

Service entrance cable fittings

Suggested specifications for service entrance fittings

- 01 Series 4175 pipe strap (EMT)
- 02 Series 1275/1275AL pipe strap (rigid metal conduit and IMC)
- 03 Series 1350/1350AL pipe spacer (rigid metal conduit IMC and EMT)
- 04 Series 3870 bonding and grounding bushing – insulated
- 05 Series 106 bonding locknut

- All service fittings shall be approved for the purpose by a nationally recognized testing laboratory, inspection agency or product evaluation organization.
- Where service raceway consists of a rigid metal conduit, intermediate metal conduit, electrical metallic tubing or where service entrance cable is used as service conductors, a suitable raintight service head conforming to Federal Standard W-C-586 shall be provided.
- Service raceway shall be securely fastened in place to the supporting surface at intervals as specified by the code using suitable straps and spacers; straps and spacers shall be of malleable iron or steel construction, hot-dipped galvanized or electro zinc plated conforming to Canadian Standards Association Standard C22.2 No. 18.4 and as manufactured by ABB: series 1275 or 4175 straps and series 1350 spacers; aluminum straps or spacers such as series 1275AL and series 1350AL may be substituted when installed in environmental conditions that are more than normally corrosive.
- For grounding and bonding of service raceway, end of raceway or the terminating fitting shall be equipped with bonding locknuts and insulated metallic grounding and bonding bushing as required.
- Bonding locknuts shall be of hardened steel or malleable iron construction, electro zinc plated, and provided with hardened bonding screws as manufactured by ABB, series 106 bonding locknuts.
- Insulated metallic grounding and bonding bushing shall be of malleable iron/steel construction, electro zinc plated and assembled with an insulator listed or certified for 150 °C/ 302 °F service as manufactured by ABB, series 3870.



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Service entrance cable fittings

Suggested specifications for service entrance fittings

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01 Series 2111
service entrance
cable fitting

—
02 Series 2116-TB
underground feeder
cable fitting

—
03 Series 3302M
two-screw fitting
(insulated)

—
04 Series 5262, 5302
sealing gasket

—
05 Series 1341
cable strap

- Where service entrance cable is used as overhead service conductors and code requires use of a service head, entrance caps shall be installed; caps shall be cast metal type of suitable ferrous or nonferrous metal equipped with thermoset insulators and proper knockout openings; when installed with proper drip loop, caps must assure raintight conditions.
- Terminating fittings for service entrance cable (Type SE or USE) or underground feeder and branch – circuit cable (Type UF) in locations where exposed to intermittent or constant moisture or in dry locations and subjected to mechanical strain shall be of watertight strain-relief type as manufactured by ABB, series 2111 or 2116-TB; fittings shall be constructed of ferrous or nonferrous metal and equipped with taper-threaded hub, beveled moisture-resistant/oil-resistant synthetic rubber bushing. In dry locations, nylon-insulated two-screw type fittings of malleable iron/steel construction, electro zinc plated inside and outside including threads, such as series 3302M manufactured by ABB may be substituted.
- Where service entrance cable is terminated into a threadless opening using hub-type fittings, a gasket shall be provided between the outside of box or enclosure and fitting shoulder; gasket shall be of moisture-resistant/oil-resistant synthetic rubber type adequately protected by and permanently retained to a metallic retainer as manufactured by ABB, series 5262 or 5302.
- Service entrance cable shall be adequately supported at intervals enumerated in code using cable straps conforming to requirements of CSA Standard C22.2 No.18.4; cable straps shall be of malleable iron/steel construction, hot-dipped galvanized or electro zinc plated as manufactured by ABB, series 1341.
- At the point where the service cable enters the building, a suitable sill plate shall be provided; sill/wall plate shall be sealed to assure raintight conditions.



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Service entrance cable fittings

Specifications

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01 Type SE/Type USE
2111 series

Application

- To connect service entrance cables to a meter box or an enclosure

Features

- Neoprene bushing, resists oil and water; grips cable the full length of the bushing, providing adequate strain relief without damaging outer jacket (A)
- Taper-threaded body (B)
- Stainless steel retaining ring protects cable jacket against abrasion; reduces installing torque effort (C)
- Rugged ribbed steel gland construction (D)
- Suitable for Type USE I75, USE I90 and USE B90 (CEC Table 19) service entrance cable

Standard material/finish

- Body: Zinc die cast/as cast
- Gland: Steel/electro zinc plated and chromate coated
- Retaining ring: Stainless steel/passivated
- Bushing: Neoprene/as molded

Range

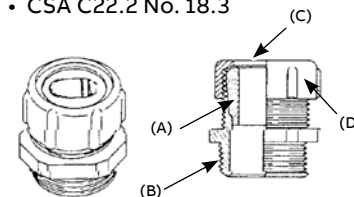
- Oval (flat) cable size 0.260 x 0.500 through 1.062 x 1.765
- Type USE cable size (3) #12 through (3) 4/0 AWG conductors
- Hub size ½ in. through 2 in. NPT (taper pipe threads)

Listing/certification

- CEC Rule 6-300 (1) add (b) use underground service entrance with mechanical protection as per CEC Rule 12-012

Conformity

- UL514B, NEMA FB-1, Federal Standard H-28 (threads), NFPA70-2009 (ANSI)
- CSA C22.2 No. 18.3



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Underground feeder cable fittings

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02 2116-TB Series

Application

- To connect underground feeder cables to a box or an enclosure

Features

- Neoprene bushing resists oil and water; grips cable the full length of the bushing, providing adequate strain relief without damaging outer jacket (A)
- Taper-threaded body (B)
- Stainless steel retaining ring protects cable jacket against abrasion; reduces installing torque effort (C)
- Rugged ribbed steel gland construction (D)

Standard material/finish

- Body: Zinc die cast/as cast
- Gland: Steel/electro zinc plated and chromate coated
- Retaining ring: Stainless steel/passivated
- Bushing: Neoprene/as molded

Range

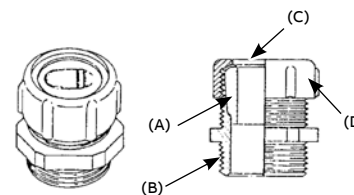
- Oval (flat) cable size 0.235 x 0.500 through 0.260 x 0.740
- Hub size ½ in. through 1 in. NPT (tapered pipe threads)

Listing/certification

- CEC Rule 30-1004 (d) Wiring method, underground, where deviation has been allowed for permanent outdoor floodlighting installation.

Conformity

- UL514B, NEMA FB-1, Federal Standard H-28 (threads), NFPA70-2009 (ANSI)
- CSA C22.2 No. 18.3



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Service entrance cable fittings

Underground feeder cable fittings



Oil- and water-resistant neoprene bushing is especially designed for sealing around underground feeder cable. Stainless steel retaining ring provides a bearing surface for the gland nut and eliminates cable twist. Ribbed gland nut is strong and easily tightened with a wrench to make a connection of high strength.

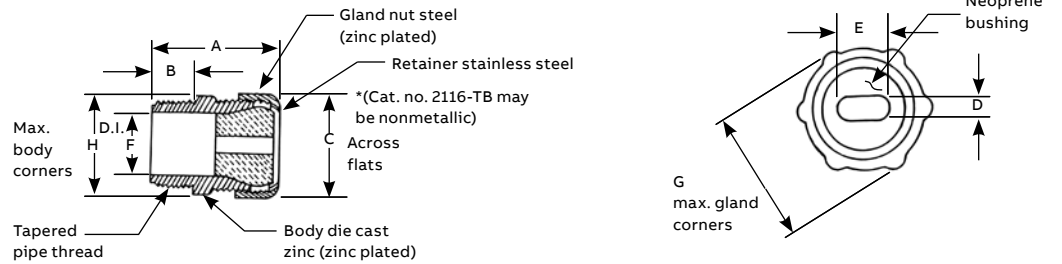
Underground liquidtight feeder cable fittings



Cat. no.	Hub size (in.)	Cable opening (in.)	Dimensions (in.)									
			A	B	C	D		E		F	G	H
						min.	max.	min.	max.			
2116-TB*	1/2	0.235 x 0.500	1 11/16	5/8	1	0.060	0.235	0.350	0.500	9/16	1 1/8	1 1/8
2237	3/4	0.230 x 0.430	1 9/16	9/16	1 7/32	0.080	0.230	0.320	0.430	13/16	1 3/8	1 3/8
2238	3/4	0.235 x 0.465	1 9/16	9/16	1 7/32	0.050	0.235	0.340	0.465	13/16	1 3/8	1 3/8
2239	3/4	0.240 x 0.685	1 9/16	9/16	1 7/32	0.060	0.240	0.500	0.685	13/16	1 3/8	1 3/8

* Not CSA Certified

Diagrams



Service entrance cable fittings

Watertight fittings for oval cables



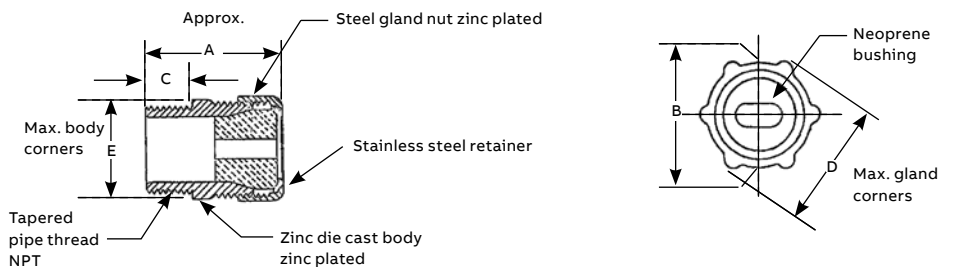
The fitting design allows for a wider range of cord sizes while providing maximum traction. The neoprene bushing is oil, sunlight and water resistant. The hex gland and fitting body take the same wrench opening and a stainless steel slip ring prevents the cord from twisting when the gland ring is tightened. The body threads are tapered (NPT) to ensure a watertight seal.

Watertight fittings for oval cables



Cat. no.	Hub size (in.)	Dimensions (in.)					Overall cable range (in.)	
		A	B	C	D	E	min.	max.
2111	1/2	3/4	1 1/4	5/8	1 3/8	1 3/8	0.380 x 0.520	0.420 x 0.560
2232	3/4	1 3/4	1 1/4	5/8	1 3/8	1 3/8	0.260 x 0.500	0.385 x 0.600
2233	3/4	1 11/16	1 1/4	9/16	1 3/8	1 3/8	0.375 x 0.625	0.500 x 0.750
2234	3/4	1 11/16	1 1/4	9/16	1 3/8	1 3/8	0.490 x 0.675	0.555 x 0.800
2432	1	1 11/16	1 1/4	9/16	1 3/8	1 3/8	0.260 x 0.500	0.385 x 0.600
2433	1	1 11/16	1 1/4	9/16	1 3/8	1 3/4	0.375 x 0.625	0.500 x 0.750
2434	1	1 11/16	1 1/4	9/16	1 3/8	1 3/4	0.430 x 0.675	0.555 x 0.800
2438	1	1 3/4	1 1/2	25/32	1 11/16	1 3/4	0.440 x 0.730	0.565 x 0.855
2439	1	1 3/4	1 1/2	25/32	1 11/16	1 3/4	0.510 x 0.850	0.635 x 0.975
2442	1 1/4	1 3/4	1 1/2	25/32	1 11/16	1 3/4	0.510 x 0.850	0.635 x 0.975
2443	1 1/4	2 1/16	1 15/16	5/8	2 1/16	2 1/8	0.490 x 0.900	0.640 x 1.050
2446	1 1/4	2 1/16	1 15/16	5/8	2 1/16	2 1/8	0.565 x 0.965	0.750 x 1.150
2454	1 1/2	2 1/4	2 1/8	11/16	2 5/16	2 5/16	0.655 x 1.090	0.840 x 1.275
2447	1 1/2	2 1/4	2 1/8	11/16	2 5/16	2 5/16	0.695 x 1.240	0.880 x 1.425
2448	2	2 1/4	2 1/8	11/16	2 5/16	2 5/16	0.790 x 1.390	0.968 x 1.500
2449	2	2 3/8	2 5/8	11/16	2 3/4	2 13/32	0.850 x 1.550	1.062 x 1.765
2450	2	2 3/8	2 5/8	11/16	2 3/4	2 13/32	1.700 x 1.050	1.820 x 1.190

Diagram



Service entrance cable fittings

Cable straps and nylon underground feeder cable fittings



Cable straps

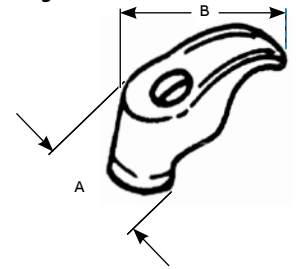
Each strap takes a wide range of sizes because of the rocking action of the foot. Hole is for 1/4 in. screw. Malleable iron, hot-dipped galvanized construction.



Cat. no.	Wire size (AWG)	Dimensions (in.)	
		A	B
1341-TB	(2) #10	5/8	1 1/8
1344	(3) #6 or (3) #8	5/8	1 15/16
1345*	(3) #4 or (3) #2	13/16	1 59/64
1346	(3) 1/0	3/4	2 7/16
1347	(3) 4/0	3/4	2 25/32

* Steel, hot dipped galvanized

Diagram



Nylon UF cable fittings for corrosive environments

- Tapered threaded hub
- Liquidtight and dust-tight; hand tightens – no tools required
- Corrosion- and weather-resistant nylon for outdoor and indoor applications



Cat. no.	Hub size (in.)	UF cable range (in.)		A max.	B ±0.060	C ±0.060
		min.	max.			
2827	1/2	0.550 x 0.280	0.400 x 0.190	2.60	1.270	0.600
2828	3/4	0.675 x 0.280	0.525 x 0.190	3.00	1.570	0.620
2829	3/4	0.775 x 0.280	0.625 x 0.190	3.00	1.570	0.620

Diagram

