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 nippling 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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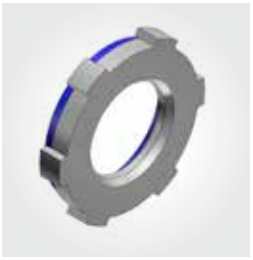

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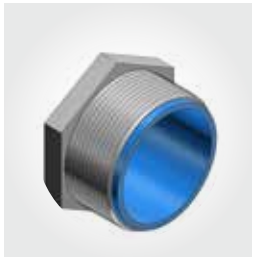

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Rigid and intermediate metal conduit fittings

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

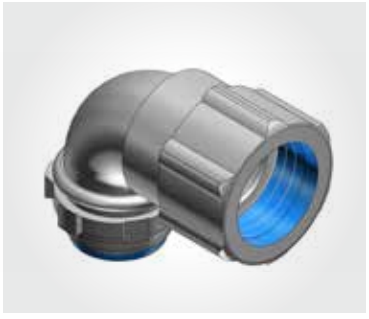
Standard material
- Nut, gland: ½ in. to 1 in. steel, 1¼ in. to 4 in. malleable Iron
- Body: All malleable iron
- Ring: Steel (case-hardened)
- Insulator: Nylon
- Locknut: ½ in. through 2 in. steel (hardened) 2 in. through 4 in. malleable iron

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)

— 01



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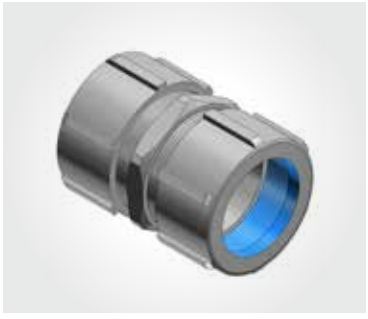

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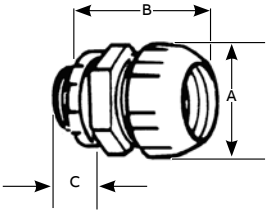
Rigid and intermediate metal conduit fittings

Threadless fittings

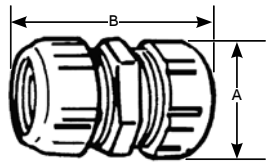
A split steel ring with diagonal serrations grips the conduit and bites into it for positive ground. Makes a permanent connection and eliminates the need for cutting a thread on the conduit. Insulation helps to guarantee continuity of service with protection of the conductor at the critical point – the fitting bushing. Malleable iron construction.

Nylon-insulated threadless fittings

Diagram	Cat. no.		Conduit size	Dimensions (in.)		
	Nylon insulated	Non-insulated	(in.)	A	B	C
	8123	8121	½	1 11/32	1 15/16	¾
	8223	8221	¾	1 5/8	2	¾
	8323	8321	1	1 7/8	2 7/16	⅞
	8423	8421	1¼	2 3/8	2 9/16	11/16
	8523	8521	1½	2 5/8	2¾	¾
	8623	8621	2	3¼	2 15/16	27/32
	8723-TB	8721	2½	3 15/16	3 15/16	1⅛
	8823-TB	8821	3	4 11/16	4⅛	1 7/32
	8853	8851	3½	5 3/16	4¼	1⅛
	8973	8971	4	5 11/16	5	1⅛

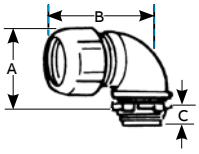
Eliminate conduit threading. When tightened with a wrench, they make a UL Listed and CSA Certified concrete-tight connection. Malleable iron construction.

Threadless couplings

Diagram	Cat. no.	Size (in.)	Dimensions (in.)	
			A	B
	8120	½	1 9/32	2
	8220	¾	1 19/32	2 5/16
	8320	1	1 7/8	2 11/16
	8420	1¼	2 3/8	2 13/16
	8520	1½	2 5/8	3 5/8
	8620	2	3¼	3 13/16
	8720	2½	3 15/16	5 3/8
	8820	3	4 11/16	5½
	8850	3½	5 3/16	5½
	8970	4	5 11/16	5½

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.

Threadless short elbows – Nylon-insulated

Diagram	Cat. no.	Size (in.)	Dimensions (in.)		
			A	B	C
	8130	½	1 11/32	1½	½
	8131	¾	1 5/8	1¾	9/16
	8132	1	1 7/8	1 15/16	11/16
	8134	1½	2 23/32	3⅛	13/16