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T&B® Fittings - Industrial fittings



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T&B Fittings - Industrial fittings

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General information

Since the turn of the century, T&B Fittings brand has been a recognized leader in electrical fittings. Industry standards such as Chase® nipples and Erickson® couplings were introduced by T&B and are still registered trademarks. This leadership continues. Here's why.

Innovative designs

The real test of product design of electrical fittings lies in two areas: job-suited installation and life-of-the-job reliability. ABB provides both because we listen. We listen to problems and suggestions from the field. Most of the products in this section result from the good suggestions of knowledgeable electrical people. Many were custom designed to solve a customer's particular installation and performance problems. You can benefit from their experience.

Approvals and certifications

Electrical raceways require accessory fittings that provide the mechanical strength, ground continuity and environmental integrity of the system. As new raceways have been introduced, ABB engineers have designed fittings that meet the requirements of the Canadian Electrical Code, as well as the Canadian Standards Association. You can use T&B fittings with confidence.

Note: All dimensions in this catalogue are approximate.

High performance products

Quality and performance result when engineering design skills are combined with the manufacturing technologies required to produce them. The T&B fittings in this section are produced from many materials and by many manufacturing methods, each carefully selected for its end use suitability. This combination gives you the reliable performance you expect from T&B fittings.

Lower installed cost

Lower installed cost is a function of purchase cost, availability, installation advantage and performance; it comes in every carton of T&B fittings.



Rigid metal conduit fittings

Specifications – Rigid metal conduit / PVC-coated rigid metal conduit

Ref. CEC Rule 12-1000

Rigid metal conduit affords maximum mechanical protection to conductors within the raceway. Rigid metal conduit can be installed indoors and outdoors, in dry locations or wet locations, exposed or concealed, in all atmospheric conditions and in hazardous locations.

Galvanized rigid steel conduit installed in concrete does not require supplementary corrosion protection. Galvanized rigid steel conduit installed in contact with soil does not generally require supplementary corrosion protection. However, when buried in corrosive soil (corrosive soil is characterized by low resistivity of less than 2,000 ohm-centimeter) or cinders, a protective coating of bitumastic, asphalt-based paint or a PVC coating is applied to the conduit. CEC Rule 12-934 requires that rigid steel conduit installed in or under permanently moist cinder fill be encased in at least two inches of cinder-free concrete unless the conduit is at least 18 inches below the fill. Steel conduit protected from corrosion solely by enamel can only be used indoors and in occupancies not subjected to severe corrosive influences.

Rigid nonferrous metal conduit (aluminum) cannot be directly embedded in concrete containing soluble chlorides such as calcium chloride; unwashed beach sand, seawater or coral-bearing aggregates. However, if adequately treated by a protective coating of bitumastic or asphalt-based paint or PVC coating, the conduit can be installed in concrete containing chlorides.

Supplementary nonmetallic coatings presently used on ferrous rigid metal or nonferrous metal have not been investigated for resistance to corrosion.

CEC Rule 12-920 requires that when conduit enters a box or fitting, a bushing must be provided to protect wires from abrasion unless the design of the box or fitting provides equivalent protection.

According to CEC Rule 12-906, where No. 8 or larger ungrounded conductors enter or leave a conduit, an insulating bushing with a smooth, well-rounded insulating surface must be provided to protect conductors unless the terminating fitting is equipped with an insulated throat, firmly secured in place providing equivalent protection. The insulating bushing or insulating material must have a temperature rating of not less than the insulation temperature rating of installed conductors. When conduit bushings are constructed wholly of insulating material, a locknut must be installed both inside and outside of the enclosure to which the conduit is attached.

Fittings and couplings are required to be of concrete-tight type when embedded in masonry or concrete or in dry locations and of the raintight type when installed in wet locations.

In wet locations or locations where walls are frequently washed or where there are surfaces of absorbent materials, the entire wiring system including boxes, fittings, conduit and cables must be supported such that there is at least ¼ inch air space between it and the supporting surface (CEC Rule 2-122).

CEC Rule 12-3022 requires that the raceways be metallically joined together into a continuous electric conductor and must be mechanically connected to all boxes, fittings and cabinets as to provide effective electrical continuity.

Conduit is required to be supported adequately and conduit bends in one run are restricted to the equivalent of four quarters, i.e. 360 degrees, total.

Rigid metal conduit fittings

Specifications – Rigid metal conduit / PVC coated rigid metal conduit

For further details and complete information, please refer to the following:

1. ANSI C80.1 – Rigid steel conduit zinc coated, specifications for
2. ANSI C80.2 – Rigid steel conduit, enameled, specifications for
3. ANSI C80.5 – Rigid aluminum conduit. Specifications for
4. ANSI C80.4 – Fittings for rigid metal conduit and electrical metallic tubing, specifications for
5. WW-C-581 – Federal Specification, conduit, metal, rigid & coupling, elbow, and nipple, electrical conduit, zinc coated
6. WW-C-540 – Federal Specification, conduit, metal, rigid (electrical, aluminum)
7. WW-C-571 – Federal Specification, conduit, metal, rigid, and coupling, elbow, and nipple, electrical conduit enameled
8. UL 6 – Standards for safety. Rigid metal conduit
9. UL 2142 – Standards for safety. Intermediate metal conduit
10. CEC section 12-1000 – Rigid and flexible conduit
11. CSA C22.2 NO. 45 – Safety standards for rigid metal conduit
12. CSA C22.2 NO. 18 – Safety standards for outlet boxes, conduit boxes and fittings
13. NEMA FB-1 – Standards publication: Fittings and supports for conduit and cable assemblies
14. A-A-50553 – Federal Specification: Fittings for conduit metal rigid (thickwall and thinwall [EMT] type)

Please note

The excerpts and other material herein, whether relating to the Canadian Standards Association, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Rigid metal conduit fittings

Suggested specifications for rigid metal conduit/PVC coated rigid metal conduit and fittings

—
01 Series 1276
conduit strap
—
02 Series 690
conduit support
—
03 Series 700
adjustable beam clamp
—
04 Series 1350
conduit spacer
—
05 Series 140
locknut
—
06 Series 106
bonding locknut
—
07 Series 5302
sealing gasket
—
08 Series 370
threaded hub
(raintight)

- Conduit shall be securely fastened in place, at intervals as specified by the code, using suitable straps, hangers and other supporting assemblies as indicated on plans and as manufactured by ABB, series 1276, 690 and 700. All strap hangers and supporting assemblies shall be of rugged construction capable of supporting weight with a reasonable factor of safety and shall be adequately protected against corrosion. Where applicable, it shall conform to Canadian Standards Association Standard C22.2 No. 18.
- In wet locations or in locations where corrosive conditions are present, vertical and horizontal runs of conduit shall be firmly supported so that there is at least ¼ in. air space between the conduit and the wall or supporting surface. Spacers and supporting straps shall be of malleable iron construction, hot dipped galvanized conforming to Canadian Standards Association Standard C22.2 No. 18 such as series 1276 straps and series 1350 spacers. Nonferrous metal straps and spacers may be substituted as required.
- Where threaded conduit terminates into a threadless opening, a locknut shall be provided both inside and outside the box or enclosure and the conduit end shall be fitted with an insulating bushing. In wet locations, a suitable gasket shall be provided between the outside locknut and the opening.
- Locknuts shall be rugged, of hardened steel or malleable iron construction, electro-zinc plated and capable of cutting through protective coating on box or enclosure to ensure positive bond such as series 140.
- Where raceway and associated fittings are used as part of an equipment grounding system, terminating fittings shall be equipped with bonding-type locknuts such as series 106 bonding locknuts. Sealing gaskets shall be constructed of oil-resistant/moisture-resistant rubber and shall be suitably protected by and permanently bonded to a stainless steel retainer such as series 5302.
- Where threaded rigid metal conduit is installed outdoor or indoors or in locations exposed to continuous or intermittent moisture, a sealing hub-type terminating fitting shall be installed. Hubs shall be of malleable iron/steel construction, electro-zinc plated and equipped with a nylon insulated throat and oil-resistant/moisture-resistant sealing ring as manufactured by ABB, series 370 or series H050-TB. Female taper hub threads shall be adequately relieved to prevent bottoming of conduit.
- Hubs constructed of copper-free aluminum may be substituted when used with rigid nonferrous (aluminum) metal conduit, series 370AL or H050A.



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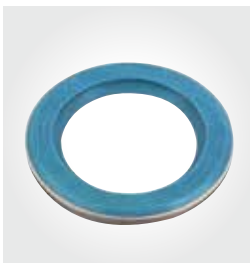
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Rigid metal conduit fittings

Suggested specifications for rigid metal conduit/PVC coated rigid metal conduit and fittings, continued

—
09 Series 485
PVC-coated threaded
hubs (raintight)

—
10 Series 8123
threadless fitting
(concrete-tight)

—
11 Series 8120
threadless coupling
(concrete-tight)

—
12 Series 8125
set screw fitting
(concrete-tight)

—
13 Series 8124
set screw fitting
(concrete-tight)

—
14 Series 140
locknut

—
15 Series 1942
insulated nipple

—
16 Series 3210
knockout bushing

- For environmental conditions that are more than normally corrosive to exposed surfaces, hubs suitably protected with PVC coating such as series 485 shall be used.
- Where concrete-tight requirements must be met, or in dry locations, rigid metal conduit or intermediate metal conduit fittings and couplings shall be of the concrete-tight type. Fittings shall be rugged, of ferrous metal construction, electro-zinc plated inside and outside and furnished with a nylon bushing as manufactured by ABB, series 8123 and 8120. Insulated set screw-type fittings such as series 8125 and 8124 may be substituted unless otherwise indicated on drawings.
- Components critical to performance such as set screws, split rings and locknuts shall be hardened or adequately designed to ensure positive bond between conduit and enclosure or conduit runs.
- All fittings of the system shall be capable of carrying ground fault currents per the following:
 - ½ in. through 1½ in. size...10,000 amps RMS (duration of fault current 3 cycles)
 - 2 in. and above...20,000 amps RMS (duration of fault current 3 cycles)
- All back-to-back nipling of boxes shall be done using locknuts and nylon-bushed nipples as manufactured by ABB, series 140 locknuts and series 1942 nipples. Nipples, or suitably designed bushings such as series 3210, shall also be used where conductors pass through either factory or field-punched, cut or drilled holes in metallic members.
- Where neither length of threaded conduit can be rotated, couplings such as series 674 shall be installed in conduit runs.



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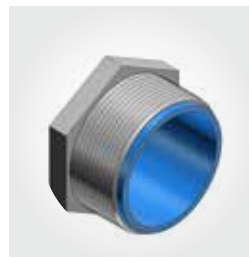
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Rigid metal conduit fittings

Suggested specifications for rigid metal conduit/PVC coated rigid metal conduit and fittings, continued

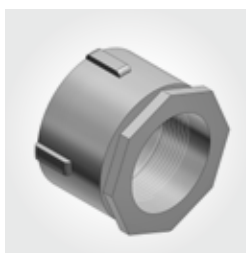
—
17 Series 674
threaded coupling

—
18 Series 222TB
insulating bushing

—
19 Series TRIB50
threadless rigid
insulating bushing

—
20 Series 3870
insulated grounding
& bonding bushing

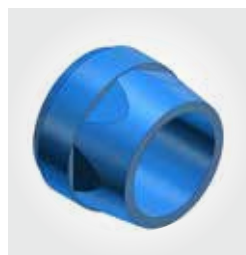
- Where threaded or threadless conduit terminates outside a box or an enclosure, or where conduit is stubbed up, it shall be equipped with an insulated metallic or nonmetallic bushing such as series 1222 or TRIB50.
- Where code requires bonding and grounding of single or multiple rigid metal conduit or where positive bonding and grounding of conduit to the box, enclosure or auxiliary gutter is required, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing such as series 3870.
- Insulated metallic grounding and bonding bushing shall be approved for the purpose. It shall be of malleable iron/steel construction adequately protected against corrosion, assembled with an insulator listed or certified for 150 °C/302 °F application and flammability rating of 94V-0 with insulator positively secured in place.
- Bonding to enclosure shall not be dependent on locknut bushing-type contact but by a positive bonding means such as a hardened screw or equivalent.



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Rigid metal conduit fittings

Suggested specifications for rigid metal conduit/PVC coated rigid metal conduit and fittings

—
01 Cat. #CP8
KOPR-SHIELD*
—
02 Cat. #AP8
ALUMA-SHIELD®
—
03 Series 1451
knockout plug
—
04 Series 1470
plug, conduit/fitting
* Trademark of
Jet-Lube, Inc.

- Rigid ferrous metal conduit or PVC-coated rigid conduit prior to coating shall be of the hot dipped galvanized type, adequately protected against corrosion inside and outside including threads, and conforming to the following applicable specifications:
 - Rigid ferrous metal conduit Federal Specification WW-C-581/ANSI C80.1/UL 6/CSA C22.2 No. 45
 - PVC-coated ferrous metal conduit applicable listed under (i) and in addition conforming to NEMA Publication No. RNI-2005 (Type A) PVC coating on conduit and associated fittings shall have no sags, blisters, lumps or other surface defects and shall be free of holes.
- Rigid nonferrous metal conduit shall conform to Federal Specification WW-C-540/ANSI C80.5/UL 6/CSA C22.2 No. 45.
- All field cuts shall be square, reamed and deburred. Conduit threads shall be tapered for entire length with $\frac{3}{4}$ in. taper per ft. Conduit threads prior to assembly shall be clean and coated with grease metallic-type conductive compounds such as series CP8 KOPR-SHIELD for ferrous conduit or series AP8 ALUMA-SHIELD for nonferrous (aluminum) conduit as manufactured by ABB.
- To prevent ingress of plaster, dirt, trash or moisture in raceways, boxes, fittings and equipment during course of construction, all open ends shall be closed with rugged thermoplastic plugs as manufactured by ABB, series 1470 and 1451. Plugs shall be firmly secured in place to provide adequate seal and shall be functionally unaffected by moisture. Thermoplastic plugs shall be rated at 105 °C/221 °F and have a UL flammability rating of 94V-1.



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Rigid and intermediate metal conduit fittings

Locknuts

—
01 140 Series
141AL Series
—
02 106 Series

Application

- To connect externally threaded conduit or fitting to a threadless opening in a box or enclosure
- To effectively bond conduit or fitting to box or enclosure

Features

- Hardened steel/malleable iron/copper-free aluminum construction
- Tightens without deformation
- Locknuts specially designed to
 - (1) Provide extended reach for clamping on thin boxes and enclosures
 - (2) Cut through protective coating on box and enclosure, thereby ensuring ground continuity
 - (3) Permit tightening from outside
 - (4) Prevent loosening under vibration
- 106 Series provided with a hardened cone point screw

Standard material

140 series and 106 series

- $\frac{3}{8}$ in. through 2 in. steel (hardened)
- 2½ in. through 6 in. malleable iron
- All screws steel

141AL series

- All copper-free aluminum (less than 0.4% copper)

Standard finish

- All steel and malleable iron locknuts including bonding screws electro-zinc plated; all aluminum locknuts degreased.

Range

- $\frac{3}{8}$ in. through 6 in. conduit (all threads straight pipe [NPS]) (140 series)
- $\frac{1}{2}$ in. through 4 in. conduit (106 series and 141AL series)

Conformance

- UL 514B
- CSA C22.2 No. 18.3
- NEMA FB-1
- ANSI C80.4
- Federal Specification W-F-408
- Federal Standard H-28 (threads)

Case-hardened locknuts

Case-hardened locknuts make fittings faster and easier to install. Case-hardened locknuts do not slip or turn, thereby protecting the biting edge. Case-hardened locknuts bite through the paint on the enclosure, providing excellent continuity of ground (typical T&B fitting with case-hardened locknuts successfully passed minimum fault current of 10,000 amps RMS). Case-hardened locknuts when assembled in the intended manner will not vibrate loose, thereby ensuring excellent ground continuity.



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Rigid and intermediate metal conduit fittings

Locknuts

Steel or malleable iron (steel through 2 in.) or aluminum 624

Many of the standard conduit and cable fittings are furnished with case-hardened locknuts. This

exclusive feature means the locknut tightens up against the box without deforming; the locknut bites into the box, providing a positive ground; and the fitting can be tightened from outside the box.

Locknuts



	Cat. no.			Dimensions (in.)		
	Stl. or M.I.	Alum.	SST	Size (in.)	A	B
	139*†	–	–	¼	27/32	5/32
	140*	–	–	¾	15/16	5/32
	141**	141AL	141SST	½	17/64	5/32
	142-TB**	142AL	142SST	¾	1 3/8	3/16
	143	143AL	143SST	1	1 11/16	13/64
	144	144AL	144SST	1 ¼	2 5/32	13/64
	145	145AL	145SST	1 ½	2 ½	13/64
	146-TB	146AL	146SST	2	3	7/32
	147	147AL	–	2 ½	3 9/16	13/32
	148	148AL	–	3	4 3/16	13/32
	149	149AL	–	3 ½	4 13/16	15/32
	150	150AL	–	4	5 5/16	15/32
	151	151AL	–	4 ½	5 15/16	17/32
	152	152AL	–	5	6 ½	17/32
	153	153AL	–	6	7 ¾	17/32

* Hex shape

** Case-hardened locknuts

Aluminum locknuts comply with federal standard of copper-free aluminum; less than 0.4% copper

† Not UL listed or CSA certified

Steel or malleable iron (steel through 2 in.)

Use anywhere an ordinary locknut is installed to ensure positive bonding of conduit to box and prevent loosening due to vibration. Also can be

used for service entrance applications in conformance with code. T&B rigid conduit and EMT (thinwall) fittings comply with Federal Specification WF 408C.

Bonding locknuts



	Cat. no.			Dimensions (in.)		
	Size (in.)	Screw Size (in.)	A	B		
	106	½	8-32 x 7/16	1 3/8	0.125	
	107	¾	8-32 x 7/16	1 3/8	0.140	
	108	1	8-32 x 7/16	1 15/16	0.170	
	109	1 ¼	8-32 x 7/16	2 5/32	0.170	
	110-TB	1 ½	8-32 x 7/16	2 ½	0.170	
	111	2	8-32 x 7/16	3	0.187	
	112-TB	2 ½	¾-20 x 5/8	3 13/32	0.375	
	113-TB	3	¾-20 x 5/8	4 13/16	0.375	
	114	3 ½	¾-20 x 5/8	4 29/32	0.438	
	115-TB	4	¾-20 x 5/8	5 7/16	0.438	

Steel finish: zinc plated

Rigid and intermediate metal conduit fittings

Sealing rings



Molded Santoprene seal / colour: blue

Provides positive seal against water and oil. For use with rigid and intermediate metal conduit, or fittings to provide watertight or raintight seal at all enclosures. NPS threads.

Fittings



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	141SL	1/2	1.140	1/8	1/4
	142SL	3/4	1.420	5/32	9/32
	143SL	1	1.770	11/64	9/32
	144SL	1 1/4	2.281	11/64	5/16
	145SL	1 1/2	2.598	11/64	9/32
	146SL	2	3.175	3/16	19/64

Steel finish: zinc plated

Sealing ring – Santoprene thermoplastic rubber

These sealing rings provide a liquidtight, dust-tight seal of fitting at enclosures.

Sealing rings with stainless steel retainer



Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)	
			A	B ± 1/64
	5302	1/2	1 11/64	3/4
	5303	3/4	1 1/2	15/16
	5304-TB	1	1 3/4	1 11/64
	5305	1 1/4	2 9/64	1 1/2
	5306	1 1/2	2 27/64	1 3/4
	5307	2	2 59/64	2 15/64
	5308	2 1/2	3 7/16	2 43/64
	5309	3	4 5/64	3 19/64
	5311	4	5 9/32	4 19/64

NEMA 3R, 4, 6 and 13

Rigid and intermediate metal conduit fittings

Bonding and grounding wedges



Application

- To effectively bond terminating fitting or conduit to a box or enclosure

Features

- Sizes ¼ in. through 6 in. equipped with an additional bonding screw to install bonding jumper where required
- Can be added to an existing installation without disconnecting conductors

Standard material/finish

- ½ in. size:
 - Steel/electro-zinc plated
- ¾ in. through 6 in. size:
 - Bronze/tin plated

Range

- ½ in. through 6 in. conduit

Conformity

- UL 467
- CSA C22.2 No. 41
- NFPA70-2008 (ANSI)
- Federal Specification A-A-50552

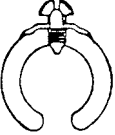
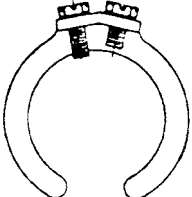
Especially suited for grounding old work, but equally convenient for new, grounding wedges provide grounding without a jumper except in concentric knockouts. When a jumper is required, it fits under a set screw in the grounding wedge.

Update existing installations to meet code requirements for bonding (CEC Section 10-806) without disconnecting wiring. Use on new wiring also.

1. Loosen bushing and position wedge
2. Tighten bushing and bonding screw

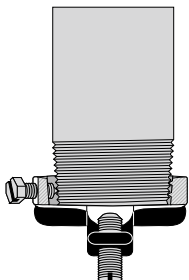
Bonding and grounding wedges



	Cat. no.	Size (in.)
Series 3650 	3650	½
	3651	¾
	3652	1
	3653	1¼
	3654	1½
	3655	2
Series 3651 	3656	2½
	3657	3
	3658	3½
	3659	4
	3661	5
	3662	6

Rigid and intermediate metal conduit fittings

Blackjack® – Conduit grounding bushings



Innovative design makes installation quicker, easier.

The Blackjack grounding bushing never has to be threaded onto a conduit. It is simply placed in position on either a threaded or non-threaded rigid or IMC conduit, with the grounding lug in perfect position to accept the grounding wire. Even in tight installations, it's as simple as one, two, three.

Compare the installation with conventional bushings that must be threaded onto the conduit. In tight areas, you may have to remove the grounding lug, keep up with the loose parts and then reattach the lug. Then you still have to twist and turn the bushing to get the lug in position to accept the grounding wire. The Blackjack bushing does away with these needless delays for good, making it the ideal grounding bushing and the only logical choice for small spaces, corners and multiple conduit runs. And, because the grounding lug is an integral part of the bushing, it is designed not to fall off or get lost.

Innovative design improves performance.

The Blackjack bushing provides superior ground continuity.

The design of the Blackjack bushing has an integral, cast-on grounding lug for better ground continuity. This means that the Blackjack bushing stands up to intense loads.

Secure grip forms lasting bond.

The Blackjack bushing's cone point mounting screw bites securely into both threaded and non-threaded rigid conduit. And the Blackjack bushing's nylon locking patch is designed to prevent the screw from loosening due to vibration.

Reduce inventory.

Because the Blackjack grounding bushing is designed for threaded and non-threaded conduit, and the ground lugs are designed to handle an extended range, the number of parts in inventory is reduced by up to two-thirds without losing any application coverage.

Lug screw:

- 14-4: Slotted
- 14-2/0: Slotted
- 6-4/0: Internal hex drive

Standard material/finish

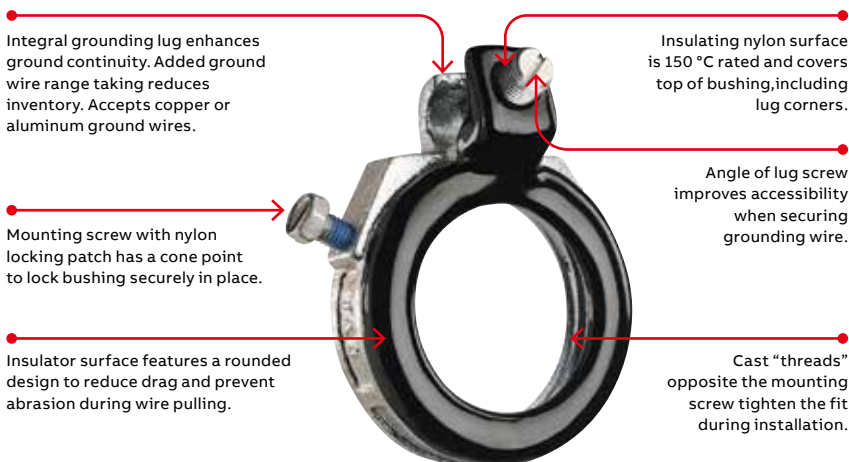
- Body: Malleable iron or aluminum
- Mounting screw: (½ in.-2 in.) stainless steel, (2½ in.-6 in.) brass
- Lug screw: Stainless steel
- Finish: Zinc plated or mechanical galvanized

Range

- Conduit: ½ in. through 6 in. threaded or threadless rigid/IMC
- Wire range: #14 AWG to 4/0 AWG Cu/Al

Conformity

- UL 514B and UL 467
- CSA C22.2 No. 18.3 and CSA C22.2 No. 41



Rigid and intermediate metal conduit fittings

Blackjack® – Conduit grounding bushings

Blackjack® – Conduit grounding bushings



Cat. no. zinc plated malleable iron	Aluminum	Conduit size (in.)	ØA Max.	ØB Max.	ØC Max.	ØD Max.	Dim.	
							E Max.	Wire range
BG050-14-20	BGA050-14-20	½	1.251	0.569	1.181	2.134	0.696	14-2/0
BG050-14-4	BGA050-14-4	½	1.251	0.569	1.027	1.940	0.696	14-4
BG075-14-20	BGA075-14-20	¾	1.533	0.772	1.221	2.414	0.696	14-2/0
BG075-14-4	BGA075-14-4	¾	1.533	0.772	1.030	2.168	0.696	14-4
BG100-14-20	BGA100-14-20	1	1.783	0.993	1.181	2.581	0.696	14-2/0
BG100-14-4	BGA100-14-4	1	1.783	0.993	1.027	2.368	0.696	14-4
BG125-14-20	BGA125-14-20	1¼	2.220	1.319	1.181	2.987	0.759	14-2/0
BG150-14-20	BGA150-14-20	1½	2.470	1.553	1.181	3.236	0.696	14-2/0
BG200-14-20	BGA200-14-20	2	2.830	2.010	1.181	3.766	0.696	14-2/0
BG250-14-20	BGA250-14-20	2½	3.148	2.412	1.181	4.341	0.978	14-2/0
BG250-6-40	BGA250-6-40	2½	3.148	2.412	1.524	4.526	0.978	6-4/0
BG300-14-20	BGA300-14-20	3	4.042	3.022	1.181	4.966	0.978	14-2/0
BG300-6-40	BGA300-6-40	3	4.042	3.022	1.524	5.139	0.978	6-4/0
BG350-14-20	BGA350-14-20	3½	4.542	3.491	1.181	5.467	0.978	14-2/0
BG350-6-40	BGA350-6-40	3½	4.542	3.491	1.524	5.639	0.978	6-4/0
BG400-14-20	BGA400-14-20	4	5.042	3.975	1.181	5.966	0.978	14-2/0
BG400-6-40	BGA400-6-40	4	5.042	3.975	1.524	6.139	0.978	6-4/0
BG500-14-20	BGA500-14-20	5	6.136	4.991	1.181	7.045	0.978	14-2/0
BG500-6-40	BGA500-6-40	5	6.136	4.991	1.524	7.207	0.978	6-4/0
BG600-14-20	BGA600-14-20	6	7.199	6.009	1.181	8.087	0.978	14-2/0
BG600-6-40	BGA600-6-40	6	7.199	6.009	1.524	8.409	0.978	6-4/0

Suggested specifications
Insulated grounding and bonding bushing
(Series BG050-BG600)

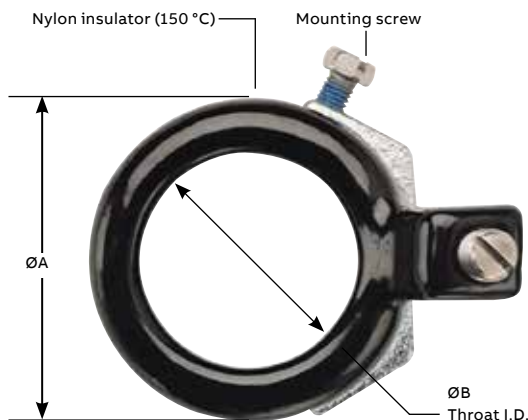
Where code requires bonding and grounding of single or multiple metal conduit, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing series BG050-14-20 as manufactured by ABB.

Grounding and bonding bushings used shall be approved for the purpose and

- (i) Shall be of malleable iron/steel/aluminum construction adequately protected against corrosion.
- (ii) Bushing insulator shall be listed or certified for 150 °C/302 °F application with a flammability rating of 94V-0. Insulator must be positively locked in place.

* Mechanical galvanization is available in the 3870 series; add suffix MG to cat. no.

Diagrams



Rigid and intermediate metal conduit fittings

Threaded insulated grounding bushings



Application

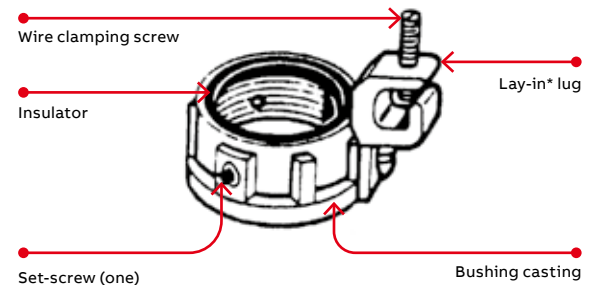
- For quick installation of bonding jumper to multiple metal conduit (rigid and IMC)
- Designed to bush conductors and prevent insulation damage

Features

- Ease of installation, lay-in lug design
- Cast malleable iron body designed to lock insulator in place within body, reducing common assembly problem resulting in dislodging of insulator
- Insulator rated for 150 °C/302 °F application

Standard material / finish

- Body: Electro-zinc plated
- Lay-in lug: Aluminum/tin-plated
- Insulator: Thermoplastic 150 °C/302 °F
- Application with 94V-0 flammability



Cat. no.	Conduit size (in.)	Bushing dia. (in.)	Throat dia. (in.)	Lug length (in.)	Swing radius (in.)	Bushing height (in.)	Wire range AWG Cu/Al
3870-TB	½	1.125	0.560	1.310	1.212	0.657	14-4
3861	½	1.125	0.560	1.675	1.402	0.657	8-2/0
3871-TB	¾	1.420	0.742	1.310	1.360	0.660	14-4
3862	¾	1.420	0.742	1.675	1.550	0.660	8-2/0
3872	1	1.770	0.944	1.310	1.535	0.735	14-4
3882	1	1.770	0.944	1.675	1.725	0.735	8-2/0
3873	1¼	2.190	1.242	1.310	1.745	0.735	14-4
3883	1¼	2.190	1.242	1.675	1.935	0.735	8-2/0
3874	1½	2.468	1.449	1.310	1.884	0.770	14-4
3884	1½	2.468	1.449	1.675	2.074	0.770	8-2/0
3875	2	3.031	1.860	1.310	2.165	0.770	14-4
3889	2	3.031	1.860	1.675	2.355	0.770	8-2/0
3876	2½	3.516	2.222	1.310	2.408	0.940	14-4
3886	2½	3.516	2.222	1.675	2.598	0.940	8-2/0
3993	2½	3.516	2.222	2.230	2.928	0.940	6-4/0
3877-TB	3	4.234	2.761	1.310	2.767	0.975	14-4
3887-TB	3	4.234	2.761	1.675	2.957	0.975	8-2/0
3994	3	4.234	2.761	2.230	3.287	0.975	6-4/0
3878	3½	4.781	3.193	1.310	3.040	0.975	14-4
3863	3½	4.781	3.193	1.675	3.230	0.975	8-2/0
3995	3½	4.781	3.193	2.230	3.560	0.975	6-4/0
3879	4	5.328	3.623	1.310	3.314	0.980	14-4
3864	4	5.328	3.623	1.675	3.504	0.980	8-2/0
3996	4	5.328	3.623	2.230	3.834	0.980	6-4/0
3880	5	6.328	4.542	1.310	3.814	0.985	14-4
3865	5	6.328	4.542	1.675	4.000	0.985	8-2/0
3998	5	6.328	4.542	2.230	4.334	0.985	6-4/0
3881	6	7.406	5.458	1.310	4.353	1.200	14-4
3866	6	7.406	5.458	1.675	4.543	1.200	8-2/0
3999	6	7.406	5.458	2.230	4.875	1.200	6-4/0

Temperature rating 150 °C

*Contact your regional sales office for copper lay-in lug

Rigid and intermediate metal conduit fittings

Bushings



Nylon insulated metallic bushings.
Steel or malleable iron (steel through 1½ in.)
 The Canadian Electric Code 10-906 (2) calls for protection of ungrounded conductors by means of smoothly rounded insulating surfaces at the entrance to raceways, pull boxes, junction boxes,

etc. T&B insulated throat fittings, recognizable by the distinctive trademarked blue insulating liner in the throat, meet and surpass this code requirement. In addition, T&B insulated fittings also reduce wire pulling effort by as much as 50%. Temperature rating 105 °C.

Insulated throat fittings



Diagram	Cat. no.		Dimensions (in.)		
	Steel or M.I.	Aluminum	Size (in.)	A	B
	1222	1222AL	½	1 1/32	29/64
	1223	1223AL	¾	1 9/32	31/64
	1224	1224AL	1	1 19/32	19/32
	1225-TB	1225AL	1 ¼	1 15/16	21/32
	1226-TB	1226AL	1 ½	2 3/16	23/32
	1227-TB	1227AL	2	2 11/16	7/8
	1228-TB	1228AL	2 ½	3 3/16	31/32
	1229-TB	1229AL	3	3 27/32	15/16
	1230	1230AL	3 ½	4 7/16	1 1/16
	1231	1231AL	4	4 7/8	1 3/32
	1232†	1232AL†	4 ½	5 7/16	1 15/64
	586	586AL	5	5 31/32	1 9/32
	587	587AL	6	7 3/16	1 11/32

† Not CSA Certified
 The aluminum series are not CSA certified



Aluminum, steel or malleable iron (steel through 1½ in.)
 Smoothly rounded shoulder covers end of conduit; broad flange covers knockout hole. High ribs make tightening easy with fingers or with wrench.

½ in.–1½ in. sizes, formed in steel, have extra smooth shoulders. Locknut-type base gives improved bonding and resists loosening under conditions of vibration.

Metallic bushings



Diagram	Cat. no.		Dimensions (in.)		
	Steel or M.I.	Aluminum	Size (in.)	A	B
	122	122AL	½	1 1/32	13/32
	123-TB	123AL*	¾	1 9/32	13/32
	124	124AL	1	1 19/32	½
	125-TB	125AL	1 ¼	1 15/16	9/16
	126	126AL	1 ½	2 3/16	9/16
	127	127AL	2	2 11/16	13/32
	128	128AL	2 ½	3 3/16	13/16
	129	129AL	3	3 27/32	13/16
	130-TB	130AL	3 ½	4 7/16	15/16
	131-TB	131AL	4	4 7/8	1
	132-TB	-	4 ½	5 7/16	1 5/64
	133-TB	133AL	5	6 1/16	1 1/16
	134-TB	134AL	6	7 3/16	1 1/16

* Not UL Listed or CSA Certified

Rigid and intermediate metal conduit fittings

Plastic insulating bushings



All-plastic insulating bushings

Impact-resistant plastic insulation. These bushings have ribs for gripping when installing. Perfect threads for easy thread on. UL Listed 105 °C. NPT threaded.

Plastic insulating bushings



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	222-TB	$\frac{1}{2}$	$1\frac{1}{16}$	$\frac{3}{8}$
	223-TB	$\frac{3}{4}$	$1\frac{9}{32}$	$\frac{13}{32}$
	224	1	$1\frac{37}{64}$	$\frac{9}{16}$
	225-TB	$1\frac{1}{4}$	$2\frac{1}{32}$	$\frac{9}{16}$
	226	$1\frac{1}{2}$	$2\frac{15}{64}$	$\frac{9}{16}$
	227	2	$2\frac{25}{32}$	$\frac{5}{8}$
	228-TB	$2\frac{1}{2}$	$3\frac{13}{32}$	$\frac{3}{4}$
	229-TB	3	$4\frac{3}{32}$	$\frac{3}{4}$
	230-TB	$3\frac{1}{2}$	$4\frac{5}{8}$	$\frac{7}{8}$
	231	4	$5\frac{3}{16}$	$\frac{7}{8}$
	232	$4\frac{1}{2}$	$5\frac{5}{8}$	$\frac{7}{8}$
	233	5	$6\frac{3}{8}$	1
	234	6	$7\frac{1}{16}$	1

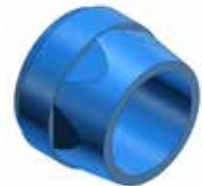
Flame retardant. UL rated 94V-1

Rigid and intermediate metal conduit fittings

Insulating bushings for threadless rigid conduit and intermediate metal conduit



TRIB50 Series



Application

- When assembled to the end of a threadless conduit, provides a well-rounded insulating surface over which conductors may be pulled or on which conductors may bear while in service

Features

- Designed to be popped onto, and bush, conduit end
- Fast easy installation without screws
- High impact thermoplastic construction

Standard material

- High impact thermoplastic listed for 105 °C (221 °F) application
- Flammability classification 94V-1

Standard finish

- As molded

Range

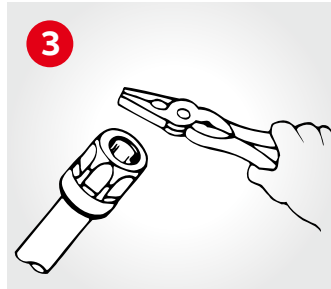
- ½ in.–4 in. conduit

Conformity

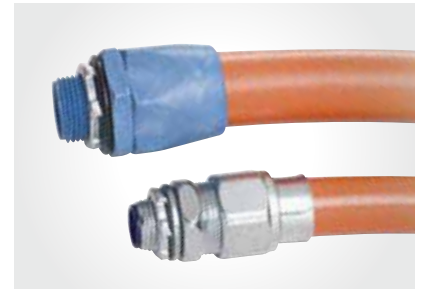
- UL 514B
- ANSI C80.4
- NFPA 70-2008 (ANSI)



1. Cut conduit end squarely. Remove sharp edges and burrs on inside and outside diameters by reaming or filing.
2. Slip the pop-on bushing over the end of the conduit.



3. Using the flat surface of any standard utility tool such as an electricians pliers (or a hammer with a block of wood, for the larger sizes), strike the bushing on its top surface using a series of light blows until the end of the conduit rests against the bushing throat and conduit stop.



Insulated metallic bushing



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	TRIB-50	½	19/32	19/32	1 1/16
	TRIB-75	¾	25/32	1 25/64	1 ¼
	TRIB-100	1	1	1 ½	1 9/16
	TRIB-125	1 ¼	1 5/16	1 5/8	1 59/64
	TRIB-150	1 ½	1 17/32	1 21/32	2 11/64
	TRIB-200	2	1 31/32	1 13/16	2 11/16
	TRIB-250	2 ½	2 23/64	2	3 ¼
	TRIB-300	3	2 59/64	2 7/32	3 29/32
	TRIB-350	3 ½	3 3/8	2 5/16	4 29/64
	TRIB-400	4	3 27/32	2 13/32	5

IMC sizes ½ in.–4 in.
UL Rated flame retardant 94V-1

Rigid and intermediate metal conduit fittings

Knockout bushings



3210 Series

Application

- To bush knockout openings in metal boxes or enclosures

Features

- One-piece construction designed to snap in place
- High impact strength self-extinguishing, non-dripping (per UL 94) thermoplastic construction

Standard material

- Thermoplastic rated for 105 °C (221 °F) application

Standard finish

- As molded

Range

- 0.875 in. through 2.469 in. nominal diameter knockout opening ($\frac{1}{2}$ in. through 2 in. trade size knockouts)
- Wall thickness of box or enclosure 0.095 in. max. up to 1 in. trade size, 0.140 in. max. $1\frac{1}{4}$ in. through 2 in. trade size

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- NFPA 70-2008 (ANSI)

One-piece knockout bushing quickly snaps into outlet box, switch box or other enclosure left vacant by wiring modifications or maintenance changes. Provides smooth, rounded insulation surface for easy wire pulling. Easily installed by hand, they are available to fit $\frac{1}{2}$ in. through 2 in. knockouts. UL Listed 105 °C. High impact thermoplastic.

Knockout bushings



Diagram	Cat. no.	Trade size (in.)	For use in KO* +0.032/ -0.16 (in.)	Max. wall thickness of elec. box (in.)	Dimensions (in.)			
					A	B	C	D
	3210	$\frac{1}{2}$	0.875	0.095	1.000	0.725	0.360	0.180
	3211	$\frac{3}{4}$	1.109	0.095	1.215	0.940	0.360	0.180
	3212	1	1.375	0.095	1.500	1.200	0.360	0.180
	3213	$1\frac{1}{4}$	1.734	0.140	1.865	1.550	0.400	0.210
	3214	$1\frac{1}{2}$	1.984	0.140	2.240	1.760	0.530	0.310
	3215	2	2.469	0.140	2.740	2.245	0.530	0.310

* Per UL and NEMA standards
 Material: Thermoplastic
 Flammability classification of 94V-1 Per UL 94
 Service temperature: -40 °C to 105 °C

Rigid and intermediate metal conduit fittings

INSULINER® sleeves



Slip over wires – insert into bushing – snaps into place.

High dielectric nylon, 105 °C. An INSULINER sleeve snapped into a regular bushing makes a CSA Listed insulated bushing. For standard rigid conduit,

EMT (thinwall conduit) or any standard bushed outlet. Especially suitable for use with flexible metallic conduit. Converts ordinary bushing to code-approved insulated bushing without disturbing wiring.

INSULINER sleeves



	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	422	½	⅝	0.022
	423	¾	1⅛	0.025
	424	1	⅞	0.040
	425	1¼	1	0.040
	426-TB	1½	1	0.050
	427-TB	2	1⅞	0.050
	428-TB*	2½	1¼	0.035
	429*	3	1½	0.035
	430-TB*	3½	1 ²⁵ / ₃₂	0.035
	431*	4	2 ¹ / ₃₂	0.035
	433*	5	2½	0.035
	434*	6	2½	0.035

Catalogue numbers 422 to 427-TB inclusively are CSA and UL listed

*Catalogue numbers 428-TB to 434 inclusively are cULus listed

Oxygen index >28°

Rigid and intermediate metal conduit fittings

Knockout plugs

Application

- To bush knockout openings in metal boxes or enclosures

Features

- One-piece construction designed to snap in place
- High impact strength self extinguishing non-dripping (per UL 94) thermoplastic construction

Standard material

- Thermoplastic rated for 105 °C (221 °F) application

Standard finish

- As molded

Range

- 0.875 in. through 2.469 in. nominal diameter knockout opening (½ in. through 2 in. trade size knockouts)
- Wall thickness of box or enclosure:
 - 0.095 in. max. up to 1 in. trade size
 - 0.140 in. max. 1¼ in. through 2 in. trade sizes

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- NFPA 70-2008 (ANSI)

105 °C rated by UL. Made from flame-retardant, non-dripping thermoplastic.



	Cat. no.	Knockout trade size (in.)	Dimensions (in.)	
			A	B
	1451	½	1.060	0.400
	1452	¾	1.300	0.400
	1453	1	1.590	0.400
	1454	1¼	1.860	0.450
	1455	1½	2.240	0.570
	1456	2	2.740	0.570

Wall thickness of electrical box 0.095 max.

A penny under a bushing will seal the end of the conduit during construction. Made to fit any bushing. Completely salvageable.



Pennies – Steel



Cat. no.	Size (in.)
815-TB	½
816	¾
817	1
818	1¼
819	1½
820	2
821	2½
822	3
824-TB	3½
823	4

UL not applicable

Rigid and intermediate metal conduit fittings

Bushings and Push-Penny® plugs

Application

- To plug open end of conduit or fitting in order to prevent ingress of trash, dirt or moisture during construction and remodeling

Features

- Wide range of applications; can be used with rigid metal conduit, intermediate metal conduit, electrical metallic tubing, all connectors and all bushings
- Designed to stand up to normal handling and is functionally unaffected by moisture

Standard material

- Polyethylene

Standard finish

- As molded

Conformity

- CSA C22.2 No. 18
- ANSI C80.4
- NFPA 70-2008 (ANSI)
- NEMA FB-1

CEC Rule: 12-3024

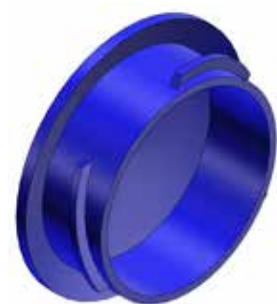
- “Unused openings in boxes, cabinets and fittings shall be effectively closed by plugs or plates affording protection substantially equivalent to that of the wall of the box, cabinet or fittings.”

Bushings and Push-Penny plugs



	Cat. no.	Size (in.)	A (in.)	Assembly consist of	
				Bushing	Push-Penny
	1460	½	1⅜	122	1470-TB
	1461	¾	1⅝	123-TB	1471
	1462	1	1⅞	124	1472
	1463	1¼	1⅝ ₁₆	125	1473
	1464	1½	2⅜ ₁₆	126	1474
	1465*	2	2⅞ ₃₂	127	1475

* Malleable Iron
Available in aluminum
Add suffix AL to cat. no.



Push-Penny plugs

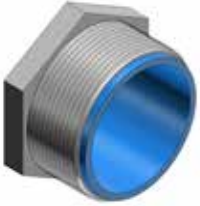


Cat. no.	Size (in.)
1470-TB	½
1471	¾
1472	1
1473	1¼
1474	1½
1475	2
1476*	2½
1477*	3
1478*	3½
1479*	4

*Not CSA Certified
UL not applicable

Rigid and intermediate metal conduit fittings

Chase nipples



1942 series
842AL series
(non-insulated)

Application

- To effectively bush factory or field-punched, cut, or drilled holes in metal boxes or enclosures
- To couple boxes back-to-back

Features

- Rugged construction
- Insulator curled over to: Bush conductors entering/leaving at any angle, reduce wire pull effort, protect threads against damage in handling

Standard material

1942 Series

- Body:
 - ½ in. – Steel
 - ¾ in., ¾ in. through 6 in. – Malleable iron
- Insulator: Nylon
- 842AL Series: All copper-free aluminum (less than 0.4% copper)

Standard finish

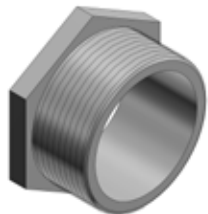
- 1942 Series: Electro-zinc plated and chromate coated
- 842AL Series: Degreased

Range 1942 and 842AL series

- ½ in. through 6 in.
- All hub threads straight pipe (NPS)

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- Federal Specification W-F-408
- ANSI C80.4
- NFPA 70-2008 (ANSI)
- NEMA FB-1
- Federal Standard H-28 (threads)



Steel, malleable
iron or aluminum

CHASE nipples – Non-insulated

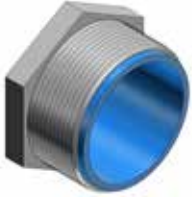


Diagram	Cat. no.		Dimensions (in.)		
	Stl. or M.I.	Alum.	Size (in.)	A	B
	841TB	–	⅜	13/16	7/16
	842TB	842ALTB†	½	15/16	11/32
	843TB	843ALTB	¾	1 3/16	11/32
	844	844AL†	1	1 7/16	2 1/32
	845	845AL†	1 ¼	1 ¾	¾
	846	846AL	1 ½	2 1/16	13/16
	847	847AL	2	2 ½	3 1/32
	848	848AL	2 ½	3 1/16	1 1/16
	849	849AL	3	3 13/16	1 3/16
	850	850AL	3 ½	4 ¾	1 5/16
	851	851AL	4	4 ¾	1 5/16
	853	853AL	5	5 7/8	1 5/16
	854	854AL	6	6 15/16	1 7/8

† Not UL Listed

Rigid and intermediate metal conduit fittings

CHASE nipples



—
Steel or malleable iron

—
CHASE nipples – Nylon insulated



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	1942	$\frac{1}{2}$	$\frac{15}{16}$	$\frac{1}{2}$	$\frac{19}{32}$
	1943	$\frac{3}{4}$	$1\frac{3}{16}$	$\frac{17}{32}$	$\frac{23}{32}$
	1944	1	$1\frac{7}{16}$	$\frac{21}{32}$	$\frac{7}{8}$
	1945-TB	$1\frac{1}{4}$	$1\frac{3}{4}$	$\frac{25}{32}$	$1\frac{1}{32}$
	1946	$1\frac{1}{2}$	$2\frac{1}{16}$	$\frac{13}{16}$	$1\frac{3}{32}$
	1947	2	$2\frac{9}{16}$	$\frac{31}{32}$	$1\frac{11}{32}$
	1948	$2\frac{1}{2}$	$3\frac{1}{16}$	$1\frac{1}{16}$	$1\frac{7}{16}$
	1949	3	$3\frac{13}{16}$	$1\frac{3}{16}$	$1\frac{19}{32}$
	1950	$3\frac{1}{2}$	$4\frac{3}{8}$	$1\frac{5}{16}$	$1\frac{25}{32}$
	1951	4	$4\frac{7}{8}$	$1\frac{5}{16}$	$1\frac{13}{16}$
	1953	5	$5\frac{29}{32}$	$1\frac{5}{16}$	$1\frac{13}{16}$
	1954	6	$6\frac{13}{16}$	$1\frac{3}{8}$	$1\frac{7}{8}$

Rigid and intermediate metal conduit fittings

Threaded hubs (Bullet® hubs) for threaded rigid metal conduit/IMC/PVC-coated rigid metal conduit

—
01 370 Series
370AL Series
—
02 485 Series

Application

- To connect threaded metal conduit (ferrous rigid/nonferrous rigid/PVC-coated/or intermediate metal) to a threadless opening in a box or enclosure in outdoor or indoor location exposed to continuous or intermittent moisture
- To positively bond conduit to box or enclosure

Features

- Rugged steel/malleable iron/copper-free aluminum construction
- Tapered internal threads for watertight/dust-tight union (A)
- Threads relieved to prevent bottoming of conduit, ensuring sound assembly (B)
- Recessed sealing ring at box end; captive sealing ring (C)
- Hardened steel/malleable iron/copper-free aluminum locknuts designed to provide high quality ground continuity; extended reach of locknut permits clamping on thin boxes and enclosures (D)
- Insulated throat protects conductors, prevents abrasion and thinning of conductor insulation, reduces wire pull effort (E)
- Suitable for hazardous location use per following:
 - (1) Class II, Division 1 Groups E, F, G, CEC Rule 18-202
 - Class II, Division 2 Groups E, F, G, CEC Rule 18-252
 - Class III, Division 1 Rule 18-302
 - Class III, Division 2 Rule 18-352

• PVC-coated 485 series

- (1) Protects fitting from extremely corrosive surroundings without affecting integrity of electrical grounding path (F)
- (2) Provided with overlapping sleeve for additional seal (G)

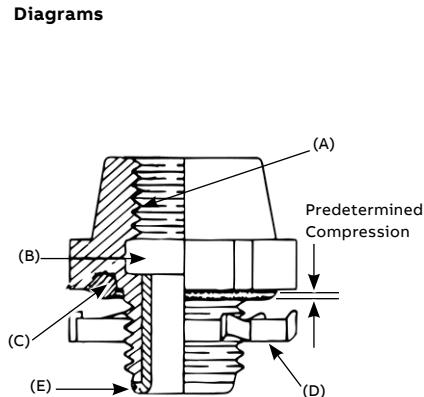
Canadian Electric Code Rule 10-602 states that, “Where dissimilar metals cannot be avoided at bonding connections as indicated in Rule 2-112 (2). Connections shall be made using methods or material that will minimize deterioration from galvanic action.”

Joint Industrial Council (JIC) Electrical Standards also forbid dissimilar metals in contact for the same reason and require that the fittings for metal conduit be of malleable iron or ductile iron and have impact strength comparable to that of the conduit.

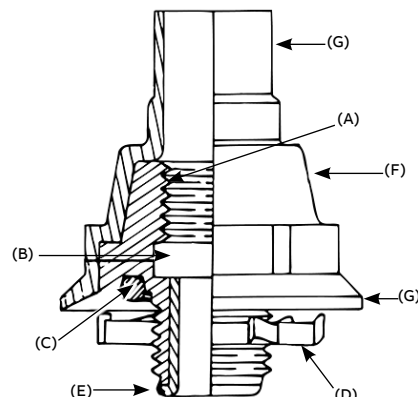
“Copper-free aluminum”

- Copper-free aluminum castings for fittings have a maximum of 0.4% copper. The most detrimental effect of higher percentage of copper on aluminum base alloy is its decrease in corrosion resistance.

Diagrams



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01



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02

Rigid and intermediate metal conduit fittings

Threaded hubs (Bullet® hubs) for threaded rigid metal conduit/IMC/PVC-coated rigid metal conduit

Standard material

	370-485 Series	370AL Series
Body	½ in. through 1 in. steel 1¼ in. through 6 in. malleable iron	All copper-free aluminum
Locknut	½ in. through 2 in. steel (hardened) 2½ in. through 6 in. malleable iron	½ in. through 2 in. steel (hardened) 2-½ in. through 4 in. copper-free aluminum
Screws	Steel (hardened)	
O-ring	Buna N	
Insulator	Nylon	
Coating	PVC	

Standard finish

	370 Series	370AL Series	485 Series
Hub	Electro-zinc plated	As cast chromate coated	PVC – outside electro-zinc
Locknuts	All ferrous locknuts electro-zinc plated and chromate coated		Plated chromate coated – inside
Screws	All electro-zinc plated and chromate coated		

Range

370 Series	½ in. through 6 in. conduit
370AL and 485 Series	½ in. through 4 in. conduit All hub threads – straight pipe All female threads – taper pipe (NPT)

Conformity

UL 514B
CSA 22.2 No. 18.3
ANSI C80.4
NFPA 70-2008 (ANSI)
NEMA FB-1
JIC EGP1; JIC EMP 1
Federal Specification W-F-408
Federal Standard H-28 (threads)

Rigid and intermediate metal conduit fittings

Hubs



Nylon insulated

Aluminum, steel or malleable iron (steel through 1 in.). With neoprene O-ring provides a watertight threaded hub on enclosures. UL Listed 105 °C.

Steel/malleable iron and aluminum hub fittings†



Diagram	Cat. no.		Size (in.)	Dimensions (in.)			Wall thk. max. (in.)
	Stl. or M.I.	Alum.**		A	B	C	
	370	370AL	½	1⅜	1⅜	¾	⅝
	371	371AL	¾	1⅜	1⅜	⅞	⅝
	372	372AL	1	2⅜	1⅜	1⅞	⅝
	373	373AL	1¼	2⅞	2	1⅞	⅝
	374	374AL	1½	3⅜	2	1⅞	⅝
	375	375AL	2	3⅞	1⅜	1⅞	⅝
	376	—	2½	4⅞	2⅜	1⅞	⅝
	377	—	3	5	2⅜	2	½
	378	—	3½	5⅞	3⅞	2⅞	½
	379-TB	—	4	6⅞	3⅞	2⅞	½
	381-TB	—	5	8	4	2⅞	½
	382-TB	—	6	9⅞	4	2⅞	½

** Aluminum not available with insulated throat

† UL Listed raintight and CSA Certified watertight and dust tight



Bullet hub fittings with bonding locknut – Nylon insulated



Cat. no.	Size (in.)	Description
401	½	Available in steel or malleable iron Supplied with 106 Series bonding nut. Temperature rating: 105 °C.
402	¾	
403-TB	1	
407	2½	
408	3	
409	3½	
410-TB	4	

CSA certified watertight and dust tight

Rigid and intermediate metal conduit fittings

Hubs

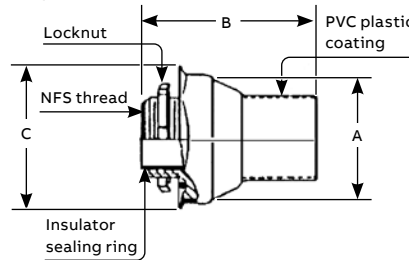


Steel or malleable iron (steel through 1 1/4 in.)

PVC-coated hub for rigid conduit



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	485	1/2	1 21/64	2 1/8	1 7/8
	486	3/4	1 19/32	2 3/8	2 1/8
	487	1	1 27/32	2 3/4	2 3/8
	488	1 1/4	2 15/32	3 3/8	3 1/8
	489	1 1/2	2 29/32	3 5/8	3 1/2
	490	2	3 3/8	3 3/4	4
	491	2 1/2	3 27/32	4	4 1/2
	492	3	4 21/32	4 5/8	5 3/8
	493	3 1/2	5 9/64	4 13/16	5 7/8
	494	4	5 3/4	4 9/16	6 7/16



*485 Series are CSA Certified watertight and dust-tight for ordinary locations

Spacing chart for Bullet hubs



Center to center spacing conduit sizes (in.)											Min. space from center of Bullet hub to wall of box (in.)	KO diameter min. (in.)	
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4			
1/2	1 1/16	1 5/8	1 3/4	2 1/8	2 3/8	2 5/8	2 7/8	3 5/16	3 1/2	3 3/8	3 7/8	3/4	7/8
3/4	-	1 3/4	1 7/8	2 1/4	2 1/2	2 3/4	3	3 1/2	3 3/4	4 1/8	4 1/4	7/8	1 1/8
1	-	-	2	2 3/8	2 5/8	2 7/8	3 1/8	3 5/8	3 7/8	4 1/4	4 1/2	1 1/8	1 3/8
1 1/4	-	-	-	2 11/16	2 15/16	3 1/4	3 1/2	4	4 1/4	4 1/2	4 3/4	1 3/8	1 3/4
1 1/2	-	-	-	-	3 1/8	3 1/2	3 3/4	4 1/8	4 3/8	4 3/4	4 3/4	1 5/8	2
2	-	-	-	-	-	3 3/4	4	4 1/2	4 3/4	5	5	1 7/8	2 1/2
2 1/2	-	-	-	-	-	-	4 1/4	4 3/4	5	5 3/8	5 3/8	2 1/8	3
3	-	-	-	-	-	-	-	5 1/8	5 3/8	5 3/4	5 3/4	2 5/8	3 3/8
3 1/2	-	-	-	-	-	-	-	-	5 5/8	6	6	2 7/8	4 1/8
4	-	-	-	-	-	-	-	-	-	6 1/4	6 1/4	3 1/4	4 5/8

T&B Hub centerline spacing chart

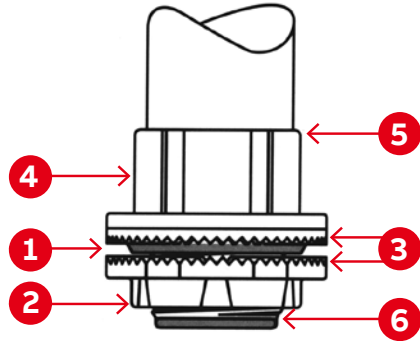


Conduit trade size (in.)	1/2 (in.)	3/4 (in.)	1 (in.)	1 1/4 (in.)	1 1/2 (in.)	2 (in.)	2 1/2 (in.)	3 (in.)	3 1/2 (in.)	4 (in.)	5 (in.)	6 (in.)
1/2	1 9/16	-	-	-	-	-	-	-	-	-	-	-
3/4	1 43/64	1 25/32	-	-	-	-	-	-	-	-	-	-
1	1 27/32	1 61/64	2 1/8	-	-	-	-	-	-	-	-	-
1 1/4	2 1/32	2 9/64	2 5/16	2 1/2	-	-	-	-	-	-	-	-
1 1/2	2 7/32	2 21/64	2 1/2	2 11/16	2 7/8	-	-	-	-	-	-	-
2	2 15/32	2 37/64	2 3/4	2 19/16	3 3/8	3 3/8	-	-	-	-	-	-
2 1/2	2 23/32	2 53/64	3	3 3/16	3 3/8	3 3/8	3 3/8	-	-	-	-	-
3	3 1/32	3 9/64	3 5/16	3 1/2	3 11/16	3 15/16	4 3/16	4 1/2	-	-	-	-
3 1/2	3 11/32	3 21/64	3 5/8	3 13/16	4	4 1/4	4 1/2	4 13/16	5 1/8	-	-	-
4	3 19/32	3 45/64	3 7/8	4 1/16	4 1/4	4 1/2	4 3/4	5 1/16	5 3/8	5 5/8	-	-
5	4 3/32	3 25/64	4 9/16	4 3/4	4 15/16	5 1/16	5 7/16	5 3/4	6 1/16	6 5/16	7	-
6	4 11/16	4 51/64	4 31/32	5 5/32	5 11/32	5 19/32	5 27/32	6 5/32	6 15/32	6 23/32	7 13/32	7 13/16
Nearest obstruction to center of hub												
	27/32	61/64	1 1/8	1 1/16	1 1/2	1 3/4	2	2 5/16	2 5/8	2 7/8	2 9/16	3 31/32

Rigid and intermediate metal conduit fittings

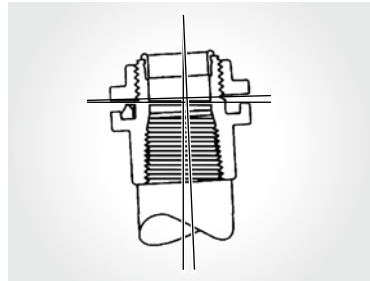
Hubs

1. Sealing ring and groove with innovative profile outperforms standard O-ring design. Sealing ring is captive before installation and resists buckling or slipping during installation. The seal groove is designed for optimum compression of the sealing ring. The sealing ring is designed to provide a complete 360° seal, even when the conduit is not perpendicular with the enclosure. (See Figure 1)

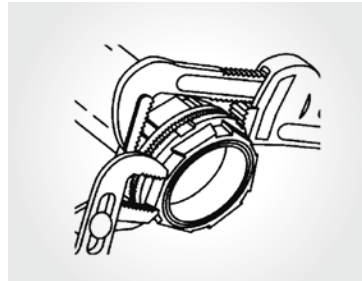


Never before has a single hub fit like this one. Designed for unequalled performance. The innovative engineering of the hub will, quite simply, raise your performance expectations for threaded hubs. The revolution in hub design is here, and the fate of our competition is sealed.

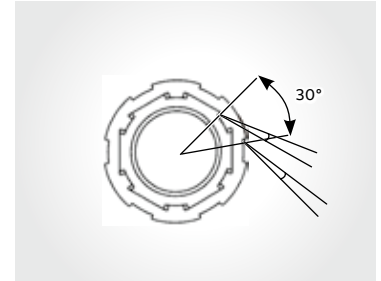
2. Locknut design with peripheral slots and a hexagonal/angled spline spaced every 30° enables easy application of torque with wrench or hammer and screwdriver. (See Figures 2 & 3)



01



02



03

3. Sharper and deeper teeth on locknut and body designed for a more penetrating bite for improved bonding to the enclosure.

4. Hexagonal / splined body design for fast, easy installation with wrench or hammer and screwdriver.



5. Precision machined tapered threads designed to create watertight union.

The T&B Hub

6. Insulated throat molded from 105 °C rated thermoplastic with a flammability rating of 94V-0.

01 Figure 1

02 Figure 2

03 Figure 3

Diagram

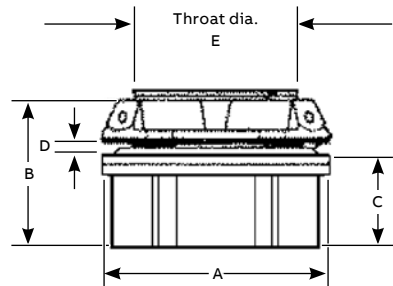


Diagram	Cat. no. zinc	Cat. no. aluminum	Trade size (in.)	Dimensions (in.)			Max. panel thickness D (in.)	Throat dia. E (in.)
				A	B	C		
	H050-TB	H050A	½	1 ⁷ / ₁₆	1 ⁹ / ₁₆	7 ¹ / ₈	3 ¹ / ₁₆	1 ⁹ / ₃₂
	H075-TB	H075A	¾	1 ²¹ / ₃₂	1 ¹⁹ / ₃₂	2 ⁹ / ₃₂	3 ¹ / ₁₆	2 ⁵ / ₃₂
	H100-TB	H100A	1	2	1 ¹³ / ₁₆	1 ¹ / ₁₆	¼	1
	H125-TB	H125A	1¼	2 ³ / ₈	1 ⁷ / ₈	1 ¹ / ₁₆	¼	1 ⁵ / ₁₆
	H150-TB	H150A	1½	2 ³ / ₄	1 ⁷ / ₈	1 ¹ / ₁₆	¼	1 ¹⁷ / ₃₂
	H200-TB	H200A	2	3¼	1 ¹⁵ / ₁₆	1 ⁵ / ₃₂	¼	1 ³¹ / ₃₂
	H250-TB	H250A	2½	3¾	2 ⁹ / ₁₆	1 ⁹ / ₁₆	¼	2 ¹³ / ₃₂
	H300-TB	H300A	3	4¾	2 ²³ / ₃₂	1 ¹⁹ / ₃₂	¼	2 ³¹ / ₃₂
	H350-TB	H350A	3½	5	2 ²³ / ₃₂	1 ⁷ / ₈	¼	3 ¹³ / ₃₂
	H400-TB	H400A	4	5½	2 ²³ / ₃₂	1 ⁷ / ₈	¼	3 ⁷ / ₈
	H500-TB	H500A	5	6 ⁷ / ₈	3 ¹ / ₃₂	1 ¹⁵ / ₁₆	¼	4 ¹⁵ / ₁₆
	H600-TB	H600A	6	7 ¹¹ / ₁₆	3 ⁵ / ₃₂	2	¼	6

Material – Hub and locknut: Zinc or copper-free aluminum
 Insulating throat: Thermoplastic temp. rating 105 °C, flammability rating: 94V-0
 Sealing ring: Nitrile (Buna N)

For chrome-plated hubs add suffix **CP** (i.e. H050CP).

Meets NEMA sealing requirements for NEMA 3R, 4 and 13 enclosures.

UL Listed and CSA Certified. CSA Certified use in hazardous locations Class I, Division 2, Class II, Groups E, F and G, Class III, Division 1, 2 and Type 4.

Chrome-plated hubs (suffix-**CP**) are rated NEMA 4X.

For aluminum hubs add suffix **A** (i.e. H050A).

Rigid and intermediate metal conduit fittings

Hubs



Grounding hub



Diagram	Cat. no. zinc	Cat. no. aluminum	Trade size (in.)	Dimensions (in.)				
				Dia. (in.)			D Max. Panel Thickness	E Throat dia.
				A	B	C		
	H050GR-C	H050GRA-C	1/2	1 1/16	1 9/16	7/8	3/16	1 9/32
	H075GR-C	H075GRA-C	3/4	1 7/16	1 19/32	2 9/32	3/16	2 5/32
	H100GR-C	H100GRA-C	1	2	1 13/16	1 1/16	1/4	1
	H125GR-C	H125GRA-C	1 1/4	2 3/8	1 7/8	1 1/16	1/4	1 1/16
	H150GR-C	H150GRA-C	1 1/2	2 3/4	1 7/8	1 1/16	1/4	1 17/32
	H200GR-C	H200GRA-C	2	3 1/4	1 15/16	1 15/32	1/4	1 31/32
	H250GR-C	H250GRA-C	2 1/2	3 3/4	2 9/16	1 9/16	1/4	2 13/32
	H300GR-C	H300GRA-C	3	4 3/8	2 21/32	1 19/32	1/4	2 31/32
	H350GR-C	H350GRA-C	3 1/2	5	2 23/32	1 5/8	1/4	3 13/32
	H400GR-C	H400GRA-C	4	5 1/2	2 23/32	1 5/8	1/4	3 7/8
	H500GR-C	H500GRA-C	5	6 7/8	3 1/32	1 15/16	1/4	4 15/16
	H600GR-C	H600GRA-C	6	7 15/16	3 5/32	2	5/16	6

Material—Hub and locknut: Zinc or copper-free aluminum
 Insulating throat: Thermoplastic temp. rating 105 °C;
 flammability rating: 94V-0
 Sealing ring: Nitrile (Buna N)

For chrome-plated hubs add suffix CP (i.e. H050GRCP)
 For 316 stainless steel hubs add suffix SST (i.e. H050GRSST)
 For PVC coating add suffix PVC (i.e. H050GRPVC-C)
 Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures
 UL Listed and CSA Certified
 CSA approved for use in hazardous locations: Class I, Division 2, Class II, Divisions 1 & 2, Groups E, F & G, Class III, Division 1, 2 and Type 4.



Grounding and bonding locknut



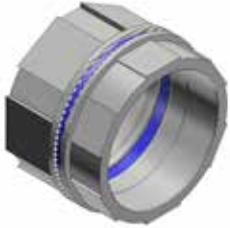
Diagram	Cat. no. with lay-in lug	Cat. no. without lay-in lug	Trade size (in.)	A dia. (in.)	B height (in.)	Ground screw (in.)	Max.
							conductor size (AWG)
	L050GRL	L050GR-C	1/2	1 1/2	1 3/32	#10-32 x 1/4	#10
	L075GRL	L075GR-C	3/4	1 11/16	1 3/32	#10-32 x 1/4	#10
	L100GRL	L100GR-C	1	2	1 3/32	#10-32 x 1/4	#10
	L125GRL	L125GR-C	1 1/4	2 3/8	1 5/32	1/4-20 x 1/4	#10
	L150GRL	L150GR-C	1 1/2	2 3/4	1 5/32	1/4-20 x 5/16	#8
	L200GRL	L200GR-C	2	3 3/4	1 5/32	1/4-20 x 5/16	#8
	L250GRL	L250GR-C	2 1/2	3 3/4	1 1/16	1/4-20 x 5/16	#6
	L300GRL	L300GR-C	3	4 3/8	2 3/32	1/4-20 x 5/16	#6
	L350GRL	L350GR-C	3 1/2	5	2 3/32	1/4-20 x 5/16	#6
	L400GRL	L400GR-C	4	5 1/2	2 3/32	1/4-20 x 5/16	#4

Material — Locknut: zinc or copper-free aluminum
 For aluminum locknuts add suffix A. (i.e. L050GRA-C)

For chrome-plated locknuts add suffix CP. (i.e. L050GR-CP)
 For 316 stainless steel locknuts add suffix SST. (i.e. L050GRSST).

Rigid and intermediate metal conduit fittings

Bulkhead fittings

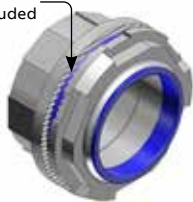


Bulkhead fittings



Diagram	Cat. no. zinc	Cat. no. aluminum	Trade size (in.)
	H050BHD	H050BHDA	½
	H075BHD	H075BHDA	¾
	H100BHD	H100BHDA	1
	H125BHD	H125BHDA	1¼
	H150BHD	H150BHDA	1½
	H200BHD	H200BHDA	2
	H250BHD	H250BHDA	2½
	H300BHD	H300BHDA	3
	H350BHD	H350BHDA	3½
	H400BHD	H400BHDA	4
	H500BHD	H500BHDA	5

Nipple nut
not included



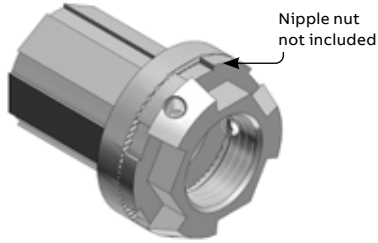
Thru-bulkhead fittings



Cat. no. zinc	Cat. no. aluminum	Size (in.)
H050TBF	H050TBFA	½
H075TBF	H075TBFA	¾
H100TBF	H100TBFA	1
H125TBF	H125TBFA	1¼
H150TBF	H150TBFA	1½
H200TBF	H200TBFA	2

Rigid and intermediate metal conduit fittings

Bulkhead fittings



Thru-bulkhead hub



Cat. no. zinc	Cat. no. aluminum	Size (in.)
H050TBH	H050TBHA	½
H075TBH	H075TBHA	¾
H100TBH	H100TBHA	1
H125TBH	H125TBHA	1¼
H150TBH	H150TBHA	1½
H200TBH	H200TBHA	2

Diagrams	Trade size (in.)	Thread (in.)	Height (in.)	Diameter (in.)	Across Flats (in.)	A (in.)	B (in.)
	½	½-14	1 ¹³ / ₃₂	1 ⁷ / ₁₆	1	¾	½
	¾	¾-14	1 ¹⁵ / ₃₂	1 ¹¹ / ₁₆	1¼	2 ⁵ / ₃₂	1 ⁷ / ₃₂
	1	1-11½	1 ¹¹ / ₁₆	2	1 ¹⁷ / ₃₂	2 ⁹ / ₃₂	1 ⁹ / ₃₂
	¾	1¼-11½	1 ²⁵ / ₃₂	2 ³ / ₈	1 ²⁷ / ₃₂	2 ⁹ / ₃₂	2 ¹ / ₃₂
	1½	1½-11½	1 ¹³ / ₁₆	2¾	1½	2 ⁹ / ₃₂	2 ¹ / ₃₂
	2	2-1½	1 ²⁷ / ₃₂	3¼	2 ⁵ / ₈	1 ⁵ / ₁₆	2 ¹ / ₃₂
	2½	2½-8	2 ⁹ / ₃₂	3¾	3½	1 ⁷ / ₃₂	7/8
	3	3-8	2 ⁹ / ₁₆	4 ³ / ₈	3 ²⁵ / ₃₂	1 ⁵ / ₁₆	2 ⁹ / ₃₂
	3½	3½-8	2 ⁹ / ₁₆	5	4 ⁹ / ₃₂	1 ³ / ₈	7/8
	4	4-8	2 ⁹ / ₁₆	5½	4 ²⁷ / ₃₂	1 ³ / ₈	7/8
	5	5-8	2 ²³ / ₃₂	6 ⁵ / ₈	5 ²⁹ / ₃₂	1 ¹⁵ / ₃₂	7/8
	6	6-8	3	7 ¹¹ / ₁₆	7 ¹ / ₃₂	1½	3 ¹ / ₃₂

Material— Hub, body and locknut: Zinc or copper-free aluminum
 Insulating throat: Thermoplastic temp. rating 105 °C; flammability rating: 94V-0
 Sealing ring: Nitrile (Buna N)
 For chrome-plated bulkhead add suffix CP

Rigid and intermediate metal conduit fittings

XD expansion/deflection couplings for rigid conduit



Watertight, flexible connections support movement and thermal expansion.

Use the XD expansion/deflection coupling to join two conduit runs in applications where movement in any direction is required. The coupling provides a flexible, watertight connection, accommodating axial or parallel movement of up to $\frac{3}{4}$ in. and angular movement of up to 30° from normal position. While similar fittings exist on the market today, this XD expansion/deflection coupling ships complete with an Erickson® conduit union to significantly reduce installation time and effort and includes a stainless steel inner sleeve for extreme durability, protection and easier wire pulling.

The hubs are zinc-plated and then coated with aluminum acrylic paint for dual-layer corrosion protection. In addition, the copper ground mounting plates and internal grounding bonding jumper are entirely enclosed inside the coupling for added security against vandalism and theft.

- Accommodates axial expansion/contraction up to $\frac{3}{4}$ in., parallel deflection up to $\frac{3}{4}$ in. and angular misalignment up to 30°

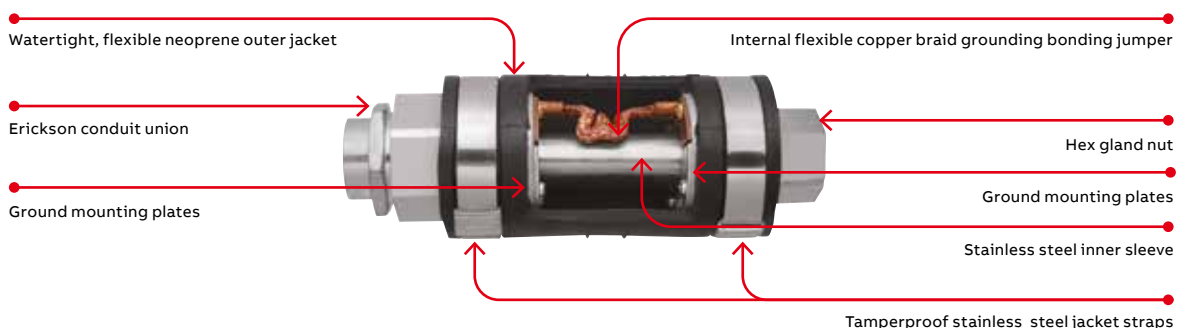
- Suitable for use indoors, outdoors, direct buried or embedded in concrete
- Watertight, flexible neoprene outer jacket, zinc-plated and acrylic-painted hubs and stainless steel tamper-proof straps ensure superior corrosion resistance – ideal for use in harsh environments
- Copper ground mounting plates and internal grounding bonding jumper both entirely enclosed to safeguard against theft
- Includes an Erickson conduit union for faster, easier installation to reduce labor costs
- Durable stainless steel inner sleeve provides a constant, smooth inner diameter in any position to ease wire pulling and protect wire insulation from damage
- NPT threaded hubs fit standard threaded rigid metal conduit
- Can also be used with rigid PVC conduit with the use of standard adapters (not supplied)

Standard material/finish

- Hub: Ductile cast iron, zinc-plated and aluminum acrylic painted
- Inner sleeve: Stainless steel
- Internal grounding bonding jumper: Flexible copper braid
- Ground mounting plates: Copper
- Hub rings: Zinc-plated steel
- Outer jacket: Molded neoprene (natural black)
- Jacket straps: Stainless steel

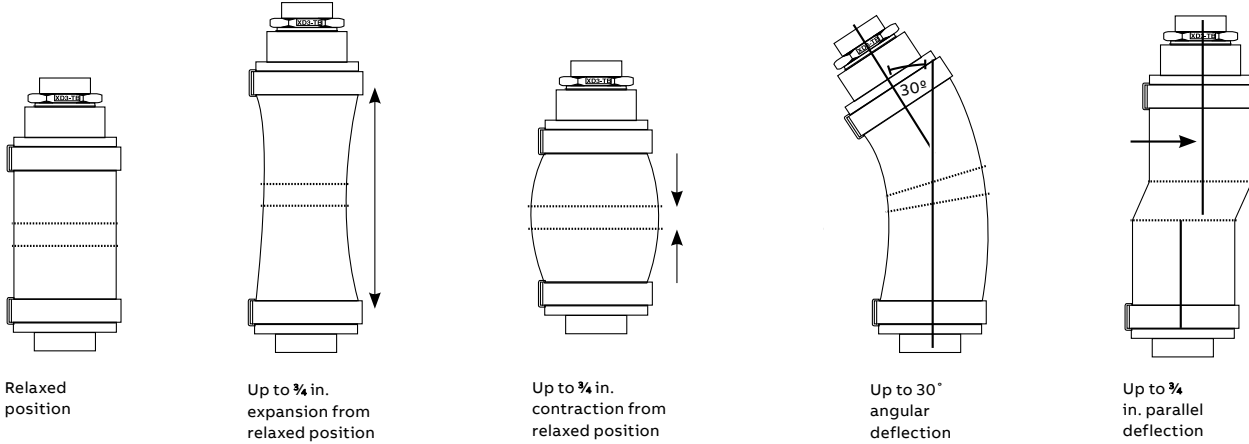
Certifications/compliances

- CSA Certified to C22.2 and UL Listed to UL 514B No. 18
- Suitable for wet locations (hub sizes 1 in.–2½ in.)
- Watertight
- NEC Article 250.98 compliant

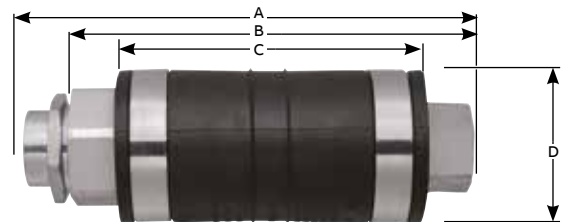


Rigid and intermediate metal conduit fittings

XD expansion/deflection couplings for rigid conduit



Cat. no. (in.)	Hub size	Dimensions (in.)			
		A	B	C	D
XD3-TB	1	9 ¹³ / ₁₆	8 ¹⁵ / ₃₂	6 ⁷ / ₁₆	3 ¹¹ / ₃₂
XD4-TB	1 ¹ / ₄	9 ³ / ₁₆	8 ³ / ₈	6 ⁷ / ₈	3 ⁷ / ₈
XD5-TB	1 ¹ / ₂	9 ¹ / ₄	8 ⁷ / ₃₂	6 ³ / ₄	4 ⁵ / ₃₂
XD6-TB	2	9 ³ / ₄	8 ²¹ / ₃₂	7 ¹ / ₄	4 ¹¹ / ₁₆
XD7-TB	2 ¹ / ₂	11 ³ / ₄	11 ³ / ₈	8 ¹ / ₂	4 ⁷ / ₈
XD8-TB	3	10 ¹ / ₂	9 ²¹ / ₃₂	7 ²¹ / ₃₂	5 ¹⁵ / ₁₆
XD9-TB	3 ¹ / ₂	10 ⁹ / ₁₆	9 ³ / ₄	7 ³ / ₄	6 ³ / ₈
XD010-TB	4	13 ³ / ₁₆	11 ²⁷ / ₃₂	8 ⁷ / ₈	7 ⁹ / ₃₂
XD012-TB	5	14	12 ¹⁵ / ₁₆	11	8 ⁹ / ₃₂
XD014-TB	6	14 ⁵ / ₁₆	13 ³ / ₈	11 ³ / ₈	9 ¹⁹ / ₃₂



Rigid and intermediate metal conduit fittings

XJG conduit expansion couplings for rigid conduit

01 Slide the fitting onto the conduit until it stops at the internal sliding bushing. Tighten and you're ready. No parts to reassemble.

02 With a wrench, tighten the gland nut to compress the Teflon® packing, creating a raintight seal around the conduit.

03 Thread the next length of conduit into the other end of the fitting and tighten. You're done.

04 4" movement shown

05 8" Movement shown

Easy to install – save time and money on the job. No disassembly required.

Used where:

- Raceways require expansion fittings to compensate for thermal expansion and contraction
- Expansion fittings and telescoping sections of metal raceway must be made electrically continuous by bonding jumpers or other means

Suggested specifications for expansion fittings for rigid steel or intermediate metal conduit.

- Fitting will be constructed from cast iron with exterior and interior zinc plating for corrosion protection
- The fitting shall be constructed so that disassembly is not required during installation
- Fitting shall be raintight after installation

- The fitting shall have an internal bonding jumper constructed of a copper braid, sized to meet UL fault current test requirements and comply with bonding requirements – CEC article 10-612 and 10-614
- External bonding jumper shall not be required to comply with CEC requirements
- Accepted manufacturer: ABB – XJG-TB Series

Standard material/finish

- Body: Malleable or ductile iron, available PVC coated
- Internal bonding jumper: Copper braid
- Exterior and interior finish: Zinc plating, aluminum acrylic paint
- Packing: PTFE/synthetic fiber material (Teflon coated)

Teflon is a trademark of DuPont.



01



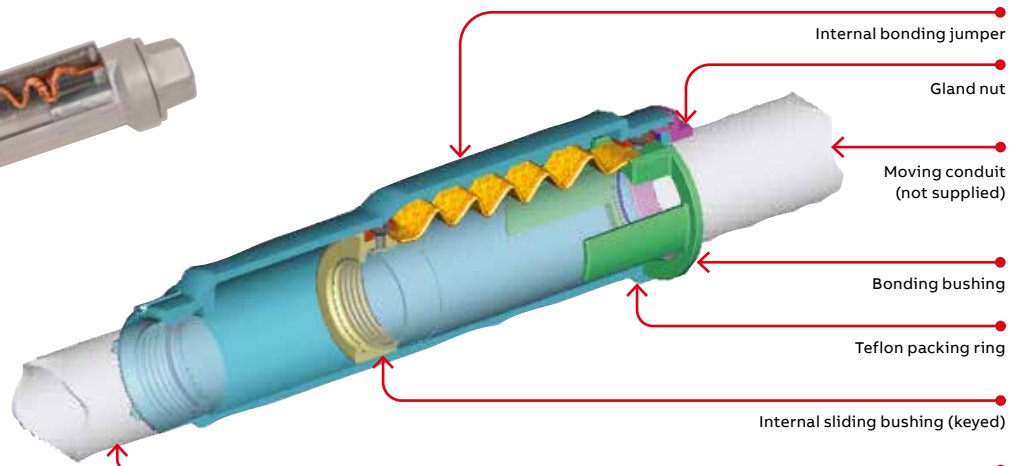
02



03



04



05

Rigid and intermediate metal conduit fittings

XJG conduit expansion couplings for rigid conduit



Cat. no.	Size (in.)	Movement (in.)	Dimensions (in.)		
			A	B	C
XJG24-TB	¾	4	2.43	10.00	2.75
XJG28-TB	¾	8	2.43	14.00	2.75
XJG34-TB	1	4	2.67	10.00	2.99
XJG38-TB	1	8	2.67	14.00	2.99
XJG44-TB	1¼	4	3.36	10.56	3.68
XJG48-TB	1¼	8	3.36	14.56	3.68
XJG54-TB	1½	4	3.36	10.56	3.68
XJG58-TB	1½	8	3.36	14.56	3.68
XJG64-TB	2	4	3.86	11.25	4.18
XJG68-TB	2	8	3.86	15.25	4.18
XJG74-TB	2½	4	4.96	12.12	5.25
XJG78-TB	2½	8	4.96	16.12	5.25
XJG84-TB	3	4	4.96	12.12	5.25
XJG88-TB	3	8	4.96	16.12	5.25
XJG94-TB	3½	4	6.37	12.87	6.75
XJG98-TB	3½	8	6.37	16.87	6.75
XJG104-TB	4	4	6.37	12.87	6.75
XJG108-TB	4	8	6.37	16.87	6.75
XJG1208-TB	5	8	7.99	18.87	8.56



Also available in Ocal™ PVC coating and for EMT.

Rigid and intermediate metal conduit fittings

XJG-EMT conduit expansion couplings for EMT



Features

- Fast and easy installation – no disassembly required
- No external grounding strap needed – internal bonding jumper is protected from tampering and the environment

Standard material/finish

- Body: Malleable or ductile iron
- Internal bonding jumper: Tinned copper braid
- Exterior and interior finish: Zinc plating, aluminum acrylic paint
- Packing: PTFE/synthetic fiber material

Certifications/compliances

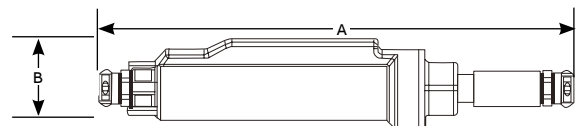
- CSA certified to C22.2 and UL Listed to UL 514B No. 18
- Suitable for wet locations (hub sizes 1 in.–2½ in.)
- NEC Article 250.98 compliant

Note: XJG-EMT couplings are not raintight and are for use in dry locations only. They are UL Listed for use with aluminum EMT.



Cat. no.	Size (in.)	Movement (in.)	A (length in.)	B (height in.)
XJG24-EMT	¾	4	17.39	2.75
XJG28-EMT	¾	8	21.39	2.75
XJG34-EMT	1	4	17.42	2.99
XJG38-EMT	1	8	21.42	2.99
XJG44-EMT	1¼	4	18.27	3.46
XJG48-EMT	1¼	8	22.27	3.46
XJG54-EMT	1½	4	18.69	3.68
XJG58-EMT	1½	8	22.69	3.68
XJG64-EMT	2	4	19.04	4.18
XJG68-EMT	2	8	23.04	4.18
XJG74-EMT	2½	4	23.23	4.52
XJG78-EMT	2½	8	27.23	4.52
XJG84-EMT	3	4	24.09	5.25
XJG88-EMT	3	8	28.09	5.25
XJG94-EMT	3½	4	28.70	6.00
XJG98-EMT	3½	8	28.70	6.00
XJG104-EMT	4	4	29.30	6.75
XJG108-EMT	4	8	29.30	6.75

Diagram



Rigid and intermediate metal conduit fittings

Rigid and capoffs



Offset reducers



Diagrams	Cat. no. zinc	Cat. no. aluminum	Trade size (in.)	Height (in.)	Diameter (in.)	Dimensions (in.)				
						A	B	C	D	E
	H150-075ORGR-TB	H150-075ORGRA-TB	1½-¾	1 ²⁵ / ₃₂	2¾	1 ⁵ / ₁₆	2 ³ / ₃₂	1 ²⁹ / ₃₂	1 ⁹ / ₃₂	1 ¹¹ / ₃₂
	H150-100ORGR-TB	H150-100ORGRA-TB	1½-1	1 ²⁵ / ₃₂	2¾	1 ⁵ / ₁₆	2 ³ / ₃₂	1 ²⁹ / ₃₂	1 ⁹ / ₁₆	7 ¹ / ₃₂
	H150-125ORGR-TB	H150-125ORGRA-TB	1½-1¼	1 ²⁵ / ₃₂	2¾	1 ⁵ / ₁₆	2 ³ / ₃₂	1 ²⁹ / ₃₂	1 ⁷ / ₈	1 ¹ / ₃₂
	H250-200ORGR-TB	H250-200ORGRA-TB	2½-2	2 ¹ / ₈	3¾	1 ⁵ / ₁₆	1 ⁵ / ₁₆	2 ²⁹ / ₃₂	2 ²¹ / ₃₂	3 ³ / ₃₂

Material – Offset reducer and locknut: Zinc or copper-free aluminum
 Insulating throat: Thermoplastic temp. rating 105 °C; flammability rating 94V-0
 Sealing ring: Nitrile (Buna N)
 For chrome-plated offset reducer add suffix CP. (i.e. H150-125ORGRCP-TB)



Capoffs



Diagrams	Cat. no. zinc	Cat. no. aluminum	Trade size (in.)	Height (in.)	Diameter (in.)	Dimensions (in.)		
						A	B	C
	H050CAP	H050CAPA	½	1 ¹³ / ₃₂	1 ¹ / ₁₆	1 ⁹ / ₃₂	2 ⁷ / ₃₂	3 ¹ / ₁₆
	H075CAP	H075CAPA	¾	1 ¹⁵ / ₃₂	1 ¹¹ / ₁₆	1 ⁹ / ₃₂	1 ¹ / ₁₆	3 ¹ / ₁₆
	H100CAP	H100CAPA	1	1 ¹¹ / ₁₆	2	1 ¹¹ / ₁₆	1 ⁵ / ₁₆	¾
	H125CAP	H125CAPA	1¼	1 ²⁵ / ₃₂	2 ³ / ₈	2 ³ / ₃₂	1 ²¹ / ₃₂	¾
	H150CAP	H150CAPA	1½	1 ¹³ / ₁₆	2¾	2 ³ / ₃₂	1 ²⁹ / ₃₂	¾
	H200CAP	H200CAPA	2	1 ²⁷ / ₃₂	3¾	2 ³ / ₃₂	2 ³ / ₈	¾
	H250CAP	H250CAPA	2½	2 ⁹ / ₃₂	3¾	7 ¹ / ₈	2 ²⁹ / ₃₂	¾
	H300CAP	H300CAPA	3	2 ⁹ / ₁₆	4 ³ / ₈	7 ¹ / ₈	3 ¹ / ₃₂	1 ¹¹ / ₃₂
	H350CAP	H350CAPA	3½	2 ⁹ / ₁₆	5	2 ⁹ / ₃₂	4 ¹ / ₃₂	1 ¹¹ / ₃₂
	H400CAP	H400CAPA	4	2 ⁹ / ₁₆	5½	2 ⁹ / ₃₂	4 ¹ / ₂	1 ¹¹ / ₃₂
	H500CAP	H500CAPA	5	2 ²³ / ₃₂	6 ³ / ₈	2 ⁹ / ₃₂	5 ⁹ / ₁₆	1 ¹¹ / ₃₂
	H600CAP	H600CAPA	6	3	7 ⁵ / ₈	3 ¹ / ₃₂	6 ⁵ / ₈	1 ¹¹ / ₃₂

Material – Capoff and locknut: Zinc or copper-free aluminum
 Insulating throat: Thermoplastic temp. rating 105 °C; flammability rating 94V-0
 Sealing ring: Nitrile (Buna N)
 For chrome-plated capoff add suffix CP. (i.e. H050CAPCP)

Rigid and intermediate metal conduit fittings

Threadless fittings/couplings for threadless rigid metal conduit and intermediate metal conduit

—
01 8123 Series

—
02 8130 Series

—
03 8120 Series

Application

- To connect and effectively bond threadless rigid metal conduit/intermediate metal conduit to a box or enclosure, or to couple ends of threadless conduit

Features

- Steel/malleable iron construction
- Case-hardened ring bites into conduit for high quality continuity and grip
- Nylon insulator firmly secured in place protects conductors and reduces wire pulling effort by as much as 50%; prevents thread damage in handling
- Case-hardened steel or malleable iron locknut designed to provide a positive bond
- Suitable for concrete-tight application
- Raintight application
- Capable of carrying ground fault currents up to 10,000 amps RMS (½ in. through 1½ in. size) and 20,000 amps RMS (2 in. and above sizes), duration of current 3 cycles

Standard material

- Nut, gland: ½ in. to 1 in. steel, 1¼ in. to 4 in. malleable Iron
- Body: All malleable iron
- Ring: Steel (case-hardened)
- Insulator: Nylon
- Locknut: ½ in. through 2 in. steel (hardened) 2 in. through 4 in. malleable iron

Standard finish

- Electro zinc plated and chromate coated

Range

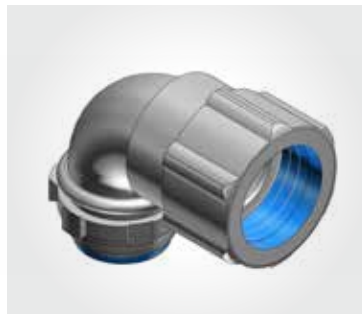
- 8123 and 8120 Series: ½ in. through 4 in. size conduit
- 8130 Series: ½ in. and ¾ in. size conduit
- All hub threads: Straight pipe (NPS)

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- ANSI C80.4
- NFPA 70-2008 (ANSI)
- NEMA FB-1
- Federal Specification W-F-408
- Federal Standard H-28 (Threads)



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01



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02



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Rigid and intermediate metal conduit fittings

Threadless fittings



A split steel ring with diagonal serrations grips the conduit and bites into it for positive ground. Makes a permanent connection and eliminates the need for cutting a thread on the conduit. Insulation helps

to guarantee continuity of service with protection of the conductor at the critical point – the fitting bushing. Malleable iron construction.

Nylon-insulated threadless fittings



Diagram	Cat. no.		Conduit size (in.)	Dimensions (in.)		
	Nylon insulated	Non-insulated		A	B	C
	8123	8121	1/2	1 11/32	1 15/16	3/4
	8223	8221	3/4	1 5/8	2	3/4
	8323	8321	1	1 7/8	2 7/16	7/8
	8423	8421	1 1/4	2 3/8	2 9/16	1 1/16
	8523	8521	1 1/2	2 5/8	2 3/4	3/4
	8623	8621	2	3 1/4	2 15/16	27/32
	8723-TB	8721	2 1/2	3 15/16	3 15/16	1 1/8
	8823-TB	8821	3	4 11/16	4 1/8	1 7/32
	8853	8851	3 1/2	5 3/16	4 1/4	1 1/8
	8973	8971	4	5 11/16	5	1 1/8



Threadless couplings

Eliminate conduit threading. When tightened with a wrench, they make a UL Listed and CSA Certified concrete-tight connection. Malleable iron construction.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	8120	1/2	1 3/32	2
	8220	3/4	1 19/32	2 5/16
	8320	1	1 7/8	2 11/16
	8420	1 1/4	2 3/8	2 13/16
	8520	1 1/2	2 5/8	3 5/8
	8620	2	3 1/4	3 13/16
	8720	2 1/2	3 15/16	5 3/8
	8820	3	4 11/16	5 1/2
	8850	3 1/2	5 3/16	5 1/2
	8970	4	5 11/16	5 1/2



Threadless short elbows – Nylon-insulated

Ideal for entering enclosure or conduit body at right angles. Eliminates need to thread conduit. As with straight couplings, this fitting makes a concrete-tight connection. Malleable iron construction.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	8130	1/2	1 11/32	1 1/2	1/2
	8131	3/4	1 5/8	1 3/4	9/16
	8132	1	1 7/8	1 15/16	1 1/16
	8134	1 1/2	2 23/32	3 1/8	1 3/16

Rigid and intermediate metal conduit fittings

Set-screw fittings/couplings for threadless rigid metal conduit and intermediate metal conduit

—
01 8125 Series
—
02 8124 Series

Application

- To connect and effectively bond threadless rigid metal conduit or intermediate metal conduit to a box or enclosure or to couple ends of threadless conduit

Features

- Thickwall steel or malleable iron body
- Hardened hex head cup point screw to provide high quality bond
- Captive screw, will not vibrate loose
- Nylon-insulated throat meets and exceeds all codes requirements for bushing:
 - (1) Prevents thinning of insulation
 - (2) Reduces installation effort
 - (3) Prevents first thread damage
- Coupling provided with positive center stop
- Suitable for concrete-tight application
- Capable of carrying ground fault currents up to 10,000 amps RMS ($\frac{1}{2}$ through $1\frac{1}{2}$ in. size) and 20,000 amps RMS (2 in. and above sizes)

Standard material

- Body: $\frac{1}{2}$ in. through 2 in. steel
2 $\frac{1}{2}$ in. through 4 in. malleable iron
- Locknut: $\frac{1}{2}$ in. through 2 in. steel (hardened)
2 $\frac{1}{2}$ in. through 4 in. malleable iron
- Screw: Steel (hardened)
- Insulator: Nylon

Standard finish

- Electro zinc plated and chromate coated

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- ANSI C80.4
- NFPA 70-2008 (ANSI)
- NEMA FB-1
- Federal Specification W-F-408
- Federal Standard H-28 (Threads)



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01



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02

Rigid and intermediate metal conduit fittings

Set-screw fittings/couplings for threadless rigid metal conduit and intermediate metal conduit



Eliminate conduit threading with these set-screw fittings. Captive hex head screws tighten down onto conduit for positive holding strength and ground. The fittings are furnished with insulated throats, reducing wire pulling effort by as much as 50%. Approved concrete-tight.

Insulated set-screw fittings



Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)	
			A	B
	8125	1/2	1 3/8	13/32
	8225	3/4	1 1/2	7/16
	8325	1	1 13/16	35/64
	8425-TB	1 1/4	2	5/8
	8525-TB	1 1/2	2 5/16	5/8
	8625	2	2 7/16	11/16
	8725-TB	2 1/2	3 3/8	1
	8825-TB	3	3 7/16	1
	8855	3 1/2	3 7/8	1 1/16
	8975	4	4 3/16	1 1/8

Sizes 1/2 in.–2 in. made of steel. Sizes 2 1/2 in.–4 in. are malleable iron



Eliminate the need for threading conduit ends when joining rigid conduit with these set-screw couplings. Captive hex head screws provide positive holding strength and ground continuity. Approved concrete-tight.

Set-screw couplings



Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)
			A
	8124	1/2	2 1/2
	8224	3/4	2 11/16
	8324-TB	1	2 27/32
	8424	1 1/4	3
	8524	1 1/2	3 3/8
	8624	2	3 3/8
	8724-TB	2 1/2	3 7/8
	8824-TB	3	4 1/4
	8974	4	5 3/8

Sizes 1/2 in.–2 in. made of steel; sizes 2 1/2 in.–4 in. are malleable iron

Rigid and intermediate metal conduit fittings

Elbows



Bushed elbows

The non-insulated elbow has smoothly rounded shoulders to protect conductor insulation. Malleable iron.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	460TB	1/2	1 13/16	1 3/8	5/8
	461TB	3/4	2 1/4	1 1/2	9/16
	462	1	2 23/32	1 23/32	11/16
	463	1 1/4	3 3/8	2 1/16	25/32



Short elbows – Nylon-insulated

The integral insulation of the insulated elbow is a guarantee that the bushing of every fitting will be smooth. Malleable iron.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	4290	1/2	1 7/32	1 1/4	1/2
	4291	3/4	1 7/16	1 5/16	9/16
	4292	1	1 23/32	1 9/16	11/16
	4293	1 1/4	2 7/32	2 1/16	13/16

Not UL Listed

When an insulated elbow is not desired, the non-insulated short elbow should be used. Malleable iron.

Short elbows



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	4250	1/2	1 5/16	1 1/4	7/16
	4251	3/4	1 17/32	1 5/16	1/2
	4252	1	1 13/16	1 9/16	5/8
	4253	1 1/4	2 9/32	2 1/16	11/16
	4254-TB	1 1/2	2 9/16	2 3/16	11/16
	4255-TB	2	3 3/32	2 9/16	11/16

Rigid and intermediate metal conduit fittings

Threaded (ERICKSON®) couplings for threaded rigid metal conduit and intermediate metal conduit



—
674 Series
675AL Series

Application

- To couple and effectively bond threaded ends of rigid metal conduit/intermediate metal conduit where neither length of conduit can be rotated

Features

- Malleable Iron/steel/copper-free aluminum construction
- Free-fitting threads ensure easy assembly
- Permits conduit coupling without rotating either conduit
- Provides rigid in-line coupling with high quality grounding; will not loosen under vibration
- Suitable for concrete-tight application.
- Capable of carrying ground fault currents up to 10,000 amps RMS (½ in. through 1½ in. size) and up to 20,000 amps RMS (2 in. and above) (duration of fault current 3 cycles) (674 series tested)

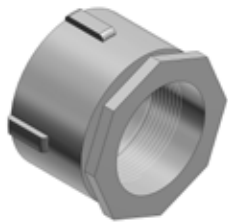
Standard material

674 Series

- Bushing and body: malleable iron
- Ring: steel up to 2 in. or malleable iron

675AL Series

- Bushing and body: aluminum
- Ring: aluminum



—
ERICKSON couplings

Standard finish

- 674 Series: Electro zinc plated and chromate coated
- 675AL Series: Degreased

Range

- 674 Series: ¾ in. through 6 in. conduit
- 675AL Series: ½ in. through 6 in. conduit
- All straight pipe threads (NPS)

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- NEMA FB1
- ANSI C80.4
- NFPA 70-2008 (ANSI)
- Federal Specification W-F-408
- Federal Standard H-28 (Threads)

With an ERICKSON coupling, a conduit run may be completed when neither conduit can be turned. A conduit run may also be broken without taking down the whole run. Conduit joined with ERICKSON couplings is rigid and in line, and vibration will not loosen the connections.



Diagram	Cat. no.		Size (in.)	Dimensions (in.)	
	Mal. iron	Alum.*		A	B
	674	—	¾	1½	1½
	675	675AL	½	1 ¹⁵ / ₃₂	1¼
	676-TB	676AL	¾	1 ⁹ / ₁₆	1 ¹³ / ₃₂
	677	677AL	1	1 ²⁹ / ₃₂	1½
	678	678AL	1¼	2 ³ / ₈	1 ¹³ / ₁₆
	679	679AL	1½	2 ⁵ / ₈	1 ³¹ / ₃₂
	680-TB	680AL	2	3 ⁷ / ₃₂	2 ⁷ / ₃₂
	681	681AL	2½	3 ³ / ₃₂	2 ¹¹ / ₁₆
	682	682AL	3	4 ⁷ / ₁₆	2 ²⁹ / ₃₂
	683	683AL	3½	5	3
	684	684AL	4	5½	3 ³ / ₁₆
	685	685AL†	4½	6¼	3 ¹⁵ / ₃₂
	686	686AL	5	6 ²⁵ / ₃₂	3¾
	687	687AL	6	8	4 ¹ / ₃₂

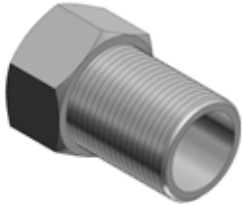
* Copper-free aluminum (less than 0.4% copper)

UL Listed and CSA Certified concrete-tight

† Not CSA Certified

Rigid and intermediate metal conduit fittings

Extensions and enlargers

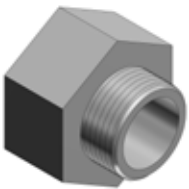


Ideal when longer thread length is needed. Will combine with any fitting having a male thread. Male thread of panel fitting extension is 1 in. long. Malleable iron.

Panel fitting extensions



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	1440	1/2	1 3/4	1 3/16	1 7/8
	1441	3/4	1 3/4	1 13/32	1 15/16
	1442	1	1 3/16	1 21/32	1 15/16
	1443	1 3/4	1 3/4	2 1/8	2



Adapt an outlet hole to the next larger size of conduit. Rough ends of conduit carefully covered by built-in bushing. Malleable iron.

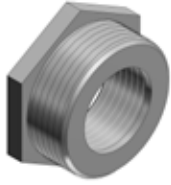
Male enlargers



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	1245	1/2	1 3/4	1 3/16	1 7/8
	1246-TB	3/4	1 3/4	1 13/32	1 15/16
	1244	1	1 3/16	1 21/32	1 15/16
	1247	1 3/4	1 3/4	2 1/8	2

Rigid and intermediate metal conduit fittings

Reducers

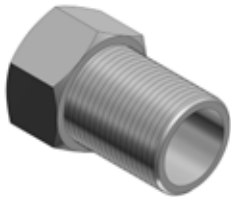


Female reducers

Adapt an outlet hole to the next larger size of conduit. Rough ends of conduit carefully covered by built-in bushing. Malleable iron.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	1250-TB	3/4-1/2	1 1/8	5/8	3/16
	1261	1-1/2	1 7/16	1 1/16	3/16
	1251	1-3/4	1 3/8	1 1/16	3/16
	1262	1 1/4-1/2	1 13/16	2 1/32	3/16
	1263	1 1/4-3/4	1 13/16	2 3/32	3/16
	1252	1 1/4-1	1 3/4	2 5/32	7/32
	1253	1 1/2-1 1/4	2	1 3/16	1/4
	1254	2-1 1/2	2 3/8	1 3/16	9/32
	1255	2 1/2-2	3	1 1/4	3/8
	1256	3-2 1/2	3 5/8	1 1/2	1/2
	1257	3 1/2-3	4 1/8	1 9/16	1/2
	1258	4-3 1/2	4 5/8	1 3/16	1/2



Threaded reducers

For reducing the threaded opening in conduit bodies or any female threaded fitting. Smooth, built-in bushing completely covers rough ends of conduit. Iron or steel construction. Steel from 600-TB through 606-TB, also 614 and 615. NPS threads.



Diagram	Cat. no.		Size (in.)	Dimensions (in.)
	Stl. or M.I.	Alum.		A
	600-TB	600AL-TB	1/2-3/8	3/8
	601-TB	601AL-TB	3/4-1/2	19/32
	602-TB	602AL-TB	1-1/2	19/32
	603-TB	603AL-TB	1-3/4	19/32
	604-TB	604AL-TB	1 1/4-1/2	19/32
	605-TB	605AL	1 1/4-3/4	19/32
	606-TB	606AL	1 1/4-1	1 1/16
	607	607AL	1 1/2-1/2	1 5/16
	608	608AL	1 1/2-3/4	1 5/16
	609	609AL	1 1/2-1	1 3/32
	610-TB	610AL	1 1/2-1 1/4	2 7/32
	611-TB	611AL	2-1/2	2 3/32
	612	612AL	2-3/4	1 1/16
	613	613AL	2-1	1 1/16
	614-TB	614AL	2-1 1/4	1 1/16
615-TB	615AL	2-1 1/2	2 7/32	

Rigid and intermediate metal conduit fittings

Reducing washers



Washers reduce knockout hole in outlet box. Newly designed of galvanized steel. These washers, used in pairs, interlock and form a rib that centers the washers and conduit in the knockout.

Reducing washers



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	3700	$\frac{3}{4}$ – $\frac{3}{8}$	$1\frac{3}{8}$	$\frac{45}{64}$
	3701	$\frac{3}{4}$ – $\frac{1}{2}$	$1\frac{3}{8}$	$\frac{7}{8}$
	3702-TB	1 – $\frac{3}{8}$	$1\frac{5}{8}$	$\frac{45}{64}$
	3703	1 – $\frac{1}{2}$	$1\frac{5}{8}$	$\frac{7}{8}$
	3704	1 – $\frac{3}{4}$	$1\frac{5}{8}$	$1\frac{3}{32}$
	3705-TB	$1\frac{1}{4}$ – $\frac{3}{8}$	2	$\frac{45}{64}$
	3706-TB	$1\frac{1}{4}$ – $\frac{1}{2}$	2	$\frac{7}{8}$
	3707	$1\frac{1}{4}$ – $\frac{3}{4}$	2	$1\frac{3}{32}$
	3708	$1\frac{1}{4}$ –1	2	$1\frac{23}{64}$
	3709	$1\frac{1}{2}$ – $\frac{3}{8}$	$2\frac{1}{4}$	$\frac{45}{64}$
	3710	$1\frac{1}{2}$ – $\frac{1}{2}$	$2\frac{1}{4}$	$\frac{7}{8}$
	3711	$1\frac{1}{2}$ – $\frac{3}{4}$	$2\frac{1}{4}$	$1\frac{3}{32}$
	3712	$1\frac{1}{2}$ –1	$2\frac{1}{4}$	$1\frac{23}{64}$
	3713	$1\frac{1}{2}$ – $1\frac{1}{4}$	$2\frac{1}{4}$	$1\frac{23}{32}$
	3714	2 – $\frac{1}{2}$	$2\frac{3}{4}$	$\frac{7}{8}$
	3715-TB	2 – $\frac{3}{4}$	$2\frac{3}{4}$	$1\frac{3}{32}$
	3716	2 –1	$2\frac{3}{4}$	$1\frac{23}{64}$
	3717	2 – $1\frac{1}{4}$	$2\frac{3}{4}$	$1\frac{23}{32}$
3718	2 – $1\frac{1}{2}$	$2\frac{3}{4}$	$1\frac{31}{32}$	

Rigid and intermediate metal conduit fittings

Conduit straps for threaded rigid metal conduit and intermediate metal conduit



—
1275 Series
1276AL Series

Application

- To support and securely fasten rigid metal conduit and intermediate metal to the supporting surface

Features

- Rugged malleable iron/copper-free aluminum construction – snugly fits on the conduit
- Designed to prevent accumulation of moisture and start of corrosion on vertical run of conduit (A)

Standard material

1275 Series

- Malleable Iron

1276AL Series

- All copper-free aluminum

Standard finish

1275 Series

- Hot dipped galvanized

1276AL Series

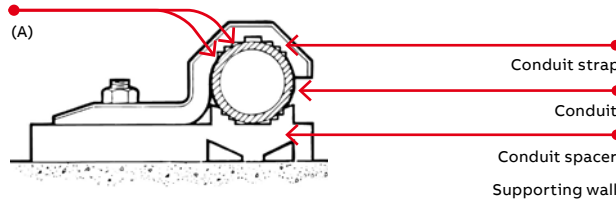
- As cast

Range

- 1275 Series
3/8 in. through 6 in. conduit
- 1276AL Series
1/2 in. through 6 in. conduit

Conformity

- CSA C22.2 No. 18.3
- ANSI C80.4
- NFPA 70-2008 (ANSI)



Pipe straps – Malleable iron or aluminum



Diagram	Cat. no.		Size (in.)	Dimensions (in.)			Screw size (in.)
	Mal. iron	Alum.		A	B	C	
	1275†	1275AL	3/8	1 ¹⁵ / ₁₆	¹⁹ / ₃₂	1/4	1/4
	1276†	1276AL†	1/2	2 ¹¹ / ₃₂	²³ / ₃₂	1/2	1/4
	1277†	1277AL†	3/4	2 ¹¹ / ₁₆	²¹ / ₃₂	5/8	1/4
	1278†	1278AL†	1	3 ³ / ₃₂	¹¹ / ₁₆	¹³ / ₁₆	1/4
	1279-TB†	1279AL†	1 1/4	4 1/8	¹³ / ₁₆	²⁹ / ₃₂	5/16
	1280†	1280AL	1 1/2	4 1/2	¹⁵ / ₁₆	1 ¹⁷ / ₃₂	3/8
	1281	1281AL	2	5 ³ / ₁₆	1 1/8	1 1/4	7/16
	1282*	1282AL	2 1/2	5 ¹⁵ / ₁₆	1 1/2	1 3/4	1/2
	1283*	1283AL	3	6 ¹¹ / ₁₆	1 5/8	2 ³ / ₁₆	1/2
	1284	1284AL	3 1/2	7 ¹⁹ / ₃₂	1 3/4	2 3/4	5/8
	1285*	1285AL	4	8 ³ / ₁₆	1 7/8	2 ¹³ / ₁₆	5/8
	1286**	1286AL**	4 1/2	9 ³ / ₁₆	1 ¹⁵ / ₁₆	2 ¹⁵ / ₁₆	5/8
	1287	1287AL	5	9 ¹⁵ / ₁₆	2	3 1/4	5/8
	1288	1288AL	6	11 1/2	2 ⁷ / ₁₆	4 1/8	5/8

* May be used with EMT of same size

† Not snap-on type

UL not applicable

** Not CSA Certified

Rigid and intermediate metal conduit fittings

Conduit straps for threaded rigid metal conduit and intermediate metal conduit



Elongated bolt hole makes alignment easy, even when holes in mounting surface are off center. Snap-on features. Steel. Zinc plated.

Pipe straps – Steel



Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)			Screw size (in.)
			A	B	C	
	1210C†	3/8	1 ¹⁵ / ₃₂	3/4	1 ¹¹ / ₁₆	1/4
	1211C	1/2	2	3/4	1 ⁵ / ₁₆	1/4
	1212C	3/4	2 ⁹ / ₁₆	3/4	1	1/4
	1213C	1	3 ¹³ / ₁₆	3/4	1 ¹⁷ / ₆₄	1/4
	1214TB*	1 1/4	2 ³¹ / ₃₂	1 ⁹ / ₁₆	1 ⁹ / ₁₆	3/8
	1215TB*	1 1/2	3 ²³ / ₃₂	1 ¹³ / ₁₆	1 ¹³ / ₁₆	3/8
	1216TB*	2	4 ⁷ / ₁₆	2 ⁹ / ₁₆	2 ⁵ / ₁₆	3/8

† Not snap-on type
 UL not applicable
 * Not CSA Certified



Malleable iron. Designed to fit each size of conduit snugly. High reinforcing ribs on each side increase strength, reduce weight.

Corrosion-resistant PVC-coated rigid conduit straps



Diagram	Cat. no.	Size (in.)	Bolt size (in.)	Dimensions (in.)		
				A	B	C
	1275CR	3/8	1/4	2	2 ¹ / ₃₂	1/4
	1276CR	1/2	1/4	2 ¹³ / ₃₂	2 ⁵ / ₃₂	1/2
	1277CR	3/4	1/4	2 ³ / ₄	2 ⁹ / ₃₂	5/8
	1278CR	1	1/4	3 ⁹ / ₃₂	3/4	1 ¹³ / ₁₆
	1279CR	1 1/4	3/8	4 ⁹ / ₃₂	2 ⁵ / ₃₂	7/8
	1280CR	1 1/2	3/8	4 ⁹ / ₁₆	1	1 ⁷ / ₃₂
	1281CR	2	1/2	5 ¹ / ₄	1 ³ / ₁₆	1 1/4

UL not applicable

Rigid and intermediate metal conduit fittings

Conduit spacers for rigid metal conduit, intermediate metal conduit and electrical metal tubing

—
01 1350 Series
1350AL Series

Application

- Provides mounting surface for conduit where installation requires air space between conduit and supporting surface

Features

- Prevents conduit rusting from wall condensation
- Spacers can be stacked one atop the other, facilitating installation and eliminating expensive conduit off setting (A)
- Designed to cover wide range; marked with accurate size marking for proper positioning (B)

Standard material

1350 Series

- Malleable Iron

1350AL Series

- Copper-free aluminum

Standard finish

1350 Series

- Hot-dipped galvanized

1350AL Series

- As cast

Range

- ½ in. through 6 in. conduit

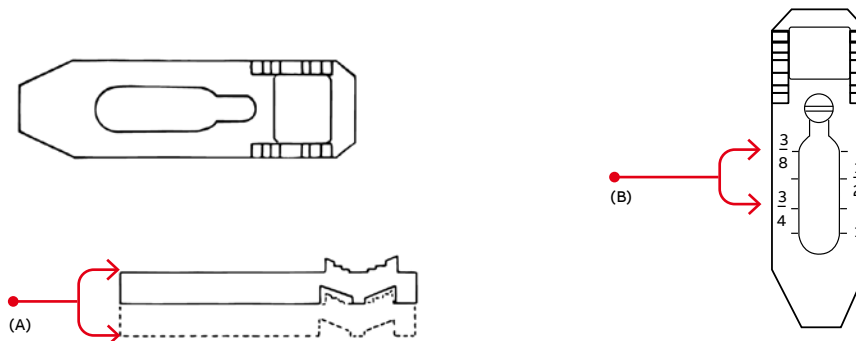
Conformity

- CSA C22.2 No. 18.3
- ANSI C80.4
- NFPA 70-2008 (ANSI)



—
01

Diagrams



Rigid and intermediate metal conduit fittings

Conduit spacers for rigid metal conduit, intermediate metal conduit and electrical metal tubing



Used with conduit straps to permit space between conduit and mounting surface. Eliminates need for costly offset-bending conduit and possible corrosive moisture traps when conduit is mounted directly to a surface. Hot-dipped galvanized finish, premountable and stackable to eliminate offsetting.

Pipe spacers



Diagram	Cat. no.		Size (in.)	Screw size	Dimensions (in.)	
	Mal. Iron	Alum.			A	B
	1350	1350AL	3/8, 1/2, 3/4, 1	#7	3	7/8
	1351	1351AL	1 1/4-1 1/2-2	#12	5	1 3/16
	1352	1352AL	2 1/2-3	#12	9 9/16	1 3/4
	1353	1353AL	3 1/2-4	#14	7 9/16	2

Conforms to CEC Rule 12-012 (5)
UL not applicable



Corrosion-resistant PVC-coated malleable iron. Pre-mountable, stackable to eliminate offsetting. Spacers can be stacked for offsets on wall or into outlet box.

Prevents conduit rusting from wall condensation. Eliminates offsetting of conduit.

Pipe spacers – PVC coated



Diagram	Cat. no.	Conduit size (in.)	Screw size	Dimensions (in.)	
				A	B
	1350CR	1/2-3/4-1	#7	3	7/8
	1351CR	1 1/4-1 1/2-2	#12	5	3/8
	1352CR	2 1/2-3	#12	6 9/16	1 3/4
	1353CR	3 1/2-4	#14	7 9/16	2

Conforms to CEC Rule 12-012 (5)
UL not applicable

Rigid and intermediate metal conduit fittings

Couplings, beam clamps and conduit supports



A one-piece fitting that couples armoured cable or flexible conduit to threaded rigid conduit. Tite-Bite® wedge holds conduit securely with a double grip. With a Chase nipple, this fitting will connect flexible conduit to outlet boxes, allowing more wiring space in the box than the usual fitting. Malleable iron.

Tite-Bite combination couplings – Armoured cable to threaded rigid



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	440-TB	1/2	1 1/8	1 27/32
	441	3/4	1 3/4	2 1/8
	442-TB	1	2	2 17/32



Steel. Includes bolts.

Beam clamps – Adjustable



Cat. no.	Description
700TB	Fits flange 2 3/4 in. – 7 5/8 in.
703*	Special bolt and 3 nuts

* Not CSA Certified



These supports will fit any flange, tapered or straight up to 5/8 in. thick. The broad hook holds the conduit at any desired angle. Holds standard rigid conduit, EMT, or IMC. Malleable iron.

Conduit supports



Cat. no.	Size (in.)
690TB	1/2
691TB	3/4
692TB	1
693TB	1 1/4

Stainless steel conduit and fittings

Stainless steel conduit



Withstand corrosive environments and meet stringent sanitary requirements.

For corrosion-resistant electrical conduit systems, stainless steel offers value and performance that's hard to match, combining high corrosion, chemical and temperature resistance with strength, durability, ease of installation and low maintenance. Compared to standard galvanized steel conduit in corrosive environments, type 304 stainless steel offers up to five times the lifespan, while type 316 offers up to eight times the lifespan. Because it is very easy to clean and its surface has no pores or cracks to harbor bacteria and other impurities, stainless steel also provides one of the most hygienic surfaces.

- Available in both type 304 and marine-grade type 316 stainless steel
- Features standard NPT threads for easy installation

- Each 10-ft. length of conduit ships with one stainless steel coupling included
- Couplings also sold separately
- Exceeds requirements for washdown applications
- Food- and potable water-safe
- Satisfies plant-cleanliness mandates from HACCP, FDA and various state agencies
- Meets ASTM A-321/SA-312 Standards
- UL®/cUL Listed

Typical applications

- Petrochemical refining/processing
- Water and wastewater treatment
- Food and beverage processing
- Marine and coastal facilities
- Pharmaceutical manufacturing
- Pulp and paper processing
- Other applications in corrosive environments or with strict hygiene requirements

Stainless steel rigid conduit

Cat. no.	Trade size (in.)	Weight (lbs./ft.)	Std. pkg. qty. ft.
Type 304 stainless steel conduit with coupling			
COND1/2SS	½	0.82	1,500
COND3/4SS	¾	1.09	1,000
COND1SS	1	1.61	700
COND11/4SS	1¼	2.18	350
COND11/2SS	1½	2.63	300
COND2SS	2	3.50	200
COND21/2SS	2½	5.59	120
COND3SS	3	7.27	90
COND4SS	4	10.08	40

Cat. no.	Trade size (in.)	Weight (lbs./ft.)	Std. pkg. qty. ft.
Type 316 stainless steel conduit with coupling			
COND1/2SST	½	0.82	1,500
COND3/4SST	¾	1.09	1,000
COND1SST	1	1.61	700
COND11/4SST	1¼	2.18	350
COND11/2SST	1½	2.63	300
COND2SST	2	3.50	200
COND21/2SST	2½	5.59	120
COND3SST	3	7.27	90
COND4SST	4	10.08	40



Note: Conduit sold in 10-ft. lengths. Each 10-ft. length ships with one coupling.

Stainless steel conduit and fittings

Stainless steel couplings and nipples

Withstand corrosive environments and meet stringent sanitary requirements.



Stainless steel couplings – Type 304



Cat. no.	Trade size (in.)	Weight (lbs./ea.)	Std. pkg. qty.
CPL1/2SS	½	0.22	100
CPL3/4SS	¾	0.28	50
CPL1SS	1	0.39	30
CPL11/4SS	1¼	0.55	25
CPL11/2SS	1½	0.77	25
CPL2SS	2	1.10	20
CPL21/2SS	2½	2.09	12
CPL3SS	3	3.15	16
CPL4SS	4	4.29	10
CPL5SS	5	7.70	4
CPL6SS	6	10.15	4



Stainless steel couplings – Type 316



Cat. no.	Trade size (in.)	Weight (lbs./ea.)	Std. pkg. qty.
CPL1/2SST	½	0.17	100
CPL3/4SST	¾	0.29	50
CPL1SST	1	0.34	30
CPL11/4SST	1¼	0.37	25
CPL11/2SST	1½	0.61	25
CPL2SST	2	0.90	20
CPL21/2SST	2½	1.87	12
CPL3SST	3	1.93	16
CPL4SST	4	3.97	10
CPL5SST	5	7.70	4
CPL6SST	6	10.15	4



Conduit Nipples



Cat. no.	Trade size (in.)	Length (in.)	Weight (lbs./ea.)	Std. pkg. qty.
Type 304 Stainless Steel Nipples				
NPL1/2X12SS	½	12	0.79	25
NPL3/4X12SS	¾	12	1.05	25
NPL1X12SS	1	12	1.54	20
NPL11/4X12SS	1¼	12	2.02	16
NPL11/2X12SS	1½	12	2.49	8
NPL2X12SS	2	12	3.30	9
Type 316 Stainless Steel Nipples				
NPL1/2X12SST	½	12	0.79	25
NPL3/4X12SST	¾	12	1.05	25
NPL1X12SST	1	12	1.54	20
NPL11/4X12SST	1¼	12	2.02	16
NPL11/2X12SST	1½	12	2.49	8
NPL2X12SST	2	12	3.30	9

Stainless steel conduit and fittings

Stainless steel elbows



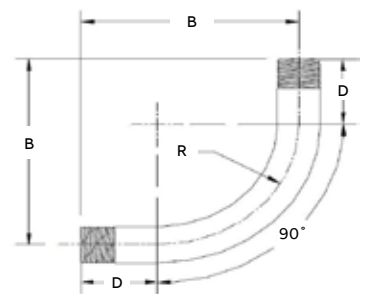
Withstand corrosive environments and meet stringent sanitary requirements.

Standard radius elbows 90°



Cat. no.	Trade size (in.)	Radius "R"	Offset "C"	Straight end "D"	Weight (lbs./ea.)	Std. pkg. qty.
Type 304 stainless steel elbows						
ELL1/2SS	½	4	5.50	1.50	0.64	25
ELL3/4SS	¾	4.5	6.00	1.50	0.92	25
ELL1SS	1	5.75	7.63	1.88	1.69	20
ELL11/4SS	1¼	7.25	9.25	2.00	2.66	8
ELL11/2SS	1½	8.25	10.25	2.00	3.67	8
ELL2SS	2	9.5	11.50	2.00	5.31	6
Type 316 stainless steel elbows						
ELL1/2SST	½	4	5.50	1.50	0.64	25
ELL3/4SST	¾	4.5	6.00	1.50	0.92	25
ELL1SST	1	5.75	7.63	1.88	1.69	20
ELL11/4SST	1¼	7.25	9.25	2.00	2.66	8
ELL11/2SST	1½	8.25	10.25	2.00	3.67	8
ELL2SST	2	9.5	11.50	2.00	5.31	6

Diagram



* Minimum

Stainless steel conduit and fittings

Stainless steel elbows



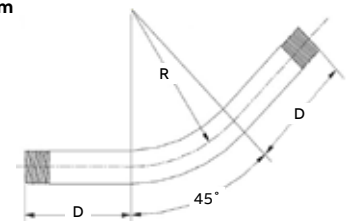
Withstand corrosive environments and meet stringent sanitary requirements.

Standard radius elbows 45°



Cat. no.	Trade size (in.)	Radius "R"	Straight end "D"	Weight (lbs./ea.)	Std. pkg. qty.
Type 304 stainless steel elbows					
ELL1/245SS	½	4	1.50	0.42	25
ELL3/445SS	¾	4.5	1.50	0.61	25
ELL145SS	1	5.75	1.88	1.11	20
ELL11/445SS	1¼	7.25	2.00	1.70	16
ELL11/245SS	1½	8.25	2.00	2.30	16
ELL245SS	2	9.5	2.00	3.10	9
Type 316 stainless steel elbows					
ELL1/245SST	½	4	1.50	0.42	25
ELL3/445SST	¾	4.5	1.50	0.61	25
ELL145SST	1	5.75	1.88	1.11	20
ELL11/445SST	1¼	7.25	2.00	1.70	16
ELL11/245SST	1½	8.25	2.00	2.30	16
ELL245SST	2	9.5	2.00	3.10	9

Diagram



* Minimum

Couplings and accessories

Stainless steel drain adapter and ball valve



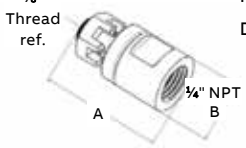
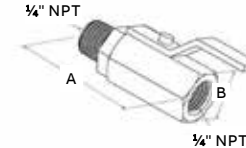
In the electrical system of a food and beverage facility and elsewhere, the T&B® Fittings stainless steel drain adapter provides the means to drain accumulated moisture or small debris from stainless steel electrical enclosures for non-threaded connections.

- The drain adapter and ball valve are NSF certified for food and beverage applications
- When the drain adapter is used in conjunction with the ball valve, the assembly offers a UL type 4X rating and is suitable for washdown areas
- The adapter and valve are both constructed of type 316 stainless steel for superior corrosion resistance
- The innovative, compact body design and special-grade silicone gasket make the drain adapter suitable for installation in tight spaces and on curved surfaces

Certifications

- cULus listed type 4X when the ball valve is assembled to the drain adapter
- NSF certified per NSF/ANSI standard 169
- Manufactured with FDA-approved materials

Stainless steel drain adapter and ball valve

	Cat. no	Description	Trade size (in.)	Dim. (in.)	
				A	B
	FG-DA-3/8	Drain adapter	3/8	1.38	0.75
	DBV-1/4	Ball valve	1/4	2.03	0.75
					

Conduit bodies and covers

Overview



Application

Conduit bodies are installed in conduit systems to:

- Connect conduit sections
- Act as pull outlets when conductors are being installed
- Provide easy access for splices in branch conductors
- Make 90° bends in conduit runs
- Provide access to conductors for maintenance and future system changes

Features

- Standard features include tapered (NPT) threads and integral bushings to protect wire insulation
- T&B Fittings form 7 bodies and covers are interchangeable with other manufacturers' form 7 bodies and covers
- T&B Fittings form 8 bodies and covers are interchangeable with other manufacturers' Form 8 bodies and covers
- T&B Fittings form 9 bodies and covers are interchangeable with other manufacturers' Form 9 bodies and covers (Mark 9, FM 9)
- T&B Fittings form 7 and form 8 cast iron bodies feature BlueKote® internal coating for easier wire pulling
- Form 9 aluminum sand-cast copper-free aluminum alloy
- T&B Fittings series 35 bodies and covers are interchangeable with other manufacturers' 35/5 series iron and steel bodies and covers
- Form 7 sand cast aluminum is made with a special aluminum alloy, providing superior corrosion resistance as cast; no protective coatings needed
- Special sand cast aluminum alloy makes these conduit bodies ideal for use in food and beverage, pharmaceutical, chemical processing and other corrosive environments
- All form 7 and form 8 covers include gaskets

Materials

- Form 7, form 8 and series 35 iron conduit bodies: Sand-cast class 30 gray iron alloy
- Form 9 aluminum: Sand-cast copper-free aluminum alloy
- Stainless steel conduit bodies: Type 316 stainless steel
- Form 7 aluminum: Sand-cast CorroStall™ aluminum alloy
- Covers: Sand-cast gray iron alloy and stamped sheet steel with steel-stainless steel screws
- Stainless steel covers: Stamped type 316 stainless steel with stainless steel screws
- Gaskets: Neoprene
- Aluminum covers: Sand-cast CorroStall aluminum alloy or sheet aluminum with stainless steel screws, aluminum clips and stainless steel and neoprene O-ring washer

Finish

- Form 7, form 8 and series 35 iron conduit bodies: Zinc-plating with aluminum acrylic coating
- Form 7 and form 8 iron bodies: Internal PTFE-based BlueKote coating
- Covers: Gray iron zinc-plating with aluminum acrylic coating, and stamped steel zinc-plating with clear chromate coating; form 7 and form 8 covers include neoprene gasket
- Form 9 aluminum covers: Stamped copper-free aluminum sheet with stainless steel screws
- Stainless steel bodies and covers: Polished
- Aluminum bodies and covers: As cast/natural

Listings/compliances

- UL Standard: 514A, 514B
- Fed. Spec: W-C-586D
- CSA Standard: C22.2 No. 18

Conduit bodies and covers

Quick reference

Conduit bodies quick reference



Shape	Type	Hub size (in.)									
		½	¾	1	1¼	1½	2	2½	3	3½	4
	BlueKote® form 7	LB17	LB27	LB37	LB47	LB57	LB67	LB77	LB87	LB97	LB107
	BlueKote form 8*	LB18	LB28	LB38	LB448	LB58	LB68	LB78	LB888	LB98	LB108
	Series 35	LB50M	LB75M-TB	LB100M	LB125M	LB150M	LB200M	LB250M	LB300M	LB350M	LB400M
	Sand cast aluminum form 7	LB17SA	LB27SA	LB37SA	LB47SA	LB57SA	LB67SA	LB77SA	LB87SA	LB97SA	LB107SA
	Sand cast aluminum form 9	LB19SA	LB29SA	LB39SA	LB49SA	LB59SA	LB69SA	LB789SA	LB889SA	LB989SA	LB1089SA
	Stainless steel form 8**	LB18SST	LB28SST	LB38SST	LB48SST	LB58SST	LB68SST	-	-	-	-
	BlueKote form 7	LU17	LU27	LU37	LU47	LU57	LU67	-	-	-	-
	Sand cast aluminum form 7	LU17SA	LU27SA	LU37SA	LU47SA	LU57SA	LU67SA	-	-	-	-
	Sand cast aluminum form 9	LU19SA	LU29SA	LU39SA	LU49SA	LU59SA	LU69SA	-	-	-	-
	Stainless steel form 8**	LU18SST	LU28SST	LU38SST	LU48SST	LU58SST	LU68SST	-	-	-	-
	BlueKote form 7	T17	T27	T37	T47	T57	T67	T77	T87	T97	T107
	BlueKote form 8*	T18	T28	T38-TB	T448	T58	T68	T78	T88-TB	-	-
	Series 35	T50M	T75M	T100M	T125M	T150M	T200M	T250M	T300M	T350M	T400M
	Sand cast aluminum form 7	T17SA	T27SA	T37SA	T47SA	T57SA	T67SA	T77SA	T87SA	T97SA	T107SA
	Sand cast aluminum form 9	T19SA	T29SA	T39SA	T49SA	T59SA	T69SA	T789SA	T889SA	T989SA	T1089SA
	Stainless steel form 8**	T18SST	T28SST	T38SST	T48SST	T58SST	T68SST	-	-	-	-
	BlueKote form 7	C17	C27	C37	C47	C57	C67	C77-TB	C87	-	-
	BlueKote form 8*	C18	C28	C38	C448	C58-TB	C68	C78	C88	-	-
	Series 35	C50M	C75M-TB	C100M	C125M	C150M	C200M	C250M-TB	C300M	C350M	C400M
	Sand cast aluminum form 7	C17SA	C27SA	C37SA	C47SA	C57SA	C67SA	-	-	-	-
	Sand cast aluminum form 9	C19SA	C29SA	C39SA	C49SA	C59SA	C69SA	C789SA	C889SA	C989SA	C1089SA
	Stainless steel form 8**	C18SST	C28SST	C38SST	C48SST	C58SST	C68SST	-	-	-	-
	BlueKote form 7	LL17	LL27	LL37	LL47	LL57	LL67	LL77	LL87	LL97	LL107
	BlueKote form 8*	LL18	LL28	LL38	LL448	LL58	LL68	LL78	LL888	-	-
	Series 35	LL50M	LL75M	LL100M	LL125M	LL150M	LL200M	LL250M	LL300M	LL350M	LL400M
	Sand cast aluminum form 7	LL17SA	LL27SA	LL37SA	LL47SA	LL57SA	LL67SA	-	-	-	-
	Sand cast aluminum form 9	LL19SA	LL29SA	LL39SA	LL49SA	LL59SA	LL69SA	LL789SA	LL889SA	LL989SA	LL1089SA
	Stainless steel form 8**	LL18SST	LL28SST	LL38SST	LL48SST	LL58SST	LL68SST	-	-	-	-

* ½" through 1¼" have (2) mounting holes; 1½" through 4" have (4) mounting holes

** With covers, gaskets and screws

Conduit bodies and covers

Quick reference

Conduit bodies quick reference (continued)




Shape	Type	Hub size (in.)									
		½	¾	1	1¼	1½	2	2½	3	3½	4
	BlueKote form 7	LR17	LR27	LR37	LR47	LR57	LR67	LR77	LR87	LR97	LR107
	BlueKote form 8*	LR18	LR28	LR38	LR448	LR58	LR68	LR78	LR888	-	-
	Series 35	LR50M	LR75M	LR100M	LR125M	LR150M	LR200M	LR250M	LR300M	LR350M-TB	LR400M
	Sand cast aluminum form 7	LR17SA	LR27SA	LR37SA	LR47SA	LR57SA	LR67SA	-	-	-	-
	Sand cast aluminum form 9	LR19SA	LR29SA	LR39SA	LR49SA	LR59SA	LR69SA	LR789SA	LR889SA	LR989SA	LR1089SA
	BlueKote® form 7	L17-TB	L27-TB	L37-TB	L47-TB	L57-TB	L67-TB	-	-	-	-
	BlueKote form 7	TB17-TB	TB27	TB37	TB47	TB57	TB67	-	-	-	-
	BlueKote form 8*	TB18	TB28	TB38	TB448	TB58	TB68	-	-	-	-
	Series 35	TB50M	TB75M	TB100M	TB125M	TB150M	TB200M	-	-	-	-
	Sand cast aluminum form 7	TB17SA	TB27SA	TB37SA	TB47SA	TB57SA	TB67SA	-	-	-	-
	Sand cast aluminum form 9	TB19SA	TB29SA	TB39SA	TB49SA	TB59SA	TB69SA	-	-	-	-
	Stainless steel form 8**	TB18SST	TB28SST	TB38SST	TB48SST	TB58SST	TB68SST	-	-	-	-
	BlueKote form 7	X17	X27	X37	X47	X57	X67	-	-	-	-
	BlueKote form 8*	X18	X28	X38	X448	X58	X68	-	-	-	-
	Series 35	X50M	X75M	X100M	X125M	X150M	X200M	-	-	-	-
	Sand cast aluminum form 7	X17SA	X27SA	X37SA	X47SA	X57SA	X67SA	-	-	-	-
	Sand cast aluminum form 9	X19SA	X29SA	X39SA	-	-	-	-	-	-	-
	BlueKote form 7	E17	E27	E37	-	-	-	-	-	-	-
	BlueKote form 7	TA17	TA27	TA37	TA47	TA57	TA67	-	-	-	-

* ½" through 1¼" have (2) mounting holes; 1½" through 4" have (4) mounting holes
 ** With covers, gaskets and screws

Conduit bodies and covers


Covers and gaskets

Replacement covers and gaskets

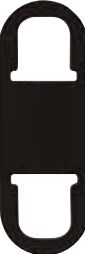
		Hub size (in.)									
	Shape	½	¾	1	1¼	1½	2	2½	3	3½	4
	Form 7 steel*	170S	270S	370S	470S	570S	670S	870S	870S	970S	970S
	Form 8 steel*	180	280	380	480	580	680STB	880	880	980	980
	Form 7 aluminum*	170SA	270SA	370SA	470SA	570SA	670SA	870SA	870SA	970SA	970SA
	Form 9 aluminum	190SA**	290SA**	390SA**	490SA**	590SA**	690SA**	889SA	889SA	989SA	989SA
	Series 35	K50S	K75S	K100S	K125S	K125S	K200S	K250S	K250S	K350S	K350S
	Form 8 stainless Steel	180SST	280SST	380SST	480SST	580SST	680SST	-	-	-	-

* Form 7 and Form 8 covers include gasket.

** For Form 9 aluminum cover including gasket, replace suffix SA with GSA (Example : 190GSA)

		Hub size (in.)									
	Shape	½	¾	1	1¼	1½	2	2½	3	3½	4
	Form 7 iron*	170F	270F	370F	470F	570F	670F	870F	870F	970F	970F
	Form 8 iron*	180F	280F	380F	480F	580F	680F	880F	880F	980F	980F
	Form 7 aluminum*	170FSA	270FSA	370FSA	470FSA	570FSA	670FSA	870FSA	870FSA	970FSA	970FSA
	Series 35	K50M	K75M	K100M	K125M	K125M	K200M	K250M	K250M	K350M	K350M

* Form 7 and Form 8 covers include gasket.

		Hub size (in.)									
	Shape	½	¾	1	1¼	1½	2	2½	3	3½	4
	Form 7*	GASK571	GASK572	GASK573	GASK574	GASK575	GASK576	GASK578	GASK578	GASK579	GASK579
	Form 8*	GASK581N	GASK582N	GASK583N	GASK584N	GASK585N	GASK586N	GASK588N	GASK588N	GASK589N	GASK589N
	Form 9*	GASK1941	GASK1942	GASK1943	GASK1944	GASK1945	GASK1946	GASK808N	GASK808N	GASK809N	GASK809N
	Series 35	GK50N	GK75N	GK100N	GK125-150N	GK125-150N	GK200N	GK250-300N	GK250-300N	GK350-400N	GK350-400N

* For ordering purposes, please use GASK in the catalog number (Example: GASK 571).

Conduit bodies and covers

Type 316 stainless steel form 8

Each conduit outlet body ships complete with gasket, cover and screws.

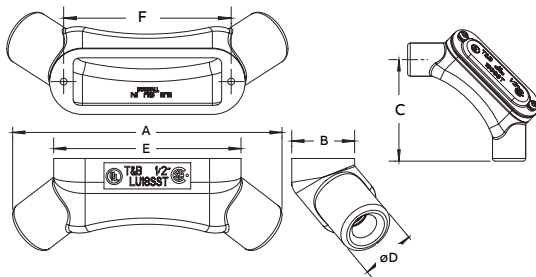


LU Form 8 conduit bodies with covers



Cat. no.	Hub size (in.)	Dimensions (in.)							Cu. in.
		A	B	C	D	E	F		
LU18SST	1/2	6.210	1.450	3.825	1.125	4.320	3.700	5.5	
LU28SST	3/4	6.981	1.645	4.245	1.500	4.921	4.300	8.5	
LU38SST	1	8.261	1.850	5.050	1.700	5.625	5.000	14.5	
LU48SST	1 1/4	9.923	2.200	5.975	2.200	6.730	5.810	26.5	
LU58SST	1 1/2	11.549	2.813	7.000	2.450	7.938	7.125	45.0	
LU68SST	2	13.989	3.820	8.500	2.900	9.797	9.125	116.5	

Diagrams

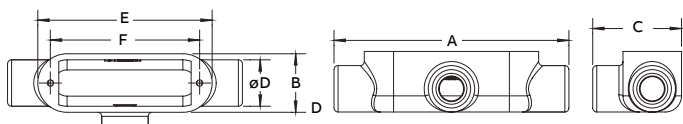


T Form 8 conduit bodies with covers



Cat. no.	Hub size (in.)	Dimensions (in.)							Cu. in.
		A	B	C	D	E	F		
T18SST	1/2	5.820	1.450	2.200	1.150	4.320	3.700	5.5	
T28SST	3/4	6.420	1.645	2.395	1.400	4.921	4.300	9.0	
T38SST	1	7.500	1.850	2.850	1.750	5.625	5.000	13.5	
T48SST	1 1/4	8.738	2.200	2.950	2.200	6.730	5.810	24.0	
T58SST	1 1/2	10.046	2.813	3.867	2.450	7.938	7.125	45.0	
T68SST	2	12.204	3.820	5.070	2.900	9.797	9.125	88.0	
T78SST	2.5	15.659	4.575	6.561	4.250	10.875	-	220	
T888SST	3	15.817	4.575	6.640	4.250	10.875	-	220	
T108SST	4	18.473	5.535	8.037	5.513	13.462	-	420	

Diagrams

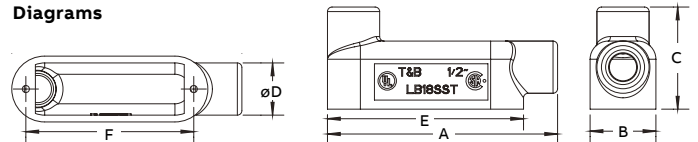


LB Form 8 conduit bodies with covers



Cat. no.	Hub size (in.)	Dimensions (in.)							Cu. in.
		A	B	C	D	E	F		
LB18SST	1/2	5.070	1.450	2.250	1.150	4.320	3.700	5.8	
LB28SST	3/4	5.671	1.645	2.530	1.400	4.921	4.300	8.0	
LB38SST	1	6.563	1.850	2.913	1.750	5.625	5.000	13.0	
LB48SST	1 1/4	7.734	2.200	3.315	2.200	6.730	5.810	23.0	
LB58SST	1 1/2	8.992	2.813	3.800	2.450	7.938	7.125	44.0	
LB68SST	2	11.000	3.820	4.810	2.900	9.797	9.125	88.0	
LB78SST	2 1/2	14.098	6.136	5.000	4.250	10.875	-	220	
LB888SST	3	14.177	6.215	5.000	4.250	10.875	-	220	
LB108SST	4	16.749	7.259	6.313	5.513	13.462	-	420	

Diagrams

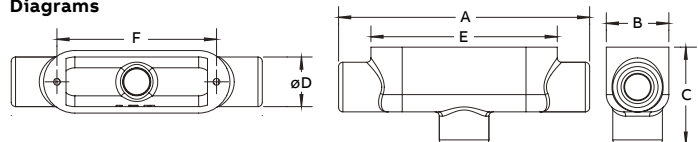


TB Form 8 conduit bodies with covers



Cat. no.	Hub size (in.)	Dimensions (in.)							Cu. in.
		A	B	C	D	E	F		
TB18SST	1/2	5.820	1.450	2.250	1.150	4.320	3.700	5.5	
TB28SST	3/4	6.420	1.645	2.530	1.400	4.921	4.300	9.0	
TB38SST	1	7.500	1.850	2.975	1.750	5.625	5.000	13.5	
TB48SST	1 1/4	8.484	2.200	3.319	2.200	6.730	5.810	24.0	
TB58SST	1 1/2	10.046	2.813	3.854	2.450	7.938	7.125	45.0	
TB68SST	2	12.129	3.820	4.810	2.900	9.797	9.125	88.0	

Diagrams



Conduit bodies and covers

Pre-assembled form 7 BlueKote®

Pre-assembled form 7 BlueKote conduit bodies

Form 7 body, gasket and cover – one number. Now you can order a conduit body, gasket and cover, pre-assembled, using one catalog number. ABB's pre-assembled cast conduit bodies help reduce transactions, eliminate the need for additional stocking bins and provide an easy inventory reduction. You'll also have less hassle with managing small parts in the truck or crib. Best of all, you can be absolutely confident that the right parts are in your hands when you need them.

T&B® Fittings conduit bodies and covers feature:

- BlueKote internal finish for faster, easier wire pulling
- Epoxy external finish for superior corrosion resistance
- Tapered NPT threads and integral bushings to protect wire insulation
- Bodies are designed with a flat back for more cubic inch capacity; the flat back also keeps the body more stable during installation, requiring fewer conduit straps
- T&B Fittings form 7 bodies and covers are interchangeable with Crouse-Hinds and Appleton's form 7 bodies and covers

Specifications

- Bodies: Class 30 gray iron alloy
- Covers: Stamped steel with stainless steel screws
- Gaskets: Neoprene
- Finish: Conduit bodies: zinc-plating with acrylic epoxy coating and internal
- PTFE-based BlueKote coating
- Covers: Stamped steel zinc-plating with a clear chromate coating
- Compliances: UL Standard: 514A, 514B Fed. Spec: W-C-586D
- CSA Standard: C22.2 No. 18

Crouse-Hinds is a trademark of Cooper Industries, Inc. Appleton is a trademark of the EGS Electrical Group, a joint venture of Emerson and SPX Corp.

Note: BlueKote is registered for conduit bodies but is not registered for a finish or a coating.

T&B Fittings pre-assembled conduit bodies, gaskets and covers



Cat. no.	Trade size (in.)	Pre-assembled products
C17CG-TB	½	C17 body, cover and gasket
C27CG-TB	¾	C27 body, cover and gasket
C37CG-TB	1	C37 body, cover and gasket
C47CG-TB	1¼	C47 body, cover and gasket
C57CG-TB	1½	C57 body, cover and gasket
C67CG-TB	2	C67 body, cover and gasket
LB17CG-TB	½	LB17 body, cover and gasket
LB27CG-TB	¾	LB27 body, cover and gasket
LB37CG-TB	1	LB37 body, cover and gasket
LB47CG-TB	1¼	LB47 body, cover and gasket
LB57CG-TB	1½	LB57 body, cover and gasket
LB67CG-TB	2	LB67 body, cover and gasket
LL17CG-TB	½	LL17 body, cover and gasket
LL27CG-TB	¾	LL27 body, cover and gasket
LL37CG-TB	1	LL37 body, cover and gasket
LL47CG-TB	1¼	LL47 body, cover and gasket
LL57CG-TB	1½	LL57 body, cover and gasket
LL67CG-TB	2	LL67 body, cover and gasket
LR17CG-TB	½	LR17 body, cover and gasket
LR27CG-TB	¾	LR27 body, cover and gasket
LR37CG-TB	1	LR37 body, cover and gasket
LR47CG-TB	1¼	LR47 body, cover and gasket
LR57CG-TB	1½	LR57 body, cover and gasket
LR67CG-TB	2	LR67 body, cover and gasket
T17CG-TB	½	T17 body, cover and gasket
T27CG-TB	¾	T27 body, cover and gasket
T37CG-TB	1	T37 body, cover and gasket
T47CG-TB	1¼	T47 body, cover and gasket
T57CG-TB	1½	T57 body, cover and gasket
T67CG-TB	2	T67 body, cover and gasket
TB17CG-TB	½	TB17 body, cover and gasket
TB27CG-TB	¾	TB27 body, cover and gasket
TB37CG-TB	1	TB37 body, cover and gasket
TB47CG-TB	1¼	TB47 body, cover and gasket
TB57CG-TB	1½	TB57 body, cover and gasket
TB67CG-TB	2	TB67 body, cover and gasket
X17CG-TB	½	X17 body, cover and gasket
X27CG-TB	¾	X27 body, cover and gasket
X37CG-TB	1	X37 body, cover and gasket
X47CG-TB	1¼	X47 body, cover and gasket
X57CG-TB	1½	X57 body, cover and gasket
X67CG-TB	2	X67 body, cover and gasket

For aluminum conduit bodies pre-assembled with covers and gaskets, request Red•Dot® D-PAK® series conduit bodies for rigid and IMC conduit.



Conduit bodies and covers

Sand cast aluminum form 7

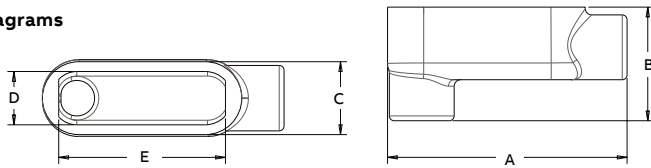


LB Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
LB17SA	1/2	4.63	2.19	1.41	1.03	3.19	4.2	
LB27SA	3/4	5.25	2.47	1.59	1.22	3.81	6.8	
LB37SA	1	6.22	2.88	1.75	1.38	4.56	11.0	
LB47SA	1 1/4	6.59	3.34	2.19	1.81	5.03	19.5	
LB57SA	1 1/2	6.97	3.59	2.44	2.06	5.44	25.6	
LB67SA	2	8.13	4.25	3.06	2.44	6.41	51.2	
LB77SA	2 1/2	10.56	5.19	4.25	3.63	8.38	100.4	
LB87SA	3	10.66	6.03	4.25	3.63	8.38	126.2	
LB97SA	3 1/2	11.06	6.69	5.25	4.44	10.25	219.0	
LB107SA	4	12.81	7.72	5.25	4.44	10.25	247.1	

Diagrams

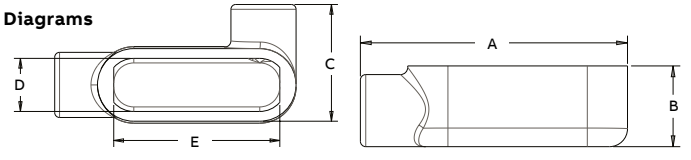


LR Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
LR17SA	1/2	4.38	1.41	2.25	1.03	3.19	4.5	
LR27SA	3/4	5.31	1.63	2.44	1.19	3.81	7.5	
LR37SA	1	6.22	1.88	2.78	1.38	4.56	11.2	
LR47SA	1 1/4	6.63	2.31	3.22	1.81	5.03	20.3	
LR57SA	1 1/2	6.97	2.56	3.47	2.06	5.44	27.8	
LR67SA	2	8.13	3.19	4.13	2.44	6.25	54.0	

Diagrams

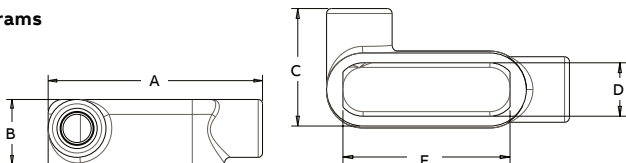


LL Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
LL17SA	1/2	4.38	1.41	2.25	1.03	3.19	4.5	
LL27SA	3/4	5.31	1.63	2.44	1.19	3.81	7.2	
LL37SA	1	6.22	1.88	2.78	1.38	4.56	11.5	
LL47SA	1 1/4	6.63	2.31	3.22	1.81	5.03	20.0	
LL57SA	1 1/2	6.97	2.56	3.47	2.06	5.44	28.0	
LL67SA	2	8.13	3.19	4.13	2.44	6.25	54.2	

Diagrams

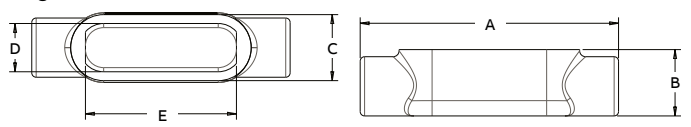


C Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
C17SA	1/2	5.44	1.41	1.41	1.00	3.19	4.8	
C27SA	3/4	6.16	1.63	1.59	1.22	3.81	7.5	
C37SA	1	7.22	1.88	1.75	1.38	4.56	11.8	
C47SA	1 1/4	7.63	2.31	2.19	1.91	5.03	19.8	
C57SA	1 1/2	8.00	2.56	2.44	2.06	5.44	27.8	
C67SA	2	9.16	3.22	3.06	2.44	6.25	53.2	

Diagrams



Conduit bodies and covers

Sand cast aluminum form 7

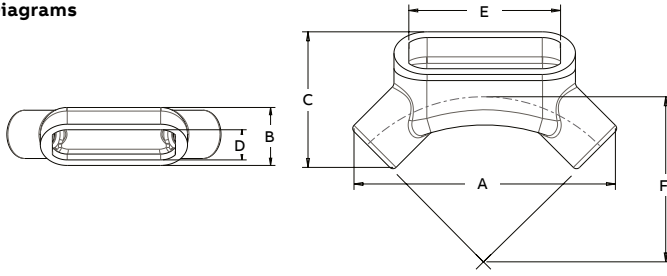


LU® Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E	F	
LU17SA	1/2	5.53	1.50	2.88	1.03	3.19	3.31	5.1
LU27SA	3/4	6.28	1.72	3.22	1.22	3.81	3.75	8.7
LU37SA	1	7.34	1.97	3.78	1.38	4.56	4.41	13.4
LU47SA	1 1/4	8.38	2.47	4.34	1.81	5.03	4.91	23.8
LU57SA	1 1/2	8.97	2.72	4.53	2.06	5.44	5.19	29.6
LU67SA	2	10.78	3.44	5.41	2.44	6.25	6.25	59.4

Diagrams

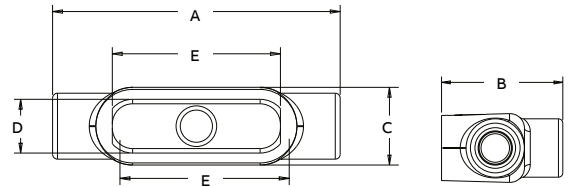


TB Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)					Cu. in.
		A	B	C	D	E	
TB17SA	1/2	5.44	2.59	1.50	1.03	3.19	5.6
TB27SA	3/4	6.16	2.84	1.66	1.19	3.81	9.0
TB37SA	1	7.22	3.28	1.78	1.38	4.56	13.1
TB47SA	1 1/4	7.63	3.34	2.19	1.81	5.03	19.3
TB57SA	1 1/2	8.00	3.59	2.44	2.06	5.44	25.0
TB67SA	2	9.16	4.25	3.06	2.44	6.41	51.6

Diagrams

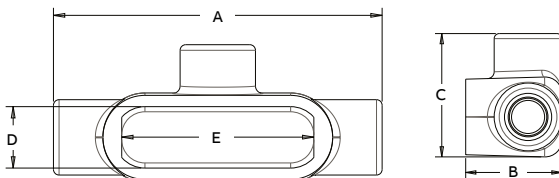


T Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)					Cu. in.
		A	B	C	D	E	
T17SA	1/2	5.44	1.78	2.28	1.03	3.19	5.5
T27SA	3/4	6.16	2.00	2.59	1.22	3.81	9.1
T37SA	1	7.22	2.28	3.22	1.38	4.56	15.5
T47SA	1 1/4	7.63	2.31	3.22	1.81	5.03	20.1
T57SA	1 1/2	8.00	2.56	3.47	2.06	5.44	27.1
T67SA	2	9.16	3.19	4.09	2.44	6.41	51.0
T77SA	2 1/2	12.13	3.63	5.81	3.63	8.38	104.6
T87SA	3	12.28	4.41	5.91	3.63	8.38	135.2
T97SA	3 1/2	14.44	4.91	6.94	4.44	10.25	230.0
T107SA	4	14.50	5.41	6.97	4.44	10.25	260.3

Diagrams

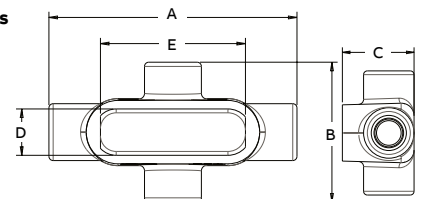


X Sand cast aluminum form 7 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)					Cu. in.
		A	B	C	D	E	
X17SA	1/2	5.44	3.06	1.78	1.03	3.19	5.8
X27SA	3/4	6.16	3.44	2.00	1.22	3.81	10.3
X37SA	1	7.22	4.22	2.28	1.38	4.56	16.4
X47SA	1 1/4	7.63	4.25	2.31	1.81	5.03	21.3
X57SA	1 1/2	8.00	4.50	2.56	2.06	5.44	28.6
X67SA	2	9.16	5.16	3.19	2.44	6.41	53.5

Diagrams



Conduit bodies and covers

Sand cast aluminum form 9

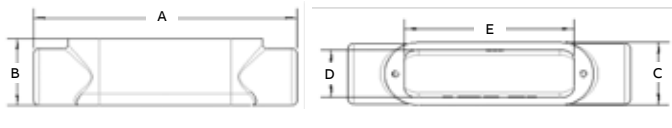


C Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
C19SA	½"	5.858	1.5	1.392	1.018	3.307	4.5	
C29SA	¾"	6.48	1.78	1.56	1.186	3.898	7.5	
C39SA	1"	7.578	1.975	1.756	1.382	4.559	11.5	
C49SA	1¼"	8.593	2.315	2.2	1.826	5.197	22.3	
C59SA	1½"	9.238	2.8	2.5	1.788	5.892	34	
C69SA	2"	11.578	3.56	3.189	2.349	8.11	80.0	
C789SA	2½"	15.522	4.575	5.04	4.29	10.827	212	
C889SA	3"	15.68	4.575	5.04	4.29	10.827	216	
C989SA	3½"	18.452	5.535	6.338	5.538	13.438	408	
C1089SA	4"	18.498	5.535	6.339	5.538	13.438	440	

Diagrams

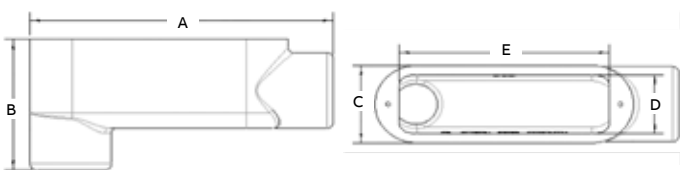


LB Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
LB19SA	½"	5.034	2.231	1.392	1.018	3.307	4.5	
LB29SA	¾"	5.64	2.62	1.56	1.186	3.898	7.5	
LB39SA	1"	6.569	2.984	1.756	1.382	4.55	11.5	
LB49SA	1¼"	7.767	3.344	2.2	1.826	5.197	22.3	
LB59SA	1½"	8.209	3.829	2.5	2.1	5.906	34	
LB69SA	2"	10.533	4.605	3.228	2.388	7.941	80.0	
LB789SA	2½"	13.961	6.011	5.04	4.29	10.827	212	
LB889SA	3"	14.04	6.215	5.04	4.29	10.827	216	
LB989SA	3½"	16.751	7.236	6.339	5.576	13.437	408	
LB1089SA	4"	16.774	7.259	6.339	5.573	13.438	440	

Diagrams

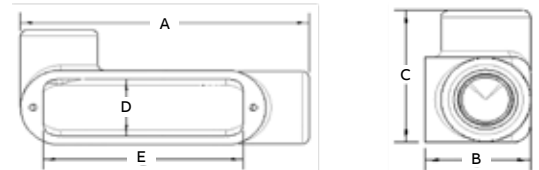


LL Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
LL19SA	½"	5.034	1.5	2.213	1.018	3.28	4.5	
LL29SA	¾"	5.64	1.78	2.4	1.186	3.898	7.5	
LL39SA	1"	6.569	1.975	2.765	1.382	4.55	11.5	
LL49SA	1¼"	7.564	2.315	3.229	1.826	5.197	22.3	
LL59SA	1½"	8.591	2.8	3.529	2.126	5.906	34	
LL69SA	2"	10.714	3.56	4.234	2.349	8.11	80.0	
LL789SA	2½"	13.961	4.575	6.601	4.29	10.827	212	
LL889SA	3"	14.04	4.575	6.68	4.29	10.827	216	
LL989SA	3½"	16.563	5.535	8.04	5.577	13.437	408	
LL1089SA	4"	16.774	5.535	8.063	5.577	13.438	440	

Diagrams

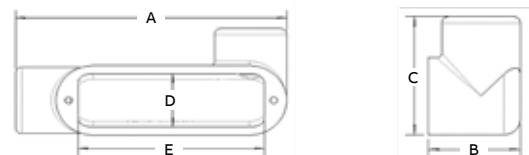


LR Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
LR19SA	½"	5.034	1.5	2.213	1.018	3.28	4.5	
LR29SA	¾"	5.64	1.78	2.4	1.186	3.898	7.5	
LR39SA	1"	6.569	1.975	2.765	1.382	4.55	11.5	
LR49SA	1¼"	7.564	2.315	3.229	1.826	5.197	22.3	
LR59SA	1½"	8.591	2.8	3.529	2.126	5.906	34	
LR69SA	2"	10.714	3.56	4.234	2.349	8.11	80.0	
LR789SA	2½"	13.961	4.575	6.601	4.29	10.827	212	
LR889SA	3"	14.04	4.575	6.68	4.29	10.827	216	
LR989SA	3½"	16.563	5.535	8.04	5.577	13.437	408	
LR1089SA	4"	16.774	5.535	8.063	5.577	13.438	440	

Diagrams



Conduit bodies and covers

Form 9 sand cast aluminum

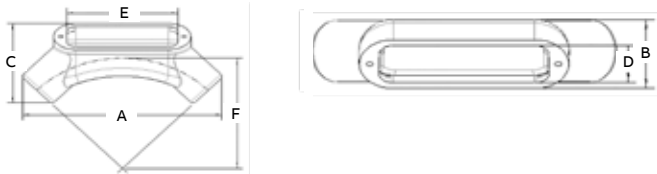


LU Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E	Radius	
LU19SA	½	6.21	2.701	1.5	1.018	3.28	4.415	5.3
LU29SA	¾	6.97	3.047	1.698	1.186	3.898	4.92	8.0
LU39SA	1	8.276	3.651	2.02	1.445	4.559	6.143	14.0
LU49SA	1¼	9.902	4.266	2.362	1.826	5.29	7.666	30.8
LU59SA	1½	10.256	5.127	2.609	2.126	5.906	8.214	41.0
LU69SA	2	13.968	6.153	3.421	2.815	7.941	8.5	97.0

Diagrams

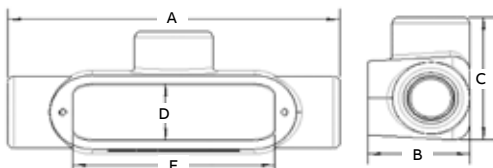


T Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
T19SA	½	5.958	1.775	2.393	1.078	3.307	6.3	
T29SA	¾	6.455	2	2.591	1.185	3.925	9.3	
T39SA	1	7.578	2.275	2.765	1.382	4.559	14.0	
T49SA	1¼	8.593	2.315	3.229	1.826	5.197	22.0	
T59SA	1½	9.243	2.8	3.529	2.126	5.906	34.8	
T69SA	2	11.578	3.56	4.234	2.815	8.11	80.5	
T789SA	2½	15.522	4.575	6.601	4.25	10.827	175	
T889SA	3	15.68	4.575	6.68	4.25	10.827	236	
T989SA	3½	18.452	5.535	8.04	5.539	13.437	435	
T1089SA	4	18.498	5.535	8.063	5.539	13.438	450	

Diagrams

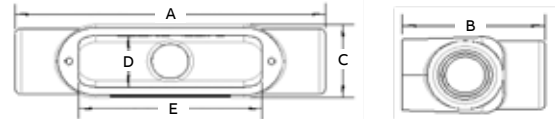


TB Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
TB19SA	½	5.958	2.596	1.556	1.018	3.307	6.3	
TB29SA	¾	6.6	2.84	1.715	1.186	3.898	9.3	
TB39SA	1	7.644	3.284	1.756	1.382	4.559	14.0	
TB49SA	1¼	8.788	3.344	2.2	1.826	5.197	22.0	
TB59SA	1½	9.996	3.604	2.5	1.784	5.883	34.8	
TB69SA	2	11.578	4.605	3.189	2.815	8.11	80.5	

Diagrams

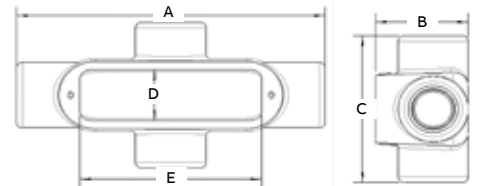


X Sand cast aluminum form 9 conduit bodies



Cat. no.	Hub size (in.)	Dimensions (in.)						Cu. in.
		A	B	C	D	E		
X19SA	½	5.958	1.775	3.094	1.018	3.28	6.3	
X29SA	¾	6.61	2	3.37	1.186	3.898	9.3	
X39SA	1	7.578	2.275	3.774	1.382	4.559	14.0	

Diagrams

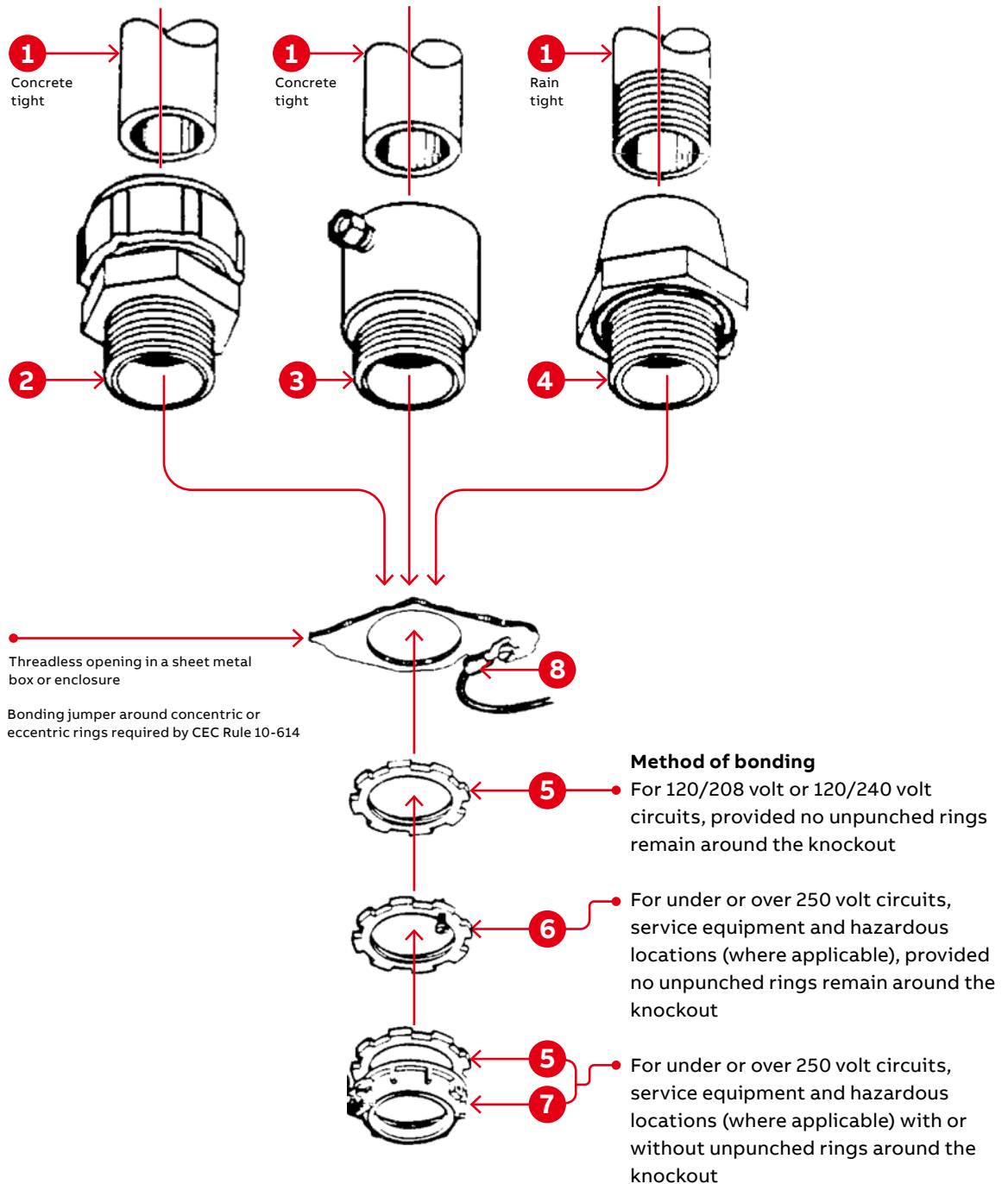


Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

- (1) Threaded or threadless rigid metal conduit or intermediate metal conduit
- (2) Series 8123 or 8124 threadless fittings
- (3) Series 8125 set screw fitting
- (4) Series 370 or H050-TB sealing hub (Bullet Hubs)
- (5) Series 140 locknuts
- (6) Series 106 bonding locknut
- (7) Series 3870 bonding & grounding bushing
- (8) Sta-Kon® or Color-Keyed® lug

Case 1: Where threaded or threadless conduit terminates into a threadless opening in a sheet metal box or enclosure with or without concentric or eccentric knockouts.

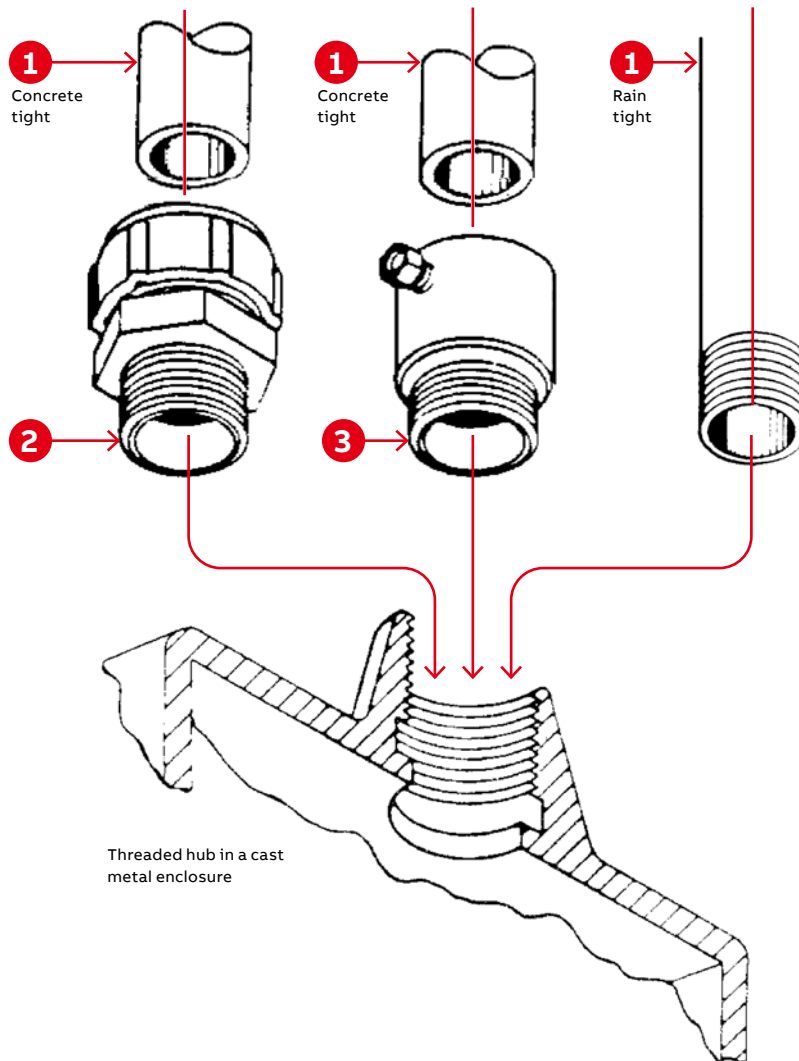


Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

(1) Threaded or threadless rigid metal conduit or intermediate metal conduit
 (2) Series 8123 threadless fitting
 (3) Series 8125 set screw fitting

Case 2: Where threaded or threadless conduit terminates into a threaded hub in a cast metal enclosure.



Methods of bonding

For:

- (1) 120/208 or 120/240 volt circuits (CEC 10-610)
- (2) Over 250 volt circuits (CEC 10-610)
- (3) Service equipment (CEC 10-604)

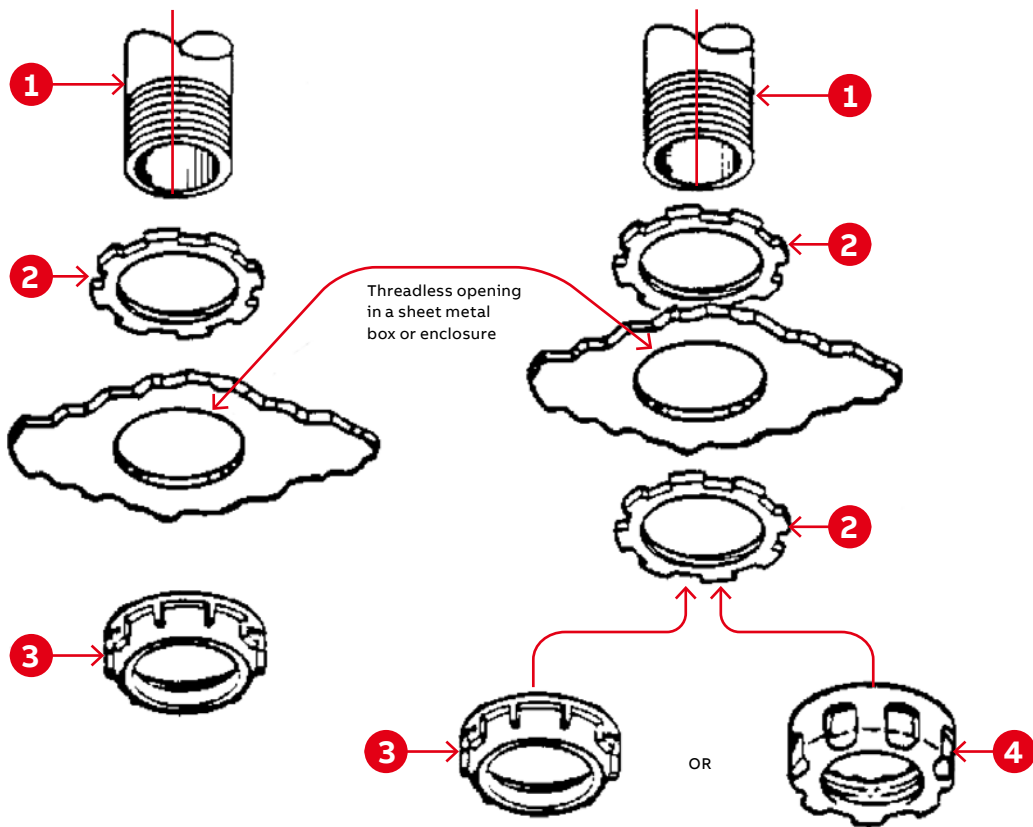
- (4) Hazardous locations 18-074 (where applicable)
 - 18-124 (Class I, Zone 1)
 - 18-160 (Class I, Zone 2)
 - 18-218 (Class II, Division 1)
 - 18-268 (Class II, Division 2)
 - 18-316 (Class III, Division 1)
 - 18-366 (Class III, Division 2)

Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

- (1) Threaded rigid metal conduit or intermediate metal conduit
- (2) Series 142 locknuts
- (3) Series 122 bushing metallic
- (4) Series 222 bushing plastic
- (5) Series 106 bonding locknut
- (6) Series 3650 bonding wedge

Case 3: Where threaded conduit terminates into a threadless opening in a sheet metal box or enclosure with no concentric or eccentric rings remaining around knockout.



Method of bonding for 120/208 volt or 120/240 volt circuits (other than service equipment).

Method of bonding for over 250 volt circuits, e.g. 600/347 volt systems and those operating over 600 volts (other than service equipment).

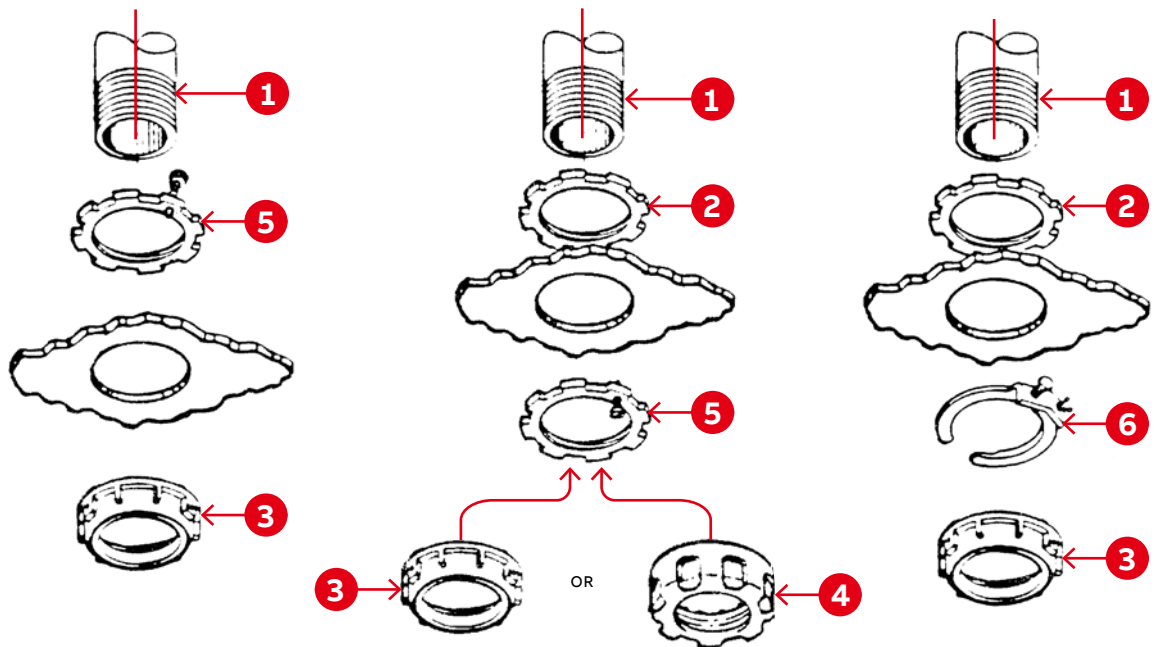
Note: Any of the bonding methods described for service equipment may also be used.

Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

- (1) Threaded rigid metal conduit or intermediate metal conduit
- (2) Series 142 locknuts
- (3) Series 122 bushing metallic
- (4) Series 222 bushing plastic
- (5) Series 106 bonding locknut
- (6) Series 3650 bonding wedge

Case 3 (cont'd): Where threaded conduit terminates into a threadless opening in a sheet metal box or enclosure with no concentric or eccentric rings remaining around knockout.



Methods of bonding

For:

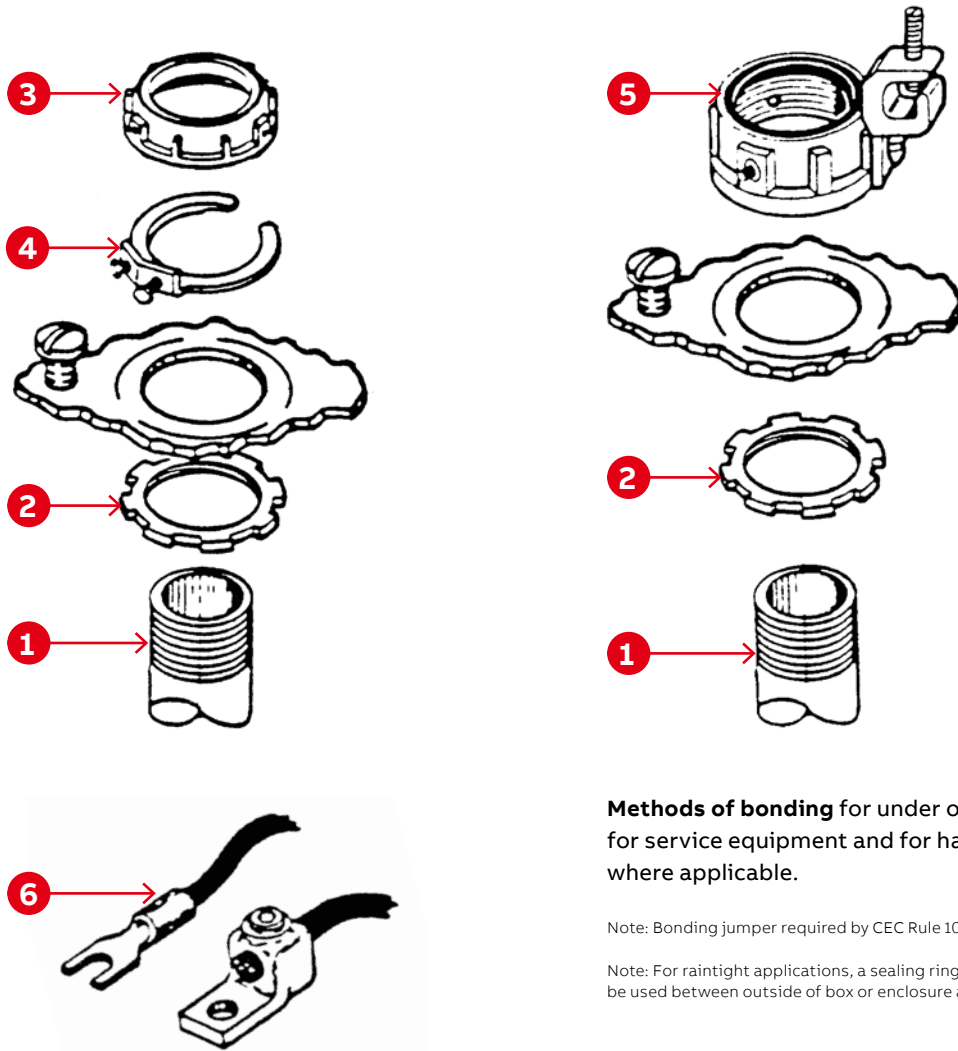
- (i) Over 250 volt circuit, e.g. 347/600-volt systems and those operating over 600 volts
- (ii) Service equipment
- (iii) Hazardous locations where applicable

Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

- (1) Threaded rigid metal conduit or intermediate metal conduit
- (2) Series 142 locknuts
- (3) Series 122 bushing, metallic
- (4) Series 3650 bonding wedge
- (5) Series 3870 bonding and grounding bushing
- (6) Typical mechanical or pressure type fitting

Case 4: Where threaded conduit terminates into a threadless opening in a sheet metal box or enclosure with concentric or eccentric rings remaining around knockout.



Methods of bonding for under or over 250 volts, for service equipment and for hazardous locations where applicable.

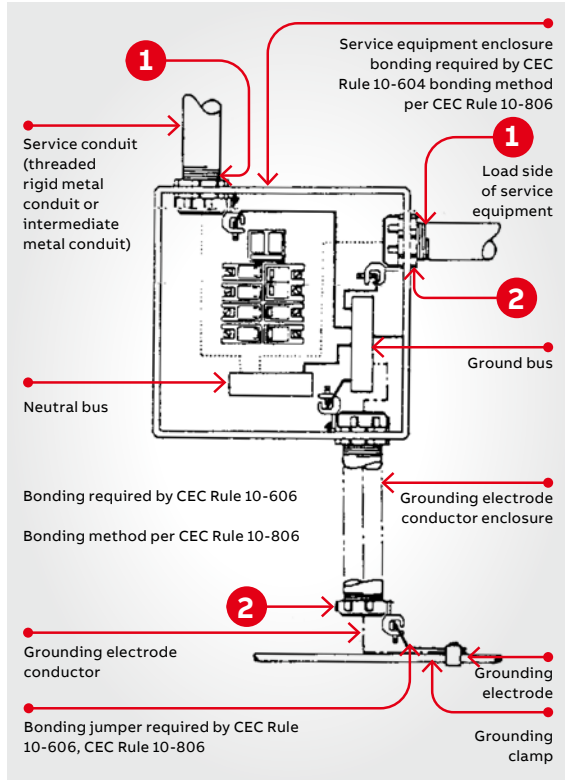
Note: Bonding jumper required by CEC Rule 10-614

Note: For raintight applications, a sealing ring, ABB series 5302, may be used between outside of box or enclosure and the outside locknut.

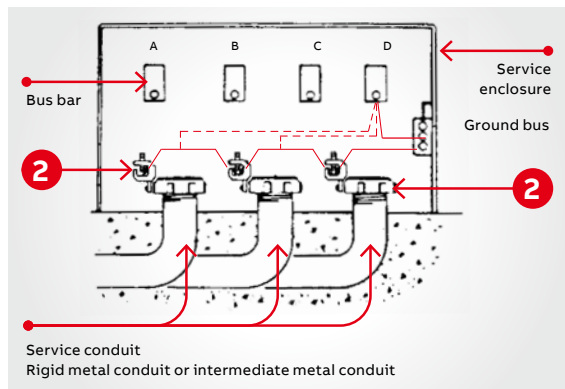
Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

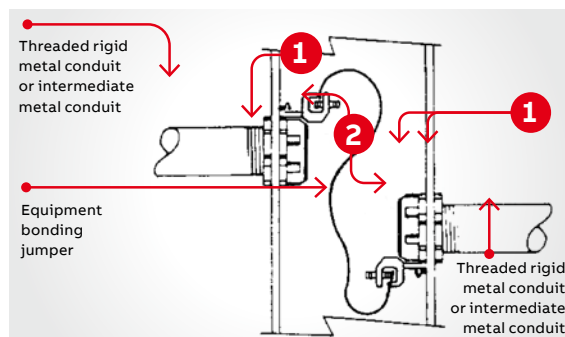
- 1 Series 142 locknut
- 2 Series 3870 bonding and grounding bushing (threaded)
- 3 Series 5262 sealing O-ring
- 4 Typical bolted or pressure lug
-
- 01 Bonding service equipment (CEC Rule 10-604)
-
- 02 Multiple bonding of service raceways where service entrance conductors are paralleled in two or more raceways, CEC Rule 10-614
-
- 03 Install bonding jumper to assure electrical continuity between isolated sections of raceways (CEC Rule 10-614)



01



02



03

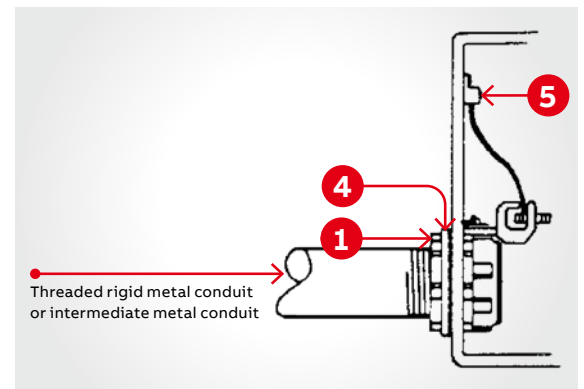
Suggested specifications

Insulated grounding and bonding bushing (series 3870)

Where code requires bonding and grounding of single or multiple metal conduit, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing such as series 3870 manufactured by ABB.

Grounding and bonding bushings used shall be approved for the purpose and:

- (1) Shall be of malleable iron/steel/aluminum construction adequately protected against corrosion.
- (2) Bushing insulator shall be listed or certified for 150 °C/302 °F application with a flammability rating of 94V-0. Insulator must be positively locked in place.



- (i) Installing bonding jumper around unpunched concentric or eccentric knockouts in sheet metal box or enclosure (CEC Rule 10-806)
- (ii) Installing bonding jumper in hazardous locations where 'locknut bushing' or 'double locknut' type of contact is unacceptable method for bonding purposes (CEC Rule 18-074)

Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

- (1) Series 142 Locknut
- (2) Series 106 bonding locknuts
- (3) Series 122 bushing

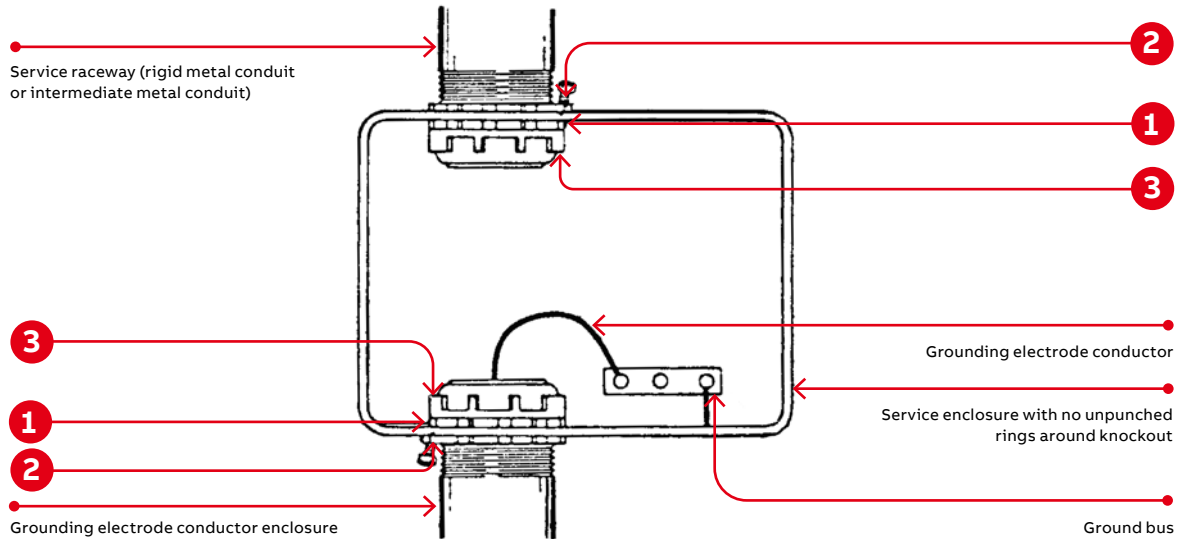
Suitable for bonding raceway, EMT or terminating fitting to a sheet metal box or enclosure where

- (a) No unpunched concentric or eccentric rings remain around the knockout
- (b) Ordinary locknut is unacceptable for bonding purposes such as:
 - (i) Service equipment enclosures CEC Rule 10-614
 - (ii) Bonding for circuits over 250 volts (where required) CEC Rule 10-614
 - (iii) Bonding in hazardous locations regardless of the voltage of the system CEC Rule 18-074

Suggested specifications

Bonding type locknut (series 106)

Where drawings indicate installation of a bonding type locknut to effectively bond a terminating fitting or metal conduit to a cabinet, box, enclosure or an auxiliary gutter, the locknuts installed shall be of hardened steel/malleable iron construction, electro-zinc plated, such as series 106 manufactured by ABB.



Rigid and intermediate metal conduit fittings

Methods of bonding and grounding

- (1) Series 142 locknut
- (2) Series 122 metallic bushing
- (3) Series 3651 bonding and grounding wedge
- (4) Pressure (crimp-type) terminal lug
-
- 01 Series 3651 bonding and grounding wedge

Acceptable method for bonding following

- (i) Service equipment CEC Rule 10-614
- (ii) Bonding for circuits over 250 volts CEC Rule 10-614
- (iii) Bonding in hazardous locations CEC Rule 18-074

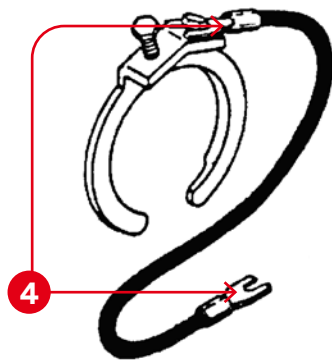
When installed with a bonding jumper, acceptable method of bonding where unpunched rings remain around concentric or eccentric knockouts in sheet metal boxes or enclosures. (CEC Rule 10-614)

Suggested specifications

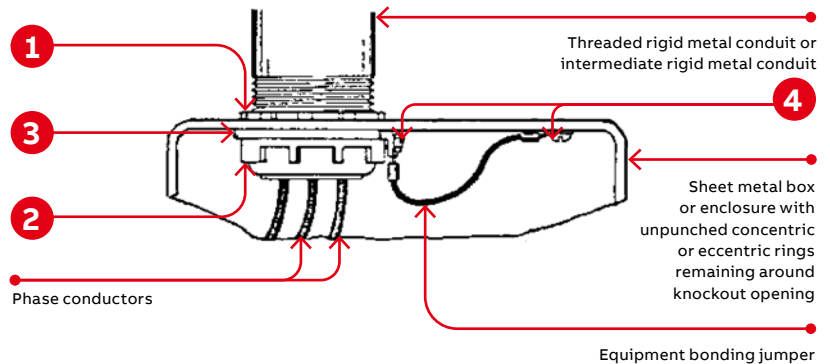
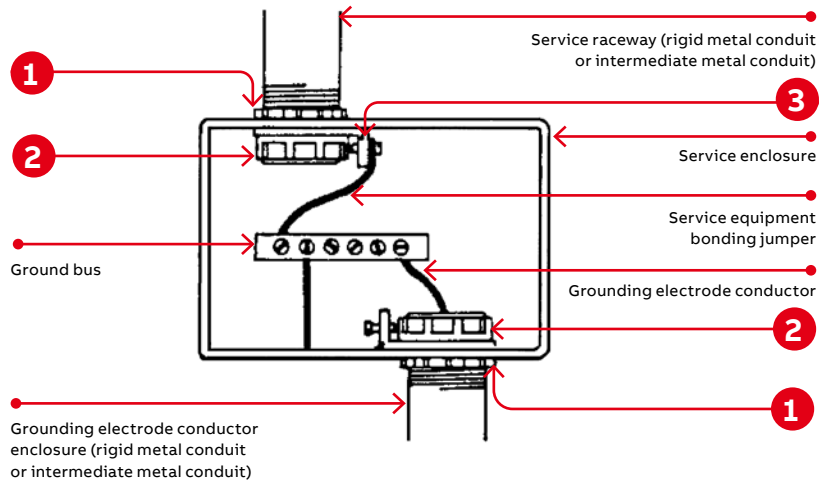
Bonding and grounding wedge (series 3650)

Bonding and grounding wedges installed to effectively bond terminating fitting or metal conduit to a cabinet, box, enclosure or an auxiliary gutter or to install bonding jumper around concentric or eccentric knockouts shall be of the type as manufactured by ABB – series 3650.

Bonding and grounding wedge shall be of rugged bronze/tin-plated or steel/electro-zinc plated.



—
01



Electrical metallic tubing (EMT) fittings

Specifications

Ref. CEC Rule 12-000 not exceeding 750 volts

Electrical metallic tubing (EMT) is similar to rigid steel conduit but is much lighter, weighing approximately 40 percent as much as rigid steel conduit of the same nominal size. EMT can be used, reference CEC Rule 12-1402, for both exposed or concealed work provided that, during installation or afterwards, it is not subjected to severe physical damage. Galvanized steel EMT installed in concrete, on grade or above, generally requires no supplementary corrosion protection. However, when installed in concrete below grade level and in contact with soil or cinders, supplementary corrosion protection consisting of a protective coating of bitumastic or asphalt base paint or plastic is generally applied. EMT run in or under permanently moist cinder fill must be encased in at least two inches of cinder-free concrete unless the conduit is at least 18 inches below the fill.

Aluminum EMT cannot be directly embedded in concrete containing soluble chlorides such as calcium chloride, unwashed beach sand, sea water or coral-bearing aggregates. When adequately treated with a protective coating of bitumastic or asphalt base paint or plastic coating, the raceway can be installed in concrete containing chlorides.

In wet locations where walls are frequently washed or where there are surfaces of absorbent material, the entire wiring system, including boxes, fittings, conduit and cables, must be supported such that there is at least ¼ inch air space between it and the supporting surface.

Fittings and couplings are required to be of concrete-tight type when embedded in masonry or concrete or in dry locations and of the raintight type when installed in wet locations (CEC Rule 12-1410).

Where No. 4 or larger underground conductors enter or leave a conduit, an insulating bushing with a smooth well-rounded insulating surface must be provided to protect conductors unless the terminating fitting is equipped with an insulated throat, firmly secured in place providing equivalent protection. The insulating bushing or insulating material must have a temperature rating of not less than the insulation temperature rating of installed conductors.

CEC Rule 12-3022 requires that the raceways be metallically joined together into a continuous electric conductor and must be mechanically connected to all boxes, fittings and cabinets as to provide effective electrical continuity.

EMT is not permitted to be threaded. Cut ends of tubing are required to be reamed. Code requires that EMT be adequately supported and restricts bends in one run to the equivalent of four quarters or 360 degrees total.

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For further details and complete information please refer to the following:

1. NEC Article 358 – Electrical metallic tubing
2. ANSI C80.3 – Electrical metallic tubing, zinc coated
3. UL797 – Standards for safety, electrical metallic tubing
4. ANSI C80.4 – Fittings for rigid metal conduit and electrical metallic tubing
5. UL 514A and 514B – Standards for safety, outlet boxes and fittings
6. WW-C-563 – Conduit, metal, rigid, and bend and elbow, electrical conduit, thinwall type (EMT)
7. W-F-408 – Fittings for conduit, metal, rigid, (thickwall and thinwall (EMT) Type)
8. NEMA FB-1 – Standards publication, fittings and supports for conduit and cable assemblies
9. CEC Section 12-1400 – Electrical metallic tubing
10. CSA C22.2 No. 83 – Safety standards for electrical metallic tubing
11. CSA C22.2 No. 18.1 and 18.3 – Safety standards for outlet boxes, conduit boxes and fittings

Please note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Electrical metallic tubing (EMT) fittings

Specifications

—
01 Series 5123
insulated EMT
fitting (raintight)
(compression type)

—
02 Series 5120
EMT coupling (raintight)
(compression type)

—
03 Series 1350
pipe spacers

—
04 Series 106
bonding locknut

—
05 Series 4176
pipe straps

- Ferrous electrical metallic tubing (EMT) shall be of the hot-dipped galvanized type conforming to applicable specifications WW-563/ANSI 80.3/UL 797/CSA C22.2 No. 83. EMT protected solely by enamel shall not be used.
- Where lengths of EMT are coupled together or connected to boxes or enclosures or where EMT is coupled to threaded rigid metal conduit or IMC, fittings approved for intended applications shall be used, and:
 - (1) Shall be of rugged steel/malleable iron construction electro-zinc plated inside/outside including threads. Fitting throat shall be bushed with a nylon insulator.
 - (2) Shall be of raintight type for installations exposed to weather or wet locations such as series 5123, 5120 and 530.

Raintight type fittings may be substituted for concrete tight application.

- Where electrical metallic tubing and associated fittings are used as part of equipment grounding system:

- (1) A bonding type locknut such as series 106 shall be installed where hub-type fitting terminates into a threadless opening.
 - (2) Compression ring type fittings such as series 5123 and 5120 shall be used for terminating and coupling.
- EMT shall be securely fastened in place at intervals as specified by the code using straps, hangers and other supporting assemblies as indicated on plans, and as manufactured by ABB, series 4176 straps. In wet locations or where supporting surfaces are of absorbent materials vertical and horizontal runs of conduit shall be firmly supported such that there is at least $\frac{1}{4}$ in. air space between conduit and supporting surface.
 - Spacers and supporting straps shall be of rugged malleable iron or steel construction, hot-dipped galvanized, and conforming to requirements of Canadian Standards Association Standard C22.2 No. 18.3 as manufactured by ABB, series 4176 straps and series 1350 spacers.



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Electrical metallic tubing (EMT) fittings

Specifications – Fittings compression type, raintight

—
01 5123 series
—
02 5120 series
4230 series – 90° fittings

Application

- To connect and effectively bond electrical metallic tubing to a box or an enclosure
- To provide a raintight connection between tubing and the fitting
- To couple ends of tubing

Features

- Rugged all-steel construction
- Rings designed to positively bond conduit to fitting; unique locknut design provides effective bond between fitting and box or enclosure; ground continuity is assured
- Nylon insulator firmly secured in place – protects conductors, reduces wire pulling effort and prevents thread damage in handling
- Locknuts are designed with extended reach to lock fitting onto a thin box or an enclosure
- Locknuts tighten without deformation; will not vibrate loose

Standard material

- All steel except insulator
- Insulator: Thermoplastic, UL rated 105 °C

Standard finish

- All steel parts: electro zinc plated and chromate coated
- Insulator: As molded

Range

- Conduit size: ½ in. through 2 in.
- Hub size: ½ in. through 2 in. NPS
- Hubs provided with straight pipe threads NPS

Conformity

- UL 514B
- CSA 22.2 No. 18.3
- NFPA 70-2008 (ANSI)
- NEMA FB-1
- Federal Specification W-F-408
- Federal Standard H-28 (Threads)



—
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Electrical metallic tubing (EMT) fittings

Fittings and couplings



EMT fittings – Nylon insulated



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
<p>Across corners</p>	5123	1/2	1 3/64	1 21/32
	5223	3/4	1 21/64	1 27/32
	5323	1	1 11/16	1 7/8
	5423	1 1/4	2 1/16	2 11/32
	5523	1 1/2	2 5/16	2 23/32
	5623	2	2 25/32	2 13/16

UL Listed and CSA Certified concrete-tight



EMT couplings



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
<p>Across corners</p>	5120	1/2	1 1/16	1 27/32
	5220	3/4	1 5/16	2 1/8
	5320	1	1 11/16	2 1/8
	5420	1 1/4	2 1/16	2 29/32
	5520	1 1/2	2 5/16	3 1/16
	5620	2	2 3/4	3 7/32

UL Listed and CSA Certified concrete-tight



EMT fittings



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
<p>Across corners</p>	5121-TB	1/2	1 1/16	1 9/16
	5221	3/4	1 5/16	1 21/32
	5321	1	1 11/16	1 3/4
	5421	1 1/4	2 1/16	1 11/32
	5521-TB	1 1/2	2 5/16	2 9/16
	5621	2	2 3/4	2 3/4

UL Listed and CSA Certified concrete-tight

EMT (thinwall) fittings comply with Federal Spec. WF408B

Electrical metallic tubing (EMT) fittings

Elbows and combination couplings



Short elbows – Insulated

Ideal for cramped locations or tight corners where large radius conduit elbows will not fit or would appear unworkmanlike. Shoulders on body of 1/2 in. size are hex-shaped to provide positive holding for

standard installation tools. Use insulated type for simple and safe installations. Malleable iron. CSA rated 105 °C.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	4240	1/2	1 7/8	1 1/8	1 1/16
	4241-TB	3/4	1 11/16	1 3/8	1/2
	4242	1	1 7/8	1 5/8	5/8
	4243-TB	1 1/4	2 3/4	2 5/16	1 1/16
	4244	1 1/2	3 1/16	2 5/8	1 1/16
	4245	2	3 3/8	3 7/32	3/4

UL Listed and CSA Certified raintight



Short elbows – Malleable iron

Ideal for cramped locations or tight corners where large radius conduit elbows will not fit or would appear unworkmanlike. Shoulders on body of 1/2 in. size are hex-shaped to provide positive holding for

standard installation tools.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	4230	1/2	1 7/16	1 9/32	7/16
	4231	3/4	1 11/16	1 19/32	1/2
	4232	1	1 7/8	1 27/32	5/8
	4233	1 1/4	2 3/4	2 15/32	1 1/16
	4234	1 1/2	3 1/16	2 3/4	1 1/16
	4235	2	3 3/8	3 5/16	1 1/16

UL Listed and CSA Certified raintight



Combination couplings – Steel

For connecting EMT to threaded rigid and intermediate metal conduit.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	530TB	1/2	1 3/8	1 1/16
	531	3/4	1 1/2	1 11/32
	532	1	1 19/32	1 21/32

UL Listed and CSA Certified raintight

Electrical metallic tubing (EMT) fittings

Pipe straps and spacers



Pipe straps – Steel

Elongated bolt hole makes alignment easy, even when holes in mounting surface are out of alignment. Snap-on features hold strap in place.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C (bolt hole)
	4159C	1/2	1 ²⁷ / ₃₂	3/4	1/4
	4160C	3/4	2 ¹ / ₃₂	3/4	1/4
	4161C	1	2 ¹¹ / ₃₂	3/4	1/4
	4162*	1 1/4	2 ⁷ / ₈	3/4	1/4
	4163*	1 1/2	3 ¹¹ / ₁₆	1 1/4	1 ¹ / ₃₂
	4164*	2	4 ¹ / ₁₆	1 1/8	1 ³ / ₃₂

Oval hole for screw size (C)

Not UL Listed. *Not CSA. Conform to CEC 12-1404.



Pipe straps – Malleable iron

Designed to fit each size of conduit snugly. High reinforcing ribs on each side increase strength, reduce weight. Hot-dipped galvanized finish.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C (bolt hole)
	4175-C	3/8	1 1/2	5/8	1 ⁷ / ₆₄
	4176	1/2	2 ⁵ / ₃₂	2 ¹ / ₃₂	1/4
	4177	3/4	2 ⁹ / ₁₆	1 ¹ / ₁₆	1/4
	4178-TB	1	3	3/4	1/4
	4179	1 1/4	3 ³ / ₄	1 ³ / ₁₆	5 ¹ / ₁₆
	4180	1 1/2	4 ³ / ₁₆	1 ⁵ / ₁₆	3/8
	4181	2	5 ³ / ₁₆	1 1/8	7 ¹ / ₁₆
	1282*	2 1/2	5 ¹⁵ / ₁₆	1 1/2	1/2
	1283*	3	6 ¹¹ / ₁₆	1 ⁵ / ₈	1/2
	1284*	3 1/2	7 ¹⁹ / ₃₂	1 3/4	5/8
	1285*	4	8 ⁵ / ₁₆	1 ⁷ / ₈	5/8

Not UL Listed. *Not CSA. Conforms to CEC 12-1404.



Pipe spacers

Used with conduit straps to permit space between conduit and mounting surface. Eliminates need for costly offset-bending conduit and possible corrosive moisture traps when conduit is mounted directly to a surface. Malleable iron.

Hot-dipped galvanized finish, pre-mountable and stackable to eliminate offsetting.



Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	1350	1/2, 3/4, 1	3	7/8
	1351	1 1/4, 1 1/2, 2	5	1 3/16
	1352	2 1/2, 3	9 ⁹ / ₁₆	1 3/4
	1353	3 1/2, 4	7 ⁹ / ₁₆	2

Conforms to CEC 12-012 (5).

Flexible cord and cable fittings

Specifications

Ref. CEC Section 4 (conductors)

In the Canadian Electrical Code, flexible cords are known by their trade names “hard service cord,” “junior hard service cord” and “vacuum cleaner cord.”

Depending on jacket material, flexible cords listed are suitable for use where immersed in water or where occasionally or continuously in contact with oil or immersed in oil, or outdoors and in mobile homes and recreational vehicles.

Flexible cord is permitted by code for use in portable appliances or stationary equipment requiring movement for service and repair and for wiring in cranes, hoists and elevators. Flexible cord is also permitted to be used to prevent transmission of noise or vibration.

Flexible cord is not permitted as a substitute for fixed wiring of structures or where concealed behind building walls, ceilings or floors. Running flexible cord through holes in walls, ceilings, floors or through doorways, windows or similar openings is also prohibited.

CEC Section 4 requires that flexible cords be so connected to devices and to fittings that tension is not transmitted to joints or terminal screws. Use of suitable strain relief fittings designed for the purpose is one of the recommended alternatives.

Please refer to the following for further details and complete information:

1. UL 62, ANSI C33.1 – Safety standard for flexible cord and fixture wire
2. UL 514A and 514B – Safety standard for outlet boxes and fittings

3. CEC Section 4 – Conductors
 - 4-012 – Uses of flexible cord
 - 4-040 – Uses of portable power cable
 - 12-010 (4) – Flexible cords in ducts and plenum chambers
 - 22-108 (2) – Bonding conductor for flexible cords for portable equipment
 - 44-350 (1) (b) – Flexible cords for portable stage equipment
 - 50-018 (2) – Flexible cords suitable for extra-hard usage are permitted on solar photovoltaic systems
 - 70-108 – Power supply cord – factory-built relocatable structures and non-relocatable structures
 - 76-002 – Temporary wiring
 - 76-010 – Feeders
 - 78-058 (2) – Marinas and yacht clubs
 - 78-104 (2) – Marine wharves, structures and fishing harbours
4. CSA C22.2 No. 49 – Safety standards for flexible cords and cables and fixture wires
5. CSA C22.2 No. 18.1 and 18.3 – Safety standards for outlet boxes, conduit boxes and fittings

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Following is a brief description of the three cords:

Type of cord	Hard service cord	Junior hard service cord	Vacuum cleaner cord
1. Use	Extra hard pendant, portable	Hard pendant, portable	Light pendant, portable
2. Voltage rating	Up to 600 volts	Up to 300 volts	Up to 300 volts
3. Conductor material	Copper (stranded)	Copper (stranded)	Copper (stranded)
4. Type designation (depends on jacket material)			
i. Rubber jacket	Type S	Type SJ	Type SV
ii. Oil-resistant rubber jacket	Type SO	Type SJO	Type SVO
iii. Thermoplastic jacket	Type ST	Type SJT	Type SVT
iv. Oil-resistant thermoplastic jacket	Type STO	Type SJTO	Type SVTO

Flexible cord and cable fittings

Suggested specifications

—
01 2520 and 2530 series
liquidtight flexible
cord and cable fittings
—

02 2920NM Series
nonmetallic liquidtight
flexible cord and
cable fittings the
Ranger™ series
—

03 2631 Series
liquidtight flexible
cord and cable fittings
—

04 2920AL Series
aluminum liquidtight
flexible cord and cable
fittings the Ranger series
—

05 2672 Series
flexible cord fittings
(plastic)
—

06 2920S Series
steel liquidtight
flexible cord and cable
fittings the Ranger series
—

07 TCF Series
aluminum tray/
cord fitting
—

08 2920SST Series
stainless steel
liquidtight flexible cord
and cable fittings

- Flexible cord or cable and associated fittings shall be suitable for conditions of use and location and approved for the purpose by a nationally recognized testing laboratory, inspection agency or product evaluation organization.
- Flexible cord or cable shall be so connected to the device or fitting that tension will not be transmitted to joints or terminal screws. Sufficient slack shall be provided to avoid sharp flexing and straining. Cord or cable shall be installed in such a manner that liquid will tend to run off the surface instead of draining towards the fitting.
- Where flexible cord or cable exposed to intermittent or constant moisture and subjected to mechanical strain is terminated into a threaded or threadless opening, terminating fittings shall be of watertight strain-relief type such as series 2920, 2920AL, 2920NM, 2520, 2631 or 2672. Fittings shall be equipped with a beveled moisture-resistant/oil-resistant synthetic rubber bushing.
- Where space is limited inside the enclosure, a female hub type fitting such as series 2631 shall be furnished. A captive resilient sealing O-ring shall be included to positively protect against damage from overtightening.



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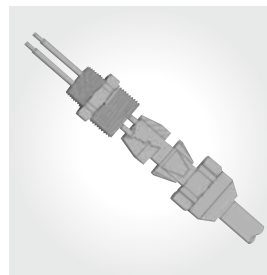
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Flexible cord and cable fittings

Suggested specifications

— 01 Series 3300
nonmetallic sheathed
cable and flexible
cord fitting

— 02 Series 5262
sealing gasket

— 03 Series 1942
insulated nipple

— 04 Series 3210
knockout bushing

- Where flexible cord or cable exposed to moisture is terminated into a threadless opening using male threaded hub-type fittings such as series 2520 or 2920, a suitable moisture-resistant/oil-resistant synthetic rubber gasket such as series 5262 shall be provided between the outside of box or enclosure and fitting shoulder. Resilient gasket shall be adequately protected by and permanently bonded to a metallic retainer.
- Where exposed to environmental conditions that are more than normally corrosive, watertight strain relief fittings shall be of high impact thermoplastic construction such as series 2672 or 2920NM.
- Where flexible cord or cable passes through either factory or field-punched, cut or drilled holes in metal members, the cord or cable shall be protected by thermoplastic bushing such as series 3210, 3300. Bushing shall be firmly secured in opening. Nylon-bushed metallic fittings such as series 1942 may be substituted as required.
- For wet location, fittings furnished with synthetic rubber bushing such as series 2530 or 2672 shall be installed.



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Flexible cord and cable fittings

How to select T&B flexible cord fittings

Step 1.

Determine diameter range in chart by using cord size and type or by measuring the diameter of your cord.

This chart can be used as a guide for selecting the proper fitting for the UL Listed and CSA Certified cords. Cords vary in size, and cord diameter should be measured whenever possible.

Step 2.

Determine catalogue number by choosing the hub size and type (straight or 90°) for the diameter range determined in step 1.



Cat. no.	Hub size (in.)	Diameter range (in.)	SV, SVO, SVT, SVTO cord sizes
Straight	90°		
2671	2680	3/8	0.125-0.275 18-2, 18-3



Cat. no.	Hub size (in.)	Diameter range (in.)	SV, SO, ST, STO cord sizes	SJO, SJT, SJTO, SJ cord sizes
Straight	90°			
2920NM	4960NM	1/2	0.125-0.375	18-2, 18-3*
2930NM	4970NM	3/4	0.125-0.375	18-2, 18-3*
2921NM	4961NM	1/2	0.125-0.375	18-3, 18-4, 18-5, 18-6, 18-7*
2931NM	4971NM	3/4	0.310-0.560	18-3, 18-4*, 18-5, 16-2*
2940NM	-	1	0.310-0.560	18-3, 18-4*, 18-5, 16-2*
2922NM	-	1/2	0.310-0.560	16-5, 16-6, 14-2, 14-3, 14-4, 14-3, 14-4, 12-2, 12-3, 12-4, 10-2
2932NM	4972NM	3/4	0.500-0.750	14-5, 12-2, 12-3, 12-4, 12-5, 12-4, 10-2, 10-3, 10-4
2941NM	-	1	0.500-0.750	10-2, 10-3, 10-4, 8-2, 12-4, 10-2, 10-3, 10-4
2942NM	-	1	0.700-0.950	10-4, 10-5, 8-3, 8-4, 12-4, 10-2, 10-3, 10-4
-	2688	1	0.560-0.690	14-3*, 14-4, 14-5*, 12-2, 12-3, 12-4*, 10-2, 10-3*
-	2685	1	0.660-0.780	14-5, 12-4*, 12-5, 10-3*, 10-4, 10-4
2696	-	3/4	0.770-0.895	10-5, 8-2, 8-3*, 10-4
-	2686	1	0.770-0.895	10-5, 8-2, 8-3*, 10-4
2678	2687	1	0.870-1.020	8-3*, 8-4*, 10-4
2699	-	1	0.890-1.090	8-4, 8-5*, 6-2, 6-3*, 6-4*, 4-2*, 10-4
2702	-	1 1/4	0.890-1.090	8-4, 8-5*, 6-2, 6-3*, 6-4*, 4-2*, 10-4
2703	-	1 1/4	0.890-1.090	4-2*, 4-3, 2-2*, 10-4
2704	-	1 1/4	1.270-1.470	4-4, 2-2*, 10-4
2705	-	1 1/2	0.890-1.150	8-4, 8-5, 6-2, 6-3, 6-4*, 4-2*, 10-4
2706	-	1 1/2	1.140-1.400	6-5, 6-4*, 4-2*, 4-3, 4-4*, 2-2, 2-3*, 10-4
2707	-	1 1/2	1.390-1.650	4-4*, 2-3*, 2-4, 10-4
2708	-	2	1.190-1.530	6-5, 4-2*, 4-3, 4-4, 2-2, 2-3, 2-4*, 10-4
2709	-	2	1.520-1.860	2-4*, 10-4
2710	-	2	1.850-2.190	2-4*, 10-4

* Actual cord diameter must be determined before proper fitting can be selected. Measure cord, if available, or refer to cord manufacturer's catalogue.

Flexible cord and cable fittings

Flexible cord and power cable chart

Type of cord	Size of conductors (AWG)	Number of conductors and approximate O.D. (in.)		
		2 Conductor	3 Conductor	4 Conductor
SV, SVO, SVT	18	0.250	0.260	–
SJ, SJO, SJT, SJTO	18	0.300	0.330	0.360
	16	0.330	0.360	0.390
	14	0.375	0.395	0.420
S, SO, ST, STO, and portable power cables	18	0.385	0.400	0.430
	16	0.400	0.425	0.480
	14	0.530	0.560	0.605
	12	0.600	0.635	0.665
	10	0.640	0.690	0.745
	8	0.700-0.840	0.750-0.910	0.820-0.990
	6	0.820-0.930	0.885-1.010	0.975-1.100
	4	1.080	1.170	1.270
	3	1.170	1.240	1.340
	2	1.270	1.340	1.480
	1	1.440	1.510	1.680
	1/0	1.520	1.650	1.790
	2/0	1.650	1.750	1.930
	3/0	1.770	1.890	2.070
	4/0	1.920	2.070	2.260
250	2.160	2.390	–	
Bus drop cables	14	–	–	0.410
	12	–	–	0.450
	10	–	–	0.530
	8	–	–	0.670
Bus drop cables	6	–	–	0.850
	4	–	–	0.950
	2	–	–	1.000

Note: The above dimensions are approximate and may vary depending upon the manufacturer

Flexible cord and cable fittings

Specifications – Liquidtight fittings

—
01 2520 Series
—
02 2631 Series

Application

- A liquidtight fitting to connect flexible cord or power cable to a box or enclosure and provide adequate strain relief.

Features

- Liquidtight connection with box or enclosure is assured by:
 - (1) Taper-threaded hub on 2520 series for female hub application (A)
 - (2) Using sealing ring series 5262 with 2520 series for knockout application (B)
 - (3) Captivated sealing O-ring on 2631 series (C)
- Neoprene bushing makes liquidtight installation; applies pressure against cable the full length of bushing (D)
- Thermoplastic or stainless steel retaining ring (E)
 - (1) Will not abrade cord/cable jacket
 - (2) Reduces installing torque effort
- UL Listed for liquidtightness, strain relief and as an outlet bushing; CSA certified watertight

Standard material

- Gland, body: Steel/malleable iron/zinc die cast
- Retaining ring: Thermoplastic/stainless steel
- Bushing: Neoprene
- O-ring: Buna N

Standard finish

- Electro zinc plated and chromate coated

Range

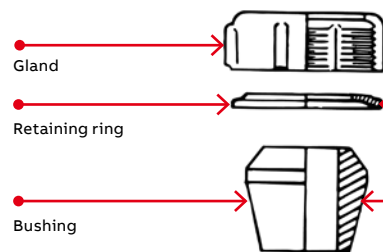
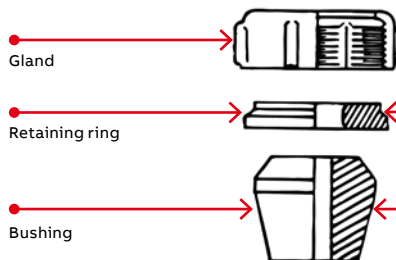
- 2520 Series, straight 0.125 in. outside diameter to 3.200 in. outside diameter cord or cable
- 2200 Series, 45° 0.125 in. outside diameter to 1.485 in. outside diameter cord or cable
- 2267 Series, 90° 0.125 in. outside diameter to 1.875 in. outside diameter cord or cable cord/cable type S, SO, SV, ST, STO, SJ, SJO, SJT, SJTO, SVO and SVT

Conformity

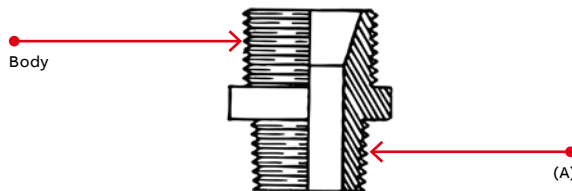
- UL 514B
- CSA C22.2 No. 18.3
- NFPA 70-2008 (ANSI)



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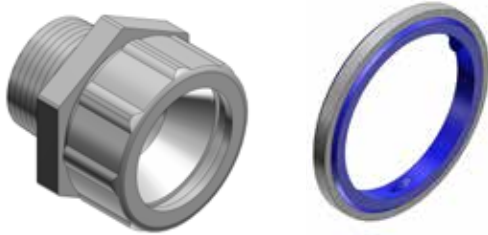
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Liquidtight strain-relief fittings

01 5262 Series
sealing ring gasket
sold separately

02 Fig. 1

03 Fig. 2



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Liquidtight strain-relief fittings



Cat. no.	Cable size range min.-max. (in.)	Hub size (in.)	Throat dia. min. (in.)	Fig.	Dimensions (in.)		
					A	B	C
2516†	0.060–0.125	¼	23/64	2	53/64	17/16	15/32
2517†	0.120–0.250	¼	23/64	2	53/64	17/16	15/32
2518†	0.060–0.150	⅜	29/64	2	31/32	1½	15/32
2519†**	0.150–0.300	⅜	29/64	2	31/32	1½	15/32
2520	0.125–0.250	½	9/16	1	1½	1¼	5/8
2521	0.250–0.375	½	9/16	1	1½	1¼	5/8
2522	0.375–0.500	½	9/16	1	1½	1¼	5/8
2523	0.450–0.560	½	9/16	1	1½	1¼	5/8
2524*	0.500–0.625	½	5/8	1	1¾	1¾	5/8
2525*	0.625–0.750	½	5/8	1	1¾	1¾	5/8
2530	0.125–0.250	¾	13/16	1	1¾	1¾	9/16
2531	0.250–0.375	¾	13/16	1	1¾	1¾	9/16
2532	0.375–0.500	¾	13/16	1	1¾	1¾	9/16
2534	0.500–0.625	¾	13/16	1	1¾	1¾	9/16
2535	0.625–0.750	¾	13/16	1	1¾	1¾	9/16
2536*	0.750–0.880	¾	¾	1	1½	1½	5/8
2541	0.250–0.375	1	49/64	1	1¾	1¾	9/16
2542	0.375–0.500	1	49/64	1	1¾	1¾	9/16
2544	0.500–0.625	1	49/64	1	1¾	1¾	9/16
2545	0.625–0.750	1	49/64	1	1¾	1¾	9/16
2546	0.750–0.875	1	63/64	1	1½	1¾	23/32
2547	0.875–0.985	1	63/64	1	1½	1¾	9/16
2548*	0.880–1.065	1	29/32	1	2¾	2¾	23/32
2549*	1.065–1.205	1	29/32	1	2¾	2¾	23/32

Cat. no.	Cable size range min.-max. (in.)	Hub size (in.)	Throat dia. min. (in.)	Fig.	Dimensions (in.)		
					A	B	C
2558	0.880–1.065	1¼	17/64	1	2¾	2¾	13/16
2559	1.065–1.205	1¼	17/64	1	2¾	2¾	13/16
2556*	1.187–1.375	1¼	1¼	1	2½	2½	13/16
2557*	1.375–1.485	1¼	1¼	1	2½	2½	13/16
2562	0.812–1.000	1½	17/16	1	2½	2½	11/16
2563	1.000–1.187	1½	17/16	1	2½	2½	11/16
2564	1.187–1.375	1½	17/16	1	2½	2½	11/16
2565*	1.375–1.625	1½	129/64	1	2½	2½	13/16
2573	1.125–1.375	2	17/8	1	2½	2½	13/16
2574	1.375–1.625	2	17/8	1	2½	2½	11/16
2575	1.625–1.875	2	17/8	1	2½	2½	11/16
2576*	1.750–1.965	2	129/32	1	3¾	3½	27/32
2577*	1.937–2.187	2	129/32	1	3¾	3½	27/32
2584	1.750–1.965	2½	2	1	3¾	3¾	1½
2585*	1.937–2.187	2½	2	1	3¾	3¾	1½
2586*	2.156–2.360	2½	25/32	1	3½	4¼	1½
2587*	2.350–2.565	2½	25/32	1	3½	4¼	1½
2592	2.156–2.360	3	213/32	1	3½	4¼	1½
2593	2.350–2.565	3	213/32	1	3½	4¼	1½
2594	2.535–2.750	3	213/32	1	3½	4¼	1½
2595*	2.735–2.985	3	213/16	1	4½	4½	1½
2596*	2.970–3.220	3	213/16	1	4½	4½	1½

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body

† UL not applicable

** Not CSA Certified

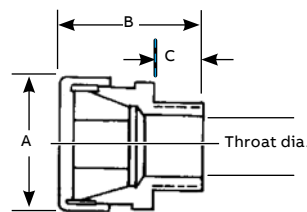
Complies with JIC standards

UL Listed as liquidtight strain-relief, and outlet bushing. CSA certified watertight when used with 5262 series sealing ring, gasket (sold separately)

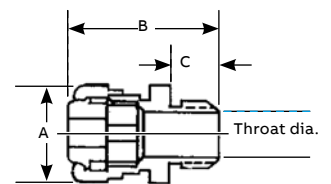
Temperature rating: 105 °C

For wiremesh grips, refer to page B104

Diagrams



02



03

90° Strain-relief fittings



Swing radius 90°

With neoprene bushings, tapered hub threads, malleable iron.

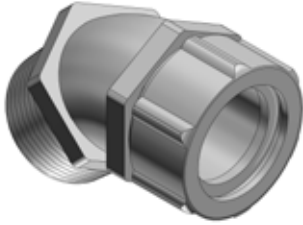
90° Strain-relief fittings



Diagram	Cat. no.	Cable size range min.-max. (in.)	Hub size (in.)	Dimensions (in.)			Throat dia. (in.)
				A	B	C	
	2267	0.125–0.250	1/2	1 1/32	1 23/32	5/8	19/32
	2268	0.250–0.375	1/2	1 1/32	1 23/32	5/8	19/32
	2269	0.375–0.500	1/2	1 1/32	1 23/32	5/8	19/32
	2270	0.450–0.560	1/2	1 1/32	1 23/32	5/8	19/32
	2250*	0.500–0.625	1/2	1 3/8	1 11/16	9/16	39/64
	2251*	0.625–0.750	1/2	1 3/8	1 11/16	9/16	39/64
	2252	0.125–0.250	3/4	1 3/8	1 3/4	41/64	25/32
	2271	0.250–0.375	3/4	1 3/8	1 5/8	41/64	25/32
	2272	0.375–0.500	3/4	1 3/8	1 5/8	41/64	25/32
	2273	0.500–0.625	3/4	1 3/8	1 5/8	41/64	25/32
	2274*	0.620–0.750	3/4	1 3/8	1 5/8	41/64	25/32
	2253-TB*	0.750–0.880	3/4	1 11/16	1 31/32	9/16	25/32
	2254	0.375–0.500	1	1 3/8	2	13/16	1
	2255	0.500–0.625	1	1 3/8	2	13/16	1
	2256-TB*	0.625–0.750	1	1 3/8	2	13/16	1
	2275	0.750–0.875	1	1 11/16	2	13/16	1
	2276	0.875–0.985	1	1 11/16	2	13/16	1
	2257*	0.880–1.065	1	2 3/32	2 21/32	25/32	15/16
	2258*	1.065–1.205	1	2 3/32	2 21/32	25/32	15/16
	2277	0.880–1.065	1 1/4	2 3/32	2 7/8	27/32	1 5/16
	2278	1.065–1.205	1 1/4	2 3/32	2 7/8	27/32	1 5/16
	2279*	1.187–1.375	1 1/4	2 11/32	2 13/16	13/16	1 11/32
	2280*	1.375–1.485	1 1/4	2 11/32	2 13/16	13/16	1 11/32
	2281	0.812–1.000	1 1/2	2 11/32	2 7/8	13/16	1 15/32
	2282	1.000–1.187	1 1/2	2 11/32	2 7/8	13/16	1 15/32
	2283*	1.187–1.375	1 1/2	2 11/32	2 7/8	13/16	1 15/32
	2284	1.125–1.375	2	2 13/16	3 1/4	27/32	1 31/32
	2285	1.375–1.625	2	2 13/16	3 1/4	27/32	1 31/32
2286	1.625–1.875	2	2 13/16	3 1/4	27/32	1 31/32	

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body
 Complies with JIC standards and Federal Specs W-F-406B, W-F-408B
 For wiremesh grips, refer to page B104

45° Strain-relief fittings



Swing radius 45°

With neoprene bushings, tapered hub threads, malleable iron.

45° Strain-relief fittings



Diagram	Cat. no.	Cable size range min. max. (in.)	Hub size (in.)	Dimensions (in.)			Throat dia. (in.)
				A	B	C	
	2200	0.125–0.250	1/2	1 5/32	1 9/32	9/16	37/64
	2201	0.250–0.375	1/2	1 5/32	1 9/32	9/16	37/64
	2202	0.375–0.500	1/2	1 5/32	1 9/32	9/16	37/64
	2203	0.450–0.560	1/2	1 5/32	1 9/32	9/16	37/64
	2204*	0.500–0.625	1/2	1 3/8	1 13/32	9/16	37/64
	2205*	0.625–0.750	1/2	1 3/8	1 13/32	9/16	37/64
	2206TB	0.125–0.250	3/4	1 3/8	1 13/32	5/8	25/32
	2207TB	0.250–0.375	3/4	1 3/8	1 13/32	5/8	25/32
	2208TB	0.375–0.500	3/4	1 3/8	1 13/32	5/8	25/32
	2209	0.500–0.625	3/4	1 3/8	1 13/32	5/8	25/32
	2210-TB	0.625–0.750	3/4	1 3/8	1 13/32	5/8	25/32
	2211*	0.750–0.880	3/4	1 11/16	1 1/2	1 1/2	3/4
	2213	0.375–0.500	1	1 3/8	1 1/2	25/32	15/16
	2214	0.500–0.625	1	1 3/8	1 1/2	25/32	15/16
	2215	0.625–0.750	1	1 3/8	1 1/2	25/32	15/16
	2216	0.750–0.875	1	1 11/16	1 15/32	25/32	15/16
	2217*	0.875–0.985	1	1 11/16	1 15/32	25/32	15/16
	2218*	0.880–1.065	1	2 3/32	1 31/32	25/32	15/16
	2219*	1.065–1.205	1	2 3/32	1 31/32	25/32	15/16
	2222*	1.187–1.375	1 1/4	2 11/32	2 1/4	13/16	1 21/64
2223*	1.375–1.485	1 1/4	2 11/32	2 1/4	13/16	1 21/64	

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body

UL Listed as liquidtight strain-relief, and outlet bushing

CSA certified watertight

For wiremesh grips, refer to page B104

CHASE fittings and multi-hole grips



CHASE liquidtight cord fittings are ideal for installation where space is limited inside the enclosure.

CHASE liquidtight cord fittings



Diagram	Cat. no.	Cable size range min. max. (in.)	Hub size (in.)	Throat dia. (in.)	Dimensions (in.)	
					A	B
	2631	0.125–0.250	½	9/16	1 1/16	1 5/8
	2632	0.250–0.375	½	9/16	1 1/16	1 5/8
	2633	0.375–0.500	½	9/16	1 1/16	1 5/8
	2634	0.450–0.560	½	9/16	1 1/16	1 5/8
	2637	0.125–0.250	¾	25/32	1 3/8	1 3/16
	2638	0.250–0.375	¾	25/32	1 3/8	1 3/16
	2639	0.375–0.500	¾	25/32	1 3/8	1 3/16
	2640	0.500–0.625	¾	25/32	1 3/8	1 3/16
	2641	0.625–0.750	¾	25/32	1 3/8	1 3/16

CSA certified watertight.
UL Listed as liquidtight strain-relief, and outlet bushing
Temperature rating: 105 °C

In many applications you have only room for one fitting but you need to run two cables, for example, proximity switches. Now you can provide strain relief and liquidtight protection with ABB's multi-hole liquidtight strain-relief fittings. With the ever-increasing number of signal cables, now you have a solution to the problem of how to strain relieve multiple cables in one fitting.



Multi-hole cord grips

Diagram	Cat. no.	Hub size (in.)	No. of holes	Cord dia. (in.)	Dimensions (in.)		
					A	B	C
	2520-2	½	2	0.220	1.125	1.687	0.625
	2530-2	¾	2	0.220	1.375	1.750	0.625
	2531-2	¾	2	0.260	1.375	1.750	0.625
	2531-3	¾	3	0.260	1.375	1.750	0.625
	2541-2*	1	2	0.300	1.625	1.718	0.781
	2542-2*	1	2	0.375	1.625	1.718	0.781
	2540-3	1	3	0.225	1.625	1.718	0.781
	2541-3	1	3	0.300	1.625	1.718	0.781
	2540-4	1	4	0.220	1.625	1.718	0.781
	2555-2	1 ¼	2	0.500	2.093	2.375	0.812

Range of cord diameter ±0.010 in.
*UL Listed only
Temperature: 105 °C

The Ranger series – Liquidtight strain-relief fittings

The fitting that takes a 0.250 inch cable range.

New materials and computer aided designs helped ABB develop a strain relief fitting that will take twice the cable range of ordinary strain-relief fittings.

Application

- A liquidtight fitting to secure flexible cord or power cable to a box or enclosure and provide strain relief.

Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending

Range

	Series	Hub size (in.)
0.125 in. through 0.950 in.	2920S	½–1
	4920	½–1
	4960	½–1
	2920AL	½–1
	4960AL	½–1
0.125 in. through 0.750 in.	2920NM	½–1
	4960NM	½–¾

Standard material/finish

	2920S Series 4920 Series 4960 Series	2920NM Series 4960NM Series	2920AL Series 4960AL Series
Body	Steel (ST) 45° and 90° (malleable iron)	Nylon (weather stabilized)	Aluminum (ST) Malleable iron (90°)
Gland	Steel	Nylon (weather stabilized)	Aluminum
Grip	Plastic	Nylon (weather stabilized)	Aluminum
Bushing	Santoprene	Oil-resistant elastomer	Aluminum

Liquidtight strain-relief fittings – Straight



Cat. no.	Hub size (in.)	Throat dia.	Cord range min.-max. (in.)	Dimensions (in.)		
				A	B	C
2920S	½	9/16	0.125–0.375	1 1/8	1 3/4	5/8
2921S	½	9/16	0.310–0.560	1 1/8	1 3/4	5/8
2922S*	½	9/16	0.500–0.750	1 3/8	1 3/4	5/8
2930S	¾	1 3/16	0.125–0.375	1 3/8	1 25/32	¾
2931S	¾	1 3/16	0.310–0.560	1 3/8	1 25/32	¾
2932S	¾	1 3/16	0.500–0.750	1 3/8	1 25/32	¾
2940S	1	1 1/16	0.310–0.560	1 3/8	1 ¾	1 3/16
2941S	1	1 1/16	0.500–0.750	1 3/8	1 ¾	1 3/16
2942S	1	1 1/8	0.700–0.950	1 5/8	1 7/8	1 3/16

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

Liquidtight strain relief fittings



Cat. no.	Hub size (in.)	Throat dia. (in.)	Cord range min.-max. (in.)	Dimensions (in.)		
				A	B	C
2920-TB	½	9/16	0.125–0.375	1 1/8	1 3/4	5/8
2921	½	9/16	0.310–0.560	1 1/8	1 3/4	5/8
2922*	½	9/16	0.500–0.750	1 3/8	1 3/4	5/8
2930	¾	1 3/16	0.125–0.375	1 3/8	1 25/32	¾
2931	¾	1 3/16	0.310–0.560	1 3/8	1 25/32	¾
2932	¾	1 3/16	0.500–0.750	1 3/8	1 25/32	¾
2940	1	1 1/16	0.310–0.560	1 3/8	1 ¾	1 3/16
2941	1	1 1/16	0.500–0.750	1 3/8	1 ¾	1 3/16
2942	1	1 1/8	0.700–0.950	1 5/8	1 7/8	1 3/16

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

The Ranger series – Stainless steel liquidtight cord fittings

01 Pharmaceutical processing, food processing, pulp and paper mills, wastewater treatment, saltwater and petrochemical refining applications



01

02 Beveled rubber bushing ensures superior compression and sealing



02



Also available in other materials to meet all your cord-fitting needs.



2920 Series steel/malleable iron in straight, 45° and 90°

Type 304 stainless steel construction for harsh environments.

Until now, there has been no ideal solution for liquidtight connections of portable cord to a box or enclosure in corrosive environments. Steel fittings rust and nonmetallic fittings cannot withstand high temperatures or ultraviolet exposure.

Like all Ranger liquidtight cord fittings, the stainless steel fittings offer twice the cord diameter range of similar fittings, so you can do more with fewer sizes to order and stock. They form a non-slip mechanical grip, providing a liquidtight seal and the strain relief required for flexible portable cord connections.



2920AL Series aluminum in straight and 90°

In response to customer demand, ABB has developed the latest addition to its high-performance line of Ranger cord fittings. Made of type 304 stainless steel, Ranger stainless steel liquidtight cord fittings stand up to highly corrosive environments – such as washdown areas in food and beverage or pharmaceutical processing – as well as high temperatures and UV exposure.

- Each fitting covers a 0.25 in. cord diameter range – twice that of ordinary strain relief fittings
- Superior corrosion resistance in washdown areas and other corrosive environments
- Stands up to heat and UV exposure better than nonmetallic fittings
- Beveled, moisture- and oil-resistant synthetic rubber bushing system ensures superior compression and sealing of fitting to cord
- Bushing marked with cord range for easy identification out of the box



2920NM Series nonmetallic in straight and 90°

Ranger stainless steel cord fittings – ¼ in.–¾ in. hub sizes



Cat. no.	Hub size (in.)	Cord dia. range (in.)	Dimensions (in.)		
			A	B	C
2918SST	¼	0.118–0.256	1.000	0.250	0.625
2919SST	⅜	0.157–0.315	1.313	0.438	0.750

Ranger stainless steel cord fittings – ½ in.–1 in. hub sizes



Cat. no.	Hub size (in.)	Cord dia. range (in.)	Dimensions (in.)		
			A	B	C
2920SST	½	0.125–0.375	1.935	0.610	1.125
2921SST	½	0.310–0.560	1.935	0.610	1.125
2922SST*	½	0.500–0.750	2.003	0.610	1.125
2930SST	¾	0.125–0.375	2.063	0.630	1.125
2931SST	¾	0.310–0.560	2.063	0.630	1.125
2932SST	¾	0.500–0.750	2.063	0.630	1.125
2940SST	1	0.310–0.560	2.178	0.785	1.500
2941SST	1	0.500–0.750	2.218	0.785	1.500
2942SST	1	0.700–0.950	2.218	0.785	1.500

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

The Ranger series – Steel fittings



Liquidtight strain-relief fittings – 45° angle



Diagram	Cat. no.	Hub size (in.)	Throat dia. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
	4920	1/2	37/64	0.125–0.375	1 1/8	1 5/16	9/16
	4921	1/2	37/64	0.310–0.560	1 1/8	1 5/16	9/16
	4922*	1/2	37/64	0.500–0.750	1 3/8	1 7/16	9/16
	4932	3/4	25/32	0.500–0.750	1 3/8	1 7/16	5/8
	4933	3/4	25/32	0.700–0.950	1 5/8	1 17/32	1 1/2

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body



Liquidtight strain-relief fittings – 90° angle



Diagram	Cat. no.	Hub size (in.)	Throat dia. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
	4960	1/2	19/32	0.125–0.375	1 1/8	1 3/4	5/8
	4961	1/2	19/32	0.310–0.560	1 1/8	1 3/4	5/8
	4962*	1/2	19/32	0.500–0.750	1 3/8	1 25/64	5/8
	4970-TB	3/4	25/32	0.125–0.375	1 3/8	1 25/32	1 1/16
	4971	3/4	25/32	0.310–0.560	1 3/8	1 25/32	1 1/16
	4972	3/4	25/32	0.500–0.750	1 3/8	1 25/32	1 1/16

Swing radius

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

The Ranger series – Aluminum fittings



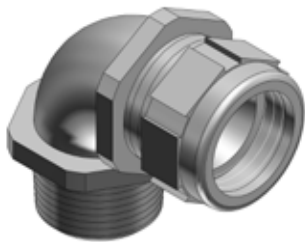
Body and gland nut are aluminum.

Aluminum liquidtight strain-relief fittings – Straight



Diagram	Cat. no.	Hub size (in.)	Throat dia. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
	2920AL	1/2	9/16	0.125–0.375	1 1/8	1 3/4	5/8
	2921AL	1/2	9/16	0.310–0.560	1 1/8	1 3/4	5/8
	2922AL*	1/2	9/16	0.500–0.750	1 5/16	1 3/4	5/8
	2930AL	3/4	13/16	0.125–0.375	1 5/16	1 25/32	3/8
	2931AL	3/4	13/16	0.310–0.560	1 5/16	1 25/32	3/4
	2932AL	3/4	13/16	0.500–0.750	1 5/16	1 25/32	3/4
	2940AL	1	1 1/16	0.310–0.560	1 5/16	1 3/4	1 1/16
	2941AL	1	1 1/16	0.500–0.750	1 5/16	1 3/4	1 1/16
	2942AL	1	3 1/32	0.700–0.950	1 9/16	1 7/8	3 1/32

* It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through fitting body



Body and gland nut are aluminum.

Aluminum liquidtight strain-relief fittings – 90° elbow



Diagram	Cat. no.	Trade or hub size (in.)	Throat diam. (in.)	Cord range (in.)	Dimensions (in.)			
					A	B	C	D
	4960AL	1/2	9/16	0.125–0.375	1 1/8	1 3/4	5/8	1 5/16
	4961AL	1/2	9/16	0.360–0.560	1 1/8	1 3/4	5/8	1 5/16
	4970AL	3/4	25/32	0.125–0.375	1 5/16	1 25/32	1 1/16	1 15/32
	4971AL	3/4	25/32	0.310–0.560	1 5/16	1 25/32	1 1/16	1 15/32
	4972AL	3/4	25/32	0.500–0.750	1 5/16	1 25/32	1 1/16	1 15/32
	4980AL	1	1 5/16	0.310–0.560	1 5/16	2 1/32	1 3/16	1 3/4
	4981AL	1	1 5/16	0.500–0.750	1 5/16	2 1/32	1 3/16	1 3/4
	4982AL	1	1 5/16	0.700–0.950	1 5/16	2 11/16	1 3/16	2

The Ranger series – Nylon cord grip fittings



A Ranger exclusive smaller shape: 30% smaller envelope. Wide range: twice the cable range.

- Reduced size means fittings can be placed closer together
- Wider range means one fitting can cover twice the cable range of others
- Nonmetallic means corrosion resistance

- Weather-stabilized nylon
- UL 94V-2
- Temperature rating: -34 °C to 105 °C
- New reduced size
- Smaller footprint

Nonmetallic liquidtight strain-relief fittings – Straight



Diagram	Cat. no.	Trade or hub size (in.)	Throat diam. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
	2920NM	1/2	9/16	0.125–0.375	17/32	2 1/8	5/8
	2921NM	1/2	9/16	0.310–0.560	17/32	2 1/8	5/8
	2922NM*	1/2	9/16	0.500–0.750	1 13/32	2 5/32	5/8
	2930NM	3/4	3/4	0.125–0.375	1 13/32	2 3/16	5/8
	2931NM	3/4	3/4	0.310–0.560	1 13/32	2 3/16	5/8
	2932NM	3/4	3/4	0.500–0.750	1 13/32	2 3/16	5/8
	2940NM	1	29/32	0.310–0.560	1 13/32	2 11/32	25/32
	2941NM	1	29/32	0.500–0.750	1 13/32	2 11/32	25/32
	2942NM	1	29/32	0.700–0.950	1 43/64	2 3/8	25/32

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body



- Weather-stabilized nylon
- UL 94V-2
- Temperature rating: -34 °C to 105 °C

Nonmetallic liquidtight strain-relief fittings – 90° elbow



Diagram	Cat. no.	Trade or hub size (in.)	Throat diam. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
	4960NM	1/2	9/16	0.125–0.375	17/32	1 1/4	5/8
	4961NM	1/2	9/16	0.310–0.560	17/32	1 1/4	5/8
	4970NM	3/4	3/4	0.125–0.375	1 13/32	1 3/8	5/8
	4971NM	3/4	3/4	0.310–0.560	1 13/32	1 3/8	5/8
	4972NM	3/4	3/4	0.500–0.750	1 13/32	1 3/8	5/8

90° elbow, new reduced size, smaller footprint

Silver Grip – TCF series tray-cord fittings

—
01 Large tapered
bushing and
high-performance
chuck grip

—
02 Tray cable applications

—
03 Portable cord
applications



One heck of a grip.

Increased safety for hazardous locations.

The Silver Grip tray cord fitting is the safe, yet cost-efficient choice for increased safety when terminating portable cord and tray cable in hazardous locations.

Designed for use in Class I gas and vapour environments, the Silver Grip tray cord fitting provides efficient strain relief for cables entering enclosures and raceways, and for cords used on portable equipment.

- Corrosion-resistant, non-magnetic aluminum construction
- Tapered neoprene bushing and O-ring seal out moisture and dirt ingress
- Chuck grip provides high mechanical pull-out performance, exceeding applicable requirements
- Hand-tightens — no tools required
- Now available in 316 stainless steel
- 90 °C temperature rating



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01



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02



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03

Silver Grip – TCF series tray-cord fittings

Ordering information



Cat. no aluminum	Cat. No stainless steel	Hub size NPT (in.)	Throat dia. (in.)	Minimum cable dia. (in.)	Maximum opening (in.)
TCF050-27AL	TCF050-27SS6	½	0.330	0.150	0.270
TCF050-40AL	TCF050-40SS6	½	0.540	0.250	0.400
TCF050-54AL	TCF050-54SS6	½	0.540	0.400	0.540
TCF050-67AL	TCF050-67SS6	½	0.540*	0.540	0.670
TCF050-78AL	TCF050-78SS6	½	0.540*	0.660	0.780
TCF075-40AL	TCF075-40SS6	¾	0.540	0.250	0.400
TCF075-54AL	TCF075-54SS6	¾	0.540	0.400	0.540
TCF075-67AL	TCF075-67SS6	¾	0.780	0.540	0.670
TCF075-78AL	TCF075-78SS6	¾	0.780	0.660	0.780
TCF075-88AL	TCF075-88SS6	¾	0.765*	0.770	0.880
TCF100-78AL	TCF100-78SS6	1	0.980	0.660	0.780
TCF100-88AL	TCF100-88SS6	1	0.980	0.770	0.880
TCF100-100AL	TCF100-100SS6	1	0.980*	0.870	1.000
TCF100-109AL	TCF100-109SS6	1	0.980	0.940	1.090
TCF125-109AL	–	1¼	1.255	0.890	1.090
TCF125-128AL	–	1¼	1.255*	1.080	1.280
TCF125-147AL	–	1¼	1.255*	1.270	1.470
TCF150-115AL	–	1½	1.470	0.890	1.150
TCF150-140AL	–	1½	1.470	1.140	1.400
TCF150-165AL	–	1½	1.470*	1.390	1.650
TCF200-153AL	–	2	1.896	1.190	1.530
TCF200-186AL	–	2	1.896	1.520	1.860
TCF200-219AL	–	2	2.062*	1.850	2.190
TCF250-252AL	–	2½	2.466*	2.120	2.520
TCF300-278AL	–	3	2.780	2.380	2.780
TCF300-304AL	–	3	3.050	2.640	3.040
TCF300-330AL	–	3	3.068*	2.900	3.300

*When cord will not fit through body, strip cord jacket and trim fillers if required. Insert cable, ensuring the outer jacket reaches the end of the bushing as shown. Tighten gland nut onto body.

Silver Grip – TCF series tray-cord fittings

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01 Maximum opening

Applications

Tray cable

Complies with IEC requirements for Class I, Zone 2 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF fittings must be used in combination with a certified Class I hazardous location sealing fitting.

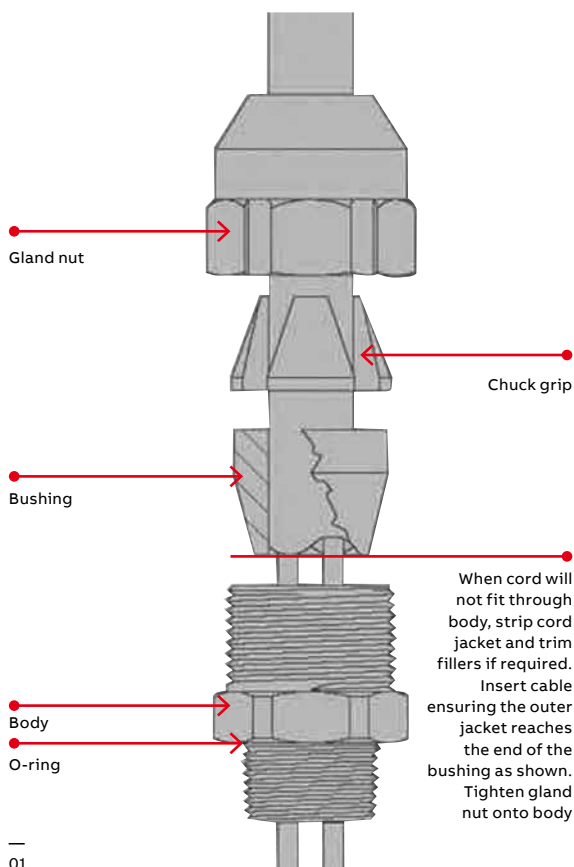
Portable cord

Complies with IEC requirements for Class I, Zone 1 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF fittings must be used in combination with a certified Class I hazardous location sealing fitting.

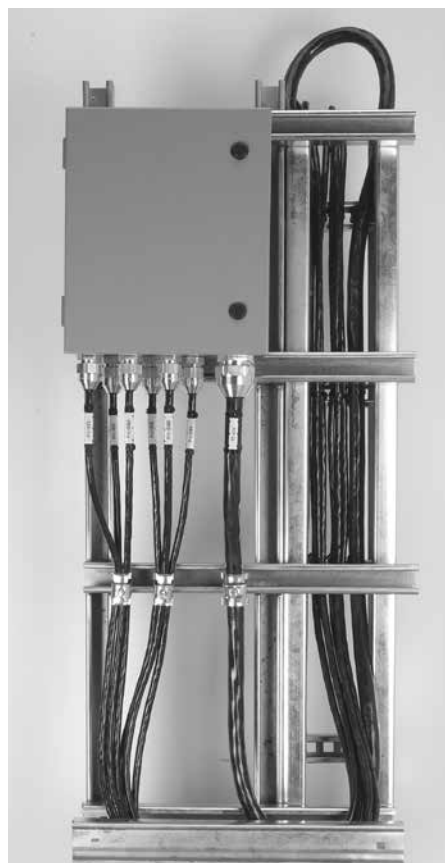
- CSA Class 4418-05 fittings for hazardous locations Class I, Zone 1 Ex e II, IP66; Type 4/4X, (CSA)
- CSAus Class 4418-85 fittings for hazardous locations Class I, Zone 1, A Ex e II, IP66; Type 4/4X, (CSAus)
- Note: Tray cable is not suitable for use in Zone 1 locations. Portable cord can be used in Zone 1 applications only when installed on portable equipment.

Utilisation

- For use with unarmored cable types suitable for use in Class I, Zone 1 (e.g. extra hard usage cord)
- Series TCF cable glands, when used with tray cables are suitable to be installed in Class I, Zone 2/Div. 2 classified hazardous locations according to CEC/NEC wiring method, or subject to local inspection authority having jurisdiction



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01



Black Beauty™ fittings



- Weather-stabilized nylon
- UL 94V-2
- Temperature rating: -34 °C to 105 °C

Black Beauty liquidtight strain-relief fittings – Straight



Diagram	Cat. no.	Trade or hub size (in.)	Throat dia. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
	2671	3/8	0.33	0.125–0.275	2	29/32	15/32
	2690	1/2	0.33	0.125–0.275	2 1/4	29/32	19/32
	2672	1/2	0.55	0.250–0.400	2 19/32	19/32	19/32
	2673*	1/2	0.55	0.400–0.560	2 19/32	19/32	19/32
	2691*	1/2	0.54	0.560–0.690	3	1 9/16	19/32
	2692*	1/2	0.54	0.660–0.780	3	1 9/16	19/32
	2693	3/4	0.55	0.250–0.400	2 11/16	1 9/32	5/8
	2694*	3/4	0.55	0.400–0.560	2 11/16	1 9/32	5/8
	2674	3/4	0.79	0.560–0.690	3	1 9/16	5/8
	2675	3/4	0.79	0.660–0.780	3	1 9/16	5/8
	2696*	3/4	0.76	0.770–0.895	3 3/16	1 7/8	5/8
	2676	1	0.98	0.660–0.780	3 5/16	1 7/8	25/32
	2677	1	0.98	0.770–0.895	3 5/16	1 7/8	25/32
	2678*	1	0.98	0.870–1.020	3 5/16	1 7/8	25/32
	2699	1	0.98	0.890–1.090	3 5/16	2 19/32	25/32
	2702	1 1/4	1.25	0.890–1.090	3 5/16	1 7/8	25/32
	2703	1 1/4	1.25	1.080–1.280	4	2 19/32	13/16
	2704	1 1/4	1.25	1.270–1.470	4	2 19/32	13/16
	2705TB	1 1/2	1.47	0.890–1.150	4 3/16	2 31/32	13/16
	2706	1 1/2	1.47	1.140–1.400	4 5/16	2 31/32	13/16
2707	1 1/2	1.47	1.390–1.650	4 5/16	2 31/32	13/16	
2708	2	1.89	1.190–1.530	5 3/32	3 1/2	27/32	
2709	2	1.89	1.520–1.860	4 29/32	3 1/2	27/32	
2710-TB*	2	1.89	1.850–2.190	4 29/32	3 1/2	27/32	

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body

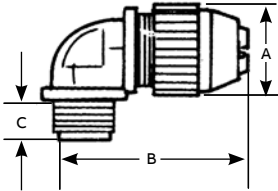
Black Beauty fittings



- Weather-stabilized nylon
- UL 94V-2
- Temperature rating: -34 °C to 105 °C

Black Beauty liquidtight strain-relief fittings – 90° elbow



	Cat. no.	Trade or hub size (in.)	Throat dia. (in.)	Cord range (in.)	Dimensions (in.)		
					A	B	C
Diagram	2680	1	0.33	0.125–0.275	0.90	1.8	0.460
	2681	½	0.55	0.250–0.400	1.27	2.5	0.610
	2682*	½	0.55	0.400–0.560	1.27	2.5	0.610
	2683	¾	0.78	0.560–0.690	1.57	2.8	0.610
	2684	¾	0.78	0.660–0.780	1.57	2.8	0.610
	2688	1	0.98	0.560–0.690	1.89	3.0	0.770
	2685	1	0.98	0.660–0.780	1.89	3.2	0.770
90° angle, standard size body.	2686	1	0.98	0.770–0.895	1.89	3.2	0.770
	2687*	1	0.98	0.870–1.020	1.89	3.2	0.770

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body.

90° angle, standard size body.

Portable cord and cable fittings

WMG-PC series wiremesh grips for portable cord

—
01 2920 Series
—
02 2920AL Series
—
03 2516 Series

Application

- Provides high gripping strength for adequate cable support and strain relief without damage to the cable sheath
- Compression of a tapered neoprene bushing assures the watertight integrity of the fittings

Cord and cable type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

Features

- Prevents severe cord bends and pullouts
- Used with aluminum and/or steel fittings, including the Ranger series

Material

- Wiremesh made of stainless steel.
Retaining rings made of aluminum.

Environment classification

- Ordinary locations

Range

- 1.875 in.–3.220 in.



How to select proper wiremesh grip:

1. Determine O.D. of portable cord (e.g. 0.200 in.)
2. Determine size of knockout or threaded hub (e.g. ½ in.)
3. Select cat. no. of strain-relief fitting (e.g. 2520, 2920AL)
4. Match O.D. with grip range and strain relief to determine cat. no. of wiremesh grip (e.g. 0.200 + 2520 = WMP-PC1)

Wiremesh grips are ordered separately and fit with your existing inventory of Ranger fittings and liquidtight strain-relief fittings. There's no need to duplicate inventory.

Wiremesh grips support the liquidtight cord fittings series listed on the following page.

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01—
02—
03

Portable cord and cable fittings

WMG-PC series wiremesh grips for portable cord

Wiremesh grips for portable cord

Cat. no.	Grip range (in.)	Strain relief fittings							
		Straight			45°		90°		
		Ranger steel	Ranger aluminum	ABB steel	Ranger malleable iron	ABB steel	Ranger malleable iron	Ranger aluminum	ABB steel
WMG-PC1	0.187–0.250	2920S	2920AL	2520	4920	2200	4960	4960AL	2267
WMG-PC2	0.250–0.375	2920S	2920AL	2521	4920	2201	4960	4960AL	2268
WMG-PC3	0.375–0.500	2921S	2921AL	2522	4921	2202	4961	4961AL	2269
	0.375–0.500	2922S	2922AL	2524	4922	2204	4962	–	2250
WMG-PC4	0.500–0.625	2932S	2932AL	2534	4932	2209	4972	4972AL	2273
	0.500–0.625	2941S	2941AL	2544	4941	2214	4981	4981AL	2255
	0.500–0.625	2922S	2922AL	2525	4922	2205	4962	–	2251
WMG-PC5	0.625–0.750	2932S	2932AL	2535	4932	2210	4972	4972AL	2274
	0.625–0.750	2941S	2941AL	2545	4941	2215	4981	4981AL	2256
WMG-PC6	0.187–0.250	2930S	2930AL	2530	4930	2206	4970	4970AL	2252
WMG-PC7	0.250–0.375	2930S	2930AL	2531	4930	2207	4970	4970AL	2271
	0.250–0.375	2930S	2930AL	2541	4930	2207	4970	4970AL	2271
WMG-PC8	0.375–0.500	2931S	2931AL	2532	4931	2208	4961	4961AL	2272
	0.375–0.500	2940S	2940AL	2542	4940	2213	4980	4980AL	2254
WMG-PC9	0.750–0.875	2940S	2940AL	2536	4940	2211	4980	4980AL	2253
	0.750–0.875	2942S	2942AL	2546	4942	2216	4982	4982AL	2275
WMG-PC10	0.875–1.000	2942S	2942AL	2547	4942	2217	4982	4982AL	2276
WMG-PC11	0.875–1.000	2942S	2942AL	2548	4942	2218	4982	4982AL	2257
	0.875–1.000	2942S	2942AL	2558	4942	2220	4982	4982AL	2277
	0.875–1.000	2942S	2942AL	2548	4942	2218	4982	4982AL	2257
WMG-PC12	1.000–1.125	2942S	2942AL	2558	4942	2220	4982	4982AL	2277
	1.000–1.125	2942S	2942AL	2549	4942	2219	4982	4982AL	2258
	1.000–1.125	2942S	2942AL	2559	4942	2221	4982	4982AL	2278
WMG-PC13	1.125–1.250	2942S	2942AL	2549	4942	2221	2258	2258	2219
	1.125–1.250	2942S	2942AL	2559	4942	2221	2258	2258	2278
	1.125–1.250	2942S	2942AL	2556	4942	2221	2279	2279	2222
WMG-PC14	1.125–1.250	2942S	2942AL	2563	4942	–	2279	2279	2282
	1.125–1.250	2942S	2942AL	2564	4942	–	2279	2279	2283
WMG-PC15	1.250–1.375	2942S	2942AL	2256	4942	2222	2279	2279	2279
	1.250–1.375	2942S	2942AL	2564	4942	–	2279	2279	2283
WMG-PC16*	1.375–1.500	2942S	2942AL	2557	4942	2223	2279	2279	2280
WMG-PC17*	1.125–1.250	2942S	2942AL	2573	4942	–	2279	2279	2284



Cat. no.	Grip range (in.)	Strain relief fittings	
		Straight steel	90° steel
WMG-PC18*	1.250–1.375	2573	2284
WMG-PC19*	1.375–1.500	2565	2285
	1.375–1.500	2574	2285
WMG-PC20*	1.500–1.625	2565	2285
	1.500–1.625	2574	2285
WMG-PC21*	1.625–1.750	2575	2286
WMG-PC22*	1.750–1.875	2575	2286

*Replacement gland nut supplied with these catalogue numbers only

Portable cord and cable fittings

Nonmetallic cable fittings – Low profile for tight spots

—
01 Sturdy nylon 6 for strong, lightweight construction. Grey colour shown.

Nylon cable fittings have a sturdy cable sealing mechanism that results in superior strain relief. The compact size ensures quick and easy installation in cramped spaces. The nonmetallic construction provides excellent corrosion, chemical and impact resistance. The glands have long threads and locknuts are available.

- Halogen-free
- Flame-retardant material rated UL 94V-0
- Rated IP 68 5 BAR, suitable for NEMA 4 enclosures
- UL listed, CSA certified for certain ranges of cable
- Working temperatures: -30 °C (-86 °F) to 80 °C (176 °F) continuous, 150 °C (276 °F) intermittent
- Meets VDE ratings



—
01

Nonmetallic cable fittings



Cat. no.	Hub size (in.)	Colour	Cable range		Length of thread		Use ABB locknut cat. no.	Unit pkg.	Std. pkg.
			in.	mm	in.	mm			
NPT threads									
CC-NPT38-B	3/8	Black	0.197–0.394	5–10	0.590	15	CI-1703PL*	50	250
CC-NPT38-G	3/8	Grey	0.197–0.394	5–10	0.590	15	CI-1703PL*	50	250
CC-NPT12-B	1/2	Black	0.394–0.551	10–14	0.590	15	LN501**	50	250
CC-NPT12-G	1/2	Grey	0.394–0.551	10–14	0.590	15	LN501**	50	250
CC-NPT34-B	3/4	Black	0.512–0.709	13–18	0.590	15	LN502**	25	100
CC-NPT34-G	3/4	Grey	0.512–0.709	13–18	0.590	15	LN502**	25	100
CC-NPT1-B	1	Black	0.709–0.984	18–25	0.709	18	LN503**	20	100
CC-NPT1-G	1	Grey	0.709–0.984	18–25	0.709	18	LN503**	20	100
ISO/metric threads									
CC-ISO-16-G	M16	Grey	0.197–0.394	5–10	0.394	10	LN-ISO16-G	50	250
CC-ISO-20-G	M20		0.236–0.473	6–12	0.590	15	LN-ISO20-G	50	250
CC-ISO-25-G	M25		0.512–0.709	13–18	0.590	15	LN-ISO25-G	25	250
CC-ISO-32-G	M32		0.709–0.984	18–25	0.590	15	LN-ISO32-G	20	250
CC-ISO-40-G	M40		0.748–1.100	22–32	0.709	18			
PG threads									
CC-PG7-G	7	Grey	0.118–0.256	3–6.5	0.315	8	LN-PG7-G	50	200
CC-PG9-G	9		0.157–0.315	4–8	0.315	8	LN-PG9-G	50	200
CC-PG11-G	11		0.197–0.394	5–10	0.315	8	LN-PG11-G	25	100
CC-PG135-G	13 1/2		0.236–0.473	6–12	0.354	9	LN-PG135-G	25	100
CC-PG16-G	16		0.394–0.551	10–14	0.394	10	LN-PG16-G	25	100
CC-PG21-G	21		0.512–0.709	13–18	0.433	11	LN-PG21-G	10	50
CC-PG29-G	29		0.709–0.984	18–25	0.433	11	LN-PG29-G	10	50
CC-PG36-G	36		0.867–1.260	22–32	0.512	13	LN-PG36-G	10	50

* Not CSA Certified

** Only available in grey

Portable cord and cable fittings

Metric fittings and accessories



Style may vary depending on size

Metric PG-to-NPT thread adapters

Cat. no.	NPT Thread (mating) (in.)	Thread (at housing)
PG11-38	$\frac{3}{8}$	PG11
PG16-50	$\frac{1}{2}$	PG16
PG21-75	$\frac{3}{4}$	PG21
PG29-100	1	PG29
PG29-125	$1\frac{1}{4}$	PG29
PG36-125	$1\frac{1}{4}$	PG36
PG36-150	$1\frac{1}{2}$	PG36



Standard European style.

Metric two-screw clamp fittings

Cat. no.	Cable O.D. (in.)		Thread (at housing)
	Min.	Max.	
CC11-38	0.400	0.470	PG11
CC11-38P*	0.250	0.325	PG11
CC135-50	0.400	0.535	PG13.5
CC16-50	0.455	0.625	PG16
CC21-75	0.513	0.815	PG21
CC29-100	0.800	0.175	PG291
CC36-125	1.050	0.450	PG361
CC42-150	1.500	0.800	PG421

* Plastic



Metric cord grip fittings

Cat. no.	Cable O.D. (in.)		Thread (at housing)
	Min.	Max.	
CG11-38	0.200	0.470	PG11
CG11-38P*	0.325	0.340	PG11
CG135-50	0.285	0.545	PG13.5
CG16-50	0.285	0.625	PG16
CG21-75	0.395	0.790	PG21
CG29-100	0.780	0.060	PG291
CG36-125	0.960	0.375	PG361
CG42-150	1.630	0.650	PG421

* Plastic



Conduit entry blind plug

Cat. no.	Thread (at housing)
CXP722	PG13.5
CXP723	PG16
CXP724	PG21
CXP725	PG29
CXP726	PG36
CXP727	PG42

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

—
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

—
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

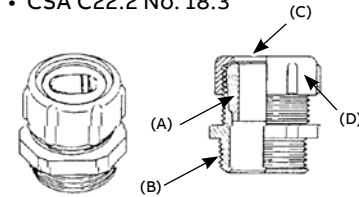
- Oval (flat) cable size 0.260 x 0.500 through 1.062 x 1.765
- Type USE cable size (3) #12 through (3) 4/0 AWG conductors
- Hub size ½ in. through 2 in. NPT (taper pipe threads)

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



—
01

Underground feeder cable fittings

—
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

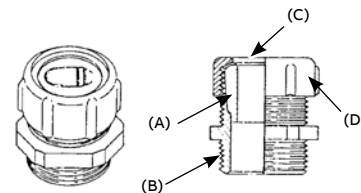
- Oval (flat) cable size 0.235 x 0.500 through 0.260 x 0.740
- Hub size ½ in. through 1 in. NPT (tapered pipe threads)

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



—
02

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.

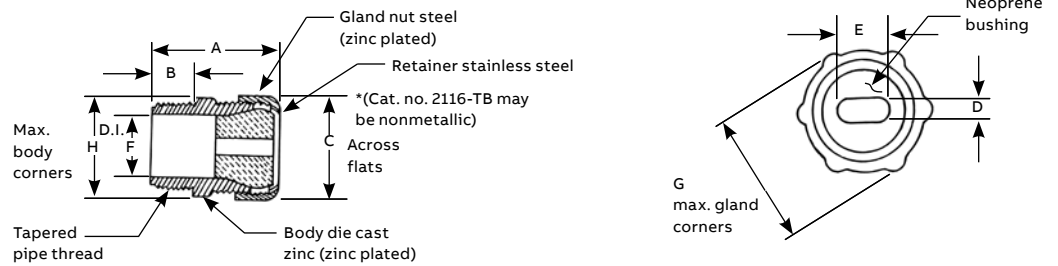
Underground liquidtight feeder cable fittings



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



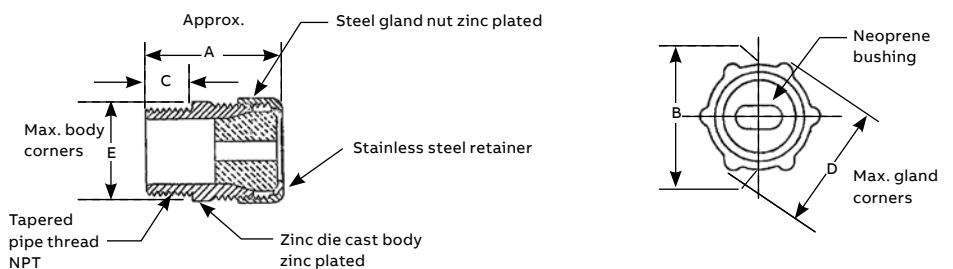
The fitting design allows for a wider range of cord sizes while providing maximum traction. The neoprene bushing is oil, sunlight and water resistant. The hex gland and fitting body take the same wrench opening and a stainless steel slip ring prevents the cord from twisting when the gland ring is tightened.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

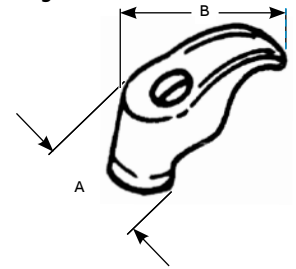
Each strap takes a wide range of sizes because of the rocking action of the foot. Hole is for 1/4 in. screw. Malleable iron, hot-dipped galvanized construction.



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



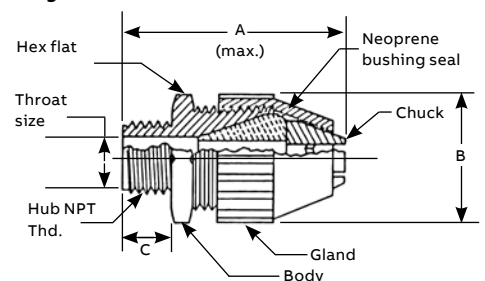
Nylon UF cable fittings for corrosive environments

- 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



Liquidtight flexible metal conduit fittings

Specifications

Ref. CE Code Rule 12-1300

Liquidtight flexible metal conduit is a raceway of circular cross section having an outer liquidtight nonmetallic, sunlight-resistant jacket over a flexible metal core.

Liquidtight flexible metal conduit is permitted to be used for exposed or concealed work, in dry, damp or wet locations indoors and outdoors. Heavy-duty marked liquidtight flexible metal conduit is considered an acceptable wiring method in hazardous location; namely Class 1 Div 2, Class II & Class III.

Liquidtight flexible metal conduit is not permitted where subjected to mechanical injury. The conduit is not permitted to be used underground or embedded in cinder fill or concrete. It cannot be used as a general purpose raceway.

Use of liquidtight conduit is not permitted where any combination of ambient or conductor temperature will produce temperature in excess of that for which the jacket is rated or in locations where flexing at low temperature will injure jacket. Liquidtight flexible metal conduit is not permitted for conductors over 600 volts.

Liquidtight flexible conduit is available in $\frac{3}{8}$ in. through 6 in. trade size. Conduit is constructed with galvanized steel, aluminum or stainless steel core, regular or extra flex. Outer jacket is available for a variety of applications, e.g. oil resistant where exposed to cutting oils and for service temperature ranging from -50 °C to 150 °C.

Listed and certified conduit are constructed of galvanized steel core and thermoplastic jacket rated for maximum service temperature up to 75 °C and suitable for exposure to mineral oils but not to gasoline and similar solvents.

Conduit is required to be supported adequately, and bending is restricted to 360 degrees total.

Please refer to the following for further details and complete information:

1. UL 360 – Safety standards for liquidtight flexible steel conduit
2. UL 514A and 514B – Safety standards for outlet boxes and fittings
3. W-F-406 – Federal specification: Fittings for cable, power, electrical and conduit, metal, flexible
4. NEMA FB-1 – Standards publication: Fittings, cast metal boxes and conduit bodies for conduit, electrical metallic tubing and cable
5. EMP-1 – JIC Electrical standards for mass production equipment
6. EGP-1 – JIC Electrical standards for general purpose machine tools
7. CE Code Section 12-1300 – Wiring methods (liquidtight metal conduit)
8. CSA C22.2 No. 56-17 – Flexible metallic conduit and liquidtight flexible metal conduit
9. CSA C22.2 Nos. 18.1 and 18.3 – Safety standards for outlet boxes, conduit boxes and fittings

Please note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2018 Part I, CSA Group, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Liquidtight flexible metal conduit fittings

Suggested specifications for liquidtight flexible metal conduit fittings

—
01 Series 5331; Series 5231AL liquidtight flexible metal conduit fittings

—
02 Series 5262 sealing gasket

—
03 Series 3321 PVC-coated liquidtight flexible metal conduit fittings

—
04 Series 41 liquidtight union

—
05 5331GR Series external bonding

—
06 5331-PT Series Quick-Connect™ liquidtight fittings

- Liquidtight flexible metal conduit used shall be of the type with galvanized steel core inside and outside and outer thermoplastic jacket suitable for the ambient environmental conditions. Jacket shall be positively locked to core to prevent sleeving. Where used as an equipment grounding conductor, the conduit shall conform to applicable standards UL 360/CSA C22.2 No. 56.
- Flexible conduit when installed shall have sufficient slack to avoid sharp flexing and straining due to vibration and thermal expansion/constriction. Conduit shall be installed in such a manner that liquids will tend to run off the surface instead of draining toward the fittings.
- Where liquidtight flexible metal conduit terminates into a threaded or threadless opening, the conduit shall be assembled with approved liquidtight fittings. Fittings used shall be reusable type of malleable iron/steel construction, electro-zinc plated inside and outside, furnished with nylon-insulated throat and taper-threaded hub as manufactured by ABB, series 5331.
- At the point of flexing (i.e. where raceway leaves fitting), the thermoplastic raceway jacket shall not be permitted to be in direct contact with metal.
- Where liquidtight flexible metal conduit is terminated into a threadless opening using a threaded hub fitting such as series 5331, a suitable moisture-resistant/oil-resistant synthetic rubber gasket such as series 5262 shall be provided between the outside of box or enclosure and fitting shoulder. Gasket shall be adequately protected by and permanently bonded to a metallic retainer.
- Where liquidtight flexible metallic raceway is installed in outdoor or indoor locations and is exposed to environmental conditions that are more than normally corrosive to exposed surfaces, PVC-coated liquidtight flexible metal conduit fittings such as series 3321 manufactured by ABB shall be used. Fittings shall be coated with a nominal thickness of 0.040 inches PVC and must meet the general requirements for liquidtight flexible metal conduit fittings indicated above.

Approved fittings installed shall be:

- (1) Designed to prevent sleeving, assure plastic (raceway jacket) to plastic (gasket) seal.
- (2) Equipped with grounding device to assure ground continuity irrespective of raceway core construction. Grounding device if inserted into raceway and directly in contact with conductors shall have rolled over edges for sizes under 5 inches.



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Liquidtight flexible metal conduit fittings

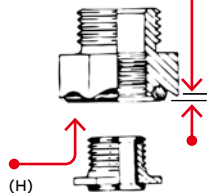
Specifications

—
01 5361 Series
CHASE style
—
02 5331 Series
5231 AL series
—
03 5361 Series
—
04 5271 Series



—
01

Predetermined
compression



(H)

—
01

Application

- Used where flexible metal raceway is installed in outdoor or indoor locations where exposed to continuous or intermittent moisture
- To positively bond conduit to box or enclosure

Features

- Ability to install quickly with low torque effort
- Ground cone design offers following advantages:
 - (1) Compresses metallic convolutions; provides high quality ground contact with low impedance and high raceway holding power (A)
 - (2) Single helical thread on ground cone is easy to install without cross threading; accepts variations in raceway diameters and convolution pitch (B)
 - (3) Rolled over edge protects conductors (C)

Sealing ring design has following exclusive features:

- (1) Grips and seals at leading and trailing edge – will not abrade raceway jacket (D)
 - (2) Provided with grooves on inside diameter for anti-sleeving (E)
 - (3) Shoulders on both ends for extra sealing (F)
 - (4) Symmetrical shape assures foolproof assembly
- Can be disconnected and reused
 - Watertight/oil-tight installation at box or enclosure termination is assured by:
 - (1) External taper-thread hub on 5331 series and use of sealing gasket 5262 series (G)
 - (2) Captive sealing O-ring on 5361 series (H)
 - (3) Taper-tapped hole on 5271 series

- For hazardous location applications, please refer to CEC Section 18
- CEC Rule 12-1306 stipulates “a separate bonding conductor shall be installed in liquidtight flexible conduit in accordance with section 10”
- ½ in. and 1¼ in. sizes laboratory tested to carry ground fault current of up to 1000 amps RMS with duration of fault current 3 cycles

- Conforms with JIC requirements
- Available with imperial, ISO and PG threaded hub

Standard material

5331-5361-5271 Series

- Body, gland, locknut and ground cones: All steel or malleable iron
- Sealing ring and insulator: All thermoplastic rated min. -20 °C max. 105 °C
- Sealing gasket: Stainless steel and Buna N

5231 AL Series

- All copper-free aluminum (non-insulated)

Standard finish

5331-5361-5271 Series

- Electro zinc plated and chromate coated

5231 AL Series

- Copper-free aluminum

Range

- 5331 Series ¾ in. through 6 in. conduit
 - 5341 Series ¾ in. through 4 in. conduit
 - 5351 Series ¾ in. through 4 in. conduit
 - 5361 Series ¾ in. through 4 in. conduit
 - 5271 Series ¾ in. through 1-¼ in. conduit
 - 5231 AL Series ¾ in. through 4 in. conduit
- All hubs provided with taper pipe threads (NPT)

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- NEMA FB-1
- NFPA 70-2008 (ANSI)
- JIC EGP1, JIC EMP1
- Federal Specification W-F-406
- Federal standard H-28 (Threads)



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5341 Series...
same as 5331,
except 45° fittings

5351 Series...
same as 5331,
except 90° fittings

Liquidtight flexible metal conduit fittings

High temperature flexible metal liquidtight fittings



HT series liquidtight fittings are available straight, 45° and 90°

Suggested specification

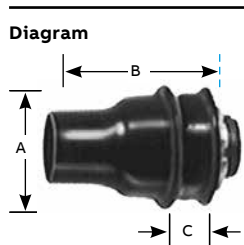
Where liquidtight flexible metal fittings are required in high temperature environments up to 150 °C:

- Fitting's body, gland, locknut and ground cone shall be constructed from steel or malleable iron, electro-zinc plated and chromate coated for corrosion protection
- Fitting's sealing ring and throat insulator will be molded from high temperature nylon suitable for temperatures up to 150 °C and a minimum UL flammability rating of UL94V-2
- The fitting shall be constructed to accept high temperature flexible metal liquidtight conduit rated to 150 °C (works with our ATX series conduit)
- The fitting shall have a plastic throat insulator to protect conductors
- The fitting shall have a steel ground cone to:
 - provide high quality ground contact
 - single helical thread for easy installation into conduit
 - rolled over edge to protect conductors
- The fitting shall have a plastic sealing ring to:
 - grip and seal at leading and trailing edge (double bevel up to 2 in.) of conduit jacket
 - provide a watertight/oil-tight seal
- The fitting shall be able to terminate the conduit in either a threaded or threadless opening
- For applications where termination into a threaded opening is required, the fitting shall have external tapered NPT threads
- For applications where termination into a threadless opening is required, use an acceptable sealing ring
- Fittings shall conform to UL 514B
- Accepted manufacturers:
 - ABB – 5331-HT straight series, 5341-HT 45° series, 5351-HT 90° series; 5262 sealing ring series

Straight liquidtight fittings

Cat. no.	Conduit size (in.)	Dimensions (in.)		
		A	B	C
5331-HT	3/8	1 5/32	1 1/2	9/16
5332-HT	1/2	1 3/8	1 9/16	9/16
5333-HT	3/4	1 21/32	1 5/8	9/16
5334-HT	1	1 7/8	2 1/16	3/4
5335-HT	1 1/4	2 9/32	2 1/2	13/16
5336-HT	1 1/2	2 22/32	2 11/16	13/16
5337-HT	2	3 3/4	3 1/16	7/8
5338-HT	2 1/2	3 3/4	4 1/8	1
5339-HT	3	4 1/2	4 3/4	1
5340-HT	4	5 1/2	4 1/2	1 1/8

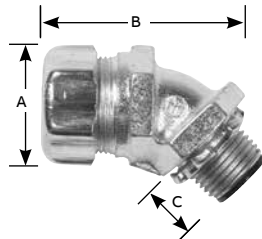
Please note: There are no CSA or UL standards applicable for high temperature fittings or conduit. Therefore neither HT fittings nor HT conduit bear these certifications/listings.



45° liquidtight fittings

Cat. no.	Conduit size (in.)	Dimensions (in.)		
		A	B	C
5341HT	3/8	1 5/32	1 9/16	9/16
5342HT	1/2	1 3/8	1 7/8	9/16
5343HT	3/4	1 21/32	2 1/8	9/16
5344HT	1	1 7/8	2 3/4	3/4
5345HT	1 1/4	2 9/32	2 3/4	13/16
5346HT	1 1/2	2 22/32	2 3/8	13/16
5347HT	2	3 3/4	3 7/8	7/8

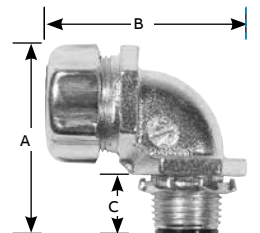
Diagram



90° liquidtight fittings

Cat. no.	Conduit size (in.)	Dimensions (in.)		
		A	B	C
5351HT	3/8	1 5/32	1 3/8	9/16
5352HT	1/2	1 3/8	1 9/16	9/16
5353HT	3/4	1 21/32	1 3/4	9/16
5354HT	1	1 7/8	2 3/16	3/4
5355HT	1 1/4	2 9/32	2 3/4	13/16
5356HT	1 1/2	2 22/32	2 11/16	13/16
5357HT	2	3 3/4	3 7/16	7/8

Diagram



Liquidtight flexible metal conduit fittings

For control and power cable applications



Cat. no.	Hub size (in.)	Conduit size (in.)	Dimensions (in.)		
			A	B	C
5229*	1/4	1/4	27/32	1 3/8	15/32
5330*	3/8	5/16	63/64	1 3/8	15/32

* UL and CSA not applicable



Steel, malleable iron or aluminum tapered hub threads. With Safe-Edge™ ground cone through 4 in. and double bevel sealing ring through 2 in.

Straight fittings



Diagram	Cat. no.			Conduit size (in.)	Dimensions (in.)		
	Insulated	Non-insulated	Aluminum		A	B	C
	5331**	5231	5231AL	3/8	1 5/32	1 1/2	9/16
	5332	5232	5232AL	1/2	1 3/8	1 9/16	9/16
	5333	5233	5233AL	3/4	1 21/32	1 5/8	9/16
	5334-TB	5234-TB	5234AL	1	1 7/8	2 1/16	27/32
	5335	5235	5235AL	1 1/4	2 3/32	2 1/2	13/16
	5336+	5236	5236AL	1 1/2	2 23/32	2 11/16	13/16
	5337+	5237	5237AL	2	3 3/4	3 1/16	7/8
	5338+	5238	5238AL	2 1/2	3 3/4	4 1/8	1
	5339+	5239	5239AL	3	4 1/2	4 3/4	1
	5340+	5240	5240AL	4	5 1/2	4 1/2	1 1/8
	5385*+	5285*	—	5	8 3/4	7	1 7/8
	5386*+	—	—	6	8 3/4	8 1/2	2

** 3/8 in. conduit fitting has 1/2 in. hub

UL Listed liquidtight; and CSA Certified watertight

* Not CSA Certified

+ Malleable Iron

Liquidtight flexible metal conduit fittings

For control and power cable applications



45° Angle fittings*

Malleable iron, tapered hub threads. With Safe-Edge ground cone through 4 in. and double bevel sealing ring through 2 in.



Diagram	Cat. no.		Size (in.)	Dimensions (in.)		
	Insulated	Non-insulated		A	B	C
	5341**	5241	3/8	1 1/32	1 1/16	9/16
	5342	5242	1/2	1 3/8	1 7/8	9/16
	5343	5243	3/4	1 21/32	2 1/8	9/16
	5344	5244	1	1 7/8	2 1/4	3/4
	5345	5245	1 1/4	2 9/32	2 3/4	1 3/16
	5346	5246	1 1/2	2 23/32	3 3/8	1 3/16
	5347	5247	2	3 1/4	3 7/8	7/8
	5348	5248	2 1/2	3 3/4	4 1/4	1
	5349	5249	3	4 1/2	4 3/4	1
	5350	5250	4	5 1/2	4 5/8	1 1/8

** 3/8 in. conduit fitting has 1/2 in. hub
 UL Listed liquidtight; and CSA Certified watertight
 For wiremesh grips refer to page B120



90° angle fittings



Diagram	Cat. no.			Hub size (in.)	Conduit size (in.)	Dimensions (in.)		
	Insulated	Non-insulated	Aluminum			A	B	C
	5351	5251	5251AL	3/8	3/8	1 1/32	1 3/8	9/16
	5352-TB	5252	5252AL	1/2	1/2	1 3/8	1 9/16	9/16
	5353	5253	5253AL	3/4	3/4	1 21/32	1 3/4	9/16
	5354	5254	5254AL	1	1	1 7/8	2 3/16	3/4
	5355	5255	5255AL	1 1/4	1 1/4	2 9/32	2 3/4	1 3/16
	5356	5256	5256AL	1 1/2	1 1/2	2 23/32	2 15/16	1 3/16
	5357	5257	5257AL	2	2	3 1/4	3 7/8	7/8
	5358	5258	5258AL*	2 1/2	2 1/2	3 3/4	8 7/8	1
	5359	5259	-	3	3	4 1/2	10 1/4	1
	5360	5260	-	4	4	5 1/2	12 5/8	1 1/8

For hazardous location applications, please refer to CEC Section 18.
 UL Listed liquidtight; and CSA Certified watertight
 * Not CSA Certified

Liquidtight flexible metal conduit fittings

Wiremesh grips for liquidtight conduit fittings



Prevents severe conduit bends and pullout.



Wiremesh grips for liquidtight fittings

Cat. no.	Conduit size (in.)	Liquidtight fittings					Adapter
		Straight	45°	90°	CHASE	90° CHASE	
WMG-LT1	3/8	5331	5341	5351	5361	5371	5271
WMG-LT2	1/2	5332	5342	5352-TB	5362-TB	5372	5272
WMG-LT3	3/4	5333	5343	5353	5363	5373	5273
WMG-LT4	1	5334-TB	5344	5354	5364	5374	5274
WMG-LT5	1 1/4	5335	5345	5355	5365	—	5275
WMG-LT6	1 1/2	5336	5346	5356	5366	—	5276
WMG-LT7	2	5337	5347	5357	5367	—	5277
WMG-LT8	2 1/2	5338	5348	5358	5368	—	5278
WMG-LT9	3	5339	5349	5359	5369	—	—
WMG-LT10	4	5340	5350	5360	5370	—	—

Order wiremesh grip separately: no need to duplicate inventory

Liquidtight flexible metal conduit fittings

Stainless steel

—
01 5262 series
Sealing ring gasket
sold separately

The strength of steel – with superior corrosion-resistance.

Until now, there's been no ideal conduit fitting solution for use in heavily corrosive environments. Traditional metallic fittings corrode and require frequent replacement. Nonmetallic fittings offer less strength, lower UV-resistance and don't stand up well in extreme temperatures. Stainless steel liquidtight conduit connectors are constructed of 304 stainless steel to resist corrosion while offering high strength, high UV-resistance and high endurance. Choose among a full range of fittings in straight, 45° and 90° angled configurations for 3/8 in. to 2 in. conduit sizes. Look for the distinctive blue insulator and sealing ring for assurance of ABB quality.

- Ideal for industrial MRO and OEM applications in food and beverage, pharmaceutical, petrochemical, waste water, salt water and other corrosive environments
- Connects metallic-cored liquidtight conduit to a box or enclosure
- 304 stainless steel body and gland-nut resists corrosion far better than other metallic fittings
- Stronger, more UV-resistant than nonmetallic fittings
- Available in straight, 45° and 90° angled configurations to fit conduit from 3/8 in. to 2 in.
- UL Listed ratings: 3, 3R, 4, 4X
- 5262 Sealing ring gasket (sold separately) includes a stainless steel retaining ring to prevent elongation of the gasket and is made from Santoprene™ material, ensuring a superior seal



Liquidtight conduit fittings – Stainless steel

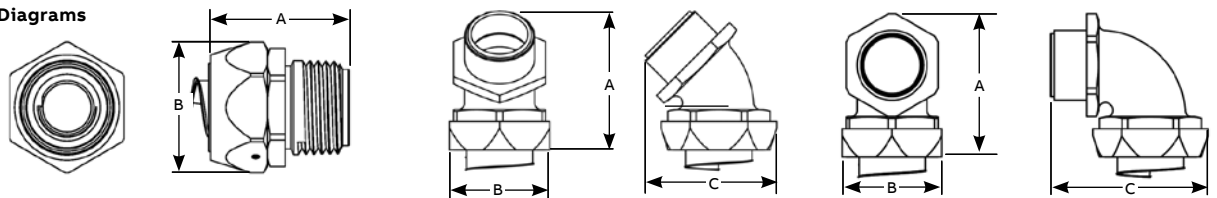


Cat. no.	Size (in.)	Dimensions (in.)			Std. pkg. qty.
		A	B	C	
Straight					
5332SST	1/2	1.360	1.18	–	25
5333SST	3/4	1.388	1.37	–	25
5334SST	1	1.562	1.77	–	5
5335SST	1 1/4	1.720	2.12	–	20
5336SST	1 1/2	2.020	2.48	–	5
5337SST	2	2.335	3.04	–	2
45° Angled					
5341SST *	3/8	1.84	1.02	1.43	25
5342SST	1/2	1.62	1.18	2.04	25
5343SST	3/4	2.32	1.37	1.93	10
5344SST	1	2.86	1.77	2.37	5
5345SST	1 1/4	3.33	2.12	2.80	5
5346SST	1 1/2	3.94	2.48	3.39	2
5347SST	2	4.73	3.04	4.23	1

Cat. no.	Size (in.)	Dimensions (in.)			Std. pkg. qty.
		A	B	C	
90° Angled					
5352SST	1/2	2.12	1.18	2.07	25
5353SST	3/4	2.47	1.37	2.44	10
5354SST	1	2.98	1.77	2.90	5
5355SST	1 1/4	3.53	2.12	3.36	5
5356SST	1 1/2	4.16	2.48	3.88	2
5357SST	2	8.60	3.04	4.69	1
Sealing gasket					
5261	3/8	–	–	–	50
5262	1/2	–	–	–	50
5263	3/4	–	–	–	25
5264	1	–	–	–	25
5265	1 1/4	–	–	–	5
5266	1 1/2	–	–	–	5
5267	2	–	–	–	5

Locknut not included
* 3/8 in. conduit fitting has 3/8 in. hub

Diagrams



Liquidtight flexible metal conduit fittings

Quick-Connect fittings

Quick-Connect liquidtight fittings. Push. Tighten. Done.

The quality of the Liquidtight Systems fitting in a labour-saving Quick-Connect fitting. Innovative push-in technology with a captive sealing ring makes it installation-ready.

Flexible conduit is used in a wide variety of challenging environments. You need fittings to match. That's why ABB offers four different liquidtight lines, including our new time-saving, Quick-Connect fittings.

- Ideal for any industrial MRO or OEM application where high performance is required
- Often used in food and beverage, wastewater and chemical processing industries
- Each liquidtight fitting is designed to exceed expectations
- Simple installation and worry-free connections

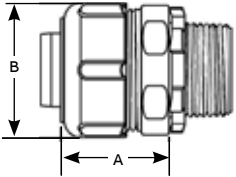
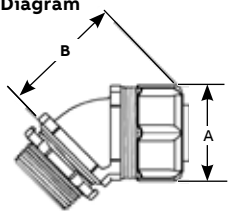
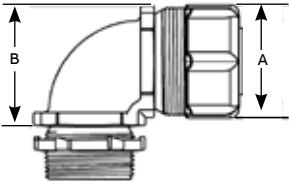
Standard material/finish

Gland nut, ground cone, body, locknut: Steel
 Finish: Zinc plated and coated
 Sealing ring, insulator: Nylon
 Temp. rating: 105 °C



Quick-Connect liquidtight fittings



	Cat. no.		Trade size (in.)	Material	Dimensions (in.)		Inner pack	Outer pack
	Non-insulated	Insulated			A	B		
Straight fittings								
Diagram	5231-PT	5331-PT	3/8	Zinc-plated steel	1 1/32	1 1/16	25	100
	5232-PT	5332-PT	1/2	Zinc-plated steel	1 3/8	1	25	100
	5233-PT	5333-PT	3/4	Zinc-plated steel	1 21/32	1 1/16	25	50
	5234-PT	5334-PT	1	Zinc-plated steel	1 7/8	1 1/16	10	50
45° fittings								
Diagram	5241-PT	5341-PT	3/8	Malleable iron	1 1/32	1	25	50
	5242-PT	5342-PT	1/2	Malleable iron	1 3/8	1 1/16	25	50
	5243-PT	5343-PT	3/4	Malleable iron	1 21/32	1 1/16	10	50
	5244-PT	5344-PT	1	Malleable iron	1 7/8	1 1/2	5	25
90° fittings								
Diagram	5251-PT	5351-PT	3/8	Malleable iron	1 1/32	1 1/16	25	50
	5252-PT	5352-PT	1/2	Malleable iron	1 3/8	1 1/16	25	50
	5253-PT	5353-PT	3/4	Malleable iron	1 21/32	1 3/4	10	50
	5254-PT	5354-PT	1	Malleable iron	1 7/8	1 5/32	5	25

Liquidtight flexible metal conduit fittings

Liquidtight-to-rigid adapters and CHASE fittings

Liquidtight adapter to connect liquidtight to threaded rigid conduit



	Cat. no.	Conduit size (in.)	Dimensions (in.)			Std. pkg.
			A	B	C	
	5271	$\frac{3}{8}$	$1\frac{5}{32}$	$1\frac{9}{16}$	$1\frac{3}{8}$	50
	5272	$\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{11}{16}$	$1\frac{3}{8}$	50
	5273	$\frac{3}{4}$	$1\frac{21}{32}$	$1\frac{3}{4}$	$1\frac{3}{8}$	50
	5274	1	$1\frac{1}{8}$	$2\frac{1}{8}$	$1\frac{3}{8}$	25
	5275	$1\frac{1}{4}$	$2\frac{9}{32}$	$2\frac{1}{2}$	$1\frac{3}{8}$	25
	5276	$1\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{11}{16}$	$1\frac{3}{8}$	10
	5277	2	$3\frac{15}{32}$	$3\frac{1}{16}$	$1\frac{3}{8}$	5

With Safe-Edge ground cone and double bevel sealing ring (through 2 in.)
For Hazardous Location applications, please refer to CEC Section 18.

Nylon-insulated CHASE fittings – Steel or malleable iron



	Cat. no.	Conduit size (in.)	Dimensions (in.)			Std. pkg.
			A	B	C	
	5361	$\frac{3}{8}$	$1\frac{3}{32}$	$1\frac{3}{8}$	$\frac{1}{8}$	100
	5362-TB	$\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$\frac{3}{16}$	100
	5363	$\frac{3}{4}$	$1\frac{11}{16}$	$1\frac{3}{8}$	$\frac{1}{4}$	50
	5364	1	$2\frac{1}{32}$	$2\frac{1}{16}$	$\frac{1}{4}$	25
	5365	$1\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{3}{8}$	$\frac{5}{16}$	25
	5366	$1\frac{1}{2}$	$2\frac{15}{16}$	$2\frac{3}{4}$	$\frac{3}{8}$	10
	5367	2	$2\frac{9}{16}$	3	$\frac{3}{8}$	5
	5368	$2\frac{1}{2}$	$4\frac{3}{8}$	$3\frac{15}{16}$	$\frac{7}{16}$	5
	5369	3	$5\frac{1}{8}$	$4\frac{1}{8}$	$\frac{1}{2}$	5
	5370	4	$5\frac{1}{8}$	$4\frac{3}{8}$	$\frac{1}{2}$	5

With Safe-Edge ground cone and double bevel sealing ring (through 2 in.)
Note: UL Listed liquidtight; and CSA certified watertight
For hazardous location applications, please refer to CEC Section 18.

Nylon-insulated 90° angle CHASE connectors

Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)		
			A	B	C
	5371 †	$\frac{3}{8}$	$1\frac{1}{32}$	$1\frac{1}{2}$	$\frac{3}{16}$
	5372 †	$\frac{1}{2}$	$1\frac{15}{64}$	$1\frac{15}{32}$	$\frac{3}{16}$
	5373 †	$\frac{3}{4}$	$1\frac{31}{64}$	$1\frac{7}{8}$	$\frac{9}{32}$
	5374 †	1	$1\frac{23}{32}$	$2\frac{1}{4}$	$1\frac{11}{32}$

With Safe-Edge ground cone and double bevel sealing ring
Note: UL Listed liquidtight; and CSA certified watertight. Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 1 and 2; Class III, Div. 1 and 2, where general purpose equipment is specifically permitted per NEC Section 500-2(a).
† UL Listed as grounding means under NEC 351-7.

Liquidtight flexible metal conduit fittings

Specifications – External bonding

Application

- Used where external bonding jumper is required around liquidtight flexible metal conduit
- To positively bond conduit to box or enclosure
- Used where flexible raceway is installed in outdoor or indoor locations where exposed to continuous or intermittent moisture

Features

- Designed with provision to install bonding jumper in several positions
- Designed to accept mechanical or compression lug
- Ability to install quickly with low torque effort
 - (i) Compresses metallic convolutions; assures ground contact with low impedance and high raceway holding power (A)
 - (ii) Single helical thread on ground cone is easy to install without cross threading; accepts variations in raceway diameters and convolution pitch (B)
 - (iii) Rolled over edge protects conductors (C)
- Sealing ring design has following exclusive features:
 - (i) Grips and seals at leading and trailing edge – will not abrade raceway jacket (D)
 - (ii) Provided with grooves on inside diameter for anti-sleeving (E)
 - (iii) Shoulders on both ends for extra sealing (F)
 - (iv) Symmetrical shape assures foolproof assembly
- Can be disconnected and reused
- Watertight/oil-tight installation at box or enclosure termination is assured by:
 1. External taper thread hub on 5331GR series and use of sealing gasket 5262 series (G)
 2. Taper-tapped hole on 5271 series
- For hazardous location applications, please refer to CEC Section 18
- Conforms with JIC requirements
- CEC Rule 12-1306 stipulates “a separate bonding conductor shall be installed in liquidtight flexible conduit in accordance with Section 10”
- CEC Rule 10-618 (3): “The armour of flexible metal conduit and liquidtight flexible metal conduit shall not be considered as fulfilling the requirements of a bonding conductor for the purposes of this rule, and a separate bonding conductor shall be run within the conduit.”

Standard material

- Lugs: High conductivity copper (for copper conductor only)
- Body, gland, locknut and ground cones: All steel or malleable iron
- Sealing ring and insulator: All thermoplastic
- Sealing gasket: Stainless steel and Buna N
- Strap: Steel
- Standard finish: All electro zinc plated and chromate coated except lugs
- Lugs: Bright dipped

Range

- 5331GR Series (straight fittings with male hub): ¾ in. through 6 in. conduit
- 5341GR Series (45°): ¾ in. through 4 in. conduit
- 5351GR Series (90°): ¾ in. through 4 in. conduit
- 5271GR Series (straight fittings with female hub): ¾ in. through 1¼ in. conduit
- All hubs provided with taper pipe threads (NPT)

Conformity

- UL 467
- UL 514B
- CSA C22.2 No. 18.3
- CSA C22.2 No. 41
- NEMA FB-1
- NFPA 70-2008 (ANSI)
- JIC EGP1
- JIC EMP1
- Federal Specification W-F-406
- Federal Standard H-28 (threads)

Liquidtight flexible metal conduit fittings

Specifications – External bonding

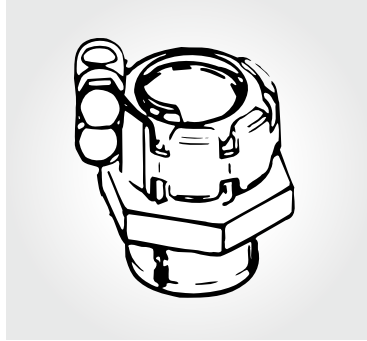
01Series 5331GR

02Series 5271GR

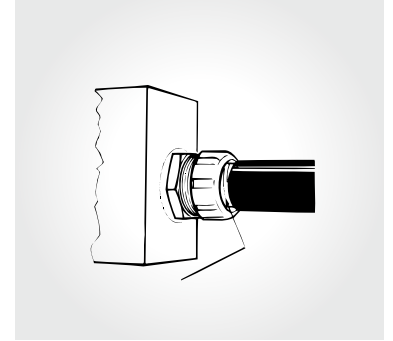
03 Sleeving
Raceway jacket pulls off – exposing core and affecting liquidtight termination. Feature (E) on sealing ring helps overcome this problem.



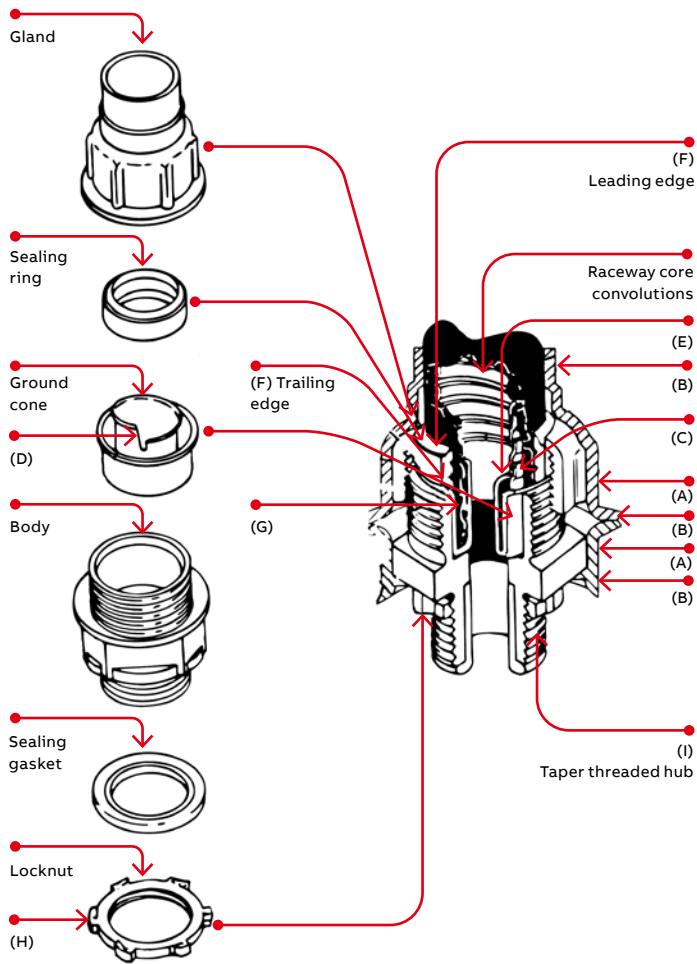
01



02



03



Liquidtight flexible metal conduit fittings

Grounding fittings

Malleable iron, tapered hub threads.

Straight grounding fittings



	Cat. no.			Conduit size (in.)	Dimensions (in.)			Ground wire (AWG)
	Steel insulated	Steel non-insulated	Aluminum non-insulated		A	B	C	
	5331GR**	5231GR	5231ALGR*	3/8	1 1/32	1 1/2	9/16	14-8
	5332GR	5232GR	5232ALGR*	1/2	1 3/8	1 9/16	9/16	14-8
	5333GR	5233GR	5233ALGR*	3/4	1 21/32	1 5/8	9/16	14-4
	5334GR	5234GR	5234ALGR*	1	1 7/8	2 1/16	3/4	14-4
	5335GR	5235GR	-	1 1/4	2 1/4	2 1/2	13/16	8-1/0
	5336GR	5236GR	-	1 1/2	3 1/4	2 11/16	13/16	4-2/0
	5337GR	5237GR	-	2	3 13/16	3 1/16	7/8	4-2/0
	5338GR	5238GR	-	2 1/2	4 7/16	4 1/8	1	2-4/0
	5339GR	5239GR	-	3	5 3/16	4 3/4	1	2-4/0
	5340GR	5240GR	-	4	6 1/8	4 1/2	1 1/8	2-4/0
	5385GR	5285GR	-	5	8 9/16	7	1 7/8	2-4/0
	5386GR	-	-	6	8 17/32	8 1/2	2	2-4/0

* Not CSA Certified

** 3/8 in. conduit fittings have 1/2 in. trade size hub. With Safe-Edge ground cone (through 4 in.) and double bevel sealing ring (through 2 in.).

Malleable iron, tapered hub threads.

45° Angle grounding fittings



	Cat. no.		Conduit size (in.)	Dimensions (in.)			Ground wire (AWG)
	Steel insulated	Steel non-insulated		A	B	C	
	5341GR**	5241GR**	3/8	1 5/32	1 9/16	9/16	14-8
	5342GR	5242GR	1/2	1 3/8	1 7/8	9/16	14-8
	5343GR	5243GR	3/4	1 21/32	2 1/8	9/16	14-4
	5344GR	5244GR	1	1 7/8	2 1/4	3/4	14-4
	5345GR	5245GR	1 1/4	2 1/4	2 3/4	13/16	8-1/0
	5346GR	5246GR	1 1/2	3 1/4	3 3/8	13/16	4-2/0
	5347GR	5247GR	2	3 13/16	3 7/8	7/8	4-2/0
	5348GR	5248GR	2 1/2	4 7/16	4 1/4	1	2-4/0
	5349GR	5249GR	3	5 3/16	4 3/4	1	2-4/0
	5350GR	5250GR	4	6 1/8	4 5/8	1 1/8	2-4/0

** 3/8 in. conduit fittings have 1/2 in. trade size hub. With Safe-Edge ground cone (through 4 in.) and double bevel sealing ring (through 2 in.).

Liquidtight flexible metal conduit fittings

Grounding fittings

Malleable iron, tapered hub threads.

90° Angle grounding fittings



	Cat. no.			Conduit size (in.)	Dimensions (in.)			Ground wire (AWG)
	Steel insulated	Steel non-insulated	Aluminum non-insulated		A	B	C	
	5351GR**	5251GR**	5251ALGR*	$\frac{3}{8}$	$1\frac{5}{32}$	$1\frac{1}{4}$	$\frac{9}{16}$	14-8
	5352GR	5252GR	5252ALGR*	$\frac{1}{2}$	$1\frac{3}{8}$	$1\frac{7}{16}$	$\frac{9}{16}$	14-8
	5353GR	5253GR	5253ALGR*	$\frac{3}{4}$	$1\frac{21}{32}$	$1\frac{13}{16}$	$\frac{9}{16}$	14-4
	5354GR	5254GR	5254ALGR*	1	$1\frac{7}{8}$	$2\frac{1}{16}$	$\frac{3}{4}$	14-4
	5355GR	5255GR	-	$1\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$\frac{13}{16}$	8-1/0
	5356GR	5256GR	-	$1\frac{1}{2}$	$3\frac{1}{4}$	$2\frac{15}{16}$	$\frac{13}{16}$	4-2/0
	5357GR	5257GR	-	2	$3\frac{13}{16}$	$3\frac{7}{16}$	$\frac{7}{8}$	4-2/0
	5358GR	5258GR	-	$2\frac{1}{2}$	$4\frac{7}{16}$	$8\frac{7}{8}$	1	2-4/0
	5359GR	5259GR	-	3	$5\frac{3}{16}$	$10\frac{1}{4}$	1	2-4/0
	5360GR	5260GR	-	4	$6\frac{1}{8}$	$12\frac{5}{8}$	$1\frac{1}{8}$	2-4/0

* Not CSA Certified

** $\frac{3}{8}$ in. conduit fittings have $\frac{1}{2}$ in. trade size hub. With Safe-Edge ground cone (through 4 in.) and double bevel sealing ring (through 2 in.).

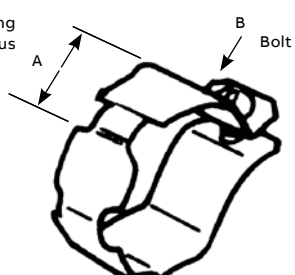
Liquidtight flexible metal conduit fittings

Grounding fittings

For retrofit applications.
Includes strap, nut and bolt.

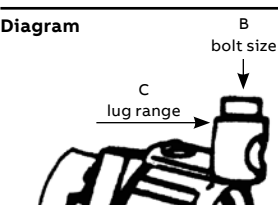
External grounding strap



	Cat. no.	Conduit size (in.)	A Swing radius (in.)	B Bolt size
Diagram 	GR1W	3/8	1	10-24
	GR2W	1/2	1 1/16	10-24
	GR3W	3/4	1 3/8	1/4-20
	GR4W	1	1 1/2	1/4-20
	GR5W	1 1/4	1 7/8	5/16-18

Liquidtight to rigid external ground adaptor



	Cat. no.	Conduit size (in.)	A Overall length (in.)	B Bolt size	C Lug range (AWG)
Diagram 	5271GR*	3/8	1 15/32	10-24	14-8
	5272GR	1/2	1 3/8	10-24	14-8
	5273GR	3/4	1 21/32	1/4-20	14-4
	5274GR	1	1 7/8	1/4-20	14-4
	5275GR	1 1/4	2 1/4	5/16-18	8-1/0
	5276GR	1 1/4	2 29/32	3/8-16	8-1/0

* 3/8 in. conduit fittings have 1/2 in. trade size hub

Revolver™ grounding device



Cat. no.	Conduit size (in.)
38GR-TB	3/8
12GR-TB	1/2
34GR-TB	3/4
1GR-TB	1



The grounding device is a combination of a set screw and a grounding lug that can be used to retrofit any existing liquidtight fitting to an externally grounded version.

Liquidtight flexible metal conduit fittings

Specifications – PVC-coated fittings



—
01 3321 Series*
*3361 series...same as
3321, except 90°
3341 series...same as
3321, except 45°

Application

- Used where liquidtight flexible metal conduit is installed in outdoor or indoor locations where exposed to environmental conditions that are more than normally corrosive to exposed surfaces
- To positively bond conduit to box or enclosure

Features

- PVC coated to protect fitting from extremely corrosive surroundings without affecting integrity of electrical grounding path (A)
- Provided with overlapping sleeve for additional seal (B)
- Ability to install quickly with low torque effort
- Ground cone design offers following advantages:
 - (i) Compresses metallic convolutions; provides high quality ground contact with low impedance and high raceway holding power (C)
 - (ii) Single helical thread on ground cone is easy to install without cross threading; accepts variations in raceway diameters and convolution pitch (D)
 - (iii) Rolled over edge protects conductors (E)
- Sealing ring design has following exclusive features:
 - (1) Grips and seals at leading and trailing edge – will not abrade raceway jacket (F)
 - (2) Provided with grooves on inside diameter for anti-sleeving (G)
 - (3) Shoulders on both ends for extra sealing
 - (4) Symmetrical shape assures foolproof assembly
- Hardened steel or malleable iron locknut (H)
- Can be disconnected and reused
- Watertight/oil-tight installation at box or enclosure termination is provided by external taper thread hub and sealing gasket (I)
- Conforms with JIC requirements

Standard material

- Body, gland, locknut and ground cones: All steel or malleable iron
- Sealing ring and insulator: All thermoplastic
- Sealing gasket, retainer: Stainless steel
- Resilient seal: Buna N
- Coating: PVC

Standard finish

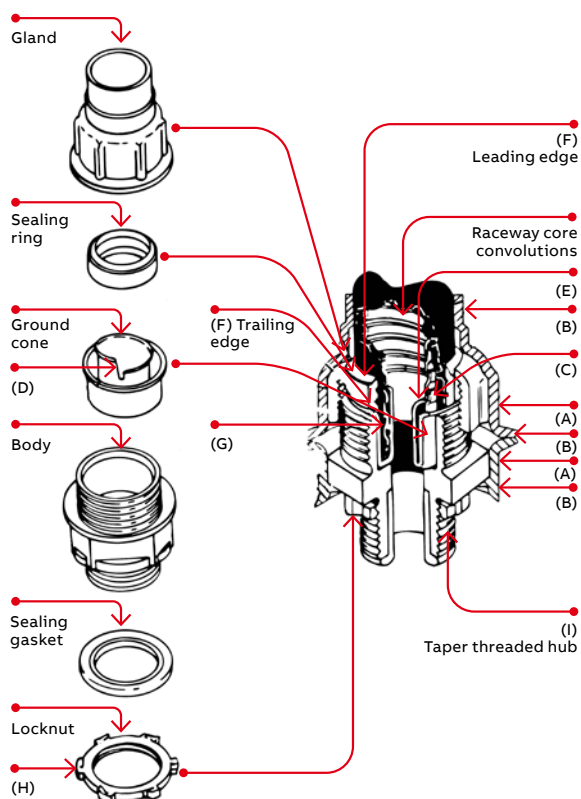
- Outside of body and gland: PVC coated 0.040 in. min. thickness
- Inside of body and gland: Electro zinc plated and chromate coated
- Locknut, sealing gasket, and retainer: Electro zinc plated and chromate coated

Range

- 3321, 3361 and 3341 series 3/8 in. through 4 in. conduit
- All hubs provided with taper pipe threads (NPT)

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- NEMA FB-1
- NFPA 70-2008 (ANSI)
- JIC EGP1
- JIC EMP1
- Federal Specification W-F-406
- Federal Standard H-28 (threads)



Liquidtight flexible metal conduit fittings

Corrosion-resistant PVC-jacketed liquidtight fittings



Straight PVC coated

- Nylon insulated
- Steel or malleable iron
- NPT hub threads

90° PVC coated

- Nylon insulated
- NPT hub threads

45° PVC coated

- Nylon insulated
- NPT hub threads



Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)		
			A	B	C
Straight PVC coated					
	3321	3/8	1 ¹⁵ / ₃₂	2 ⁵ / ₁₆	9/16
	3322	1/2	1 ⁵ / ₈	2 ¹ / ₂	9/16
	3323	3/4	1 ¹⁵ / ₁₆	2 ²⁵ / ₃₂	9/16
	3324	1	2 ¹ / ₄	3 ¹⁵ / ₃₂	3/4
	3325	1 ¹ / ₄	2 ¹¹ / ₁₆	4 ¹ / ₄	13/16
	3326	1 ¹ / ₂	3 ¹ / ₈	4 ¹¹ / ₁₆	13/16
	3327	2	3 ⁵ / ₈	5 ⁵ / ₁₆	7/8
	3328-TB	2 ¹ / ₂	4 ³ / ₈	6 ³ / ₈	1
	3329	3	5 ³ / ₁₆	6 ¹ / ₂	1
	3331	4	6 ⁷ / ₁₆	6 ³ / ₄	1 ¹ / ₈
	90° PVC coated				
	3361	3/8	1 ¹⁵ / ₃₂	2 ³ / ₁₆	9/16
	3362	1/2	1 ⁵ / ₈	2 ¹ / ₂	9/16
	3363	3/4	1 ¹⁵ / ₁₆	2 ²⁹ / ₃₂	9/16
	3364	1	2 ¹ / ₄	3 ¹⁹ / ₃₂	3/4
	3365	1 ¹ / ₄	2 ¹¹ / ₁₆	4 ¹ / ₂	13/16
	3366	1 ¹ / ₂	3 ¹ / ₈	4 ¹⁵ / ₁₆	13/16
	3367	2	3 ⁵ / ₈	5 ¹¹ / ₁₆	7/8
	3368	2 ¹ / ₂	4 ³ / ₈	11 ¹ / ₈	1
	3369	3	5 ³ / ₁₆	12 ¹ / ₂	1
	3371	4	6 ⁷ / ₁₆	14 ⁷ / ₈	1 ¹ / ₈
	45° PVC Coated				
	3341	3/8	1 ¹⁵ / ₃₂	1 ¹ / ₈	9/16
	3342	1/2	1 ⁵ / ₈	1 ¹ / ₄	9/16
	3343	3/4	1 ¹⁵ / ₁₆	1 ⁷ / ₁₆	9/16
	3344-TB	1	2 ¹ / ₄	1 ¹³ / ₁₆	3/4
	3345	1 ¹ / ₄	2 ¹¹ / ₁₆	2 ¹ / ₁₆	13/16
	3346	1 ¹ / ₂	3 ¹ / ₈	2 ¹¹ / ₁₆	13/16
	3347	2	3 ⁵ / ₈	3 ³ / ₁₆	7/8
	3348-TB	2 ¹ / ₂	4 ³ / ₈	3 ¹⁹ / ₁₆	1
	3349	3	5 ³ / ₁₆	4 ⁹ / ₁₆	1
	3352	4	6 ⁷ / ₁₆	5 ³ / ₄	1 ¹ / ₈

Complies with JIC standards and Federal Specs W-F-406B, W-F-408B

Liquidtight flexible metal conduit fittings

Specifications – Liquidtight unions for threaded hubs

01 41 Series

Application

- To couple threaded end of a fitting or a pipe to a tapped opening in a box or enclosure where rotation of fitting or pipe is limited or restricted

Features

- Provides high quality bond between fitting or pipe to the union
- Provided with resilient seal (A)
- Resilient seal subjected to controlled deformation; positive seal and reusability are assured (B)
- Unique design centralizes throat openings of threaded hub and union (C)
- Permits orientation of fitting in any predetermined direction for a safe, functional and neat assembly
- Provided with taper-threaded hub for liquidtight assembly (D)
- Straight pipe threads on gland accept a straight or taper-threaded hub on fitting or pipe to be coupled (E)
- Suitable for hazardous location use per CEC Rule J18106 Class I, Div. 1; CEC Rule 18202 Class II, Div. 1; CEC Rule 18252 Class II, Div. 2; CEC Rule 18302 Class III, Div. 1; CEC Rule 18352 Class III, Div. 2;

Standard material/finish

- Gland: Steel/electro zinc plated and chromate coated
- Body: Steel/electro zinc plated and chromate coated
- O-ring: Buna N/as molded

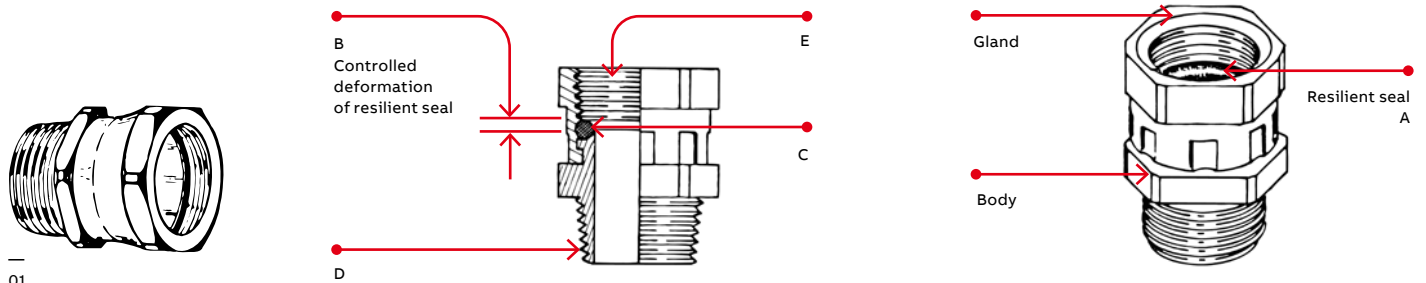
Range

- Hub (external thread) ½ in. and ¾ in. NPT
- Gland (internal threads) ½ in. and ¾ in. NPS

Conformity

- UL 514B
- CSA C22.2 No. 18.3
- NEMA FB1
- ANSI C80.4
- NFPA 702008 (ANSI)
- Federal Specification WF408
- Federal Specification WF406
- Federal Standard H28 (threads)

Steel, zinc plated and chromated. Ideal for angle fittings where swing clearance is not available.



Liquidtight union for threaded hub

Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)	
			A	B
	41TB	½	1 ²⁹ / ₆₄	1
	42TB	¾	1 ¹⁵ / ₁₆	1¼

Liquidtight flexible metal conduit fittings

Metallic angled fittings and KO plugs

45° Metallic fittings



Cat. no.	Conduit size (in.)	Hub thread (NPT)	Dimensions (in.)	
			A	B
3730-TB*	3/8	1/2-14	1 5/32	2 13/32
3731-TB	1/2	1/2-14	1 3/8	2 9/16
3732	3/4	3/4-14	1 5/8	3
3733-TB	1	1-11 1/2	1 7/8	3 1/2
3734-TB	1 1/4	1 1/4-11 1/2	2 3/8	4 1/8
3735-TB	1 1/2	1 1/2-11 1/2	2 3/4	4 7/8
3736	2	2-11 1/2	3 17/32	5 1/2

* Not UL Listed
CSA not applicable

90° Metallic fittings

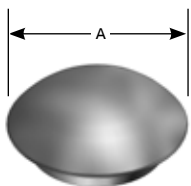


Cat. no.	Conduit size (in.)	Hub thread (NPT)	Dimensions (in.)	
			A	B
3740*	3/8	1/2-14	1 5/32	1 5/8
3741	1/2	1/2-14	1 3/8	1 3/4
3742	3/4	3/4-14	1 5/8	2 1/4
3743-TB	1	1-11 1/2	1 7/8	2 9/16
3744-TB	1 1/4	1 1/4-11 1/2	2 3/8	3 1/4
3745	1 1/2	1 1/2-11 1/2	2 3/4	3 1/2
3746-TB	2	2-11 1/2	2 17/32	4 1/8

* Not UL Listed
CSA not applicable

NEMA 3R, 4, 6 and 13
Temperature range —
-30 °C to 105 °C.

Liquidtight KO plugs



Cat. no.	Size (in.)	Dimensions (in.)	
		A	A
5710	1/2	1 3/32	1 3/32
5711-TB	3/4	1 1/2	1 1/2
5712	1	1 27/32	1 27/32
5713	1 1/4	2 7/32	2 7/32
5714-TB	1 1/2	2 1/2	2 1/2
5715	2	3 3/32	3 3/32
5716	2 1/2	3 21/32	3 21/32
5717-TB	3	4 19/64	4 19/64
5718	4	5 19/64	5 19/64

UL Listed liquidtight
CSA not applicable

Liquidtight flexible metal conduit fittings

Specifications – Liquidtight sealing gaskets

01 5262 Series

Application

- When used with an externally threaded fitting, provides a tight seal against oil, fumes or moisture at the knockout opening

Features

- Locks resilient sealing material in steel
- Steel retainer protects seal from extruding out under torque and limits compression to an optimum predetermined value; provides high quality seal
- Resilient material flows and seals rough surfaces

Standard material

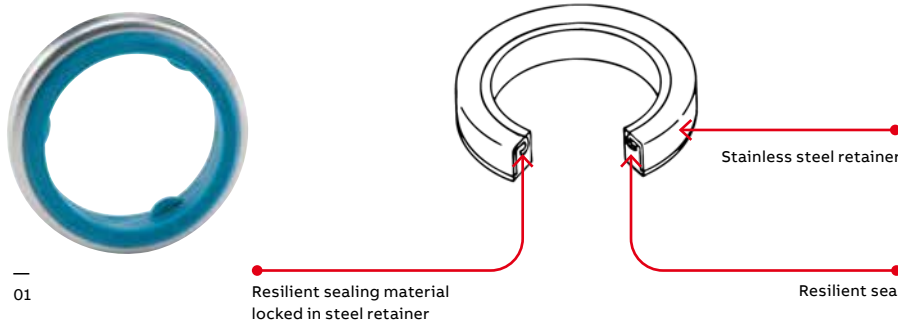
- Retainer: Stainless steel
- Sealing material: Buna N

Range

- ½ in. through 4 in. hub size

NEMA 3R, 4, 6 and 13

For use with T&B Fittings. Sealing material resists oil, coolants and hydraulic fluids as well as water.



Sealing ring with stainless steel retainer



Diagram	Cat. no.	Conduit size (in.)	Dimensions (in.)	
			A	B
	5299**	¼	0.80	0.11
	5261**	⅜	0.95	0.11
	5262	½	1.16	0.18
	5263	¾	1.49	0.19
	5264	1	1.75	0.19
	5265	1¼	2.15	0.22
	5266	1½	2.42	0.23
	5267	2	2.92	0.23
	5268	2½	3.44	0.23
	5269	3	4.08	0.23
	5270	4	5.29	0.31

** UL not applicable

Liquidtight flexible metal conduit fittings

MS fittings

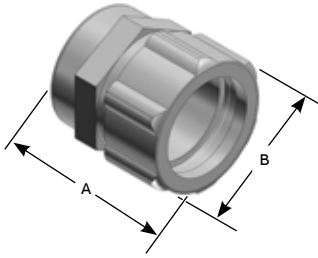
Liquidtight flexible metal and liquidtight flexible nonmetallic fittings with internal threads to accept AN-MS fitting shells.

Material: Steel

Liquidtight flexible metal/MS fittings



Cat. no.	Trade size (in.)	Internal thread		Thread size (UNEF2B)	Dimensions (in.)	
		AN-MS conn. shell size			A	B
LTA03810	$\frac{3}{8}$	10SL, 12, 12S		$\frac{5}{8}$ -24	$1\frac{5}{32}$	1
LTA03814	$\frac{3}{8}$	14, 14S		$\frac{3}{4}$ -20	$1\frac{5}{32}$	1
LTA05014	$\frac{1}{2}$	14, 14S		$\frac{3}{4}$ -20	$1\frac{5}{16}$	$1\frac{1}{4}$
LTA05016	$\frac{1}{2}$	16, 16S		$\frac{7}{8}$ -20	$1\frac{5}{16}$	$1\frac{1}{4}$
LTA05018	$\frac{1}{2}$	18		1-20	$1\frac{5}{16}$	$1\frac{1}{4}$
LTA07516	$\frac{3}{4}$	16, 16S		$\frac{7}{8}$ -20	$1\frac{7}{16}$	$1\frac{1}{2}$
LTA07518	$\frac{3}{4}$	18		1-20	$1\frac{7}{16}$	$1\frac{1}{2}$
LTA07520	$\frac{3}{4}$	20, 22		$1\frac{3}{16}$ -18	$1\frac{7}{16}$	$1\frac{1}{2}$
LTA10020	1	20, 22		$1\frac{3}{16}$ -18	$1\frac{3}{4}$	$1\frac{23}{32}$
LTA10024	1	25, 28		$1\frac{7}{16}$ -18	$1\frac{3}{4}$	$1\frac{23}{32}$



Liquidtight flexible metal conduit fittings

PG fittings

Fittings for liquidtight flexible metal conduit with metric threads of PG form (DIN 40430).

PG metric thread liquidtight fittings



	Cat. no.	Flexible conduit size (in.)	Metric PG thread	Dimensions (mm)		
				A	B	C
Nylon-insulated straight fittings						
	7330**	¼	9	36	21	12
	7360**	5/16	9	36	26	12
	7361*	3/8	11	40	29	14
	7362*	3/8	13.5	40	29	14
	7363*	½	16	41	35	14
	7364*	¾	21	43	42	14
	7365	1	29	56	47	19
	7366	1¼	36	67	58	21
	7367	1½	42	72	69	21
	7368	2	48	81	83	21
Nylon-insulated 45° angle fittings						
	7341	3/8	11	27	29	14
	7342	3/8	13.5	27	29	14
	7343	½	16	30	35	14
	7344-TB	¾	21	34	42	14
	7345	1	29	44	47	19
	7346	1¼	36	51	58	19
	7347	1½	42	60	69	21
	7348-TB	2	48	73	76	24
	Nylon-insulated 90° angle fittings					
	7351	3/8	11	37	29	14
	7352	3/8	13.5	37	29	14
	7353	½	16	40	35	14
	7354	¾	21	44	42	14
	7355	1	29	56	47	21
	7356	1¼	36	70	58	21
	7357	1½	42	75	69	21
	7358	2	48	87	83	24

UL Listed liquidtight

*CSA Certified dust-tight and watertight

**UL not applicable and not CSA Certified

Liquidtight flexible metal conduit fittings

ISO metric fittings

Fittings for liquidtight flexible metal conduit with metric threads of ISO form (BS-4568-SA BS 162).

ISO metric thread liquidtight fittings



	Cat. no.	Flexible conduit size (in.)	Metric ISO thread	Dimensions (mm)		
				A	B	C
Nylon-insulated straight fittings						
	9330	$\frac{3}{4}$	16	36	21	12
	9331	$\frac{3}{4}$	20	36	21	12
	9306	$\frac{5}{16}$	16	36	26	12
	9330-NB	$\frac{3}{8}$	16	40	29	16
	9331	$\frac{3}{8}$	20	40	29	16
	9332-NB	$\frac{1}{2}$	20	42	35	16
	9333-NB	$\frac{3}{4}$	25	45	42	16
9334-NB	1	32	54	47	23	
Nylon-insulated 45° angle fittings						
	9340	$\frac{3}{8}$	16	27	29	16
	9341	$\frac{3}{8}$	20	27	29	16
	9342	$\frac{1}{2}$	20	27	35	16
	9343TB	$\frac{3}{4}$	25	31	42	16
	9344	1	32	34	47	23
	Nylon-insulated 90° angle fittings					
	9350	$\frac{3}{8}$	16	35	29	16
	9351	$\frac{3}{8}$	20	35	29	16
	9352TB	$\frac{1}{2}$	20	39	35	16
	9353TB	$\frac{3}{4}$	25	43	42	16
	9354TB	1	32	48	47	23

UL Listed liquidtight

Liquidtight flexible metal conduit fittings

NPT/MS adaptors

Mechanical adaptor with internal threads to mate with NPT threaded fittings and MS type fittings.

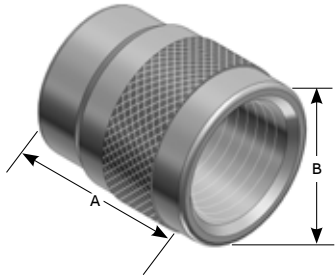
Material: Aluminum

NPT/MS fitting adaptors



Cat. no.	NPT thread (in.)	AN-MS fitting shell size	Thread size	Dimensions (in.)	
				A	B
MSA05014	1/2	14, 14S	3/4-20 UNEF-2B	1.000	1.175
MSA05016	1/2	16, 16S	7/8-20 UNEF-2B	1.000	1.175
MSA05018	1/2	18	1-20 UNEF-2B	1.125	1.175
MSA07516	3/4	16, 16S	7/8-20 UNEF-2B	1.250	1.356
MSA07518	3/4	18	1-20 UNEF-2B	1.250	1.300
MSA07520	3/4	20, 22	1-3/16-18 UNEF-2B	1.375	1.300
MSA10020	1	20, 22	1-3/16-18 UNEF-2B	1.500	1.431
MSA10024	1	24, 28	1-7/16-18 UNEF-2B	1.625	1.313
MSA10032	1	32	1-3/4-18 UNS-2B	2.000	1.576
MSA10036	1	36	2-18 UNS-2B	2.250	1.738

Not CSA Certified



Liquidtight flexible nonmetallic conduit fittings

Specifications – Type A conduit fittings

—
01 Series 6302
liquidtight flexible
nonmetallic
conduit fittings

—
02 Series 6322
liquidtight flexible
nonmetallic
conduit fittings

Application

- To provide a liquidtight, dust-tight connection between flexible, nonmetallic conduit and a box or an enclosure

Features

- Serrated design provides high mechanical pullout strength (A)
- Unique component parts (body/gland) design ensures positive seal between conduit and fitting (B)
- Tapered thread hub and sealing O-ring provide a liquidtight/dust-tight seal to a box or an enclosure (C)
- High strength, chemical-resistant, non-burning, non-dripping thermoplastic construction
- Smooth insulated body throughout for maximum dielectric strength
- Captive O-ring and reduced number of parts save installation time (D)

Standard material

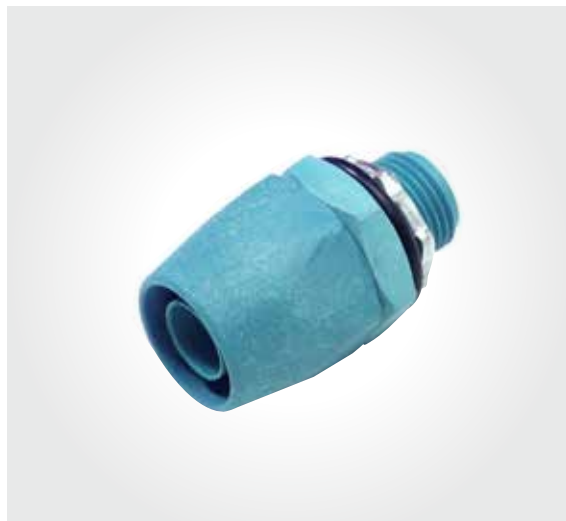
- Body: Thermoplastic
- Gland: Thermoplastic
- O-ring: Neoprene
- Locknut: Steel (case-hardened)

Standard finish

- Body, gland and O-ring: As molded
- Locknut: Electro zinc-plated

Range

- Conduit size: ½ in. through 1¼ in.
- Hub size: ½ in. through 1¼ in. NPT



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01

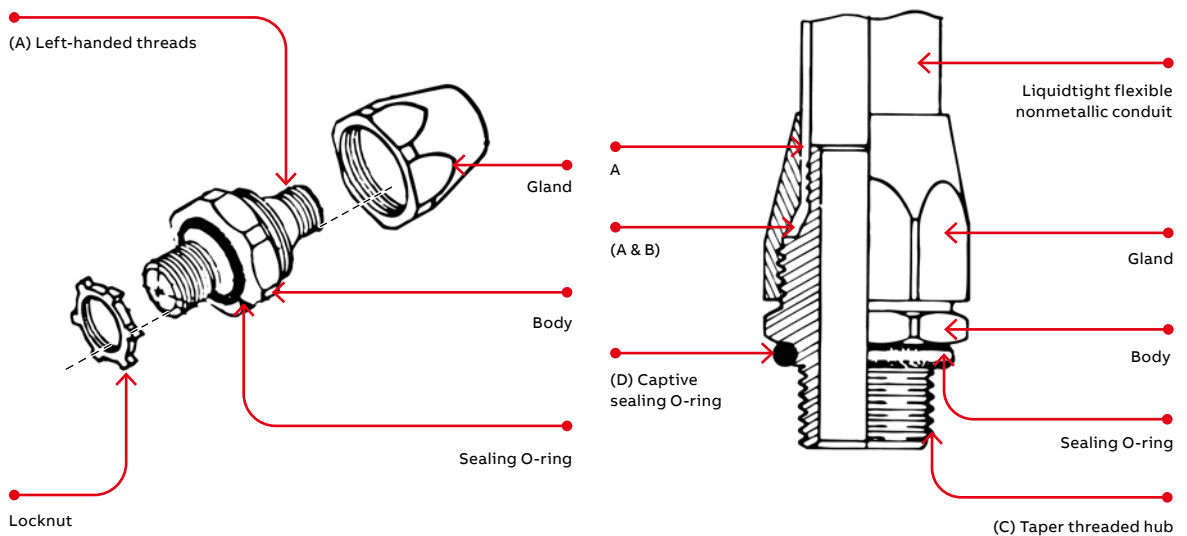


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02

Liquidtight flexible nonmetallic conduit fittings

Suggested specifications for Type A conduit and fittings

- Type A liquidtight flexible nonmetallic conduit shall be seamless type adequately reinforced with one or more layers of flexible braided reinforcing cords. Conduit jacket shall be of non-kinking oil-resistant/water-resistant flame-retardant material suitable for ambient environmental conditions.
- Where Type A flexible nonmetallic conduit terminates into a threaded or threadless opening, the conduit shall be cut square, deburred, installed with sufficient slack to reduce effects of vibration and assembled with approved fittings such as series 6302 or 3720 manufactured by ABB. Fittings shall be of malleable iron/steel/thermoplastic construction with taper-threaded hub and:
 - (1) Ferrous metallic fittings shall be electro-zinc plated inside outside and equipped with a nylon-insulated throat.
 - (2) Thermoplastic fittings shall be of high impact chemical-resistant, non-burning, non-dripping thermoplastic.
 - (3) Fittings shall be provided with a captive, moisture-resistant/oil-resistant synthetic rubber gasket.




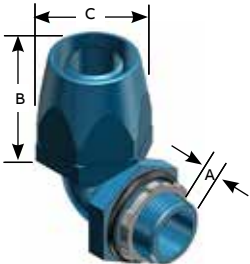
Liquidtight flexible nonmetallic conduit fittings

Type A conduit fittings

- Designed especially for the Type A, all-plastic raceways now in use for dynamic machine tool applications
- Fittings are constructed of a high-strength, chemically resistant thermoplastic tougher than the raceway itself
- Neoprene sealing ring is furnished with fitting providing a liquidtight seal for knockout applications

Thermoplastic fittings for liquidtight flexible nonmetallic conduit Type A



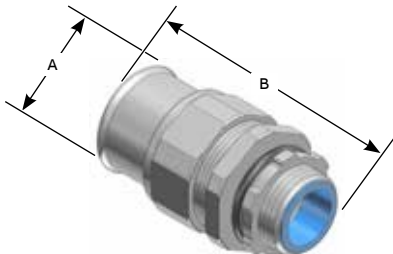
	Cat. no.	Conduit size (in.)	Dimensions (in.)		
			A	B	C cross corners
Straight fittings					
	6302	½	0.60	1.68	1.48
	6303	¾	0.61	1.85	1.76
	6304	1	0.77	1.89	2.10
	6305	1¼	0.79	2.30	2.67
90° angle fittings					
	6322	½	0.60	1.56	1.48
	6323	¾	0.61	1.74	1.76
	6324	1	0.77	1.78	2.10
	6325	1¼	0.79	2.13	2.67

Corrosion-resistant applications
Use with our LNM-P conduit.

- Nylon-insulated throat
- Sealing ring to seal knockouts
- Steel or malleable iron
- UL Listed
- NPT hub threads to seal in female threads
- High mechanical pull-out strength
- Provides positive seal against water, oil and dust

Metallic fittings for liquidtight flexible nonmetallic conduit Type A



	Cat. no.	Conduit size (in.)	Hub thread (NPT)	Dimensions (in.)	
				A	B
	3720-TB*	⅜	½-14	1½ ₃₂	2
	3721-TB	½	½-14	1⅝	2⅝
	3722-TB	¾	¾-14	1⅞	2¾
	3723	1	1-11½	1⅞	2½
	3724-TB	1¼	1¼-11½	2⅞	2
	3725	1½	1½-11½	2¾	3⅞
	3726	2	2-11½	3 ¹⁷ / ₃₂	3⅞

* Not UL Listed

Liquidtight flexible nonmetallic conduit fittings

Specifications – Bullet® liquidtight fittings for liquidtight flexible nonmetallic conduit Type B and tubing

Plastic Bullet liquidtight fittings feature:

- Fitting assembles to conduit without disassembly and is designed to be installed with positive installation criteria (gland bottoms on body shoulder)
- Rugged low-profile nonmetallic body and gland construction (1); the fitting is equipped with a steel locknut to firmly secure fitting to box or an enclosure and a sealing O-ring
- Captive sealing O-ring (2) with predetermined compression for a reliable seal at enclosure
- Fitting ferrule designed to accept variations in conduit inside diameter and is tolerant of field conduit cuts (3)
- Ferrule profile designed to reduce friction between conduit I.D. and ferrule (4) allowing conduit to seat properly for an effective seal
- Outer surface of clamping fingers provided with friction-reducing ridges (5) for ease of installation; the inner surface is designed with conduit biting teeth to enhance clamping and sealing action (6)
- Performance of fittings tested to simulate adverse installation conditions
- Provides a double sealing action (7)
- Elongated gland nut profile (8) designed to provide additional strain relief for 90° pull and an easy hand grip
- Performance of fitting unaffected by exposure to detergents, cleaners and sanitizers commonly encountered in food processing plants and typical industrial environment; also unaffected by cutting fluids, wiring pulling compounds and marine environment
- Meets industry standards for cold impact and simulated hammer blow

Standard material/finish:

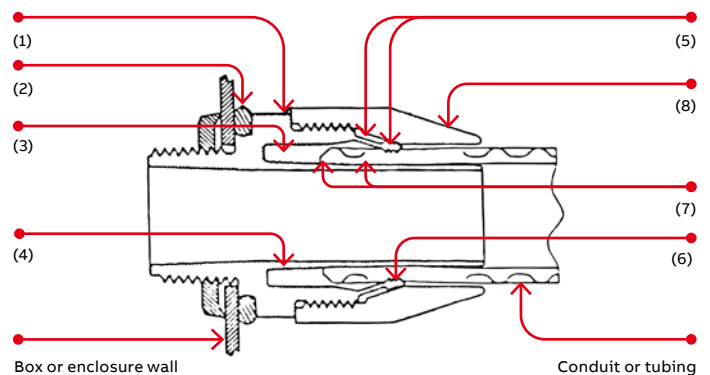
- Body gland: Weather-stabilized thermoplastic (black)
- O-ring: Nitrile (blue)
- Locknut: Steel/electro-zinc plated
- Material temperature rating: Thermoplastic -40 °C to 105 °C
- Material flammability rating: UL94V-2

Conformity

- CSA C22.2 #227.2 & CSA C22.2 #227.3
- UL514B
- Watertight requirements of NEMA Type 4 and Type 4X
- Federal Standard H-28 (NPT threads)
- There is no CEC Rule to use nonmetallic liquidtight conduit and fittings in Class I, Zone 2 or Class I, Division 2; Rule 18-202 (4) (b) Class II, Division 1; Rule 18-252 (4) Class II, Division 2; Rule 18-302 (4) Class III, Division 1

Application:

- A series of nonmetallic fittings designed to provide a liquidtight seal when terminating liquidtight nonmetallic conduit (UL Type B) or liquidtight nonmetallic tubing to a box or enclosure with knockout opening or a threaded hub



Liquidtight flexible nonmetallic conduit fittings

Bullet liquidtight fittings for nonmetallic liquidtight conduit Type B and tubing.

Plastic Bullet fittings



Cat. no.	Fig.	Trade size (in.)	*B± 0.035 (0.90)		C±0.015 (0.40) across corner in. (mm)	Min. throat dia. D in. (mm)	E Thread NPT	F* in. (mm) approx.
			A±0.015 (0.040) in. (mm)	in. (mm)				
LT38P	1	3/8	0.570 (14.48)	1.595 (40.51)	1.354 (34.39)	0.417 (10.59)	1/2-14	-
LT438P	2	3/8	0.570 (14.48)	2.012 (51.10)	1.354 (34.39)	0.417 (10.59)	1/2-14	1.534 (38.95)
LT938P	3	3/8	0.570 (14.48)	1.380 (35.05)	1.354 (34.39)	0.417 (10.59)	1/2-14	1.880 (47.75)
LT50P	1	1/2	0.570 (14.48)	1.636 (41.55)	1.448 (36.78)	0.550 (13.97)	1/2-14	-
LT450P	2	1/2	0.570 (14.48)	2.092 (53.14)	1.448 (36.78)	0.550 (13.97)	1/2-14	1.590 (40.39)
LT950P	3	1/2	0.570 (14.48)	1.489 (37.82)	1.448 (36.78)	0.550 (13.97)	1/2-14	1.986 (50.44)
LT75P	1	3/4	0.582 (14.78)	1.757 (44.63)	1.740 (44.20)	0.740 (18.80)	3/4-14	-
LT475P	2	3/4	0.582 (14.78)	2.452 (62.28)	1.740 (44.20)	0.740 (18.80)	3/4-14	1.821 (46.25)
LT975P	3	3/4	0.582 (14.78)	1.790 (45.47)	1.740 (44.20)	0.740 (18.80)	3/4-14	2.212 (56.00)
LT100P	1	1	0.726 (18.44)	1.923 (48.84)	2.068 (52.53)	0.940 (23.88)	1-11/2	-
LT4100P	2	1	0.726 (18.44)	2.684 (68.17)	2.068 (52.53)	0.940 (23.88)	1-11/2	2.034 (51.66)
LT9100P	3	1	0.726 (18.44)	2.104 (53.44)	2.068 (52.53)	0.940 (23.88)	1-11/2	2.508 (63.70)
LT125P	1	1 1/4	0.750 (19.05)	2.164 (54.97)	2.494 (63.35)	1.257 (31.93)	1 1/4-11 1/2	-
LT4125P	2	1 1/4	0.750 (19.05)	3.264 (82.91)	2.494 (63.35)	1.257 (31.93)	1 1/4-11 1/2	2.385 (60.58)
LT9125P	3	1 1/4	0.750 (19.05)	2.564 (65.13)	2.494 (63.35)	1.257 (31.93)	1 1/4-11 1/2	2.856 (72.54)
LT150P	1	1 1/2	0.767 (19.48)	3.353 (85.77)	2.784 (70.71)	1.453 (36.91)	1 1/2-11 1/2	-
LT4150P	2	1 1/2	0.767 (19.48)	3.605 (91.57)	2.784 (70.71)	1.453 (36.91)	1 1/2-11 1/2	2.604 (66.14)
LT9150P	3	1 1/2	0.767 (19.48)	2.854 (72.49)	2.784 (70.71)	1.453 (36.91)	1 1/2-11 1/2	3.144 (79.86)
LT200P	1	2	0.794 (20.17)	2.605 (66.17)	3.362 (85.39)	1.883 (47.83)	2-8	-
LT4200P	2	2	0.794 (20.17)	4.210 (106.93)	3.362 (85.39)	1.883 (47.83)	2-8	3.050 (77.47)
LT9200P	3	2	0.794 (20.17)	3.432 (87.17)	3.362 (85.39)	1.883 (47.83)	2-8	3.675 (93.34)

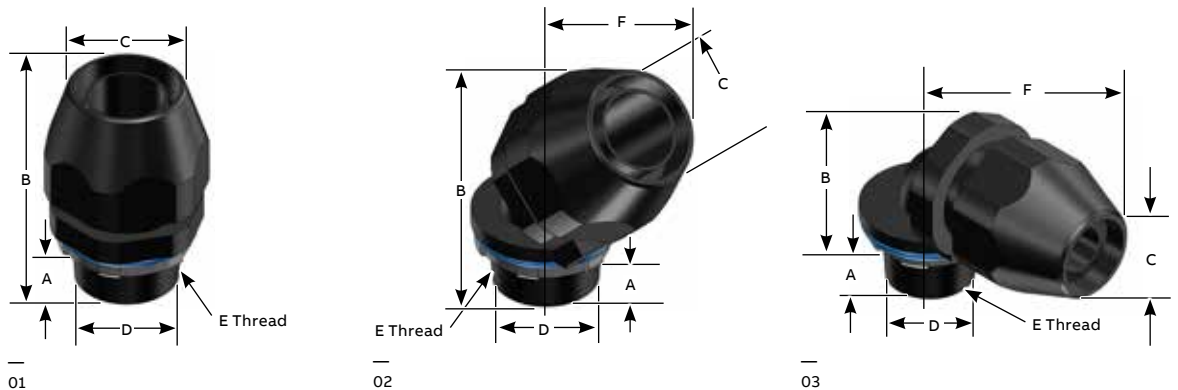
* After assembly

- 01 Figure 1
- 02 Figure 2
- 03 Figure 3

Suggested specification:

Where liquidtight flexible nonmetallic conduit (UL and CSA Type B) or liquidtight flexible nonmetallic tubing is terminated to a box or enclosure, the nonmetallic fittings used shall be able to be installed without disassembly and provide a positive installation criteria. In the installed condition, the fitting must provide a seal meeting watertight requirements of NEMA Type 4 and Type

4X. The performance of fittings shall be unaffected by exposure to detergents, sanitizers, cutting fluids, wire pulling compounds and oil-based industrial paints. The fitting must also be capable of withstanding marine environment and cold impact simulating a hammer blow. Installed fittings shall be of the elongated gland type as manufactured by ABB, LT38P series.



BULLET® Quick connect™ liquidtight fitting

For liquidtight flexible nonmetallic conduit Type B and tubing



Bullet® Quick Connect™ fitting allows for a fast and effective installation, greatly speeding up the process!

Features & benefits

- Single-piece fitting (no locknut required)
- Quick and easy installation without access to the inside
- Corrosion resistant
- Connector assembles to conduit without disassembly
- Provides a double sealing action
- Swivel mechanism allows for a fast and easy conduit installation
- Elongated gland nut profile designed to provide additional strain relief for 90° pull and an easy hand grip
- Connector ferrule designed to accept variations in conduit inside diameter and is tolerant of field conduit cuts
- Performance of fitting unaffected by exposure to detergents, cleaners, and sanitizers commonly encountered in food processing plants and typical industrial environment; also unaffected by cutting fluids, wiring pulling compounds and Marine environment
- Meets industry standards for cold impact

Applications

- A series of nonmetallic connectors designed to provide a liquidtight seal when terminating liquidtight nonmetallic conduit (U.L. Type B) to a box
- Ideal for panel builders and volume installers

Conforms to

- C.S.A. 22.2 No. 18.3-12
- ANSI/UL514B
- Watertight requirements of Type 4 and Type 4x

Material / Materials / Finishes

- Body Gland: Weather stabilized thermoplastic
- Friction washer
- Material Flammability rating: UL94-V2

Temperature range

- -18°C to +105°C (-2°F to +221°F)

Color

- Black
- Gray
- Light gray

Chemical resistance

- See publication TDS000081

Technical data



Part no.*	Trade size (in)	A ±0.015 (0.40)		B ±0.035 (0.90)		C ±0.015 (0.40) Across corners		D across flats		E min. throat dia.		Hole size max.		Hole size min.	
		(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
LT38P-QC series straight fittings															
LT38P-QC-X**	3/8	0.393	10.00	2.61	66.51	1.075	27.30	0.978	24.84	0.409	10.40	0.695	17.65	0.742	18.85
LT50P-QC-X	1/2	0.393	10.00	2.57	65.44	1.244	31.60	1.135	28.84	0.541	13.75	0.860	21.84	0.902	23.01
LT75P-QC-X	3/4	0.393	10.00	2.81	71.55	1.437	36.50	1.327	33.70	0.700	17.80	0.700	17.80	1.141	28.98
LT100P-QC-X	1	0.393	10.00	3.03	77.16	1.772	45.00	1.642	41.70	1.642	41.70	0.954	24.25	1.406	35.71

Note: Product must be installed in accordance with applicable national and local electrical codes.

* Replace the "X" of the part number by one of the following:

B = black (RAL 9005), G = gray (RAL 7001), LG = light gray (RAL 7035)

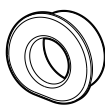
** UL component recognized

These connectors are Certified as components and intended to be used in electrical equipment, where the suitability is determined in the end use application

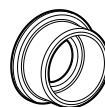
Removal tool

Product selection

Part no.	Standard size (NPT)
NPG-038-RT	3/8
NPG-050-RT	1/2
NPG-075-RT	3/4
NPG-100-RT	1



Front

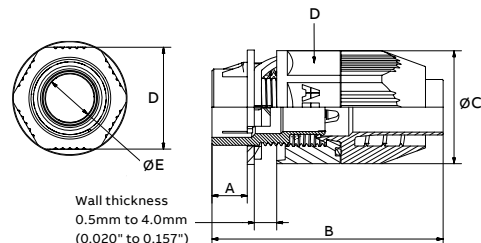


Back

Removal tool

- Push from inside the enclosure using this tool to easily remove the Bullet® quick connect™ liquidtight fitting
- Sold separately (Light grey plastic - RAL 7035)

Dimensions



Liquidtight flexible nonmetallic conduit fittings

Bullet liquidtight fittings for nonmetallic liquidtight conduit Type B and tubing.

Metallic Bullet fittings



Cat. no.	Fig.	Trade size (in.)	A±0.030	B±0.060*		C±0.045		D	Thread NPT
			(0.80)	in.	(mm)	in.	(mm)		
LT38M	1	3/8	1.156 (29.4)	1.500	(38.1)	0.562	(14.3)	–	1/2-14
LT438M	2	3/8	1.156 (29.4)	1.962	(49.8)	0.562	(14.3)	–	1/2-14
LT938M	3	3/8	1.156 (29.4)	1.312	(33.3)	0.625	(15.9)	1.375 (34.9)	1/2-14
LT50M	1	1/2	1.375 (34.9)	1.562	(39.7)	0.562	(14.3)	–	1/2-14
LT450M	2	1/2	1.375 (34.9)	1.875	(47.6)	0.562	(14.3)	–	1/2-14
LT950M	3	1/2	1.375 (34.9)	1.437	(36.5)	0.625	(15.9)	1.562 (39.7)	1/2-14
LT75M	1	3/4	1.656 (42.1)	1.625	(41.2)	0.625	(15.9)	–	3/4-14
LT475M	2	3/4	1.656 (42.1)	2.125	(54.0)	0.562	(14.3)	–	3/4-14
LT975M	3	3/4	1.656 (42.1)	1.750	(44.4)	0.625	(15.9)	1.750 (44.4)	3/4-14
LT100M	1	1	1.875 (47.6)	2.062	(52.4)	0.750	(19.0)	–	1-11 1/2
LT4100M	2	1	1.875 (47.6)	2.250	(57.1)	0.812	(20.6)	–	1-11 1/2
LT9100M	3	1	1.875 (47.6)	1.937	(49.2)	0.812	(20.6)	2.187 (55.5)	1-11 1/2
LT125M	1	1 1/4	2.375 (60.3)	2.500	(63.5)	0.812	(20.6)	–	1 1/4-11 1/2
LT4125M	2	1 1/4	2.375 (60.3)	2.750	(69.8)	0.812	(20.6)	–	1 1/4-11 1/2
LT9125M	3	1 1/4	2.375 (60.3)	2.500	(63.5)	0.812	(20.6)	2.750 (69.8)	1 1/4-11 1/2
LT150M	1	1 1/2	2.750 (69.8)	2.687	(68.2)	0.812	(20.6)	–	1 1/2-11 1/2
LT4150M	2	1 1/2	2.750 (69.8)	2.750	(69.8)	0.812	(20.6)	–	1 1/2-11 1/2
LT9150M	3	1 1/2	2.750 (69.8)	2.812	(71.4)	0.812	(20.6)	2.937 (74.6)	1 1/2-11 1/2
LT200M	1	2	3.468 (88.1)	3.062	(77.8)	0.812	(20.6)	–	2-11 1/2
LT4200M	2	2	3.468 (88.1)	3.875	(98.4)	0.875	(22.2)	–	2-11 1/2
LT9200M	3	2	3.468 (88.1)	3.500	(88.9)	0.875	(22.2)	3.437 (87.3)	2-11 1/2

01 Figure 1

02 Figure 2

03 Figure 3

Suggested specification:

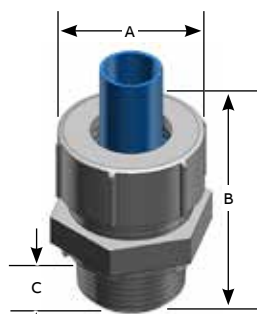
Where liquidtight flexible nonmetallic conduit (UL and CSA Type B) or liquidtight flexible nonmetallic tubing is terminated to a box or enclosure, the metallic fittings used shall be able to be installed without disassembly and provide positive installation criteria. In the installed condition, the fitting must provide a seal, meeting watertight requirements of NEMA Type 4 and Type 4X with

conduit and NEMA Type 4 enclosures with tubing. Installed fittings shall be as manufactured by ABB, LT38M series.

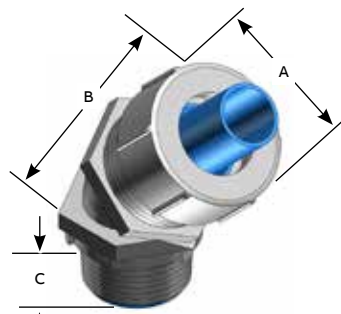
Material:

Body/gland: Steel/malleable iron

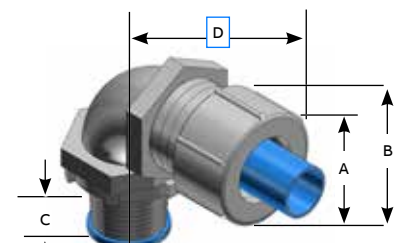
Insert: Nylon



01



02



03

Liquidtight flexible nonmetallic conduit fittings

ISO metric Bullet fittings



When you have a conduit application in a liquidtight environment, it's time to load up the Bullet. ABB introduces the ISO metric Bullet liquidtight fittings for use with the 3/8 in., 1/2 in. and 3/4 in. NMT and NMC nonmetallic liquidtight conduit series.

The Bullet liquidtight fitting and NMT nonmetallic conduit are suited for OEM applications as in the machine tool industry where environments include continuous motion, vibration and exposure to moisture, oil, dirt and dust.

The Bullet liquidtight fitting and NMT nonmetallic conduit are also suitable for construction applications where ISO metric threading and liquidtight systems are installed.

The Xtra flex® system offers a lightweight, liquidtight flexible conduit solution for industrial applications. The Xtra flex system allows fast, easy installation and high performance in demanding industrial applications.

ISO metric Bullet liquidtight fittings – Metallic



Cat. no.	Angle of fitting	Conduit size (in.)	Knockout size (in.)	Unit package	Standard package
LT38M-ISO20	Straight	3/8	1/2	25	100
LT50M-ISO20	Straight	1/2	1/2	25	100
LT75M-ISO25	Straight	3/4	3/4	25	50
LT438M-ISO20	45°	3/8	1/2	25	50
LT450M-ISO20	45°	1/2	1/2	25	50
LT475M-ISO25	45°	3/4	3/4	10	50
LT938M-ISO20	90°	3/8	1/2	25	50
LT950M-ISO20	90°	1/2	1/2	25	50
LT975M-ISO25	90°	3/4	3/4	10	50



ISO metric Bullet liquidtight fittings – Nonmetallic

Cat. no.	Angle of fitting	Conduit size (in.)	Knockout size (in.)	Unit package	Standard package
LT38P-ISO20	Straight	3/8	1/2	25	100
LT50P-ISO20	Straight	1/2	1/2	25	100
LT75P-ISO25	Straight	3/4	3/4	25	50
LT938P-ISO20	90°	3/8	1/2	25	50
LT950P-ISO20	90°	1/2	1/2	25	50
LT975P-ISO25	90°	3/4	3/4	10	50

Armoured cable and flexible metal conduit fittings

Specifications – Armoured cable

Armoured cable (Type AC90) Ref. CEC Rule 12-600

The Canadian Electric Code 2012 Part I defines type AC armoured cable as, “A fabricated assembly of insulated conductors in a flexible metallic enclosure.”

All armoured cables may employ copper or aluminum or copperclad aluminum conductors with the following sizes and are rated for 600 volts or less:

- No. 14 AWG to no. 1 AWG copper
- No. 12 AWG to no. 1 AWG aluminum or copperclad aluminum

Armoured cable can be used for both exposed and concealed locations.

Armoured cable is not permitted in locations where it will be subjected to physical damage or corrosive fumes. Armoured cable cannot be used for direct burial in earth.

Codes require that cable shall be supported with straps or staples without damaging conductors. Certain precautions are prescribed in code where cable is installed through joist rafters or similar wood members.

According to CEC Rule 12-610

- (1) Where conductors issue from armour, they shall be protected from abrasion by bushings of insulating material or equivalent devices.
- (2) Where conductors are no. 8 AWG or larger, copper or aluminum, such protection shall consist of:
 - (a) Insulated type bushings, unless the equipment is equipped with a hub having a smoothly rounded throat; or
 - (b) Insulating material fastened securely in place which will separate the conductors from armoured cable fittings and afford adequate resistance to mechanical injury.

(3) Where armoured cable is fastened to equipment, the conductor or clamp shall be of such design as to leave the insulating bushing or its equivalent visible for inspection.

(4) Where conductors connected to open wiring issue from the ends of armouring, they shall be protected with boxes or with fittings having a separately bushed hole for each conductor.

Please refer to the following for further details and complete information:

1. UL 4, ANSI C33.9 – Safety standards for armoured cable
2. UL 514 A and 514B – Safety standards for outlet boxes and fittings
3. W-F-406 – Federal specification: Fittings for cable, power, electrical and conduit, metal, flexible
4. NEMA FB-1 – Standards publication: Fittings, cast metal boxes and conduit bodies for conduit, electrical metallic tubing and cable
5. CEC Section 12-600 – Wiring methods (armoured cable)
6. CSA C22.2 No. 51 – Safety standards for armoured cables
7. CSA C22.2 No. 18.1 and 18.3 – Safety standards for outlet boxes, conduit boxes and fittings

Please note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, is not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Armoured cable and flexible metal conduit fittings

Specifications – Flexible metal conduit

Flexible metal conduit Ref. CEC Rule 12-1000

Flexible metal conduit can be used for exposed or concealed work in dry locations. It can be used for wet locations, provided conductors within are lead covered or other approved type.

Flexible metal conduit cannot be used underground or embedded in poured concrete or aggregate. With rubber covered conductors, the conduit cannot be exposed to oil, gasoline or other materials having a deteriorating effect on rubber.

With minor exceptions, use of flexible metal conduit is not permitted in hoists, in storage battery rooms or in any hazardous locations. Use of flexible metal conduit is restricted to systems under 600 volts.

Flexible metal conduit longer than six feet is permitted to be used as a grounding means provided the conduit and the fitting are approved for the purpose. To date there is no flexible metal conduit approved for the purpose by the Underwriters Laboratories or CSA.

In Class II Zone 2 and Division 2 hazardous areas, the conduit itself cannot be used as the grounding means. Class I Zone 2 flexible connections at motor terminals and similar places, ref.: CEC Rule 18-152 (6) and bonding CEC Rule 18-074 (1)(a). Class I Division 2, flexible connections at motor terminals and similar places, ref: CEC Rule J18-152 (3) and bonding CEC Rule J18-072 (1)(a). Flexible metal conduit is available with steel or aluminum armour in trade size $\frac{5}{16}$ in. to 4 in. With few exceptions where $\frac{5}{16}$ in. and $\frac{3}{8}$ in. trade sizes are used, code prohibits use of conduit less than $\frac{1}{2}$ in. trade size. Bends in concealed work are restricted to four 90° bends (CEC Rule 12-940). No angle fittings are permitted in concealed raceway installations.

Please refer to the following for further details and complete information:

1. UL 1, ANSI C33.92 – Safety standards for flexible metal conduit
2. UL 514– Safety standards for outlet boxes and fittings
3. W-F-406 – Federal specification: Fittings for cable, power, electrical and conduit, metal flexible
4. WW-C-566 – Federal specification: Conduit, metal, flexible
5. NEMA FB1 – Standards publication: Fittings and supports for conduit and cable assemblies
6. CEC 12-1000 – Wiring method (rigid and flexible conduit)
7. CSA C22.2 No. 56 – Safety standards for flexible metallic conduit and liquidtight flexible metal conduit
8. CSA C22.2 No. 18 – Safety standards for outlet boxes, conduit boxes and fittings
9. CEC Rule 12-1000
Rule 18-152 (6) and bonding Rule 18-074 (1)(a) Class I, Zone 2 – Flexible connections at motor terminals and similar places.
Rule J18-152 (6) and bonding Rule J18-072 (1)(a) Class I, Division 2 flexible connections at motor terminals and similar places.
Rule 12-940 – Not more than the equivalent of four 90° bends

Armoured cable and flexible metal conduit fittings

Suggested specifications

—
01 Series 3110
armoured cable fitting
and flexible metal conduit

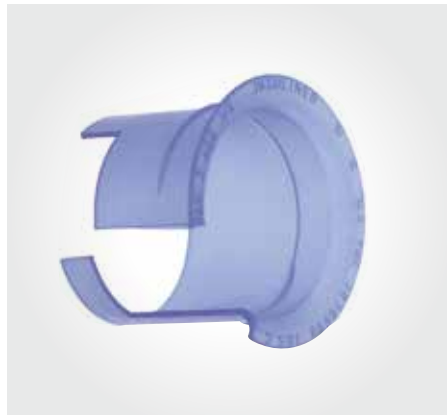
—
02 Series 422
insuliner sleeve

—
03 Series 390
anti-short bushing

- Armoured cable and flexible metal conduit shall conform to provisions of following applicable standards:
Armoured Cable – UL 4/ANSI C33.9/CSA C22.2 No. 51; flexible metal conduit – UL 1/ANSI C33.92/WW-C-566/CSA C22.2 No.56
- Type of cable used and conductors within flexible metal conduit shall be suitable for conditions of use and location
- Where armoured cable or flexible metal conduit terminates into a threadless or threaded opening, it shall be assembled with approved fittings; fittings shall be of malleable iron/steel construction, electro-zinc plated inside and outside, equipped with nylon-insulated throat and shall be of angled saddle type as manufactured by ABB, series 3110; direct bearing screw type fittings shall not be used
- Suitable bushing as manufactured by ABB, series 422 or 390, shall be provided between the conductors and armour
- Where approved armoured cable or flexible metal conduit is used as an equipment grounding conductor, terminating fitting used shall be of the grounding type as manufactured by ABB, series 3110



01



02



03

Armoured cable and flexible metal conduit fittings

Specifications

—
01 3110 Series
—
02 Typical installation

Application

- To connect and effectively bond armoured cable or flexible metal conduit to a box or an enclosure

Features

- Provided with a saddle designed to:
 - (1) Firmly secure conduit in place without damaging cable armour (mechanical holding power of angled wedge assembly increases with increased strain)
 - (2) Provide high quality bond between conduit or cable and be unaffected by vibrations
 - (3) Centralize conduit or cable with respect to throat opening for conductors
- Insulated throat protects conductors during and after installation, reduces wire pull effort and prevents thread damage in handling
- Locknuts designed to provide effective bond between fitting and box or enclosure, will not vibrate loose
- Designed with fewer screws – reduces installation time and cost
- Rugged all steel or malleable iron construction.
- CEC Rule 18-152 (6) and bonding Rule 18-074 (1)(a) Class I, Zone 2 flexible connections at motor terminals and similar places CEC Rule J18-152 (6) and bonding Rule J18-072 (1)(a) Class I, Division 2 flexible connections at motor terminals and similar places

Standard material/finish

- Body: Steel or malleable iron/electro zinc plated and chromate coated
- Saddle: Steel/electro zinc plated and chromate coated
- Screws: Steel/electro zinc plated and chromate coated
- Insulator: Thermoplastic/as molded

Conformity

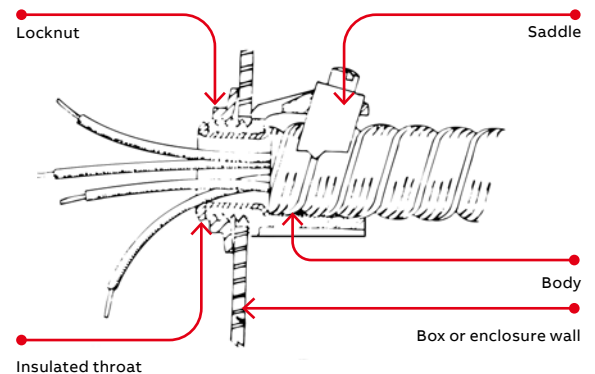
- UL 514B
- CSA C22.2 No. 18.3
- NEMA FB-1

Series	Hub size NPS (in.)	Conduit size (in.)	Cable opening (in.)
3110 Series straight fittings	½–5	¾–5	0.437–5.500
3130 Series 90° fittings	½–4	¾–4	0.437–4.560

(All hubs provided with straight pipe threads NPS)



—
01



—
02

Armoured cable and flexible metal conduit fittings

Tite-Bite® fittings

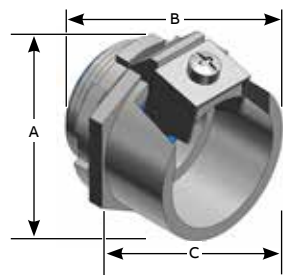
Steel or malleable iron

The tough lining of insulation and the Tite-Bite principles make these fittings a “must” when conductors are subject to conditions of vibration or strain

Tite-Bite fittings – Nylon insulated



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
3110-C*	0.656	0.437	3/8	1/2	1 7/16	1 5/16	7/16
3112	0.937	0.750	1/2	1/2	1 25/32	1 3/4	1 9/32
3115*	1.125	0.906	3/4	3/4	2	1 3/4	1 9/32
3117*	1.468	1.250	1	1	2 3/8	1 3/4	1 7/32
3118†	1.750	1.562	1 1/4	1 1/4	2 3/4	2	1 11/32
3119†	2.031	1.812	1 1/2	1 1/2	3 1/8	2 5/8	1 7/8
3120†	2.500	2.312	2	2	3 3/4	2 3/4	1 15/16
3121†	3.062	2.812	2 1/2	2 1/2	4 3/8	3 3/4	2 3/8
3122†	3.562	3.312	3	3	5	3 3/4	2 3/8
3123‡	4.060	3.620	3 1/2	3 1/2	5 1/4	3 11/16	2 15/32
3124**†	4.560	4.120	4	4	5 3/4	3 25/32	2 1/2
3125**	5.500	4.600	5	5	6 7/8	4 27/32	3



Material: Steel through 3/4 in. trade size

* UL Listed for armoured cable only

† UL Listed for flexible metal conduit only

‡ CSA not applicable

** Not UL Listed or CSA Certified

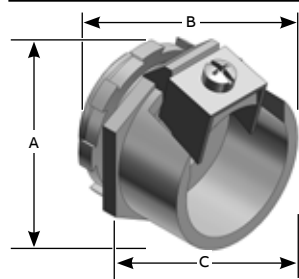
Steel or malleable iron

Easy to install with double-grip saddle. These fittings are completely salvageable. The 3/8 in. and 1/2 in. sizes are made of formed steel, which produces a uniform high quality and a smooth throat that protects conductor insulation. 3/4 in. and larger size are malleable iron.

Tite-Bite fittings



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
300-TBC*	0.656	0.437	3/8	1/2	7/16	1 5/16	7/16
302-C	0.937	0.750	1/2	1/2	1 7/64	1 11/16	3/4
304	1.093	0.906	3/4	3/4	1 7/32	1 11/16	29/32
306	1.468	1.250	1	1	1 1/8	1 3/4	1 1/4
308†	1.750	1.562	1 1/4	1 1/4	1 3/4	2 1/32	1 9/16
310†	2.031	1.812	1 1/2	1 1/2	1 3/4	2 9/16	1 13/16
312†	2.500	2.312	2	2	1 13/16	2 13/16	2 9/16
314†	3.062	2.812	2 1/2	2 1/2	2 1/4	3 1/8	2 13/16
316†	3.562	3.312	3	3	2 1/4	3 3/16	3 9/16



Material: Steel through 3/4 in. trade size

* UL Listed for armoured cable only

† UL Listed for flexible metal conduit only

Armoured cable and flexible metal conduit fittings

Tite-Bite fittings

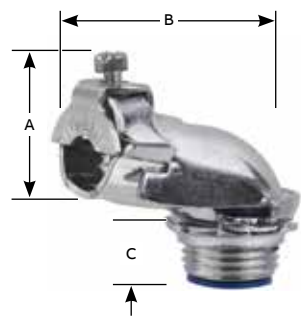
Steel or malleable iron.

Available with or without insulated throat, this Tite-Bite fitting line is by far the easiest and best to install when making sharp bends at the enclosure or equipment. It has all of the advantages of the straight fitting with only one screw to tighten, except in the larger sizes where there are two. A peep hole on top provides for easy inspection of the ABC bushing. Narrow design makes it easy to install fittings in adjacent knockouts.

Tite-Bite fittings – 90° angle nylon insulated



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
3130-C	0.563	0.437	3/8	1/2	1 ¹¹ / ₃₂	1 ¹⁹ / ₃₂	5/32
3132	0.937	0.750	1/2	1/2	1 ⁷ / ₈	2 ⁵ / ₁₆	1 ⁵ / ₃₂
3135	1.093	0.906	3/4	3/4	2	2 ¹ / ₈	1 ⁵ / ₃₂
3137	1.468	1.250	1	1	2 ²¹ / ₃₂	2 ¹ / ₈	1/2
3138†	1.750	1.562	1 ¹ / ₄	1 ¹ / ₄	3 ³ / ₈	2 ⁷ / ₈	3/4
3139†	2.031	1.812	1 ¹ / ₂	1 ¹ / ₂	4 ³ / ₈	4	1 ³ / ₁₆
3140†	2.500	2.312	2	2	5 ⁹ / ₁₆	4 ⁷ / ₈	1
3141†	3.062	2.812	2 ¹ / ₂	2 ¹ / ₂	5 ²⁵ / ₃₂	6	1
3142†	3.562	3.312	3	3	6	7	1
3143‡	4.060	3.620	3 ¹ / ₂	3 ¹ / ₂	6	6 ⁷ / ₈	1 ¹ / ₁₆
3144-TB‡	4.560	4.120	4	4	6 ²⁹ / ₃₂	7 ¹ / ₄	1 ¹ / ₈



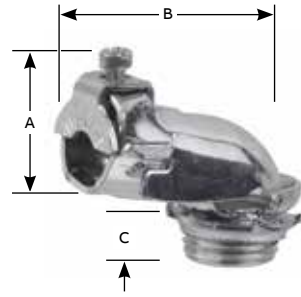
† UL Listed for flexible metal conduit only
‡ Not UL Listed or CSA Certified

The angle clip gives secure mechanical grip that tightens under tension or vibration. Throat is long enough to install in cast housing knockouts. The 3/8 in. and 1/2 in. sizes are of steel construction. The 3/4 in. and larger sizes are malleable iron.

Tite-Bite fittings – 90° angle



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
321-C	0.656	0.437	3/8	1/2	1 ¹¹ / ₃₂	1 ¹ / ₂	3/8
323	0.937	0.750	1/2	1/2	1 ⁷ / ₈	2 ³ / ₈	1 ⁷ / ₃₂
325-TB	1.093	0.906	3/4	3/4	2 ¹ / ₈	2 ¹ / ₈	3/4
326-TB	1.468	1.250	1	1	2 ²¹ / ₃₂	2 ¹ / ₈	1
327-TB†	1.750	1.562	1 ¹ / ₄	1 ¹ / ₄	3 ³ / ₈	3 ³ / ₈	–
328†	2.031	1.812	1 ¹ / ₂	1 ¹ / ₂	4 ³ / ₈	4 ³ / ₈	–
329†	2.500	2.312	2	2	4 ³ / ₈	4 ³¹ / ₃₂	–
330-TB†	3.062	2.812	2 ¹ / ₂	2 ¹ / ₂	6 ¹ / ₂	6	–
331†	3.562	3.312	3	3	5 ²⁵ / ₃₂	7	–



† UL Listed for flexible metal conduit only

Armoured cable and flexible metal conduit fittings

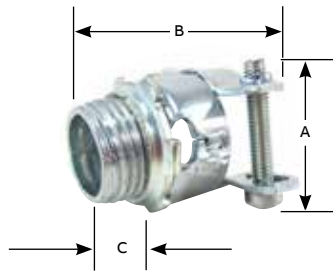
Squeeze fittings

Squeeze fittings will fit every size of armoured cable, leaded cable and flexible conduit. Malleable iron or steel construction. Part no. 253-TB is steel.

Squeeze fittings



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
252	0.531	0.437	5/16	3/8	13/16	25/32	11/32
253-TB†	0.585	0.455	3/8	1/2	31/32	113/64	5/8
254-C†	0.938	0.812	1/2	1/2	17/32	13/8	13/32
255	1.094	0.938	3/4	3/4	1 1/4	1 17/32	7/16
256	1.375	1.250	1	1	1 19/32	1 5/8	1/2
257	1.656	1.500	1 1/4	1 1/4	1 7/8	1 23/32	17/32
258	1.875	1.688	1 1/2	1 1/2	2 1/4	1 7/16	9/16
259	2.500	2.313	2	2	2 23/32	2 5/8	1 1/16
249	3.062	2.812	2 1/2	2 1/2	3 5/16	2 11/16	3/4
277	3.563	3.312	3	3	3 13/16	2 7/8	3/4



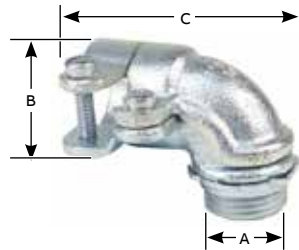
† UL Listed for armoured cable only. Fitting material steel

3/8 in. and 1/2 in. sizes made in steel. Cap lifts off by simply loosening screws part way. Only two screws to tighten. 3/4 in. size and larger made of malleable iron.

Squeeze fittings – 90° angle



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
266-C	0.656	0.406	3/8	1/2	1 1/2	1 13/32	1 7/16
272†	0.812	0.688	3/8	1/2	1 9/16	1 7/8	1 9/16
268-C	0.937	0.813	1/2	1/2	1 11/16	1 13/16	1 7/8
279	1.000	0.875	3/4	3/4	1 13/16	2 1/16	1 13/16
270	1.125	1.000	3/4	3/4	1 7/8	1 3/4	1 13/16
273-TB	1.406	1.187	1	1	2 3/8	2 7/32	2 7/16
274‡	1.656	1.375	1 1/4	1 1/4	3	2 9/16	2 7/8
275‡	1.875	1.625	1 1/2	1 1/2	3 7/32	3 1/16	4 1/8
276‡	2.500	2.125	2	2	4 5/8	3 5/8	4 7/8



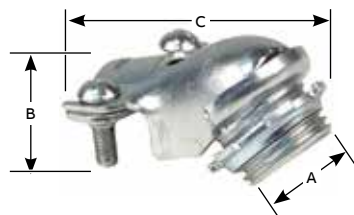
† UL Listed for armoured cable only
‡ UL Listed for flexible metal conduit only

3/8 in. and 1/2 in. sizes made in steel. Cap lifts off by simply loosening screws part way.

Squeeze fittings – 45° angle



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
265	0.656	0.406	3/8	1/2	1 7/16	1 3/32	1 3/8
267	0.937	0.813	1/2	1/2	1 3/16	1/2	1 1/4
269	1.125	1.000	3/4	3/4	1 7/8	1 7/32	1 9/16



Armoured cable and flexible metal conduit fittings

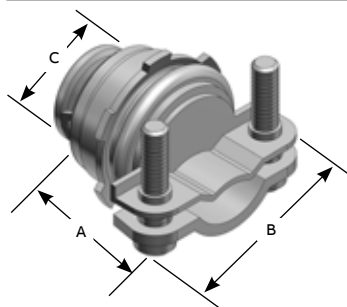
Two-screw and clamp fittings

Formed steel body with carefully round bushing.
The armour gripping saddle stays open by itself when cable is being inserted.

Two-screw fittings



Cat. no.	Cable opening (in.)		Trade size (in.)	KO size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
3301-C*	0.656	0.250	3/8	1/2	5/8	1 1/16	1 3/16
3312-C	0.937	0.500	1/2	1/2	5/8	1 1/16	1 3/16



* UL Listed for armoured cable only.

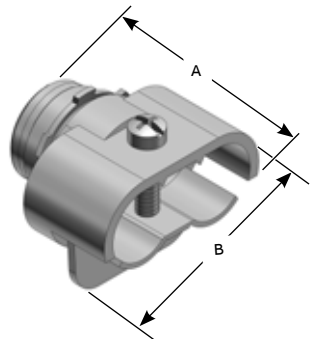
Malleable iron.

For nonmetallic and armoured cable.

Duplex clamp fitting



Cat. no.	KO size (in.)	Dimensions (in.)	
		A	B
291-C	1/2	1 13/32	1 11/16



UL Listed as grounding means under NEC 350-5.

Armoured cable and flexible metal conduit fittings

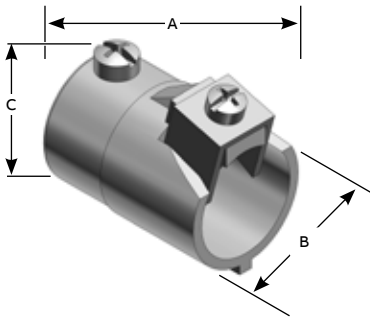
EMT to flex adaptors

Tite-Bite fitting design holds flexible metal cable firmly in place with a single screw rather than two screws.

Adaptor - EMT to flex



Cat. no.	KO size (in.)	Dimensions (in.)		
		A	B	C
503-TB	1/2 - 1/2	1 ²⁵ / ₃₂	1 ³ / ₁₆	1 ⁷ / ₈
504	3/4 - 3/4	1 ²⁵ / ₃₂	1 ⁷ / ₁₆	2 ¹ / ₈
505-TB	1 - 1	2 ¹ / ₃₂	2 ¹ / ₁₆	2 ⁵ / ₈



Armoured cable and flexible metal conduit fittings

Anti-short bushings and straps



Anti-short bushings are made of smooth plastic, and designed to protect conductor insulation from rough edges of armoured cable and flexible metal conduit.

Anti-short bushing

Cat. no.	Size
390	14-2, 14-3 and 12-2
391	14-4, 12-3, 6-1 and 4-1
392	12-4, 10-2, 10-3 and 2-1
393	10-4, 8-2, 8-3 and 1-1
394	8-4, 6-2, 6-3, 4-2, 4-3 and 6-4

Colourized
 Temperature rating: 240 °F
 UL not applicable



Strap



Cat. no.	Bolt hole dia. (in.)	Size (in.)
65C	0.265	3/8 Flex

Nonmetallic sheathed cable fittings

Specifications – Nonmetallic (NM) sheathed cable

Ref. CEC Rule 12-500

Canadian Electrical Code 2012 Part I, defines nonmetallic sheathed cable as, “A factory assembly of two or more insulated conductors having an outer sheath of moisture-resistant, flame-retardant, nonmetallic material.”

Nonmetallic sheathed cable is constructed of insulated conductors (14 to 2 AWG copper), and an outer nonmetallic sheath classified as Types NMD90, NMW and NMWU.

Nonmetallic sheathed cable is provided with bare bonding conductor. Nonmetallic sheathed cable is rated for 90 °C service with voltage limitation of 300 volts.

Type NMW and NMWU have a flame-retardant, moisture-resistant sheath.

Type NMD90, NMW and NMWU applications are described in Table 19 of CEC 2012 Part I.

Nonmetallic sheathed cable is permitted by code to be used exposed or concealed in one, two or multifamily dwellings or other structures not exceeding three floors. Use of Type NMD90 cable is restricted to dry locations.

Nonmetallic sheathed cables are not permitted to be used as a service conductor. Nonmetallic sheathed cables are also prohibited in hazardous locations.

NM cables need to be secured in place by suitable means so as not to injure the cable. Adequate protection for cable is also required when run is exposed, through joists or rafters, through floors, in unfinished basements and accessible attics.

NM cables shall be protected from physical damage when it passes through factory- or field-punched, cut or drilled holes in metal members. A bushing or grommet firmly secured in place is recommended (CEC Rule 12-516).

Please refer to the following for further details and complete information:

1. UL 719, ANSI C33.56 – Safety standards for nonmetallic sheathed cable
2. UL 514A and 514B – Safety standards for outlet boxes and fittings
3. NEMA FB-1 – Standards publication: Fittings, cast metal boxes and conduit bodies for conduit, electrical metallic tubing and cable
4. CEC Section 12-500 – Wiring methods (nonmetallic sheathed cable)
5. CSA C22.2 No. 48 – Safety standards for nonmetallic sheathed cable
6. CSA C22.2 No. 18.1 and 18.3 – Safety standards for outlet boxes, conduit boxes and fittings

Please note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Nonmetallic sheathed cable fittings

Suggested specifications

—
01 Series 3300
nonmetallic sheathed
cable and flexible cord
fittings (all plastic)

—
02 Series 3302M
nonmetallic sheathed
cable and flexible
cord fittings (steel)

—
03 Series 3210
knockout bushings

—
04 Series 1942
insulated nipples

- Where nonmetallic sheathed cable or flexible cord terminates into a threaded or threadless opening, terminating fittings used shall be approved for the purpose by nationally recognized laboratory, inspection agency or product evaluation organization.
- Terminating fittings shall be of malleable iron, steel or thermoplastic construction designed to provide adequate strain relief and positively prevent damage to jacket or conductor insulation such as series 3300 or 3302M manufactured by ABB. Ferrous metal fittings shall be electro-zinc plated inside and outside including threads and bushed with a nylon-insulated throat. Thermoplastic material used for fitting construction shall be of high impact strength suitable for 105 °C/221 °F service with a UL flammability rating of 94V-1.
- Where nonmetallic sheathed cable passes through either factory or field-punched, cut or drilled holes in metallic members, the cable shall be protected by thermoplastic bushing such as series 3210 manufactured by ABB. Bushing shall be firmly secured in opening. Nylon-bushed metallic fittings such as series 1942 may be substituted as required.



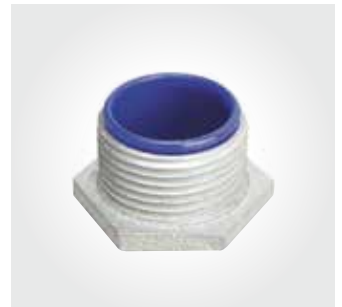
01



02



03



04

Nonmetallic sheathed cable fittings

Nonmetallic sheathed cable and flexible cord fittings (steel)

—
01 3302M Series
nonmetallic sheathed
cable fitting
—

02 Typical installation
—

03 Typical installation
(flexible cord)
—

04 Typical installation
(NM-sheathed cable)
—

Application

- To connect nonmetallic sheathed cable and flexible cord to a box or an enclosure

Features

- Rugged all steel/malleable iron construction (A)
- Rounded cable clamp grip provides superior mechanical holding power without damaging conductor insulation or outer jacket (B)
- Clamp designed to cover body opening for a neat and safe installation
- Screws thread into clamp and not body; screw heads are snug with body and ends of screws do not project beyond the body (C)
- Insulator firmly secured in place protects conductors and reduces wire pulling effort; protects threads from damage during handling (D)
- Locknut designed to secure fitting to a box or enclosure; will not vibrate loose

Standard material

- Body: ½ in. through 1 in. steel;
1¼ in. through 2 in. malleable iron
- Clamp: ½ in. through 1¼ in. steel;
1¼ in. through 2 in. malleable iron
- Locknut: All steel
- Insulator: Thermoplastic

Standard finish

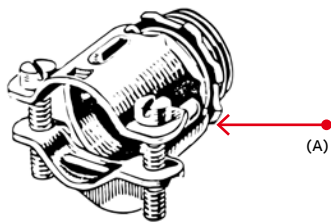
- All steel and malleable iron parts: Electro zinc plated and chromate coated

Range

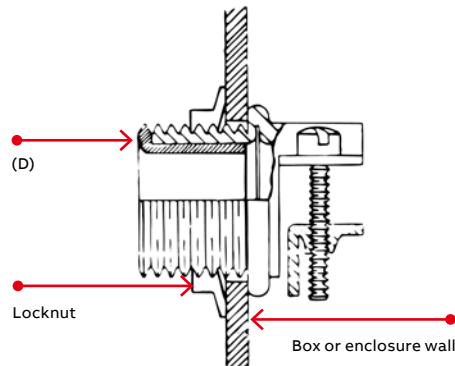
- Hub size: ½ in. through 2 in. Hubs provided with straight pipe threads (NPS)
- Cable: 2 #14 through 4 #4 Type NM
- Cable outside: 0.250 in. to 1.150 in diameter

Conformity

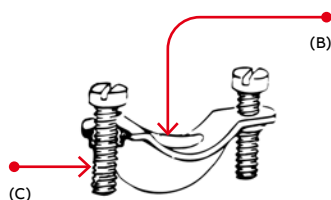
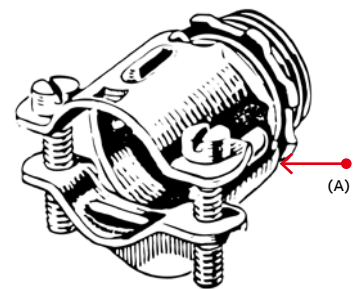
- UL 514B
- CSA C22.2 No. 18.3
- NFPA 70-2008 (ANSI)
- NEMA FB-1
- Federal Standard H-28 (threads)



—
01

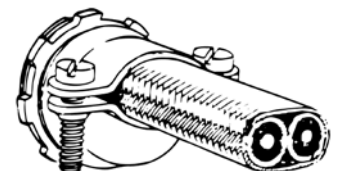
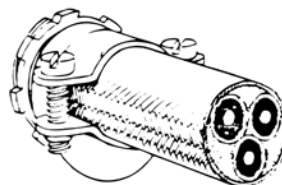


—
02



(C)

—
03



—
04

Nonmetallic sheathed cable fittings

Two-screw fittings

Steel or malleable iron.

Rounded cable grip and smooth bushing protect the cable sheath and wire insulation. Since saddle threaded, screws do not travel or extend beyond the fitting body as it is clamped to the cable.

An extra lip on the saddle closes the unused part of the fitting opening.



Cat. no.	Non-insulated	Insulated	KO size (in.)	UL Listed & CSA certified for the following single (1) and pairs of (2) NM and NMC cable	UL Listed & CSA certified for the following service entrance cables	Dimensions (in.)			Cable opening (in.)	
						A	B	C	max.	min.
3302-C*		3302M-C	½	(1) 2#14, 2#12, 2#10, 3#14,	2#12 thru 2#4, 3#12, 3#10	¾ ₃₂	1 ³ / ₈	1	0.590	0.250
3302-C*		3302M-C	½	3#12, 3#10, (2) 2#14, 2#12	2#12 thru 2#4, 3#12, 3#10	¾ ₃₂	1 ³ / ₈	1	0.590	0.250
3303-C		3303M	¾	(1) 2#8, 2#6, 3#8	2#8 thru 2#1/0, 3#8, 3#6,	1 ¹ / ₄	1 ⁵ / ₈	1 ³ / ₁₆	0.750	0.530
3303-C		3303M	¾	(2) 2#12, 2#10, 2#8, 3#14	2#6 + #8 GND	1 ¹ / ₄	1 ⁵ / ₈	1 ³ / ₁₆	0.750	0.530
3303-C		3303M	¾	(1) 3#8, 3#6, 3#4	2#1, 2#1/0, 3#6 thru 3#2,	1 ¹ / ₄	1 ⁵ / ₈	1 ³ / ₁₆	0.750	0.530
3304		3304M	1	(2) 2#8, 3#10	2#4 + #6 GND, 2#3 + #5	1 ¹⁵ / ₃₂	1 ⁷ / ₈	1 ¹ / ₄	0.990	0.690
3304		3304M	1	(2) 2#8, 3#10	GND, 2#2 + #4 GND	1 ¹⁵ / ₃₂	1 ⁷ / ₈	1 ¹ / ₄	0.990	0.690
3304		3304M	1	(1) 3#8, 3#6, 3#4	3#2 thru 3#2/0, 2#1 + #3	1 ¹⁵ / ₃₂	1 ⁷ / ₈	1 ¹ / ₄	0.990	0.690
3305		3305M	1 ¹ / ₄	(2) 2#8, 2#6, 2#4, 3#8	GND, 2#1/0 + #2 GND,	1 ¹⁵ / ₁₆	2 ⁷ / ₃₂	1 ⁹ / ₃₂	1.320	0.850
3305		3305M	1 ¹ / ₄	(2) 2#8, 2#6, 2#4, 3#8	2#2/0 + #1 GND	1 ¹⁵ / ₁₆	2 ⁷ / ₃₂	1 ⁹ / ₃₂	1.320	0.850
3306		3306M	1 ¹ / ₂	(1) 3#4	3#3/0, 3#4/0, 2#3/0 + #1/0	2 ⁵ / ₃₂	2 ²¹ / ₃₂	1 ⁵ / ₈	1.515	0.930
3306		3306M	1 ¹ / ₂	(1) 3#4	GND, 2#4/0 + #2/0 GND	2 ⁵ / ₃₂	2 ²¹ / ₃₂	1 ⁵ / ₈	1.515	0.930
3307		3307M	2	Max. 1.98 po, min. 1.15 po	GND, 2#4/0 + #2/0 GND	2 ⁵ / ₃₂	2 ²¹ / ₃₂	1 ⁵ / ₈	1.515	0.930
3308†	—	—	2 ¹ / ₂	Max. 2.38 po, min. 1.5 po	GND, 2#4/0 + #2/0 GND	2 ⁵ / ₃₂	2 ²¹ / ₃₂	1 ⁵ / ₈	1.515	0.930
3309†	—	—	3	Max. 2.88 po, min. 1.75 po	—	2 ²⁵ / ₃₂	3 ⁵ / ₁₆	1 ²⁹ / ₃₂	1.980	1.150
3310†	—	—	3 ¹ / ₂	Max. 3.38 po, min. 2.25 po	GND, 2#4/0 + #2/0 GND	2 ²⁵ / ₃₂	3 ⁵ / ₁₆	1 ²⁹ / ₃₂	1.980	1.150
3311†	—	—	4	Max. 3.88 po, min. 2.5 po	GND, 2#4/0 + #2/0 GND	2 ²⁵ / ₃₂	3 ⁵ / ₁₆	1 ²⁹ / ₃₂	1.980	1.150

* UL Listed for use with rubber and thermoplastic flexible cords (both single and multiple cords and 2 oval cables)

† Not UL Listed or CSA Certified

UL Listed for multiple cords and cables



Nonmetallic sheathed cable fittings

Nonmetallic sheathed cable and flexible cord fittings (all plastic)

01 3300 Series

Application

- To connect nonmetallic sheathed cable and flexible cord to a box or an enclosure

Features

- Provides strain relief by partially deflecting cable (A); therefore:
 - (1) Fitting will not damage outer covering or jacket of cable, or conductor insulation; designed to give safe trouble-free installation
 - (2) Holding power and cable strain relief are not effected by surface finish of outer covering or cable jacket
 - (3) Fitting provides superior holding power far in excess of listing agency requirements
- Snap-in one-piece design; accommodates variation in knockout dimensions, saves installation time (B)
- All high impact thermoplastic construction provides:
 - (1) Insulated throat; conductors are protected from abrasion
 - (2) Improved dielectric strength, and elimination of potential shorts
 - (3) Corrosion resistance
- Wide range—reduces inventories
- Fitting may be pre-installed in box KO or on cable

Standard material

- All high impact thermoplastic – UL 94V-1, suitable for 105 °C application.

Standard finish

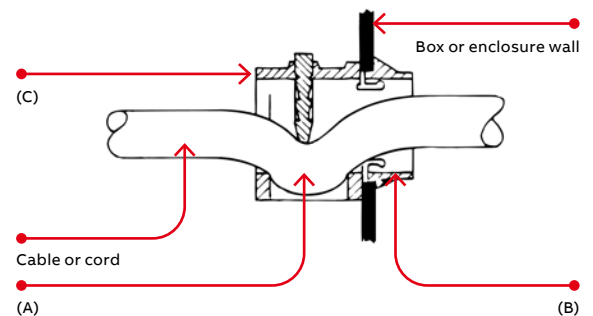
- As molded

Listing/certification

- Cat. no. 3201, 3350 for factory installation

Conformity

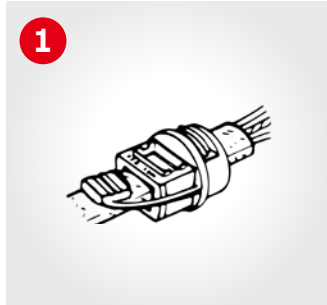
- UL 514B
- CSA C22.2 No.18.3
- NFPA 70-2008 (ANSI)



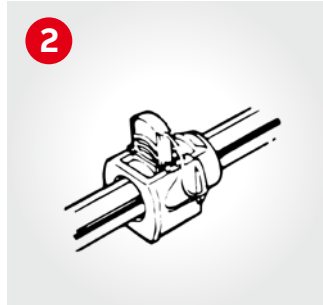
Nonmetallic sheathed cable fittings

Nonmetallic sheathed cable and flexible cord fittings (all plastic)

Typical Installation



1. Remove sheath from end of cable (4 in. or more as required). Insert cable through fitting as shown (cable under button).

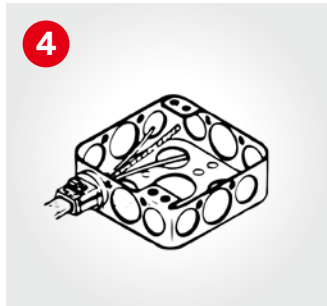


2. Insert button into cavity.

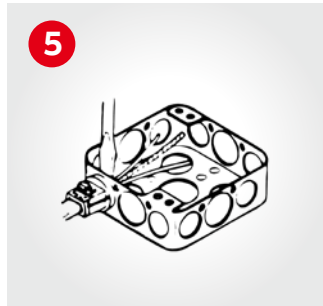


3. With grooved pliers, or parallel jaw type pliers (commercially available), squeeze button into cord or wires as far into fitting body as possible.

Note: It may be necessary to re-adjust pliers to ensure button is properly installed.



4. Snap fitting into knockout box. If desired this step can be done prior to Step 1.



5. To remove from knockout box, depress ears.



6. To remove from cable, cut fitting as shown.



Cat. no.	Knockout size (in.)	Cable/ cord range
Range		
3300	½	10-2, 12-2 and 14-2 type NM cable 0.125 in. to 0.300 in. outside diameter cord
3201-TB & 3350	½	10-3, 12-3, 14-3, 10-2, 12-2, 14-2 type NM cable; also multiple (2) 12-2 and 14-2 type NM cable; 0.300 in. to 0.600 in. outside diameter cord 8-3 and 6-3 type
3202	¾	NM cables; also multiple (2) 14-3 and 10-2 type NM cable; 0.500 in. to 0.850 in. outside diameter cord

Nonmetallic sheathed cable fittings

All plastic fittings for NM cable and flexible cord



High impact thermoplastic, UL 94V-1.

Features push-in design. Captive locking wedge secures cable with single squeeze of standard electrician's pliers. Provides excellent insulation, strain relief and high pull-out value.



Cat. no.	Size range	KO size (in.)	Fig.	Dimensions (in.)						F max. thk. enclosure (in.)	H (in.)
				A	B	C	D	E			
3300	For use with 10-2, 12-2 and 14-2 NM cables; 18-2 and 18-3 SJ and SJO cords and 18-2 SV, SVO, SJT and SJTO cords, single or multiple; cord capacity 0.125 in. to 0.300 in. diameter	1/2	2	1 1/32	1 5/16	3/8	0.880	0.795	0.080	5/16 X 3/16	
3350	For use with 10-3, 12-3, 14-3, 10-2, 12-2, 4-2 NM cables; multiple (2) 12-2 and 14-2 N multiple flexible cords in wire range 0.300 in. to 0.600 in.	1/2	1	1 11/32	1	7/16	0.880	0.795	0.080	2 1/2 dia.	
3202	For use with 8-3 and 6-3 NM cables; (2) 14-3, 14-2, 12-2 and 10-2 NM cables; single and multiple flexible cords in wire range 0.500 in. to 0.850 in.	3/4	1	1 1/2	1 5/16	7/16	1.100	1.005	0.090	7/8 dia.	

Temperature rating: 105 °C

01 Figure 1

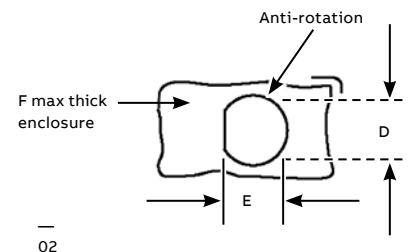
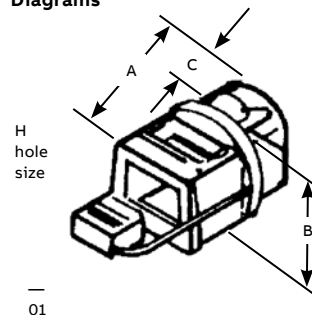
02 Figure 2

03 Snap captive locking wedge into fitting's cavity

04 Press locking wedge into cavity, which locks onto cable

05 Cat. no. 3201 is ideal for multiple flexible cords and cable

Diagrams



Note: If rotation in hole is to be avoided, use connector in a hole dimensions per column D and E.



03



04



05

Nonmetallic sheathed cable fittings

Snap-in fittings and clamps



No locknut required. No special tools required.
High impact thermoplastic with steel insert.

Snap-in fittings for flexible metal conduit



Diagram	Cat. no.	Conduit size (in.)	KO size (in.)	Dimensions (in.)		
				A	B	C
	100TB	3/8	1/2	27/32	1 13/32	1 31/32
	100BP	3/8	1/2	27/32	1 13/32	1 31/32

Temperature rating: 105 °C. UL 94V-1



Swivel tray clamps



Cat. no.	Conduit size (in.)
6209	1/2-3/4
6211	1-1 1/4
6214	1 1/2-2
6216	2 1/2-3
6218	3 1/2-4



Swivel cable tray clamps for aluminum and steel trays with regular or reinforced flanges.

- Serrations and biting teeth on clamping saddle provides a high quality bond between conduit and clamp
- 1/2 in. to 6 in. sizes that can be clamped to any position in a 90° arc

- Hardened steel screws bite into tray and provide positive bond
- Malleable iron hub and steel U-bolt accept conduit from any angle

Cable tray clamps



Cat. no.	Conduit size (in.)
6210	1/2-3/4
6212	1-1 1/4