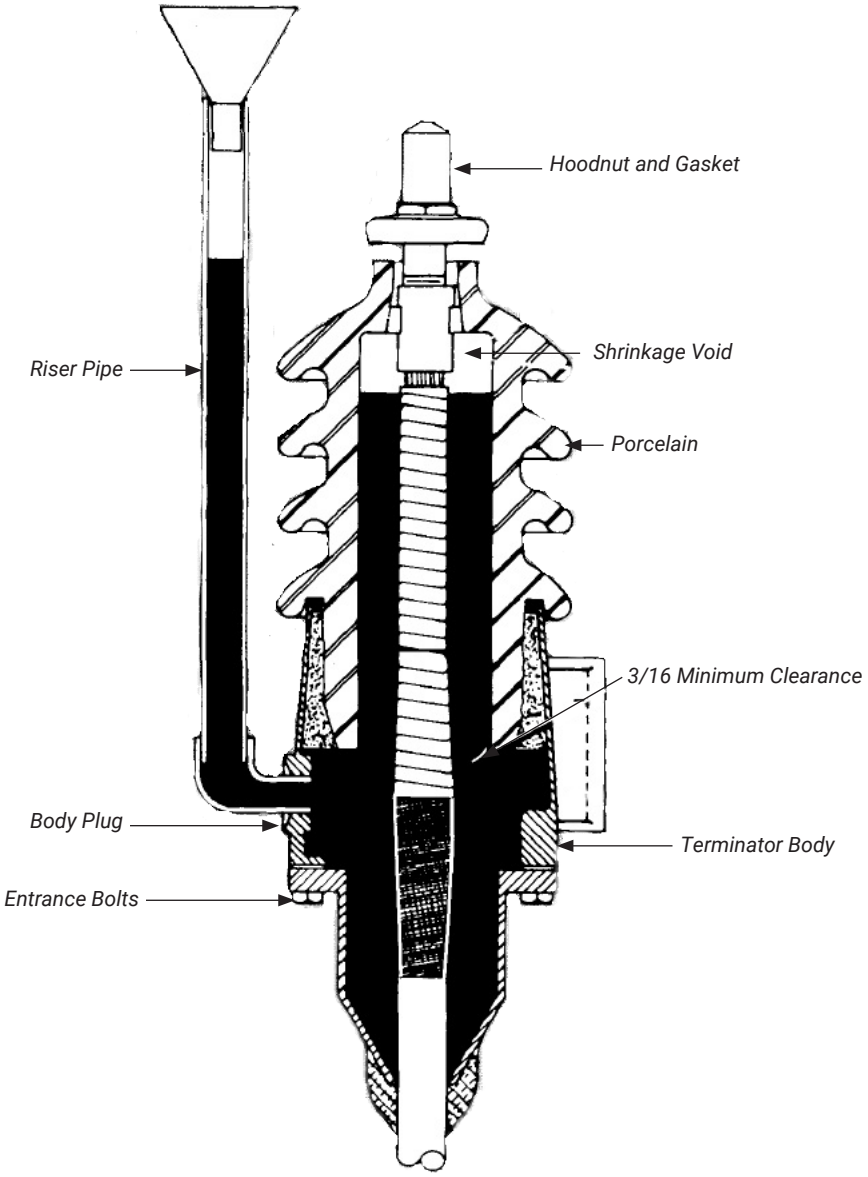
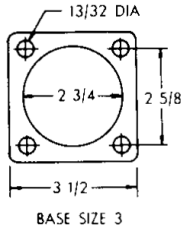
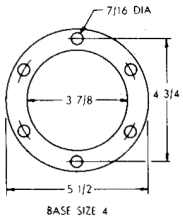
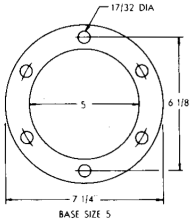
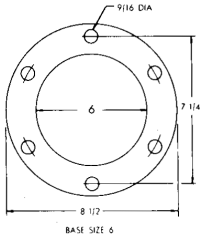


Figure 1

Lids, Bodies and Gaskets

Entrance Fittings Gaskets†

Base Size	3	4	5	6
Dimensions: Actual dimensionsof entrance gaskets for each base size shown				
Gasket Number	A-1846-10	A-1758	A-1093	A-1602-3
Mounting Screws	Four 5/16" -18 screws	Six ¾"-16 screws	Six ½"-13 Screws	Six ½"-13 Screws

†*Single and multiconductor termination body castings have one of the four standard base size flanges for attachment of interchangeable cable entrance fittings and accessories.*

Lid Code Numbering

E	J	3	4

E = Diverging (B) or Parallel (C) Porcelains
J = Number of Porcelain
3 = Corresponding Body Size
4 = Porcelain Size

Note: *An extra digit after the code number indicates a modified assembly. Suffix "X" indicates aluminum lid; suffix "J" indicates bronze lid; all others are cast iron.*

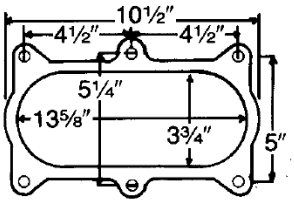
Body Code Numbering

J	5	C

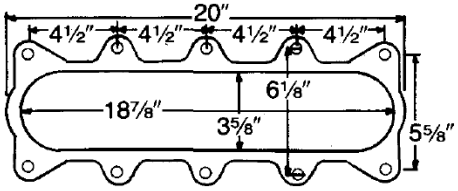
J = Corresponding Lid Size
5 = Base Size
C = Body Shape

Note: *An extra digit is added to the code number to indicate modification for plate or flange mounting. Example: J4C-1 is basic J4C body with mounting brackets omitted, and blind drilled and tapped holes in the bosses for the lid bolts. J4C-2 is basic J4C body with mounting brackets omitted and through holes in bosses to permit passage of lid bolts from below.*

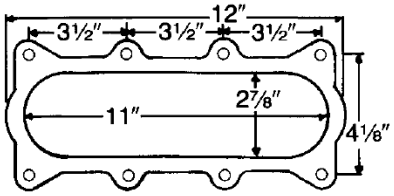
Lid Gaskets*



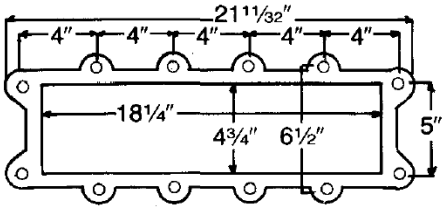
SIZE **E**, GASKET #B-1624



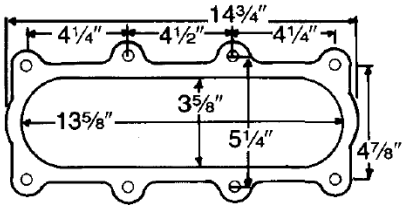
SIZE **K**, GASKET #B-1626



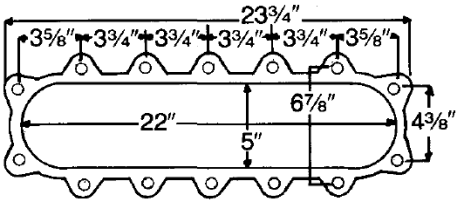
SIZE **H**, GASKET #A-1777



SIZE **L**, GASKET #B-1626-4



SIZE **J**, GASKET #B-1625



SIZE **M**, GASKET # B-1625-2

** Refer to Termination listings for lid dimensions.*

Lid, Body Assembly Selection Chart

Bodies

Lids

Body Shape	Approximate Dim. -In. (mm)						Body Symbol	Lid Size	J				K		L	M	
	W	H	B	L	M	N		Lid Symbol	DJ3B	DJ3C**	EJ3B2**	EJ3C**	EK3B1**	EK3C**	FL3B	FM3B**	FM3C**
C	15½ (394)	10 (254)	6½ (165)	–	7¼ (184)	3¾ (95)	J4C		■	■	■	■					
	15½ (394)	11½ (292)	8 (203)	–	7⅜ (187)	3¾ (95)	J5C		■	■	■	■					
	15½ (394)	19 (483)	14⅝ (372)	–	8⅛ (206)	4½ (114)	J6C		■	■	■	■					
	21 (533)	15 (381)	11 (279)	–	7⅜ (187)	3¾ (95)	K5C						■	■			
	21 (533)	16 (406)	11 (279)	–	8¼ (210)	4¼ (108)	L5C								■		
	24½ (622)	22½ (572)	17⅝ (448)	–	8 11/15 (221)	4½ (114)	M5C									■	■
	24½ (622)	24½ (622)	19⅝ (448)	–	8 11/15 (221)	4½ (114)	M6C									■	■
K	10 (254)	11 (279)	3¼ (83)	15 (381)	7⅞ (200)	4¼ (108)	J5K		■	■	■	■					
	12 (305)	13½ (343)	3¾ (95)	18 (457)	7⅞ (200)	4¼ (108)	K5K						■	■			
U	15½ (394)	7½ (191)	3¼ (83)	–	14¼ (362)	3¾ (95)	J5U		■	■	■	■					
	21 (533)	10 (254)	5¾ (146)	–	15¾ (400)	3¾ (95)	K5U						■	■			
W	16¼ (413)	15 (381)	10 (254)	–	16¼ (413)	4¼ (108)	J5W		■	■	■	■					
	21 (533)	20 (508)	13 (330)	–	21 (533)	3¾ 95)	K5W						■	■			
L	17¾ (451)	12⅛ (308)	9⅛ (232)	9⅛ (232)	7½ (191)	3⅞ (98)	J5L		■	■	■	■					

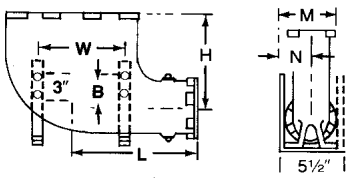
***Indicates lids that are also available in modified form to accommodate detachable porcelains. Add suffix "A" to lid symbol. (Example: EK3CA)*

■ *Indicates that lid and body may be combined*

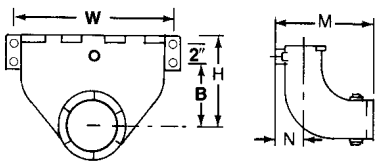
Termination Bodies

Shape C body is standard. Other body shapes are avail-able as shown. Refer to selection chart above for compatible.

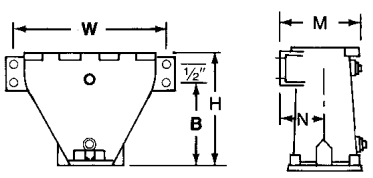
Shape K



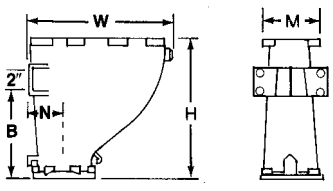
Shape U



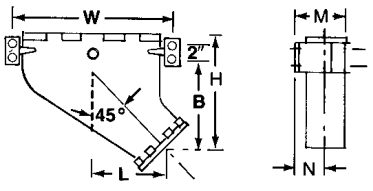
Shape C



Shape W



Shape L

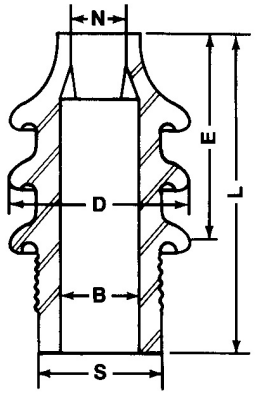


Porcelain

The best grade of wet-process porcelain, glazed inside as well as outside, is used to provide added strength and better electrical characteristics. Insulators are subjected to routine tests as prescribed in AIEE #48 Standards for Terminations.
Outdoor type porcelains have petticoats to provide additional external creepage . For inverted outdoor application, the contour of the petticoat is reversed. Corrageted type porcelains are used for indoor applkications

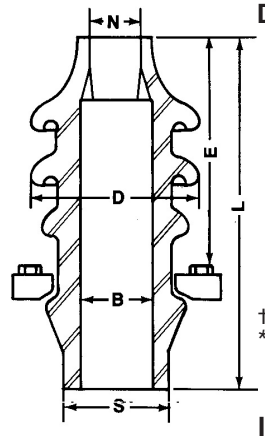
Cemented type porcelains for outdoor, indoor or inverted application are always factory assembled to the body of a single conductor pothead or lid of a multiconductor pothead. Only detachable type porcelains are furnished separately as a spare part.
External creepage distance shown in the table is the creepage path over the outside surface of the porcelain from lower extremity of the metal hoodnut to the nearest point of contact to the metal terminationlid or body.

Strike distance may be defined as the tight string measurement (air path) between these same two reference points. The first digit of the insulator symbol is identical to the first digit of a lid symbol for parts which fit together. Example: "EF" Porcelain fits lid EK3C. Second digit of 1 /C pothead body code number is the same as the first digit of the insulator symbols for parts which fit together. Example: "EF" porcelain fits body E5K.



Outdoor

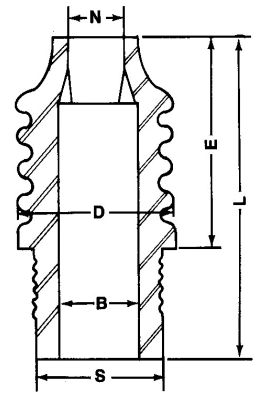
Porcelain Identification		Approximate Dimensions in. (mm)						Creepage in. (mm)	Strike in. (mm)	Approx. Shpg wgt. lbs. (kg)
Symbol #	Part #	B	D	E	L	N	S			
EE	A4818	2 (51)	5 (127)	7⅜ (187)	10 (254)	1⅛ (29)	3 1/16 (78)	14 (356)	8⅛ (206)	5 (2.3)
EG	A4820	2 (51)	5 (127)	7⅜ (187)	10 (254)	1 5/16 (33)	3 1/16 (78)	13¼ (337)	8 (203)	5 (2.3)
EK	A4826	2 (51)	5½ (140)	10 (254)	12 5/8 (321)	1⅛ (29)	3 1/16 (78)	19 (483)	11⅛ (283)	8 (3.6)
FD	A4836	2¾ (70)	6 (152)	7 (178)	10 (254)	1 5/16 (33)	4⅛ (105)	14 (356)	8⅛ (206)	9 (4.1)
FF	A4827	2⅞ (73)	6½ (165)	10 (254)	13 (330)	1 5/16 (33)	4 (102)	18½ (470)	11¼ (286)	13 (5.9)
FM	84880·2	2¾ (70)	6½ (165)	15 (381)	18 (457)	1 5/16 (33)	4⅛ (105)	32 (813)	16½ (419)	25 (11.4)
GA	A4823	3½ (90)	6½ (165)	8 (203)	11⅛ (283)	2 (51)	4¾ (121)	13½ (343)	8⅝ (219)	10 (4.5)
GC	A4829	3½ (90)	6½ (165)	10 (254)	13⅛ (333)	2 (51)	4¾ (121)	17½ (445)	10⅝ (270)	13 (5.9)
HA	B4843	3½ (90)	7 (178)	16⅜ (416)	19½ (495)	2 (51)	5¼ (133)	28½ (724)	17¼ (483)	31 (14.1)
HB	B4843·4	3¼ (90)	7 (178)	21¼ (540)	24⅜ (619)	1 5/16 (33)	5¼ (133)	40½ (1029)	22½ (572)	36 (16.3)
HG	B4843-21	3½ (90)	8 (203)	20 5/16 (516)	23 7/16 (595)	2 (51)	5¼ (133)	45 (1143)	21 (533)	36 (16.3)



Detachable

Porcelain Identification		Approximate Dimensions in. (mm)						Creepage in. (mm)	Strike in. (mm)	Approx. Shpg wgt. lbs. (kg)
Symbol #	Part #	B	D	E	L	N	S			
EAG†	A4818-3	2 (51)	5 (127)	9⅞ (251)	11½ (292)	1 5/16 (33)	2⅞ (73)	15¼ (387)	8¾ (222)	7 (3.2)
EAK†	A4826-1	2 (51)	5½ (140)	12 (305)	14¼ (362)	1⅛ (29)	2⅞ (73)	21 (533)	11⅜ (289)	12 (5.5)
EAH*	A4821-1	2 (51)	4 (102)	9¼ (235)	11½ (292)	1 5/16 (33)	2⅞ (73)	12 (305)	8¾ (222)	6 (2.7)
EAL*	A4825-2	2 (51)	4 (102)	12 (305)	14¼ (362)	1⅛ (29)	2⅞ (73)	16¾ (425)	11⅜ (289)	10 (4.5)

† *Petticoated Porcelain*
* *Corrugated Porcelain*



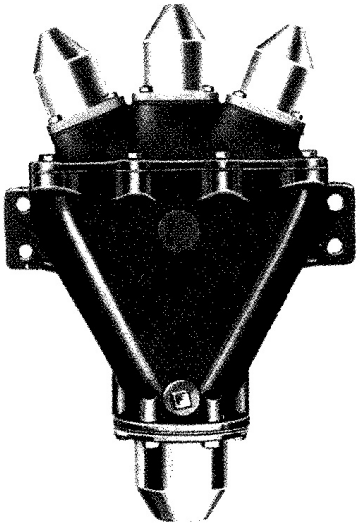
Indoor

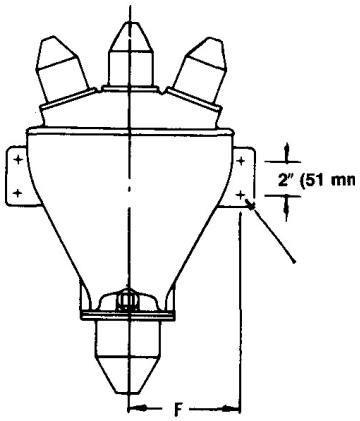
Porcelain Identification		Approximate Dimensions in. (mm)						Creepage in. (mm)	Strike in. (mm)	Approx. Shpg wgt. lbs. (kg)
Symbol #	Part #	B	D	E	L	N	S			
EF	A4819	2 (51)	3¾ (95)	7⅜ (187)	10 (254)	1⅛ (29)	3 1/16 (78)	10½ (267)	7½ (191)	5 (2.3)
EH	A4821	2 (51)	3¾ (95)	7⅜ (187)	10 (254)	1 5/16 (33)	3 1/16 (78)	10 (254)	7⅜ (187)	5 (2.3)
EL	A4825	2 (51)	3¾ (95)	10 (254)	12⅝ (321)	1⅛ (29)	3 1/16 (78)	15 (381)	10¼ (260)	6 (2.7)
FE	A4837	2¾ (70)	5⅛ (130)	7 (178)	10 (254)	1 5/16 (33)	4⅛ (105)	10½ (267)	7⅜ (187)	8 (3.6)
FG	A4828	2⅞ (73)	5⅛ (130)	10 (254)	13 (330)	1 5/16 (33)	4⅛ (105)	16 (406)	10½ (267)	10 (4.5)
FM†	B4880-2	2¾ (70)	6½ (165)	15 (381)	18 (457)	1 5/16 (33)	4⅛ (105)	32 (813)	16½ (419)	25 (11.4)
GB	A4824	3½ (90)	5¾ (146)	7 (178)	10⅛ (257)	2 (51)	4¾ (121)	11 (279)	7¼ (184)	10 (4.5)
GD	A4830	3½ (90)	5¾ (146)	10 (254)	13⅛ (333)	2 (51)	4¾ (121)	15 (381)	10¼ (260)	13 (5.9)
GF	B4843-14	3¼ (83)	5¾ (146)	16½ (419)	19⅝ (499)	1 5/16 (33)	4¾ 121)	26 (660)	16¾ (425)	18 (8.2)

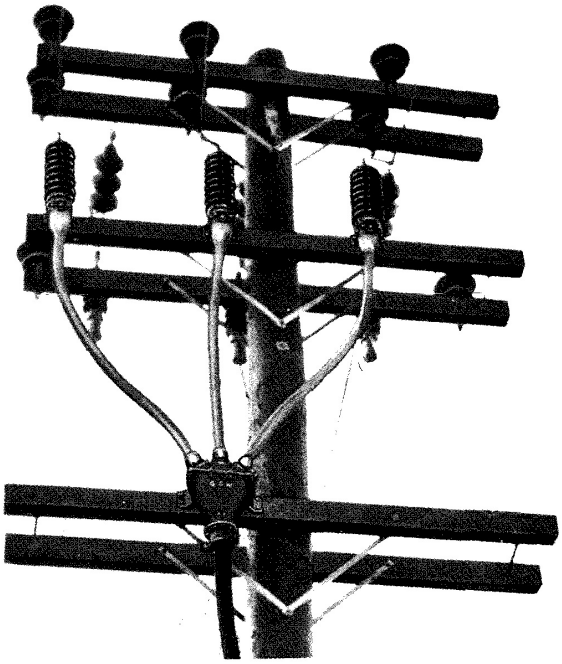
† *Petticoated Porcelain*

Spreader Heads

Spreader heads are used in conjunction with single conductor terminations when a greater phase-to-phase aerial spacing is required than provided by multi-conductor terminations. The spreader heads are applicable on three conductor paper or varnished cambric insulated, lead covered cables and rubber or polyethylene insulated jacketed cables with a maximum O.D. of 3¾ inches. Spreader heads can be oil or compound filled. For compound filling, soft Novoid "9A" is recommended. In certain applications, a harder compound such as Novoid "X" can be used to form a barrier at the base of the spreader head to reduce the possibility of migration of the soft compound into the cable.







Max. Dia. 3/C Cable in. (mm)	Catalog Number	Body		Wiping Sleeves		Approx.Cmpd. Reqd. Gals. (L)	Approx. Shpg. weight lbs. (kg)
		Symbol	"F" in. (mm)	Body Base	Lid Top		
2¾ (70) 3¾ (95)	H4B3 J5B4	H4C J5C	6½ (165) 7¾ (197)	WS41 WS51	WS31 WS41	2 (7.6) 3½ (13.3)	60 (27) 80 (36)

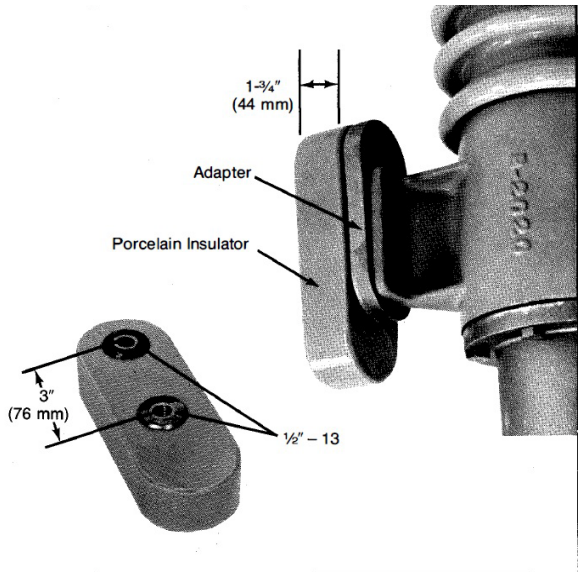
Bracket Insulators

Bracket and Flange Insulators

A termination can be insulated from ground by insulators which are bolted between the termination mounting bracket or flange and the grounded structure. Bracket insulators are 2½" wide porcelain blocks with threaded metal inserts on 3" centers. Metal adapters are available for attaching the porcelain blocks to terminations using style 4 mounting brackets. Bracket insulators and adapters are furnished in pairs. Bakelite insulators are available for flange mounted terminations.

Bracket Insulators

Catalog Number	Description	Approx. Shpg wgt. lbs. (kg)
A6099-15-G1	2 porcelain insulators with adapters	10 (5)
A6099-15-G2	2 porcelain insulators only	8 (4)



Flange Insulators

Catalog Number	Bolt Circle Diameter in.(mm)	Approx. Shpg wgt. lbs. (kg)
EF14	4½ (121)	1½ (.61)
EF15	6⅛ (156)	2 (.91)
EF16	7¼ (184)	3 (1.4)
EF13	3½ (89)	1 (.45)

Catalog Numbering System

U T R A 3 7 2 5 B

Prefix Letters
A = Parts change
H = "H" Body size
J= "J" Body size
N = Indoor porcelain
U = Parts change
V= Inverted porcelain
X = Parts change
Z = Vented hoodnut

Termination Type
T = Basic outdoor termination

Suffix Letters
A = Detachable porcelain
D = Clamp connector
H = Copper compression connector
L= Aluminum compression connector
R = Flange mounted equipment type

Number of Cond.
1 = 1/C
3 = 3/C

Voltage class
7 - 15kV
8 = 25kV
9 = 34.5kV
0 = 46kV

Hoodnut design
0 = 1/0AWG
2 = 250KCM
5 = 500KCM
7 = 750KCM
8 = 1000KCM
9 = 1500KCM
X = 2000KCM
J = 2500KCM
Y = 3000KCM

Base Size
3
4
5
6

Body shapes
A = Body for "A" shape
L = Side 45° elbow
K = Side 90° elbow
U = Front 90° elbow
W = Off-set body

1/C Mounting Flange size and 3/0 lid shape
A = Forward slope and diverging porcelains
B = Diverging porcelains
C - Parallel porcelains
D = Round lid with diverging porcelains
1 = Bracket mounted 1/C pothead
3 = Flange size for 1/C TR pothead
4 = Flange size for 1/C TR pothead
5 = Flange size for 1/C TR pothead
6 = Flange size for 1/C TR pothead

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