CATALOG

Carlon®

PVC conduit, elbows and fittings

Thomas & Betts is now ABB Installation Products, but our long legacy of quality products and innovation remains the same. From connectors that wire buildings on Earth to cable ties that help put machines in space, we continue to work every day to make, market, design and sell products that provide a smarter, safer and more reliable flow of electricity, from source to socket.

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Carlon® non-metallic push-in fittings

Superior pull-out performace and cost efficiency

NEW

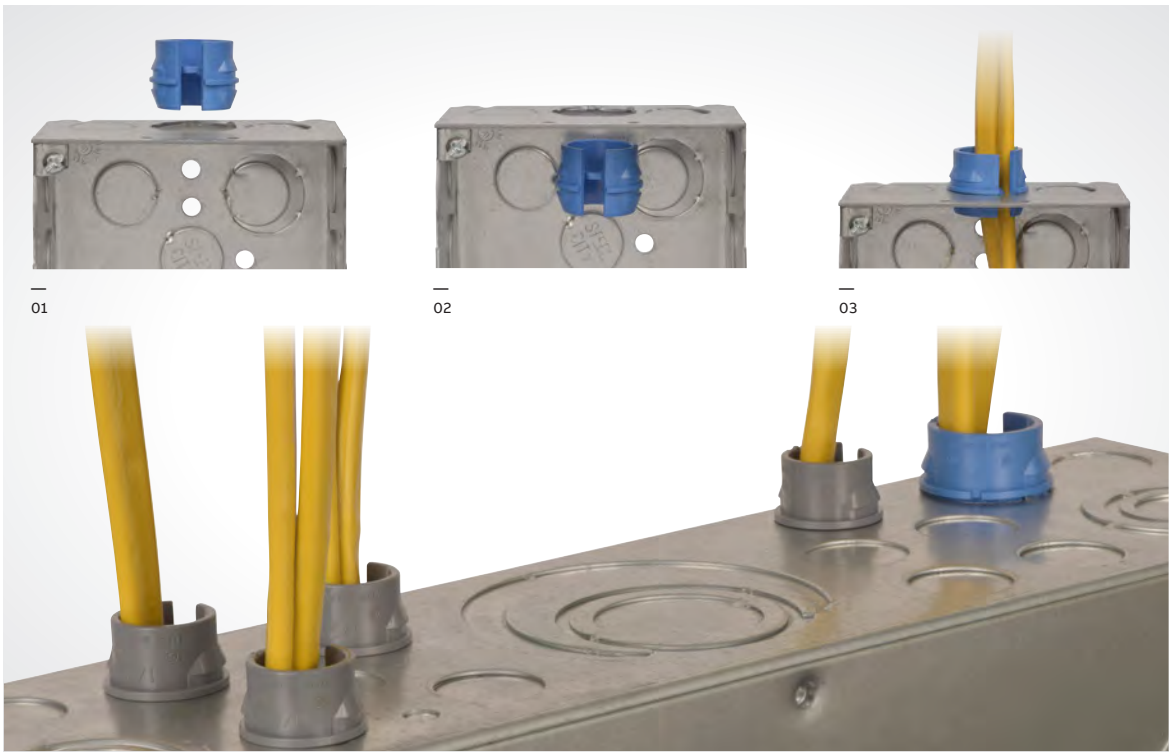
Features and benefits:

- Easy push-in installation in knockouts – no tools required
- Certified for one or two cables
- Insertion from inside or outside of enclosures increases installation flexibility
- Snug fit eliminates movement within knockout
- Exceeds pull-out requirements for better cable security
- Distinctive colors to differentiate sizes: 1/2" gray, 3/4" blue
- UL® Listed, CSA Certified

01 Align the flat surface or opening with the burr of the knockout for easier insertion.

02 Insert the fitting into the knockout without the cables, from the inside or the outside of the enclosure.

03 For two-cable installation: both cables may be inserted at once or one after the other.



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Carlon non-metallic push-in fittings

Cat. No.	Description	Trade size (in.)	Clamping range Min. (in.)	Clamping range Max. (in.)	Suggested application (non metallic sheathed cable)	Packaging Inner	Packaging Outer
SNM12-6R	Non-metallic fitting ½ in.	1/2	0.21	0.42	14/2 - 12/2 - 10/2 - 14/3 - 12/3 - 10/3 2 cables: 2 x 14/2 - 2 x 12/2 - 1 x 14/2 - 1 x 12/2	50	300
SNM12-100CP	Non-metallic fitting ½ in.	1/2	0.21	0.42	14/2 - 12/2 - 10/2 - 14/3 - 12/3 - 10/3 2 cables: 2 x 14/2 - 2 x 12/2 - 1 x 14/2 - 1 x 12/2	100	1000
SNM34-6R	Non-metallic fitting ¾ in.	3/4	0.22	0.65	12/2 - 10/2 - 8/2 - 6/2 - 14/3 - 12/3 - 10/3 - 8/3 - 6/3 2 cables: 2 x 12/2 - 2 x 10/2 - 1 x 12/2 - 1 x 10/2	40	240
SNM34-100CP	Non-metallic fitting ¾ in.	3/4	0.22	0.65	12/2 - 10/2 - 8/2 - 6/2 - 14/3 - 12/3 - 10/3 - 8/3 - 6/3 2 cables: 2 x 12/2 - 2 x 10/2 - 1 x 12/2 - 1 x 10/2	100	1000

Carlon® non-metallic expansion/deflection coupling

Innovative design improves safety and saves labor time

NEW

Use the Carlon non-metallic expansion/deflection coupling to join two rigid PVC conduit runs in applications requiring movement in any direction at structural joints. It provides a flexible connection, safely accommodating axial or parallel deflection of up to 3/4" and angular deflection of up to 30° from relaxed position.

This coupling meets the requirements of 2014 National Electrical Code (NEC) Article 300.4(H) for use where a raceway crosses a structural joint intended for expansion, contraction or deflection in buildings, bridges, parking garages and similar structures.

Features and benefits:

- Suitable for use indoors, outdoors, direct burial or embedded in concrete in bridges, piers, parking garages, overhead walkways, hospitals and other buildings
- Flexible neoprene outer jacket with tamperproof stainless steel straps ensures superior protection and corrosion resistance suitable for wet locations
- Inner sleeve provides a constant, smooth inner diameter in any position to ease wire pulling and prevent wire insulation damage
- Up to five times faster to install than the traditional method
- Up to 5-to-1 SKU reduction
- Can be used with Schedule 40 and Schedule
- 80 rigid PVC conduit
- UV resistant
- Patent pending

Listings/compliances

- cULus Listed
- CSA certified to CSA C22.2 No. 85
- 2014 NEC Article 300.4(H) compliant

Materials/finishes

- Coupling ends: smooth gray PVC
- Inner sleeve: smooth gray PVC
- Outer jacket: natural black molded neoprene
- Jacket straps: stainless steel

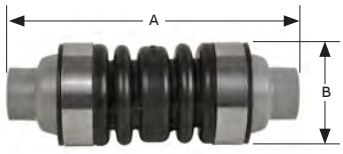
Axial expansion from relaxed position

Axial contraction from relaxed position

Parallel deflection

Angular deflect

Carlon non-metallic expansion/deflection coupling



Cat. No.	Trade size (in.)	Dimension A (in.)	Dimension B (in.)	UPC no.
XD1NM	½	7.28	2.40	034481-02041
XD2NM	¾	7.36	2.66	034481-02043
XD3NM	1	7.66	2.96	034481-02042
XD5NM	1 ½	8.26	3.60	034481-02044
XD6NM	2	9.14	4.34	034481-02045
XD7NM	2 ½	10.75	5.15	034481-02046
XD8NM	3	11.36	5.60	034481-02047
XD10NM	4	12.25	7.17	034481-02048

*Add 0.25" to O.D. clearance for strap buckle

Carlon® non-metallic strain-relief fittings

NEW

Features and benefits:

- For quick and reliable outdoor electrical installations
- 4 interchangeable elastomer bushings, accommodate a large range of NM-sheathed cables or cord cable size

Carlon non-metallic unthreaded strain relief fittings (to glue)

Cat. No.	Description	Trade size (in.)	NMD 90 cables (Loomex™-Romex™)	NMWU cables (in.)	Cord cables (in.)	Packaging
SRTC-050	½" Non-metallic threaded strain relief fitting.	½	14/3, 12/3, 10/3, 14/2, 12/2, 10/2	14/3, 14/2	0.240 - 0.450	Bag of 1. 25 bags per outer 300
SRC-075	¾" Non-metallic unthreaded strain relief fitting	¾	14/3, 12/3, 10/3, 8/3, 14/2, 12/2, 10/2	14/3, 12/3, 10/3, 14/2, 12/2	0.240 - 0.590	
SRTC-075	¾" Non-metallic threaded strain relief fitting					

Carlon SRTC-050 fittings

Temperature rating: 90°C
*85ºC with impact

Bushing	NMD 90 cables (Loomex™-Romex™)	NMWU cables	Cord cables diameter range (in.)
	14/3	not applicable	0.240 to 0.340
	12/3, 10/3	14/3	0.340 to 0.450
	8/3	12/3	0.450 to 0.590
		10/3	0.450 to 0.590
	14/2, 12/2, 10/2	14/2	not applicable

Carlon SRTC-075 & SRC-075 fittings

Temperature rating: 90°C
*85ºC with impact

Bushing	NMD 90 cables (Loomex™-Romex™)	NMWU cables	Cord cables diameter range (in.)
	14/3	not applicable	0.240 to 0.340
	12/3, 10/3	14/3	0.340 to 0.450
	8/3	12/3, 10/3	0.450 to 0.590
	14/2, 12/2, 10/2	14/2, 12/2	not applicable

ENT
Flex-Plus®

Flex-Plus ENT is a non-metallic flexible raceway for use in walls, floors and non-plenum ceilings. It's lightweight, hand-bendable and free from sharp edges, which reduces installation time and saves money.

Options:
- Sizes ½" through 2"
- Colors can designate different voltages. Examples:
  - Yellow color for communication circuits and signaling cable
  - Red color for fire alarm circuits
  - Blue color for power circuits
- Packaging: coils or reels

E73317 LR83580 FT-4 Rated where noted by

Standard stock – reels

Cat. No.	Size (in.)	Color	Nom. I.D. (in.)	Nom. O.D. (in.)	Pill tape	Min. bend radius (in.)	Reel size (F x W) (in.)	Reel type (W=wood)	Reel length	Reel wt. (lbs.)	Wt. per 100 Ft. (lbs.)
12005AK-001	½	Blue	.56	.84	Empty	6	36 x 24	W	1500	40	10
1205AKY-001	½	Yellow	.56	.84	Empty	6	36 x 24	W	1500	40	10
1205AKR-001	½	Red	.56	.84	Empty	6	36 x 24	W	1500	40	10
12005AKC-001	½	Blue	.56	.84	Empty	6	36 x 24	W	1500	40	10
12007AA-001	¾	Blue	.76	1.05	Empty	6	36 x 24	W	1000	40	14
1207AAY-001	¾	Yellow	.76	1.05	Empty	6	36 x 24	W	1000	40	14
1207AAR-001	¾	Red	.76	1.05	Empty	6	36 x 24	W	1000	40	14
1207AAC-001	¾	Blue	.76	1.05	Empty	6	36 x 24	W	1000	40	14
12008-750	1	Blue	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12008Y-750	1	Yellow	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12008R-750	1	Red	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12008C-750	1	Blue	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12009-750	1¼	Blue	1.402	1.66	Empty	7	48 x 32	W	750	90	19
12010-750	1½	Blue	1.554	1.90	Empty	8¼	48 x 32	W	750	90	39
12010Y-750	1½	Yellow	1.554	1.90	Empty	8¼	48 x 32	W	750	90	39
12011-500	2	Blue	2.030	2.375	Empty	9½	48 x 32	W	500	90	32
12011R-500	2	Red	2.030	2.375	Empty	9½	48 x 32	W	500	90	32
12011Y-500	2	Yellow	2.030	2.375	Empty	9½	48 x 32	W	500	90	32

* 1¼"–2" available in yellow & red, made to order; consult factory.

Canada Only

Flex-Plus ENT

E73317 LR83580 FT-4 Rated where noted by

Standard stock – coils

Cat. No.	Size (in.)	Color	Nom. I.D. (in.)	Nom. O.D. (in.)	Pill tape	Min. bend radius `(in.)	Coil length (Ft.)	Wt. per 100 Ft. (lbs.)
12005-200	½	Blue	.56	.84	Empty	6	200	10
12005Y-200	½	Yellow	.56	.84	Empty	6	200	10
12005R-200	½	Red	.56	.84	Empty	6	200	10
12005C-370	½	Blue	.56	.84	Empty	6	200	10
12007-100	¾	Blue	.76	1.05	Empty	6	100	14
12007Y-100	¾	Yellow	.76	1.05	Empty	6	100	14
12007R-100	¾	Red	.76	1.05	Empty	6	100	14
12007C-240	¾	Blue	.76	1.05	Empty	6	100	14
12008-100	1	Blue	1.00	1.315	Empty	6	100	22
12008Y-100	1	Yellow	1.00	1.315	Empty	6	100	22
12008R-100	1	Red	1.00	1.315	Empty	6	100	22
12008C-160	1	Blue	1.00	1.315	Empty	6	100	22

Canada Only

10-ft. Lengths

Cat. No.	Size (in.)	Color	Nom. I.D. (in.)	Nom. O.D. (in.)	Std. Ctn.	Std. Wt. (lbs.)
12005-UPC	½	Blue	.56	.84	10 ft.	1.02
12007-UPC	¾	Blue	.76	1.05	10 ft.	1.46
12008-010	1	Blue	1.00	1.315	10 ft.	2.96

Note: The solid blue color of ENT conduit is a registered trademark of Carlon. ENT may show color deterioration in direct sunlight when stored outdoors over an extended period of time. It is suggested that all ENT products not be stored outside. Section 362.12(8) of the NEC® prohibits ENT to be used in areas exposed to direct sunlight.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Stub downs

Carlon vertical stub downs are designed to provide a quick, easy connection to a wood deck or transition from slab-to-slab using Carlon's "Quick Connect" snap-in design…simply snap the ENT in place. The integral snaps provide a secure mount – preventing the ENT from pulling out while enabling easy removal of the fitting once the deck is removed. All in a concrete-tight application. The underside of this fitting provides ample room to attach a Carlon coupling to the ENT to continue the run. Carlon vertical stub downs are manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and are available in sizes ½", ¾" and 1".

Carlon 45° Stub downs are designed to provide a smooth transition from cross- deck ENT runs to vertical applications. The integral snaps provide a secure mount – preventing the ENT from slipping or pulling out – but also enable the stub to easily be removed. The underside of this fitting provides ample room to attach a Carlon coupling to the ENT to continue the run. Carlon 45° Stub downs are manufactured out of a highly engineered thermoplastic material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".

Vertical stub down

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A210D	½	50	3.8
A210E	¾	50	3.7
A210F	1	50	4.8

45° stub down

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A220D	½	25	1.8
A220E	¾	25	2.0
A220F	1	25	2.6
A220G	1¼	25	2.8
A220H	1½	25	3.3
A220J	2	25	4.1

Carlon non-metallic exclusive…Carlon vertical stub down transition adapters, like our vertical stub downs, provide a means to transition from ENT to another wire-management product where code requires other wire-management means. The integral snaps provide a secure mount – preventing the ENT from slipping or pulling out, while the deck-mount flange has a threaded port, enabling connection to other conduit system using a terminal adapter. Carlon vertical stub down transition adapters are manufactured out of polycarbonate material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".

Carlon non-metallic exclusive…Carlon 90° Stub Downs are designed to provide a smooth transition from cross-deck ENT runs to vertical applications where code requires other wire-management means. The integral snaps provide a secure mount – preventing the ENT from slipping or pulling out, while the deck-mount flange has a threaded port, enabling connection to any conduit system using a terminal adapter. Carlon 90° Stub Downs are manufactured out of polycarbonate material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".

Vertical stub down transition adapter

c UL us
E86720

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A200D	½" Female ENT to NPSC (Female)	50	2.3
A200E	¾" Female ENT to NPSC (Female)	50	2.8
A200F	1" Female ENT to NPSC (Female)	50	3.9

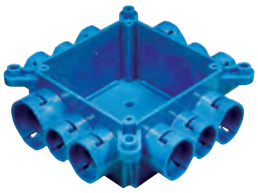
90° stub down transition adapter

c UL us
E86720

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A230D	½" Female ENT to NPSC (Female)	25	2.0
A230E	¾" Female ENT to NPSC (Female)	25	2.4
A230F	1" Female ENT to NPSC (Female)	25	3.3

Mud box assemblies

Carlon mud box assemblies are available in five unique styles…blank, ceiling ring, one-gang, two-gang and 4-inch square. All mud box assemblies are manufactured out of polycarbonate material to provide extra strength and durability, are concrete tight and have twelve integral connectors…two 1", six ¾" and four ½". Using our new ENT Reducers, this product will meet ANY jobsite application.



Mud box base with blank cover

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863BC	Mud Box with Blank Cover	24	12.3

Mud box base with ceiling ring

Features and benefits:

- Threaded brass inserts for fan (#10-32 screws) and fixture (#8-32 screws) mountings
- Listed for fixture support up to 50 lbs.
- Listed for ceiling fans up to 35 lbs.

E11461 Except where noted by ▶

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863CF	Mud Box with Blank Cover	24	15.5
▶ A863CFG	Mud Box with Ceiling Ring & Ground Lug	24	16.1

Mud box with one-gang ring

E11461 Except where noted by ▶

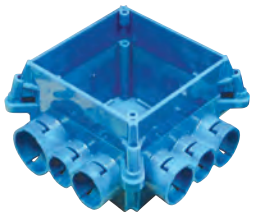
Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863S	Mud Box with One-Gang Ring	24	16.8
▶ A863SG	Mud Box with One-Gang Ring & Ground Lug	24	16.2

Mud box assemblies

Mud box with two-gang ring

E11461 c E11461 us Except where noted by ▶

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863D	Mud box with two-gang ring	24	15.8
▶ A863DG	Mud box with two-gang ring & ground lug	24	16.6



Mud box with 4" square ring

Features and benefits:

- Threaded brass inserts for fan (#10-32 screws) and fixture (#8-32 screws) mountings
- Listed for fixture support up to 50 lbs.
- Listed for ceiling fans up to 35 lbs.

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863-4SQ	Mud box with 4-inch square ring	24	15.2

Mud box with one-gang ring

Carlon Mud Box Assemblies with mounting feet are specifically engineered and designed for use in Tunnel Form applications. The mounting feet are located on all four corners and enable the box to attach directly to the wall of the form using pop rivets. The pop rivets help keep the box in position during the pour and provide a safe, secure and rust-resistant mount.

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863-4SQF	4-Square ring	24	17.15
A863CFF	Ceiling ring	24	16.61
A863CFGF	Ceiling ring and ground lug	24	17.46
A863DF	Double-gang	24	17.42
A863DGF	Double-gang and ground lug	24	17.99
A863SF	Single-gang	24	17.15
A863SGF	Single-gang and ground lug	24	17.44

Mounting brackets

Front view

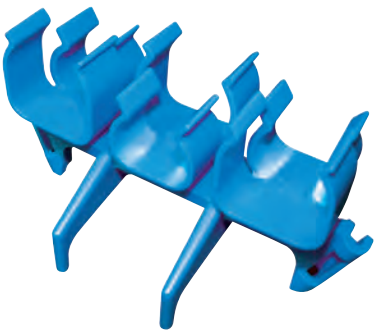
Back view

CARLON EXCLUSIVE…The Carlon ENT mounting bracket is specifically designed for use with Carlon ENT mud box assemblies in vertical concrete walls where one- or two-gang boxes are needed. The soft-steel strap enables the outlet box to be secured to rebar. The bracket combination ensures a straight box opening and a concrete-tight fit. Mud box not included.

Mud box base with blank cover

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A863MB	Mud box mounting kit	1	.98

ENT Bridge



CARLON EXCLUSIVE…The Carlon ENT Bridge is designed to support long ENT runs in concrete pour applications. This makes pulling wire/cable a snap. Installation is easy…simply mount the ENT bridge, using nails or screws, to the wood deck mounting and snap the ENT into place. The bridge is designed to hold the conduit in place while minimizing dips in the conduit over long runs. The Carlon ENT Bridge is manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and can accommodate ENT sizes ½", ¾" and 1". (The Carlon ENT bridge can be used with rigid non-metallic conduit too.)

Mud box base with blank cover

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A293DEF	ENT Bridge	50	9.0

Transition adapters

Male ENT to Schedule 40 and 80 PVC conduit

CARLON EXCLUSIVE…Carlon male ENT to Schedule 40 & 80 PVC conduit transition adapters are designed to connect Schedule 40 conduit to Carlon Flex-Plus Blue ENT boxes and fittings. Simply solvent cement the PVC adapter to the Schedule 40 conduit and snap the adapter into Carlon's "Quick Connect" snap-in connector on the box or fitting. Carlon Male ENT to Schedule 40 & 80 adapters are concrete tight and available in sizes ½", ¾" and 1".

c UL us
E23018

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A263D	½" ENT to ½" Sch. 40 or Sch. 80	100	2.4
A263E	¾" ENT to ¾" Sch. 40 or Sch. 80	100	3.2
A263F	1" ENT to 1" Sch. 40 or Sch. 80	100	4.5

ENT to EMT

Carlon ENT to EMT transition adapters are designed to easily transition from Carlon Flex-Plus Blue ENT to EMT using Carlon's "Quick Connect" snap-in design. The EMT is held securely in place using the small screw (provided). This helps prevent the EMT from slipping/shifting out of the adapter. All ENT to EMT adapters are manufactured out of polycarbonate material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".

c UL us
E86720

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A245D	½" ENT to ½" EMT	100	3.4
A245E	¾" ENT to ¾" EMT	100	4.1
A245F	1" ENT to 1" EMT	100	5.4

ENT to EMT

CARLON EXCLUSIVE…Carlon ENT reducers are designed to provide an easy transition from 1" Carlon ENT to ¾" ENT or from ¾" Carlon ENT to ½" ENT. They're concrete tight and manufactured out of polycarbonate material to provide extra strength and durability. Carlon ENT reducers provide flexibility while on the jobsite by minimizing the need to carry size-specific boxes and fittings. Carlon ENT reducers provide the versatility to convert Carlon fittings and boxes to many different sizes and configurations.

c UL us
E86720

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A273DE	¾"–½"	100	3.2
A273EF	1"–¾"	100	2.4

Outlet and switch boxes

Eccentric knockouts

A122

A238

CARLON EXCLUSIVE…Carlon ENT outlet and switch boxes with eccentric knockouts are designed to enable selective ENT openings – ½", ¾" and 1" – based on application needs. They provide the largest capacity available on the market today – 22 cu. in. Single-gang, and 38 cu. in. Double-gang – and can be mounted to wood or steel studs. Carlon ENT outlet and switch boxes with eccentric knockouts are manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and are available in single-gang and double-gang styles.

Note: The double-gang version is also a 4-in. square box.

Single-gang — 22 cu. in.

E11461

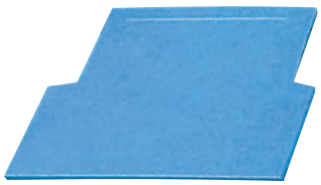
Cat. No.	Size	Capacity (cu. in.)	Std. Ctn.	Std. Wt. (lbs.)
A122	Single-gang	22	25	6.8

Single-gang — 38 cu. in.

Cat. No.	Size	Capacity (cu. in.)	Std. Ctn.	Std. Wt. (lbs.)
A238	Two-gang	38	25	8.9

Outlet box

Divider



Carlon ENT outlet box divider is specifically designed for applications where a combined high- and low-voltage closed-back box is needed, such as for placement in a fire-rated wall. Just slip the divider into place to get the split box you need. The Carlon ENT outlet box divider is UL® Recognized for use with the Carlon A238 box only.

Outlet box divider

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A238DIV	–	50	1.87

Quick-Connect

Adapters and couplings

Coupling

Threaded adapter

Snap-in adapter

Features and benefits:

- Carlon one-piece ENT Quick-Connect couplings, threaded adapters and snap-in terminator adapters are suitable for damp locations
- Quick-Connect couplings and threaded adapters are concrete-tight when used with Carlon ENT
- All sizes of rigid non-metallic conduit fittings are compatible with ENT when using ENT cement
- Rigid non-metallic conduit fittings are recommended for use with Carlon 1¼"–2" Flex-Plus Blue ENT
- Use of ENT Blue Quick-set cement is required. See page 53 for details
- When one-piece Quick-Connect snap-in terminator adapters are installed in a concrete application, Carlon flat sealing washers must be used on the box connection ends

Couplings

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
A240D	½	150	2.90
A240E	¾	100	3.00
A240F	1	50	2.30

Threaded adapters

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
A243D	½	150	2.55
A243E	¾	100	2.30
A243F	1	50	2.00

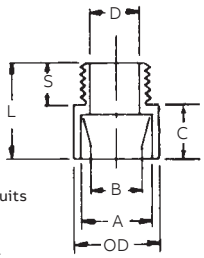
Snap-in adapters E86720 LR92248

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
A253D	½	150	2.70
A253E	¾	100	2.90
A253F	1	50	2.30

Rigid non-metallic

Conduit adapters and couplings

For adapting non-metallic conduits to boxes, threaded fittings, metallic systems. Male threads on one end, socket end on other.



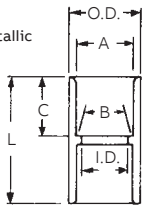
All socket fittings should be attached using ENT Blue Quick-Set Cement (page 53). Using Carlon fittings with Carlon non-metallic conduit ensures system integrity.

Male terminal adapters E23018 LR31146

Cat. No.	Size	Std. Ctn.	Typical A	Typical B	Min. D	Max. OD	Typical C	Typical S	Typical L	Std. Wt. (lbs.)
E943D	½	150	.852	.836	.597	1⅛	⅝	9/16	1 5/16	2.8
E943E	¾	125	1.064	1.046	.800	11 1/32	¾	9/16	1⅜	3.5
E943F	1	50	1.330	1.310	1.018	1⅝	1	11/16	1 25/32	3
E943G	1¼	50	1.677	1.655	1.332	21/32	1	¾	1 15/16	4
E943H	1½	25	1.918	1.894	1.566	25/32	13/16	¾	2 1/16	2.5
E943J	2	50	2.393	2.369	2.000	2 21/32	13/16	¾	2⅛	7

*All measurements in inches, unless otherwise noted.

Socket type for joining non-metallic conduit.



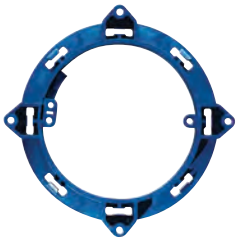
Standard couplings E23018 LR31146

Cat. No.	Size	Std. Ctn.	Typical A	Typical B	Min. D	Max. OD	Typical C	Typical L	Std. Wt. (lbs.)
E940D	½	150	.852	.836	.728	1 7/64	11/16	1½	2.8
E940E	¾	100	1.064	1.046	.840	1 5/16	¾	1⅝	3.5
E940F	1	50	1.330	1.310	1.210	1⅝	15/16	2	3
E940G	1¼	30	1.677	1.655	1.535	1 63/64	1	2⅛	4
E940H	1½	25	1.918	1.894	1.755	2 15/64	1⅛	2⅜	2.5
E940J	2	30	2.393	2.369	2.190	2 47/64	1 3/16	2½	7

*All measurements in inches, unless otherwise noted.

2 1/2" and 4"

Mud boxes and covers



Features and benefits:

- UL Classified for 2-hour-or-less fire-resistant floor/ceiling assemblies
- Listed for use with ceiling fans up to 35 lbs and for fixture support up to 50 lbs.

E11461 LR31146

Base rings

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A861	Without ground lug	10	2.5
C861G	With ground lug	10	2.0

Covers

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A862D	2½ Deep (½" KOs)	10	2.5
A862E	2½ Deep (¾" KOs)	10	2.1
A864D	4 Deep (½" KOs)	10	2.9
A864E	4 Deep (¾" KOs)	10	2.9
A864F	4 Deep (1" KOs)	10	3.0

Quick-Connect

Outlet and switch boxes

Features and benefits:

- Suitable for masonry walls
- Meets NEMA OS-2
- UL Classified for 2-hour-or-less fire-resistant wall assemblies

E11461

Single-gang – 16 cu. in.

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A58381D	3 x 2¼ x 3 (½" KOs)	25	4.6
A58381E	3 x 2¼ x 3 (¾" KOs)	25	4.6

4" Square – 20 cu. in.

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A52151D	4 x 4 x 1½ (½" KOs)	100	22.6
A52151E	4 x 4 x 1½ (¾" KOs)	100	22.6
A521DE	4 x 4 x 1½ (½" & ¾" KOs)	100	22.6

4" Square – 30.3 cu. in.

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A52171D	4 x 4 x 2⅜ (½" KOs)	25	7.6
A52171E	4 x 4 x 2⅜ (¾" KOs)	25	7.6
A5217DE	4 x 4 x 2⅜ (½" & ¾" KOs)	25	7.6

ENT Box

With adapters

Features and benefits:

- UL Classified for 2-hour-or-less fire-resistant wall assemblies

4" Square – 24.75 cu. in. ENT box with adapters

E11461

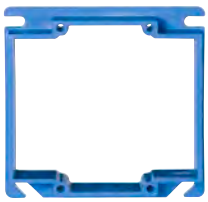
Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A5329DE	4 x 4 x 1¾ (½" & ¾" KOs)	50	14.8

Box back wall support

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A540DS	For use with ½" knockout	100	2.1

ENT Box

Extenders



Features and benefits:

- UL Classified for 2-hour-or-less fire-resistant wall assemblies

Single-gang

E11461

Cat. No.	Rise (in.)	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
A410	½	3.5	100	7.7
A411	⅝	4.2	50	4.6
A412	¾	5.0	50	5.1
A413	1	6.6	40	5
A414	1¼	8.1	30	4.4

Two-gang

Cat. No.	Rise (in.)	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
A400	Blank	—	—	7.7
A420	½	6.1	6.1	5.0
A421	⅝	7.4	7.4	4.2
A422	¾	8.8	8.8	4.8

Round covers

For octagon ceiling boxes

Features and benefits:

- Listed for fixture support up to 50 lbs.
- UL Classified for 2-hour-or-less fire-resistant assemblies

Round plaster rings

E11461

Cat. No.	Rise (in.)	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
A471	½	3.2	100	3.3
A472	¾	4.0	100	3.7

Round blank covers

Cat. No.	Rise (in.)	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
E460R-CAR	Blank	–	35	2.2
A470D	Blank with ½" KO	–	100	4.7

Quick Connect 4"

Octagon ceiling boxes

Features and benefits:

- Carlon ceiling boxes and round plaster rings are produced from a special high heat-resistant engineered plastic material developed specifically for fixture support
- Listed for fixture support up to 50 lbs.
- UL Classified for 2-hour-or-less fire resistant floor/ ceiling assemblies

Ceiling box – 20.5 cu. in.

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A615D	(4) 2 1/8 Deep (1/2" KOs)	50	6.4
A615E	(4) 2 1/8 Deep (3/4" KOs)	50	6.4
A615DE	(4) 2 1/8 Deep (1/2" & 3/4" KOs)	50	6.4

Ceiling box with J mount – 20.5 cu. in.

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A615DJ	(4) 2 1/8 Deep (1/2" KOs)	50	18.7

Ceiling box with L bracket – 20.5 cu. in.

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A615DL	(4) 2 1/8 Deep (1/2" KOs)	50	6.4

Ceiling box with adjustable hanger bar – 20.5 cu. in.

E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A615DH	(4) 2 1/8 Deep (1/2" KOs)	25	13.6

PVC Conduit cutters

For fast, smooth field cuts of ½" through 1" Flex-Plus Blue ENT.

Cat. No.	Size (in.)	Std. Ctn.
CC120B	8	10

Tape

Prelubricated, woven polyester tape made from low-friction, high abrasion-resistant yarns, providing a low coefficient of friction. Tape is printed with sequential footage markings for accurate measurements.

Cat. No.	Size (in.)	Tensile strength (lbs.)	Teel lengths (ft.)
TL14505	½	1250	5000
TL14510	½	1250	10000
TL38203	⅝	1800	3000
TL38265	⅝	1800	6500
TL38210	⅝	1800	10000

Other tapes are available. Consult your sales service location for additional information.

Carlon Low VOC cement

(MSDS sheets available at www.carlon.com)

ENT cement required for use with ENT and rigid non-metallic conduit fittings.

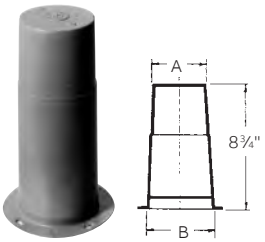
All Weather — ENT Blue

Recommended pipe application and sizes		Set-up time (Evaporation Rate)	Recommended installation temp.		Lap Shear @ 73°F	Viscosity at 75°F as manufactured
Required for use with Flex-Plus ENT (Electrical Non-Metallic Tubing), Riser-Gard, P&C Flex and Carlon PVC fittings. Up through 6" diameter.	-5°–10°F	6–8 Minutes	-5° to 100°F	2 Hrs.	350 PSI	400–700 CPS
	10°–30°F	4–5 Minutes		16 Hrs.	800 PSI	
	30°–50°F	3–4 Minutes		72 Hrs.	1500 PSI	
	50°–70°F	1–2 Minutes				
	70°–90°F	½–1½ Minutes				

Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
VC9992	Quart	Dauber	All-Weather "Quick-Set" Blue	12	29.0

Meets ASTM D-2564.

Concrete sleeves



Non-metallic concrete sleeve forms are the easy way to form holes in concrete. They install in seconds with nails, screws or staples and are easily removed. Concrete will not adhere to them. Concrete sleeves are adjustable to any slab thickness.

Cat. No.	Min. O.D. A (in.)	B (in.)	Std. Ctn.	Std. Wt. (lbs.)
E92CSH	1½	1¾	20	3
E92CSJ	2	2 13/32	25	6
E92CSL	3	3 13/32	25	8
E92CSN	4	4 13/32	18	8
E92CSP	5	5 13/32	15	8
E92CSR	6	6 13/32	12	8

Carlon®
Plenum-Gard® Raceway

01 Applications: Plenum, riser and general purpose

Plenum-Gard is a UL® Listed non-metallic corrugated flexible conduit for use in plenum, riser and general purpose applications. Plenum-Gard is manufactured from PVDF resin, which is extremely durable and resistant to abrasion and mechanical damage before/after cable installation.

Plenum-Gard is listed to UL® 2024 in accordance with the National Electrical Code® for plenum, riser, general purpose and other cabling/optical fiber/telecommunication applications as defined in Articles 725, 770, 800 and 820.

Important: Installed cables must be plenum rated and the UL® Listing must be printed on the product. Abandoned cables MUST be removed (reference NEC®).

- Storage: -4° to 158°F
- Handling: -4° to 104°F
- No UV protection (not suitable for outdoor use)
- Do not store outside

01

Technical Info

Cat. No.	Size (in.)
Maximum flame propagation	5 ft.
Maximum peak optical smoke density	0.5
Maximum average optical smoke density	0.15

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E151168
FT-6 Rated

Standard stock – reels

Cat. No.	Size (in.)	Color	Pull tape	Reel size (F x W) (in.)	Reel type	Reel length (ft.)	Reel Wt. (lbs.)	Reel Wt. per 100 Ft. (lbs.)
CD4X1C-1500	½	Orange	200 lb.	34 x 23	Wood	1,500	30	7
CE4X1-1000		Orange	Empty	34 x 23	Wood	1,000	30	8
CE4X1-1000S	¾	Orange	Empty/Split	34 x 23	Wood	1,000	30	8
CE4X1C-1000		Orange	900 lb.	34 x 23	Wood	1,000	30	8
CF4X1C-500		Orange	900 lb.	34 x 23	Wood	500	30	10
CF4X1C-1000		Orange	900 lb.	48 x 28	Wood	1,000	79	10
CF4X1C-1500	1	Orange	900 lb.	48 x 28	Wood	1,500	79	10
CF4X1C-5200		Orange	900 lb.	66 x 41	Wood	5,200	250	10
CF4X1C-6500		Orange	900 lb.	72 x 41	Wood	6,500	310	10
CF4X1C-8000		Orange	900 lb.	82 x 41	Wood	8,000	365	10
CG4X1C-500		Orange	900 lb.	48 x 28	Wood	500	79	14
CG4X1-500S		Orange	Empty/Split	48 x 28	Wood	500	79	10
CG4X1C-900		Orange	900 lb.	48 x 45	Wood	900	96	14
CG4X1C-1600	1¼	Orange	900 lb.	48 x 45	Wood	1,600	96	14
CG4X1C-3200		Orange	900 lb.	66 x 41	Wood	3,200	250	14
CG4X1C-6500		Orange	900 lb.	96 x 41	Wood	6,500	700	14
CG4X1-900S		Orange	Empty/Split	48 x 28	Wood	900	79	14
CH4X1C-350		Orange	900 lb.	48 x 28	Wood	350	79	16
CH4X1C-1200	1½	Orange	900 lb.	48 x 45	Wood	1,200	96	16
CH4X1C-4000		Orange	900 lb.	82 x 41	Wood	4,000	365	16
CJ4X1-200S		Orange	Empty/Split	48 x 28	Wood	200	79	21
CJ4X1C-225		Orange	900 lb.	48 x 28	Wood	225	79	21
CJ4X1C-700	2	Orange	900 lb.	48 x 45	Wood	700	96	21
CJ4X1C-1400		Orange	900 lb.	82 x 41	Wood	1,400	365	21
CJ4X1C-2000		Orange	900 lb.	82 x 41	Wood	2,000	365	21
CJ4X1C-2800		Orange	900 lb.	82 x 41	Wood	2,800	365	21
CL4X1C-150	3	Orange	900 lb.	48 x 45	Wood	150	96	41

Carlon

Plenum-Gard Raceway

Features and benefits:

- For use in plenum areas per NEC® Articles 725, 770, 800 and 820
- Sizes ½" through 3"
- Pre-installed pull tape available in sizes ½" through 3"
- Outside diameters meet IPS dimensions
- UL® Listed raceway meeting UL 2024
- Footage sequentially marked
- Single-peak design

Standard stock – coils

Cat. No.	Size (in.)	Color	Pull tape	Coil length (ft.)	Product Wt. per 100 ft.(lbs.)
CD4X1C-500	½	Orange	900 lb.	500	7
CE4X1-350*	¾	Orange	Empty	350	8
CE4X1-350S		Orange	Empty/Split	350	8
CF4X1C-100*		Orange	900 lb.	100	10
CF4X1-100S*		Orange	Empty/Split	100	10
CF4X1C-250*	1	Orange	900 lb.	250	10
CF4X1-250		Orange	Empty	250	10
CF4X1-250S*		Orange	Empty/Split	250	10
CG4X1C-200*	1¼	Orange	900 lb.	200	14
CG4X1-200S		Orange	Empty/Split	200	14
CH4X1C-150*	1½	Orange	900 lb.	150	16
CH4X1-150S		Orange	Empty/Split	150	16
CJ4X1C-100*	2	Orange	900 lb.	100	21
CJ4X1-100S		Orange	Empty/Split	100	21

* Overnight Shippable

Specifications

Size (in.)	I.D. Min. Ref. (in.)	Min. O.D. (in.)	Max. O.D. (in.)	Min. bend radius (in.)
½	.60	.815	.835	2
¾	.74	1.025	1.045	2
1	1.00	1.292	1.312	3
1¼	1.35	1.630	1.650	3
1½	1.50	1.868	1.888	4
2	2.00	2.329	2.439	4
3	3.00	3.422	3.452	4

- Custom orders are not returnable
- Custom lengths are available in minimum order quantities of 1,000 ft.
- Custom color runs are available in minimum order quantities of 10,000 ft.

Options:

- Color: Black, blue, gray, red, white and yellow
- Two-, three- or four-way parallel
- Split duct

Custom oders – how to build a part number:

Position 1 Product	Position 2 Size (in.)	Position 3 Type	Position 4 Wall	Position 5 Color	Position 6 Pull line	Position 7 Length
C = Plenum-Gard	D = ½	4 = Corrugated	X = Standard	1 = Orange	C = 900 LB. Tape	Example
	E = ¾			2 = Black		-1000 = Feet
	F = 1			3 = Gray		-1000S = 1000 Feet Split
	G = 1¼			4 = White		
	H = 1½			5 = Blue		
	J = 2			7 = Yellow		
	L = 3			8 = Red		

Carlon®
Riser-Gard® Raceway

— 01 Applications: Riser and general purpose

Riser-Gard is a non-metallic flexible raceway for use in riser and general purpose applications. Riser-Gard is UL® Listed and is available with tape pre-installed. Riser-Gard is listed to UL® 2024 Standard for riser applications or optical fiber/communications raceways.

Riser-Gard is listed to UL® 2024 in accordance with the National Electrical Code® per Articles 725, 770, 800 and 820 for riser, general purpose and other cabling/optical fiber/telecommunication applications. Riser-Gard is suitable for use in vertical runs in a shaft or between floors, as well as areas other than the plenum.

Important: Installed cables must be of suitable rating for the application.

- Storage: -4° to 158°F
- Handling: -4° to 104°F
- No UV protection (not suitable for outdoor use)
- Do not store outside

— 01

Technical Info

UL listed to 2024	Test method	Size (in.)
Maximum flame propagation	UL 2024	6.0 ft.
Maximum air temperature at 12 ft	UL 2024	0.15

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E151168
FT-6 Rated

Standard stock – reels

Cat. No.	Size (in.)	Color	Pull tape	Reel size (F x W) (in.)	Reel type	Reel length (ft.)	Reel Wt. (lbs.)	Reel Wt. per 100 Ft. (lbs.)
DE4X1-1000	¾	Orange	Empty	34 x 23	Wood	1,000	30	12
DF4X1C-500R		Orange	900 lb.	43 x 23	Wood	500	56	15
DF4X1C-1000		Orange	900 lb.	48 x 28	Wood	1,000	79	15
DF4X1C-1500		Orange	900 lb.	48 x 28	Wood	1,500	79	15
DF4X1C-2700	1	Orange	900 lb.	48 x 45	Wood	2,700	96	15
DF4X1C-5200		Orange	900 lb.	66 x 41	Wood	5,200	250	15
DF4X1C-6500		Orange	900 lb.	72 x 41	Wood	6,500	310	15
DF4X1C-7000		Orange	900 lb.	72 x 45	Steel	7,000	148	15
DF4X1C-9400		Orange	900 lb.	84 x 45	Steel	9,400	199	15
DG4X1C-900		Orange	900 lb.	48 x 28	Wood	900	79	17
DG4X1C-500R		Orange	900 lb.	48 x 23	Wood	500	56	17
DG4X1C-1500		Orange	900 lb.	48 x 45	Wood	1,500	96	17
DG4X1C-1600	1¼	Orange	900 lb.	48 x 45	Wood	1,600	96	17
DG4X1C-3200		Orange	900 lb.	66 x 41	Wood	3,200	250	17
DG4X1C-4500		Orange	900 lb.	72 x 45	Steel	4,500	148	17
DG4X1C-5600		Orange	900 lb.	82 x 41	Wood	5,600	365	17
DG4X1C-6500		Orange	900 lb.	96 x 41	Steel	6,500	700	17
DH4X1C-1200		Orange	900 lb.	48 x 45	Wood	1,200	96	22
DH4X1C-4000	1½	Orange	900 lb.	82 x 45	Steel	400	193	22
DH4X1C-4500		Orange	900 lb.	84 x 45	Steel	4,500	199	22
DJ4X1C-700		Orange	900 lb.	48 x 45	Wood	700	96	27
DJ4X1C-2000	2	Orange	900 lb.	82 x 41	Wood	200	265	27
DJ4X1C-2800		Orange	900 lb.	84 x 45	Steel	2,800	199	27
DL4X1C-750	3	Orange	900 lb.	72 x 41	Wood	750	310	27

Carlon

Riser-Gard Raceway

Features and benefits:

- For use in riser and general purpose areas per NEC® Articles 725, 770, 800 and 820
- Riser-Gard is also suitable for direct burial, not approved for exposed applications
- UL® Listed raceway meeting UL 2024
- Available in sizes ¾" through 3"
- Pull tape can be factory pre-installed in 1" through 3"
- Outside diameters meet IPS dimensions
- Footage sequentially marked

Standard stock – coils

Cat. No.	Size (in.)	Color	Pull tape	Coil length (ft.)	Product Wt. per 100 ft.(lbs.)
DE4X1-350*	¾	Orange	Empty	350	12
DF4X1C-125		Orange	900 lb.	125	15
DF4X1C-250*		Orange	900 lb.	250	15
DF4X1-250	1	Orange	Empty	250	15
DF4X1C-500		Orange	900 lb.	500	15
DF4X1-250S*		Orange	Empty/Split	250	15
DG4X1-200		Orange	Empty	200	17
DG4X1-200S*	1¼	Orange	Empty/Split	200	17
DG4X1C-200*		Orange	900 lb.	200	17
DG4X1C-500		Orange	900 lb.	500	17
DH4X1-150S	1½	Orange	Empty/Split	150	22
DH4X1C-150*		Orange	900 lb.	150	22
DJ4X1-100S	2	Orange	Empty/Split	100	27
DJ4X1C-100*		Orange	900 lb.	100	27
DL4X1C-250	3	Orange	900 lb.	250	27

* Overnight Shippable

Specifications

Size (in.)	I.D. Min. Ref. (in.)	Min. O.D. (in.)	Max. O.D. (in.)	Min. Bend Radius (in.)
¾	.74	1.025	1.075	5
1	.98	1.290	1.340	6
1¼	1.31	1.640	1.690	8
1½	1.54	1.880	1.930	10
2	2.00	2.350	2.400	12
3	3.00	3.422	3.452	18

- Custom orders are not returnable
- Custom lengths are available in minimum order quantities of 1,000 ft.
- Custom color runs are available in minimum order quantities of 10,000 ft.

Options:

- Color: Black, blue, gray, red, white and yellow
- Two-, three- or four-way parallel
- Split duct
- Custom print line

Custom oders – how to build a part number:

Position 1 Product	Position 2 Size (in.)	Position 3 Type	Position 4 Wall	Position 5 Color	Position 6 Pull Line	Position 7 Length
D = Riser-Gard	E = ¾	4 = Corrugated	X = Standard	1 = Orange	C = 900 LB. Tape	Example
	F = 1			2 = Black		-1000 = Feet
	G = 1¼			3 = Gray		-1000S = 1000 Feet Split
	H = 1½			4 = White		
	J = 2			5 = Blue		
	L = 3			7 = Yellow		
				8 = Red		

Carlon® Hal-Free
Riser-Gard® Raceway

01 Applications: Riser and general purpose

Hal-Free Riser-Gard is a halogen-free non-metallic flexible raceway for use in riser and general purpose applications. In the event of a fire, this product will not release halogen elements into the air, which makes it ideal for applications in tunnels, laboratories and high-tech environments. Hal-Free Riser-Gard is listed to UL® 2024 in accordance with NEC® Articles 725, 770, 800 and 820. Custom lengths and split ducts are available upon request. Hal-Free Riser-Gard is available in white only.

Features:

- Free from halogen elements
- Compliant with NEC® Articles 725, 770, 800 and 820
- Available in sizes 1" through 2"
- Available in white only
- Sequentially marked footage

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Technical Info

UL listed to 2024	Test method	Size (in.)
Maximum Flame Propagation	UL 2024	3' 6" ft.
Maximum Air Temperature	UL 2024	387°F

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- Storage and handling: -4° to 150°F
- No UV protection (not suitable for outdoor use)
- Do not store outside

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E151168
FT-4 Rated

Standard stock – reels

Cat. No.	Size (in.)	Color	Nom. I.D. (in.)	Nom. O.D. (in.)	Pull tape	Reel size (F x W) (in.)	Reel type	Reel length (ft.)	Reel Wt. (lbs.)	Reel Wt. per 100 Ft. (lbs.)
HF4X4C-5000	1	White	1.049	1.365	900 lb.	72" x 41"	W	5,000	310	7.5
HG4X4C-4000	1¼	White	1.250	1.550	900 lb.	72" x 41"	W	4,000	310	7.5
HH4X4C-2000	1½	White	1.500	1.850	900 lb.	66" x 41"	W	2,000	250	12
HJ4X4C-2000	2	White	2.000	2.425	900 lb.	82" x 41"	W	2,000	365	21

- Custom orders are not returnable
- Custom lengths are available in minimum order quantities of 1,000 ft.

Custom oders – how to build a part number:

Position 1 Product	Position 2 Size (in.)	Position 3 Type	Position 4 Wall	Position 5 Color	Position 6 Pull Line	Position 7 Length
H = Hal-Free	F = 1	4 = Corrugated	X = Standard	4 = White	C = 900 lb. Tape	Example
	G = 1¼					-1000 = Feet
	H = 1½					-1000S = 1000 Feet Split

Carlon Hal-Free

Riser-Gard Raceway

Recommended pipe viscosity at 75° F application and sizes	Set-up time (Evaporation rate)	Recommended installation temp	Lap Shear @ 73°F	Viscosity at 75°F as manufactured
For use with Resi-Gard, Riser-Gard, P&C Flex and Carlon PVC fittings.	10°–30° F 4–5 minutes	40° to 100° F	2 hrs. 350 psi	500–900 cps
	30°–50° F 3–4 minutes		16 hrs. 800 psi	
	50°–70° F 1–2 minutes		72 hrs. 1,500 psi	
Up through 6" diameter.	70°–90° F ½–1½ minutes			
	70°–90° F ½–1½ minutes			

Low-VOC Resi-Gard- Clear

Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
VC9963SC	Pint	Brush	Resi-Gard solvent cement clear	24	28.0

Meets ASTM D-2564.

Non-metallic adapters and couplings

For use with Plenum-Gard

Couplings

Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
A340F	1	Orange	50	2.50

Threaded adapters

Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
A343F	1	Orange	50	1.55

Snap-in adapters

Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
A353F	1	Orange	50	3.00

Non-metallic adapters and couplings

For use with Riser-Gard and general purpose

Couplings

Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
SCA240E	¾	Orange	25	.783
SCA240F	1	Orange	20	.972

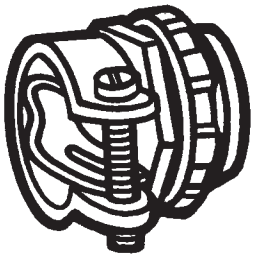
Threaded adapters

Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
SCA243E	¾	Orange	100	2.30
SCA243F	1	Orange	50	2.00

Snap-in adapters

Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
SCA253E	¾	Orange	100	2.90
SCA253F	1	Orange	50	2.30

For use
with Plenum-Gard



Metallic terminal adapter

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ 255	¾	10	12
▶ 256	1	100	25
▶ 257	1¼	100	28
▶ 258	1½	100	35
▶ 259	2	50	19

Where a waterproof termination is required into any enclosure (metallic or non-metallic), install the neoprene washer over the threads of a terminal adapter before inserting into the enclosure. Use a standard locknut or threaded bushing to secure the assembly integrity.

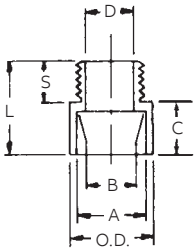
UL LISTED E23018 Except where noted by ▶

Flat sealing washer

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E943EW	¾	125	.45
▶ E943FW	1	100	.46
▶ E943GW	1¼	50	.44
▶ E943HW	1½	50	.45
▶ E943JW	2	25	.42

For use
with Riser-Gard and General Purpose

For adapting non-metallic conduits to boxes, threaded fittings, metallic systems. Male threads on one end, socket end on other.

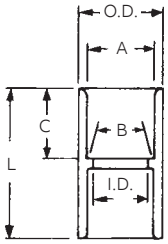


Non-metallic male terminal adapters

Cat. No.	Size (in.)	Std. Ctn.	Color	Dimensions (in.) Typical A	B	Min. D	Max. O.D.	Typical C	T	L	Std. Wt. (lbs.)
E943E	¾	125	Gray	1.064	1.046	.800	1 11/32	¾	9/16	1⅜	3.5
E943F	1	50	Gray	1.330	1.310	1.018	1⅝	1	11/16	1 25/32	3
E943G	1¼	50	Gray	1.677	1.655	1.332	2 1/32	1	¾	1 15/16	4
E943H	1½	25	Gray	1.918	1.894	1.566	2 5/32	1 3/16	¾	2 1/16	2.5
E943J	2	50	Gray	2.393	2.369	2.000	2 21/32	1 3/16	¾	2⅛	7
SCE943G	1¼	50	Orange	1.677	1.655	1.332	2 1/32	1	¾	1 15/16	4
SCE943H	1½	25	Orange	1.918	1.894	1.566	2 5/32	1 3/16	¾	2 1/16	2.5
SCE943J	2	50	Orange	2.393	2.369	2.000	2 21/32	1 3/16	¾	2⅛	7

All socket fittings should be attached Using Carlon solvent cement. Using Carlon fittings with Carlon non-metallic conduit ensures system integrity.

Socket type for joining non-metallic conduit.



Non-metallic standard couplings

Cat. No.	Size (in.)	Std. Ctn.	Color	Dimensions (in.) Typical A	B	Min. D	Max. O.D.	Typical C	L	Std. Wt. (lbs.)
E940E	¾	100	Gray	1.064	1.046	.840	1 5/16	¾	1⅝	4.4
E940F	1	50	Gray	1.330	1.310	1.210	1⅝	1 5/16	2	3.5
E940G	1¼	30	Gray	1.677	1.655	1.535	1 63/64	1	2⅛	3.5
E940H	1½	25	Gray	1.918	1.894	1.755	2 15/64	1⅛	2⅜	3.9
E940J	2	30	Gray	2.393	2.369	2.190	2 47/64	1 3/16	2½	5.25
SCE940G	1¼	30	Orange	1.677	1.655	1.535	1 63/64	1	2⅛	3.5
SCE940H	1½	25	Orange	1.918	1.894	1.755	2 15/64	1⅛	2⅜	3.9
SCE940J	2	30	Orange	2.393	2.369	2.190	2 47/64	1 3/16	2½	5.25

Low-voltage

Boxes and brackets

Dual-voltage box/bracket*

E11461

Cat. No.	Cover	Volume	Std. Ctn.	Std. Wt. (lbs.)
SC200DV	1-Gang	20.5 cu. in	16	6.4

*U.S. Patent D463,376.

Low-voltage add-on bracket*

E216492

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
SC100SC	1-Gang	24	2.3

*U.S. Patent D459,312. U.S. Patent 6,710,245. U.S. Patent 6,872,884.

Low-voltage adjustable brackets*

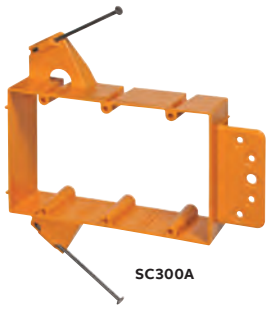
E216492

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
SC100ADJC	1-Gang	24	7.5
SC200ADJC	2-Gang	20	6.9

*U.S. Patent 5,289,934.

SC100A

SC200A



SC300A

Low-voltage brackets*

E216492

Cat. No.	Cover	Volume	Std. Ctn.	Std. Wt. (lbs.)
SC100A	1-Gang	¾, 1, 1¼	24	5.3
SC200A	2-Gang	¾, 1, 1¼	24	7.7
SC300A	3-Gang	—	5	1.6

*U.S. Patent D457,140. U.S. Patent D462,664. U.S. Patent 6,812,405.

Resi-Gard® Flexible Raceway

Ideal for providing a main chase from the main distribution panel to a secondary hub in the attic or basement, Resi-Gard non-metallic flexible raceway is available in ¾" to 2" diameter sizes with factory-installed pull tape in sizes 1" to 2". The raceway is hand bendable, lightweight and easily cut to length to reduce scrap. Bright orange color clearly signifies a low-voltage installation.

Standard-length coils

UL LISTED E151168

Cat. No.	Size (in.)	Pull tape	Description	Reel length (ft.)
SCE4X1-100	¾	Empty*	Flexible Raceway	100
SCF4X1C-100	1	900 lbs.	Flexible Raceway	100
SCG4X1C-100	1¼	900 lbs.	Flexible Raceway	100
SCH4X1C-50	1½	900 lbs.	Flexible Raceway	50
SCJ4X1C-100	2	900 lbs.	Flexible Raceway	50

FT-1 Rated
* If installing own tape, a lubricated polyester is recommended.

Standard-length reels*

UL LISTED E151168

Cat. No.	Size (in.)	Pull tape	Description	Reel length (ft.)
SCE4X1-1000	¾	Empty	Flexible Raceway	1000
SCF4X1C-1500	1	900 lbs.	Flexible Raceway	1500
SCJ4X1C-500	2	900 lbs.	Flexible Raceway	500

* Made to order
FT-1 Rated

Resi-Gard fittings

Quick-Connect couplings

UL LISTED E86720

Cat. No.	Size (in.)	Std. Ctn.
SCA240E	¾	25
SCA240F	1	20

Male terminal adapters*

UL LISTED E23018

Cat. No.	Size cu. in.	Std. Ctn.
SCE943G	1¼	50
SCE943H	1½	25
SCE943J	2	50

* Must be cemented to Resi-Gard® Flexible Raceway using ONLY Resi-Gard® Solvent Cement.

Quick-Connect threaded adapters

UL LISTED E86720

Cat. No.	Size (in.)	Std. Ctn.
SCA243E	¾	25
SCA243F	1	20

Standard couplings*

UL LISTED E23018

Cat. No.	Size cu. in.	Std. Ctn.
SCE940G	1¼	30
SCE940H	1½	25
SCE940J	2	30

* Must be cemented to Resi-Gard® Flexible Raceway using ONLY Resi-Gard® Solvent Cement.

Quick-Connect snap-in adapters

UL LISTED E86720

Cat. No.	Size (in.)	Std. Ctn.
SCA253E	¾	25
SCA253F	1	20

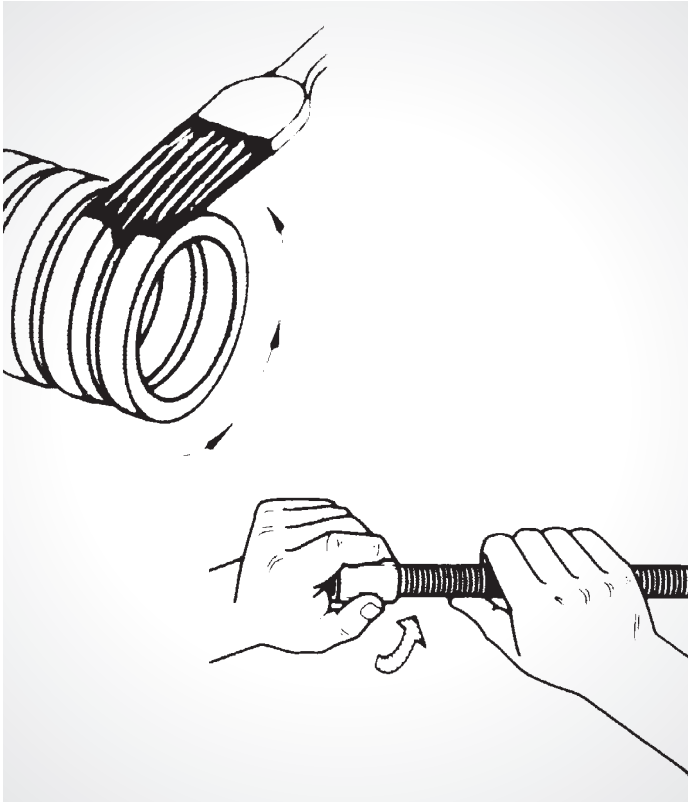
PVC Lock nuts

Cat. No.	Size cu. in.	Std. Ctn.
LT9E•	¾	700
LT9F•	1	600

• UL Recognized.

Concrete encasement guidelines
for Carlon® ENT

1. Cut ENT square and clean.
2. Insert end into fitting, making sure two (2) full corrugations are snapped into fitting beyond flexible tabs (2 clicks).
3. ENT should be tied to rebar at 2–3 foot intervals to prevent flotation. Keep ENT straight. Small deflections over a long run may accumulate significant degrees of bend that will affect conductor installation. Suitable materials include wire, tie wraps and tape.
4. When using rigid non-metallic conduit fittings for concrete tight performance:



A. Do not use chemical primer or cleaner.
B. Use a brush to apply a light, uniform coat of cement labeled for use with ENT on the coupling and ENT.
C. Do not use a dauber.
D. Brush excess cement out of ENT grooves.
E. Promptly insert ENT into fitting while cement is wet, until the stop is reached, and give a quarter turn.
F. Do not disturb until joint is set.

Specifications:

1.1 Electrical non-metallic tubing (ENT) is designed to replace EMT, flexible metal conduit or other raceway or cable systems, for installation in accordance with Article 362 of the National Electrical Code® Section 12-1500 of the CEC, other applicable sections of the Code and local codes.

1.2 Any ENT used shall be listed to the requirements of UL Standard UL 1653 in accordance with Article 362 of the NEC® and Section 12-1500 of the CEC.

1.3 Any ENT used shall meet the requirements of BI National Standard CAN/CSA-C22.2 No. 227.1-UL1653 and shall be Listed/Certified in accordance to the Electrical Codes.

1.4 Carlon's ENT shall be installed per the technical assessment prepared by fire cause analysis for use in 1-hour and 2-hour rated construction.

1.5 Penetration of fire-rated walls, floors or ceilings shall use Classified through-penetration Firestop systems described in the current Underwriters Laboratories Fire Resistance Directory.

1.6 Fittings and outlet boxes designed for use with ENT shall be listed. All fittings, boxes and accessories shall be from one manufacturer.

1.7 Only Carlon ENT Blue cement recommended specifically for use with ENT and rigid non-metallic fittings shall be used.

1.8 Unless indicated differently on drawings, ENT systems shall be color coded: BLUE for branch and feeder circuit wiring, YELLOW for communications and RED for fire alarm and emergency systems, or colors can designate different voltages.

1.9 ENT, fittings and accessories shall be manufactured by Carlon.

Features:

- Recognized for use with PVC rigid non-metallic conduit fittings with all sizes of ENT
- ENT rated for 90°C conductors U.S., and 75°C Canada
- One-piece ENT coupling, threaded terminator and RNC transition fitting are rated concrete tight without tape
- Recognized for use in 2-hour fire-resistive nonload-bearing and load-bearing wall assemblies
- Recognized for use in 1-hour fire-resistive nonload-bearing wall assemblies
- Recognized for use in a fire-resistive ceiling assembly (up to three hours)
- Recognized for through-penetration Firestop systems as classified by UL to meet ICC building codes.
- Conductors easily push through the raceway (up to approximately 50 feet)*
- For use in buildings in accordance with NEC® Article 362/ CEC Section 12-1500
- Outside diameters meet IPS dimensions
- Storage -4°F to 158°F
- Handling -4°F to 104°F

Concrete encasement guidelines

for Carlon ENT (continued)

Approved uses:

- Concrete slab – NEC® Article 362/CEC Section 12-1500
- Walls – wood stud, masonry and metal stud – NEC® Article 362/CEC Section 12-1500
- Ceilings – permanent or dropped (free air only) – NEC® Article 362/CEC Section 12-1500
- Exposed – NEC® Article 362/CEC Section 12-1500
- Public assembly – NEC® Section 518.4, in non-fire rated and certain fire rated structures
- Prewired – NEC® Article 362/CEC Section 12-1500
- Classified by UL 1479 for through penetration Firestop systems in UL Guide Category XHEZ and current UL Fire Resistance Directory
- Three-hour rated floor/ceiling assembly
- Raised floors – NEC® Section 645.5(E)(2)
- Exposed or concealed in building above three floors when a fire sprinkler system is installed in accordance with NFPA 13 – NEC® Section 362.10(2)
- For use in residential attics up to three feet above the bottom of the ceiling joist
- Maximum ambient temperature 140°F (60°C)

Typical applications:

- Residential: low or high rise – multi or single family
- Commercial: low or high rise – office, retail, hotel/motel, restaurant, etc.
- Nursing homes/hospitals in non-patient care areas only
- Schools, classrooms, dormitories, offices
- Fire alarm systems
- Recreational vehicles and parks
- Solar photovoltaic systems
- Marinas and boatyards
- Other uses per the current NEC® and CEC

Carlon innerduct guide

When innerduct is being used inside the building…

Plenum

- Must be UL® Listed
- Plenum cable must be installed
- Color: Industry standard orange

General purpose and riser

- Must be UL® Listed
- Riser rated cable must be used in riser applications
- Color: Industry-standard orange

Cat. No.	Carlon size (in.)
CD4X1C	½
CE4X1C	¾
CF4X1C	1
CG4X1C	1¼
CH4X1C	1½
CJ4X1C	2
CL4X1C	3

Cat. No.	Carlon size (in.)
DE4X1C	¾
DF4X1C	1
DG4X1C	1¼
DH4X1C	1¼
DJ4X1C	2
DL4X1C	3
CL4X1C	3

Note: HDPE innerduct will not meet code
Specifying and installing UL Listed innerducts with the anticipation of future upgrades provides the building owner with a low-cost solution for the removal of abandoned cables.

P&C Flex® conduit and fittings

Carlon® P&C Flex® corrugated flexible conduit

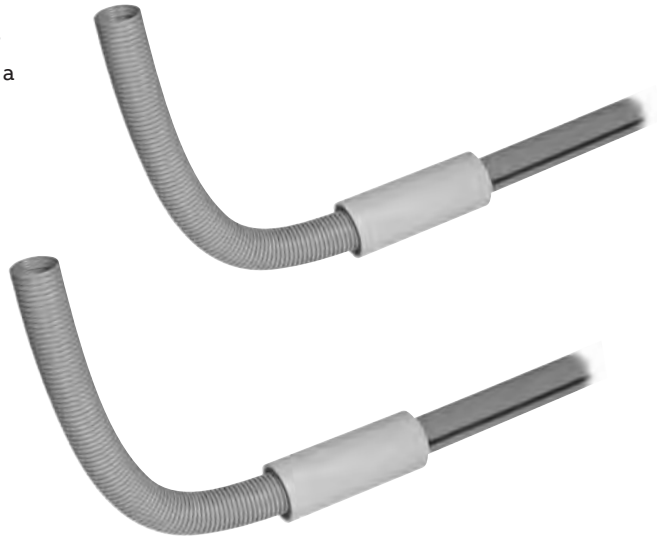
Carlon P&C Flex non-metallic corrugated conduit makes power and communication installations faster and easier by providing maximum installation flexibility. The corrugated design is flexible enough to accommodate any degree of bend requirement. Unlike rigid conduit, it has a tight bend radius, making this product ideal for shallow trenches.

P&C Flex is manufactured to IPS dimensions and can be used with any existing conduit system using standard fittings. It is UV resistant and suitable for a variety of applications, including direct burial, under bridges, service entrance/FTTx terminations, manhole terminations, pedestal/enclosure terminations and running up utility poles or outside of buildings.

P&C Flex is available in sizes ¾" through 4", with or without pull tape (1" through 4" only) and comes in a variety of convenient standard put-ups.

Features and benefits:

- Accommodates any degree of bend – ideal for shallow trenches
- For use with HDPE – Use ELA_ Series fittings
- For use with PVC – Use E940_ Series fittings
- Easily handles offsets
- Manufactured to IPS dimensions – can be used with standard IPS coupling/fittings
- UV resistant
- Can be used as a flexible sweep or raceway – one SKU can do multiple bends
- Available in sizes ¾" through 4"
- Small put-ups for easy handling



Applications

P&C Flex conduit and fittings

Carlon P&C Flex corrugated flexible conduit

P&C Flex conduit

Cat. No.	Size (in.)	I.D. (in.)	O.D. (in.)	Pull tape	Reel/ coil	Std. Ctn. (ft.)	Std. Wt. (lbs.)
11807-350*	¾	0.83	1.040	Empty	Coil	350	39.9
1808-250C	1	1.000	1.315	Empty	Coil	250	36.3
11808-5200	1	1.000	1.315	Empty	Reel	5200	1019.0
11809-900	1¼	1.340	1.660	Empty	Reel	900	243.0
11809-4500	1¼	1.340	1.660	Empty	Reel	4500	972.0
11810-250	1½	1.570	1.900	Empty	Reel	250	75.8
11810-4500	1½	1.570	1.900	Empty	Reel	4500	1080.0
11810T-2300	1½	1.570	1.900	1250 lb.	Reel	2300	720.0
11810T-250	1½	1.570	1.900	1250 lb.	Reel	250	78.0
11811-1100	2	2.045	2.375	Empty	Reel	1100	521.4
11811-250	2	2.045	2.375	Empty	Reel	250	87.0
11811-2500	2	2.045	2.375	Empty	Reel	2500	815.0
11811-500	2	2.045	2.375	Empty	Reel	500	201.6
11811-700	2	2.045	2.375	Empty	Reel	700	269.0
11811T-250	2	2.045	2.375	1250 lb.	Reel	250	89.0
11812-250	2½	2.469	2.875	Empty	Reel	250	121.0
11812AG-001	2½	2.469	2.875	Empty	Reel	1300	516.1
11813-1200	3	3.068	3.500	Empty	Reel	1200	850.8
11813-250	3	3.068	3.500	Empty	Reel	250	192.0
11813-500	3	3.068	3.500	Empty	Reel	500	523.0
11813-750	3	3.068	3.500	Empty	Reel	750	554.3
11815-250	4	4.026	4.500	Empty	Reel	250	324.0
11815-800	4	4.026	4.500	Empty	Reel	800	778.4

*Pull tape not available for ¾" conduit.

P&C Flex fittings

Couplings

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
E940E	¾	100	4.6
E940F	1	50	3.5
E940G	1¼	30	3.2
E940H	1½	25	3.4
E940J	2	30	5.3
E940K	2½	20	7.5
E940L	3	25	14.7
E940N	4	15	12.5

P&C Flex fittings (continued)

Female adapters

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
E942E	¾	100	4.3
E942F	1	50	3.7
E942G	1¼	30	3.3
E942H	1½	25	3.3
E942J	2	30	5.4
E942K	2½	20	6.6
E942L	3	25	11.8
E942N	4	15	10.8

Terminal adapters

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
E943E	¾	125	4.2
E943F	1	50	3.0
E943G	1¼	25	4.1
E943H	1½	25	2.7
E943J	2	5	6.9
E943K	2½	20	6.3
E943L	3	45	16.6
E943N	4	15	11.7

Bell ends (Schedule 40)

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
E997F	1	50	2.6
E997G	1¼	35	2.5
E997H	1½	30	2.5
E997J	2	10	4.8
E997K	2½	10	2.0
E997L	3	10	10.0
E997N	4	30	16.0

Plugs

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
P258H	1½	50	1.7
P258JT	2	60	3.1
P258K	2½	25	1.5
P258LT	3	30	3.4
P258NT	4	48	8.3

P&C Flex conduit and fittings

Carlon P&C Flex corrugated flexible conduit

Specifications

Performance properties	¾"	1"	1¼"	1½"	2"	2½"	3"	4"
Stiffness F/y at 5% deflection	200	200	200	200	200	130	130	90
Impact strength (ft./lbs.) 72° F	35	40	40	50	50	70	120	140
Impact strength (ft./lbs.) 32° F	5	8	8	15	25	35	60	60
Minimum bending radius (inches)	6	6	6	7	8	12	15	18
Conduit tensile strength	200	300	400	500	700	1000	1500	2000

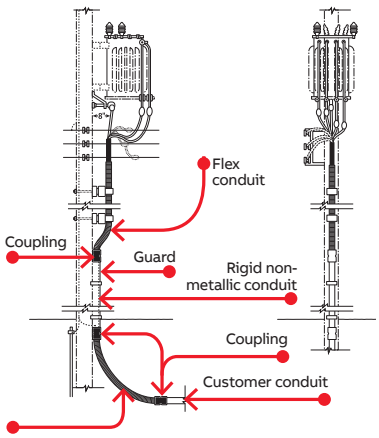
Storage: -4° to 158° F
Handling: -4° to 104° F

Sweep and elbow conversion chart

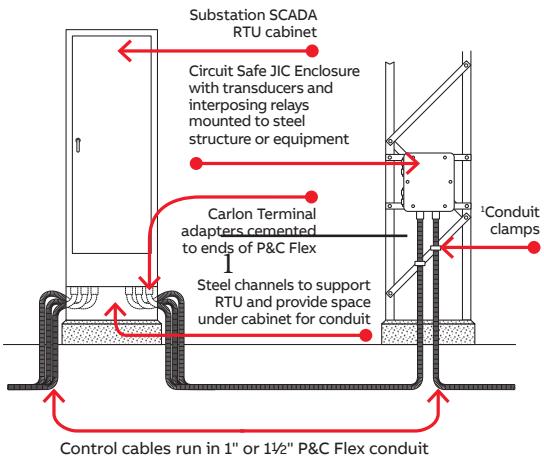
Radius Nom. Dia. (in.)	Segment	18" required length of P&C Flex (in.)	24" required length of P&C Flex (in.)	36" required length of P&C Flex (in.)	48" required length of P&C Flex (in.)	60" required length of P&C Flex (in.)
1½	90°	33	42	61	80	99
	45°	19	23	33	42	52
	30°	14	17	23	30	36
	22½°	12	14	19	23	28
2	90°	32	42	61	79	98
	45°	18	23	32	42	51
	30°	14	17	23	29	35
	22½°	11	12	18	23	28
2½	90°	34	44	63	81	100
	45°	20	25	33	44	53
	30°	16	19	24	31	37
	22½°	13	15	20	25	30
3	90°	35	44	63	82	101
	45°	20	25	34	44	53
	30°	16	19	24	32	38
	22½°	13	16	20	25	30
4	90°	37	46	65	84	103
	45°	22	27	37	46	55
	30°	18	21	27	34	40
	22½°	15	18	22	27	32

For other radius sweeps, use this formula: .0175 x radius (inches) x angle° = Required length of P&C Flex in inches.

Technical information



P&C Flex conduit is flexible. Carlon P&C Flex non-metallic corrugated conduit is used to transition from Carlon P&C Duct Type DB. Despite equipment being mounted away from the pole, P&C Flex conduit remains flush to the pole.



Carlon P&C Flex non-metallic corrugated conduit protects control cables in supervisory control and data acquisition equipment (SCADA) in distribution substations. Flexibility provides maximum utilization of equipment.

When soil conditions do not permit direct burial of cable, use Carlon P&C Flex non-metallic corrugated conduit to protect the cable. A lower coefficient of friction provides easy wire pulls on location. Flexibility eliminates the need for elbows.

P&C Flex conduit and fittings

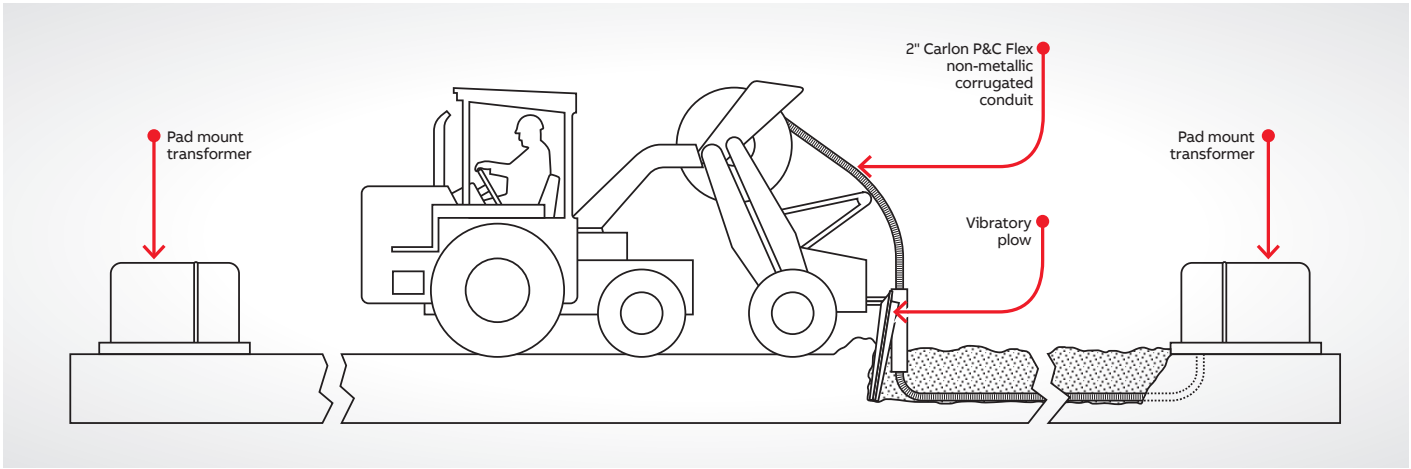
Carlon P&C Flex corrugated flexible conduit

Suggested applications

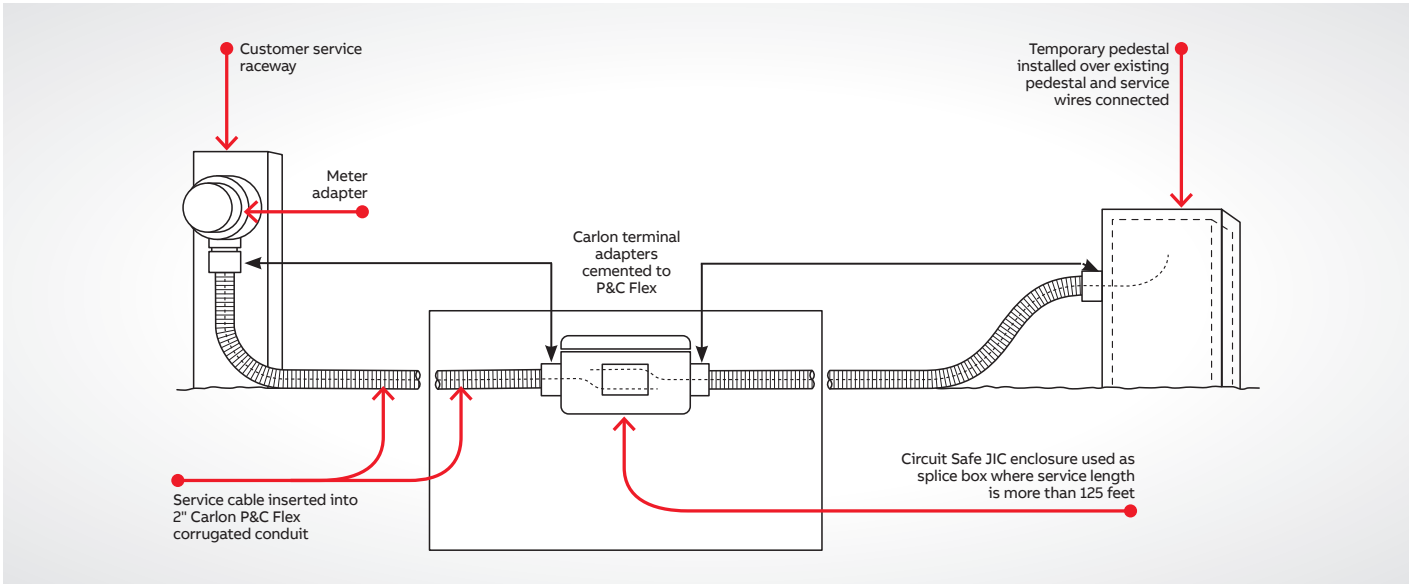
- Carlon P&C Flex non-metallic corrugated conduit is the most versatile system available for power and communications applications
- P&C Flex combines high crush strength with flexibility
- Longer coil lengths reduce installation time

Here are a few application ideas that illustrate how P&C Flex can be effectively used:

In single-phase underground primary systems, lower the cost of direct buried and standard conduit systems by installing P&C Flex non-metallic corrugated conduit with a vibratory plow.



Digging up faulty cable in frozen ground can be expensive and time consuming. Use Carlon P&C Flex from the customer service raceway to the temporary service pedestal to restore power on an interim basis. When the service length is more than 250 feet, use a splice box and an additional length of P&C Flex non-metallic corrugated Conduit.



P&C Flex conduit and fittings

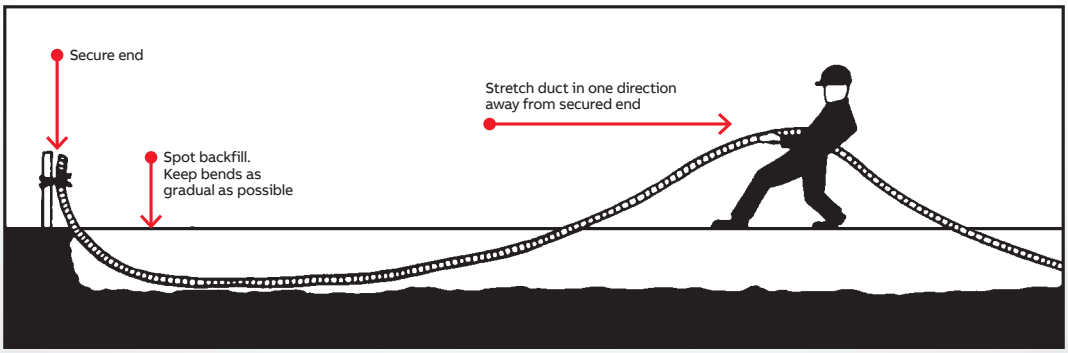
Carlon P&C Flex corrugated flexible conduit

Installation instructions

Incorrect method

Correct method

Trenching



1 Trenching

Trench should be graded true and free from stones or soft spots. Backfill should also be free of stones and be firmly tamped around the sides of the conduit to develop maximum supporting strength. Tamping on top of the conduit is not recommended.

2 Backfill

In rocky soil where it is impossible to have an even trench bottom, a selected backfill should be put in before laying the conduit. Selected backfill (not tamped) at least 6" over the top of the conduit is recommended. After final backfill is placed, tamping may be used to finish the grade.

3 Duct placement

Duct may be unreeled directly into trench or alongside trench and subsequently placed in trench. After placing in trench, secure one end and stretch it by hand to take up the slack. Spot backfill to hold in position. Do not use mechanical stretching equipment.

4 Changes in direction

Avoid unnecessary turns, dips or changes in direction. Keep bends as gradual as possible to ensure ease of cable pull-in after duct installation.

5 Pneumatic rodding

All commonly used vacuum or pressure rodding equipment can be used to rod P&C Flex. The line carrier (mouse, puck, rocket) should be soft, flexible material designed to fit snugly into duct without interference.

6 Mechanical rodding

All commonly used mechanical rodding equipment can be used to rod P&C Flex. The tip should have a ball-type arrangement to keep rod from catching in the convolutions on the inside of duct.

Carlon®
Corrugated HDPE

—
01 Pulled through existing conduits

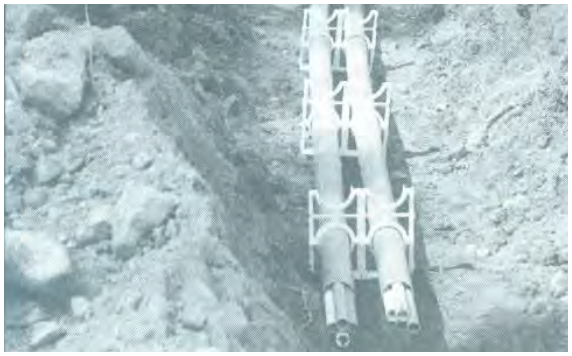
Corrugated HDPE is manufactured from High Density Polyethylene (HDPE) and it is intended for innerduct applications. It's ideal for pulls under 1000ft. and is designed to reduce surface contact when pulling cable. And because this product is lightweight and offers maximum flexibility, installation in small or restricted locations is made easier. HDPE corrugated duct is available in sizes 1'' through 2'' and is offered in a variety of colors. Custom options are also available to satisfy the requirements of most installations.

Applications:
Placed inside existing ducts (innerducts)

Installation method:
Pulled through existing conduit

PE Corrugated options:
- Sizes 1'' through 2''
- Sequentially marked footage
- Multiple colors and stripes
- Factory installed pull tape

Specifications:
Installation temperature range: -20°F to 122°F
Handling: -20°F to 104°F



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01

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Custom orders

Nominal size (in.)	Nom. I.D.	Nom. O.D.	Min. wall	Wt/ 100 (ft.)	Min bend radius (in.)	Pull tensile reel (lbs.)
1	1.260	1.340	.035	10.6	14	261
1-1/4	1.482	1.565	.035	11.2	5	319
1-1/2	1.745	1.825	.035	18.0	6	1,384
2	2.345	2.425	.035	20.8	5-1/2	493

How to build a part number

Position 1 Product	Position 2 Size	Position 3 Type	Position 4 Wall	Position 5 Options	Position 6 Splits	Position 7 Color	Position 8 Stripes	Position 9 Tape	Position 10 Length
A = HDPE	5 = 1''	D = corrugated	2 = None- corr	N = None -	1 = 1 way	A = Black	NN = None	A = empty	1500 (Equals 1500 ft)
	6 = 1-1/4''			E = Slit	2 = 2 way	B = Blue	1A = Black stripe	B = 1330 lbs. polyester tape	
	9 = 1-1/2''			S = Standard	3 = 3 way	C = Brown	1B = Blue stripe	C = 1250 lbs. polyester tape	
	13 = 2''			6	4 = 4 way	D = Buff	1C = Brown stripe	E = 1800 lbs polyester tape	
				400	5 = 2 way	E = Grey	1D = Buff stripe	G = 2000 lbs. polyester tape	
					6 = 3 way	F = Green	1E = Grey stripe	J = 2500 lbs. polyester tape	
					7 = 4 way	G = Lilac	1F = Green stripe		
						H = Lt. Green	1G = Lilac stripe		
						J = Orange	1H = Lt. Green stripe		
						K = Red	1J = Orange stripe		
						L = Terra Cotta	1K = Red stripe		
						M = White	1L = Terra Cotta stripe		
						N = Yellow	1M = White stripe		
							1n = Yellow stripe		

Customer orders are not returnable
Customer lengths are available in minimum order quantities. See Quote form.

Carlon

Corrugated HDPE

Standard length - reels

Size	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull tape (lbs.)	Reel size	Reel length (ft.)	Prod. Wt. per 10 ft. (lbs.)
1''	Orange	A5D2S1JNNB1000	1.049	1.340	1130	48-30-24	1000	12.5
	Orange	A5D2S1JNNB1800	1.049	1.340	1130	48-30-24	1800	12.5
	Orange	A5D2S1JNNB2000	1.049	1.340	1130	48-41-24	2000	12.5
	Orange	A5D2S1JNNB2700	1.049	1.340	1130	48-21-24	2700	12.5
	Orange	A5D2S1JNNB5000	1.049	1.340	1130	66-41-24	5000	12.5
	Orange	A5D2S1JNNB6500	1.049	1.340	1130	72-41-24	6500	12.5
	Orange	A5D2S1JNNB7000	1.049	1.340	1130	72-45-24	7000	12.5
	Orange	A5D2S1JNNB8000	1.049	1.340	1130	82-41-24	8000	12.5
1-1/4''	Orange	A6D2S1JNNB1000	1.250	1.565	1130	48-30-24	1000	14.4
	Orange	A6D2S1JNNB1600	1.250	1.565	1130	48-41-24	1600	14.4
	Orange	A6D2S1JNNB2500	1.250	1.565	1130	66-41-24	2500	14.4
	Orange	A6D2S1JNNB4000	1.250	1.565	1130	66-41-24	4000	14.4
	Orange	A6D2S1JNNB5000	1.250	1.565	1130	72-41-24	5000	14.4
	Orange	A6D2S1JNNB6000	1.250	1.565	1130	82-41-24	6000	14.4
	Orange	A6D2S1JNNB7000	1.250	1.565	1130	84-45-24	7000	14.4
1-1/2''	Orange	A9D2S1JNNB1000	1.500	1.825	1130	66-41-24	1000	17.8
	Orange	A9D2S1JNNB2200	1.500	1.825	1130	66-41-24	2200	17.8
	Orange	A9D2S1JNNB2900	1.500	1.825	1130	72-41-24	2900	17.8
	Orange	A9D2S1JNNB4000	1.500	1.825	1130	82-41-24	4000	17.8
2''	Orange	A13D2S1JNNB500	2.000	2.425	1130	48-30-24	500	25.0
	Orange	A13D2S1JNNB750	2.000	2.425	1130	48-41-24	750	25.0
	Orange	A13D2S1JNNB1000	2.000	2.425	1130	66-41-24	1000	25.0
	Orange	A13D2S1JNNB1500	2.000	2.425	1130	66-41-24	1500	25.0
	Orange	A13D2S1JNNB1800	2.000	2.425	1130	72-41-24	1800	25.0
	Orange	A13D2S1JNNB2000	2.000	2.425	1130	82-41-24	2000	25.0

*Pull tape not available for 3/4" conduit.

Standard length - coils

Size	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull tape (lbs.)	Reel size	Reel length (ft.)	Prod. Wt. per 10 ft. (lbs.)
1	Orange	A5D2E1JNNA250	1.049	1.340	Empty	Coil	250/split	12.5
	Orange	A5D2E1JNNA250b	1.049	1.340	Empty	34-14-34	250/split	12.5
	Orange	A5D2S1JNNB250	1.049	1.340	1130 lb.	Coil	250	12.5
	Orange	A5D2S1JNNB250B	1.049	1.340	1130 lb.	34-14-34	250	12.5
	Orange	A5D2S1JNNB500	1.049	1.340	1130 lb.	Coil	500	12.5
	Orange	A5D2S1JNNB500B	1.049	1.340	1130 lb.	39-15-39	500	12.5
1-1/4''	Orange	A6D2E1JNNA250	1.250	1.565	Empty	Coil	250/split	14.4
	Orange	A6D2E1JNNA250B	1.250	1.565	Empty	39-15-39	250/split	14.4
	Orange	A6D2S1JNNB250	1.250	1.565	1130 lb.	Coil	250	14.4
	Orange	A6D2S1JNNB250B	1.250	1.565	1130 lb.	39-15-39	250	14.4
	Orange	A6D2S1JNNB500	1.250	1.565	1130 lb.	Coil	500	14.4
	Orange	A6D2S1JNNB500B	1.250	1.565	1130 lb.	44-18-44	500	14.4
1-1/2''	Orange	A9D2S1JNNB250	1.500	1.825	1130 lb.	Coil	250	17.8
	Orange	A9D2S1JNNB250B	1.500	1.825	1130 lb.	44-18-44	250	17.8
	Orange	A9D2S1JNNB500	1.500	1.825	1130 lb.	Coil	500	17.8
2''	Orange	A13D2S1JNNB250	2.000	2.425	1130 lb.	Coil	250	25

Elbows, sweeps and accessories
Carlon® PVC conduit repair system

A job that normally takes 20 minutes – DONE in two minutes or less!

The new, revolutionary design Carlon PVC Conduit Repair System significantly reduces the time and money associated with repairing broken PVC conduits, a.k.a. “stub-ups”, in concrete slabs. The system includes a line of couplings, adapters, reamers and plugs designed to enable contractors to quickly and easily repair broken PVC conduits without having to chip away and repour concrete, while still maintaining the inside diameter of the conduit. Simply cut off the broken conduit, ream the I.D. of the conduit and insert a coupling or adapter. It’s that easy. A job that normally takes 20 minutes can now be done in two minutes or less!

Features:
- cULus Listed
- PVC repair fittings are listed in accordance with the NEC® and Section 352.6
- Non-metallic couplings, adapters and plugs won’t rust or corrode
- Available in sizes ½" through 2"

Benefits:
- Saves time and money
- Maintains inside diameter of conduit
- Metallic reamers for extra strength, durability and longer life
- Quickly and easily repair broken PVC conduits

01

02

03

Elbows, sweeps and accessories

Carlon PVC conduit repair system

Male threaded adapters

Cat. No.	Trade size (in.)	Std. Ctn.
E920D	1/2	25
E920E	3/4	25
E920F	1	15
E920G	1 1/4	10
E920H	1 1/2	10
E920J	2	10

Reamers

Reamer

Reamer Kit

Cat. No.	Trade size (in.)	Std. Ctn.
E910REAMD	1/2	12
E910REAME	3/4	12
E910REAMF	1	10
E910REAMG	1 1/4	10
E910REAMH	1 1/2	10
E910REAMJ	2	10
E910REAMKIT	All Sizes	5

Couplings

Cat. No.	Trade size (in.)	Std. Ctn.
E910D	1/2	25
E910E	3/4	25
E910F	1	15
E910G	1 1/4	10
E910H	1 1/2	10
E910J	2	10

Schedule 40 plugs

Cat. No.	Size (in.)	Color	Cat. No.	Size (in.)	Color	Cat. No.	Size (in.)	Color	Std. Ctn.
HL-6XR	1/2	Red	HL-6XB	1/2	Blue	HL-6XY	1/2	Yellow	1 Bag of 50
HL-10R	3/4	Red	HL-10B	3/4	Blue	HL-10Y	3/4	Yellow	1 Bag of 50
HL-13AR	1	Red	HL-13AB	1	Blue	HL-13AY	1	Yellow	1 Bag of 50
HL-16R	1 1/4	Red	HL-16B	1 1/4	Blue	HL-16Y	1 1/4	Yellow	1 Bag of 50
HL-18R	1 1/2	Red	HL-18B	1 1/2	Blue	HL-18Y	1 1/2	Yellow	1 Bag of 50
HL-21R	2	Red	HL-21B	2	Blue	HL-21Y	2	Yellow	1 Bag of 50

Elbows, sweeps and accessories

PVC conduit repair system instructions

01 Cut broken conduit off flush.

02 Insert plug to keep conduit clean/dry through balance of rough-in. Once rough-in is complete, remove plug and **continue with Step 3.**

03 With reamer tool and standard 1/2" drill, ream I.D. of conduit. It is recommended to use a variable speed drill. Use slower speed to avoid overheating the conduit.

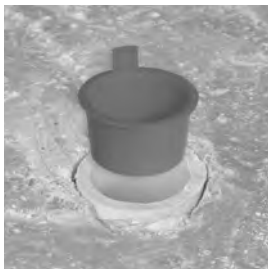
04 The guide will direct the cutter; the stop will touch when completed.

05 Insert the coupling and cement into place using the cement manufacturer's instructions below.

A. Clean socket I.D. and spigot O.D. of dirt and moisture.
B. Apply a uniform coat of cement to spigot end and push onto socket bottom, rotating ¼ turn.
C. Allow time to set before disturbing. This will depend upon temperature.

01

02



03

Alternative to conduit repairs:
Prior to concrete pour, measure and saw cut all conduit stub-ups to the thickness of the concrete pour. Insert plugs. Pour concrete flush to the conduit. When pour is complete, remove plugs and proceed with Step 3. This alternative method saves time/money by eliminating the need for transitions or use of metal elbows.

04

05

Apply a uniform coat of cement.

Insert fitting.

Rotate quarter turn.

Carlon rigid non-metallic conduit (RNC) fittings and accessories

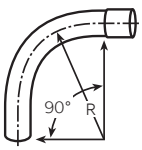
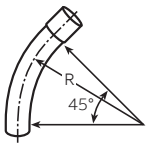
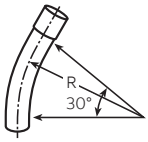
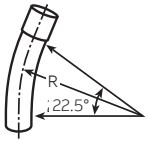
Carlon Schedule 40 and Schedule 80 fittings are designed for use aboveground and underground as described in the National Electrical Code®.

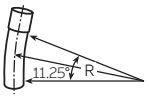
- **Ease of installation** – Non-metallic fittings are ¼ to ⅕ the weight of metallic systems, can be installed in less than half the time and are easily fabricated on the job.
- **Safety** – Non-metallic fittings are nonconductive, assuring a safe system.
- **Impact Resistant** – Schedule 40 and Schedule 80 non-metallic fittings are resistant to sunlight and are listed for exposed for outdoor usage. The use of expansion fittings allows the system to expand and contract with temperature variations.
- **Corrosion Resistant** – Carlon fittings are non-metallic and will not rust or corrode. Carlon non-metallic Schedule 40 and Schedule 80 elbows are manufactured to NEMA TC-2, Federal specification WC1094A and UL 651 specifications. Fittings are manufactured to NEMA TC-3, Federal specification WC1094A and UL514B. Both conduit and fittings carry respective UL or ETL Listings and UL or ETL labels.

Elbows, sweeps and accessories

Schedule 40 elbows – standard radius

UL LISTED E323335

Item	Cat. No.	Box type included	Size (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
90° elbow	UA9AD	UA9ADB	½	50	50
	UA9ADR-CAR	UA9ADB	½	25	50
	UA9AE	UA9AEB	¾	25	25
	UA9AFR-CTN	UA9AFB-CTN	1	25	25
	UA9AG	UA9AGB	1¼	20	20
	UA9AH	UA9AHB	1½	25	25
	UA9AJ	UA9AJB	2	20	20
	UA9AK-CAR	UA9AKB-CAR	2½	10	10
	UA9AL	UA9ALB	3	1	5
	UA9AM	UA9AMB	3½	1	20
	UA9AN	UA9ANB	4	1	1
	UA9AP	UA9APB	5	1	1
	UA9AR	UA9ARB	6	1	1
45° elbow	UA7AD	UA7ADB	½	50	50
	UA7AE	UA7AEB	¾	25	25
	UA7AF	UA7AFB	1	20	20
	UA7AF-CAR	UA7AFB	1	15	20
	UA7AG	UA7AGB	1¼	20	20
	UA7AH	UA7AHB	1½	20	20
	UA7AJ	UA7AJB	2	20	20
	UA7AJ-CAR	—	2	4	—
	UA7AK	UA7AKB	2½	20	20
	UA7AL	UA7ALB	3	5	25
	UA7AM	UA7AMB	3½	1	20
	UA7AN	UA7ANB	4	1	20
	UA7AP	UA7APB	5	1	1
	UA7AR	UA7ARB	6	1	1
30° elbow	UA6AD	UA6ADB	½	50	50
	UA6AE	UA6AEB	¾	25	25
	UA6AF	UA6AFB	1	25	1
	UA6AG	UA6AGB	1¼	20	20
	UA6AH	UA6AHB	1½	25	1
	UA6AJ	UA6AJB	2	20	20
	UA6AK	UA6AKB	2½	10	20
	UA6AL	UA6ALB	3	1	1
	UA6AM	UA6AMB	3½	1	1
	UA6AN	UA6ANB	4	1	1
	UA6AP	UA6APB	5	1	1
	UA6AR	UA6ARB	6	1	1
22½° elbow	UA5AD	–	½	1	–
	UA5AE	–	¾	1	–
	UA5AF	–	1	1	–
	UA5AG	–	1¼	1	–
	UA5AH	–	1½	1	–
	UA5AJ	UA5AJB	2	25	1
	UA5AK	–	2½	20	–
	UA5AL	UA5ALB	3	5	1
	UA5AM	–	3½	1	–
	UA5AN	UA5ANB	4	1	1
	UA5AP	UA5APB	5	1	1
	UA5AR	UA5ARB	6	1	1

Item	Cat. No.	Box type included	Size	Plain end Std. Ctn.	Belled end Std. Ctn.
11¼° elbow	UA3AD	–	½	1	–
	UA3AE	–	¾	1	–
	UA3AF	–	1	1	–
	UA3AG	–	1¼	1	–
	UA3AH	–	1½	1	–
	UA3AJ	–	2	1	–
	UA3AK	–	2½	1	–
	UA3AL	–	3	1	–
	UA3AM	–	3½	1	–
	UA3AN	UA3ANB	4	1	1
	UA3AP	–	5	1	–
	UA3AR	–	6	1	–

Available in plain and integral belled end for use with non-metallic solvent weld fittings.

Standard radius elbow dimensions (per NEC®)

Size	(in.)	B Minus (Radius) (in.)	C Min. (in.)
½	.840	4	1½
¾	1.050	4½	1½
1	1.315	5¾	1⅞
1¼	1.660	7¼	2
1½	1.900	8¼	2
2	2.375	9½	2
2½	2.875	10½	3
3	3.500	13	3⅛
3½	4.000	15	3¼
4	4.500	16	3⅜
5	5.563	24	3⅝
6	6.625	30	3¾

Integral belled end dimensions

Trade Size (in.)	A (in.) at Entrance Max.	A (in.) at Entrance Min	B (in.) at Bottom Max.	B (in.) at Bottom Min.	C (in.) Socket Depth Max.	C (in.) Socket Depth Min.
½	0.86	0.844	0.844	0.828	1.500	0.652
¾	1.074	1.054	1.056	1.036	1.500	0.719
1	1.340	1.320	1.320	1.300	1.875	0.875
1¼	1.689	1.665	1.667	1.643	2.000	0.938
1½	1.930	1.906	1.906	1.882	2.000	1.062
2	2.405	2.381	2.381	2.357	2.000	1.125
2½	2.905	2.875	2.883	2.853	3.000	1.469
3	3.530	3.500	3.507	3.477	3.125	1.594
3½	4.065	3.965	4.007	3.977	3.250	1.687
4	4.565	4.465	4.506	4.476	3.375	1.750
5	5.643	5.543	5.583	5.523	3.625	1.937
6	6.708	6.608	6.644	6.584	3.750	2.125

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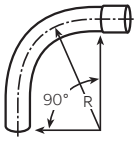
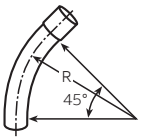
Elbows, sweeps and accessories

Schedule 40 elbows – special radius

UL LISTED E323335

Segment	Plain end Cat. No.	Belled end Cat. No.	Nom. Dia. (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
90˚ elbow 	UA9CF	UA9CFB	1	18	1	1
	UA9DF	UA9DFB	1	24	1	1
	UA9EF	UA9EFB	1	30	1	1
	UA9FF	–	1	36	1	–
	UA9HF	–	1	48	1	–
	UA9CG	UA9CGB	1¼	18	1	1
	UA9DG	UA9DGB	1¼	24	1	1
	UA9FG	UA9FGB	1¼	36	1	1
	UA9HG	–	1¼	48	1	–
	UA9CH	UA9CHB	1½	18	1	1
	UA9DH	UA9DHB	1½	24	1	1
	UA9EH	–	1½	30	1	1
	UA9FH	UA9FHB	1½	36	1	1
	UA9HH	–	1½	48	1	–
	UA9CJ	UA9CJB	2	18	1	1
	UA9DJ	UA9DJB-UPC	2	24	1	1
	UA9EJ	UA9EJB	2	30	1	1
	UA9FJ-UPC	UA9FJB	2	36	1	1
	UA9HJ	UA9HJB	2	48	1	1
	UA9JJ	–	2	72	1	–
	UA9CK	UA9CKB	2½	18	1	1
	UA9DK	UA9DKB-UPC	2½	24	1	1
	UA9EK	UA9EKB	2½	30	1	1
	UA9FK-UPC	UA9FKB	2½	36	1	1
	UA9HK	UA9HKB	2½	48	1	1
	UA9CL	UA9CLB	3	18	1	1
	UA9DL	UA9DLB-UPC	3	24	1	1
	UA9EL	UA9ELB	3	30	1	1
	UA9FL	UA9FLB	3	36	1	1
	UA9HL	UA9HLB	3	48	1	1
	UA9IL	–	3	60	1	–
	UA9DM	UA9DMB	3½	24	1	1
	UA9FM	UA9FMB	3½	36	1	1
	UA9HM	UA9HMB	3½	48	1	1
	–	UA9CNB	4	18	–	1
	UA9DN	UA9DNB	4	24	1	1
	UA9EN	UA9ENB	4	30	1	1
	UA9FN	UA9FNB	4	36	1	1
	UA9HN	UA9HNB	4	48	1	1
	UA9IN	UA9INB	4	60	1	1
	UA9JN	–	4	72	1	–
	UA9EP	UA9EPB	5	30	1	1
	UA9FP	UA9FPB	5	36	1	1
	UA9HP	UA9HPB	5	48	1	1
	UA9IP	UA9IPB	5	60	1	1
	UA9FR	UA9FRB	6	36	1	1
	UA9HR	UA9HRB	6	48	1	1
	UA9IR	UA9IRB	6	60	1	1
	UA9HT*	–	8	48	1	–

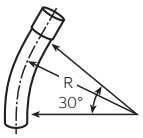
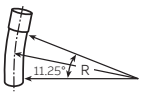
Segment	Plain end Cat. No.	Belled end Cat. No.	Nom. Dia. (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
45˚ elbow 	UA7CF	–	1	18	1	–
	UA7DF	–	1	24	1	–
	UA7FF	–	1	36	1	–
	UA7CG	–	1¼	18	1	–
	UA7DG	–	1¼	24	1	–
	UA7FG	–	1¼	36	1	–
	UA7HG	–	1¼	48	1	–
	UA7CH	–	1½	18	1	–
	UA7DH	–	1½	24	1	–
	UA7FH	UA7FHB	1½	36	1	1
	UA7HH	–	1½	48	1	–
	—	UA7BJB	2	12	–	1
	UA7CJ	UA7CJB	2	18	1	1
	UA7DJ	UA7DJB	2	24	1	1
	UA7FJ	UA7FJB	2	36	1	1
	UA7HJ	UA7HJB	2	48	1	1
	UA7CK	–	2½	18	1	–
	UA7DK	UA7DKB	2½	24	1	1
	UA7FK	UA7FKB	2½	36	1	1
	UA7HK	–	2½	48	1	–
	UA7CL	UA7CLB	3	18	1	1
	UA7DL	UA7DLB	3	24	1	1
	UA7FL	UA7FLB	3	36	1	1
	UA7HL	UA7HLB	3	48	1	1
	UA7DM	–	3½	24	1	–
	UA7DN	UA7DNB	4	24	1	1
	UA7EN	UA7ENB	4	30	1	1
	UA7FN	UA7FNB	4	36	1	1
	UA7HN	UA7HNB	4	48	1	1
	—	UA7NNB	4	120	–	1
	UA7EP	UA7EPB	5	30	1	1
	UA7FP	UA7FPB	5	36	1	1
	UA7HP	UA7HPB	5	48	1	1
	—	UA7IPB	5	60	–	1
	—	UA7NPB	5	120	–	1
	—	UA7SPB	5	150	–	1
	UA7FR	UA7FRB	6	36	1	1
	UA7HR	UA7HRB	6	48	1	1
	UA7FT*	–	8	36	1	–
	UA7HT*	–	8	48	1	–

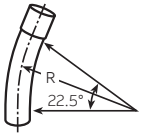
Note: Elbows 72" and larger may be shipped in segments. Consult factory for specifics.
* 8" elbows are not UL Listed.

Elbows, sweeps and accessories

Schedule 40 elbows – special radius (continued)

UL LISTED E323335

Segment	Plain end Cat. No.	Belled end Cat. No.	Nom. Dia. (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
30˚ elbow 	UA6CJ	–	2	18	1	–
	UA6DJ	UA6DJB	2	24	1	1
	UA6FJ	UA6FJB	2	36	1	1
	UA6HJ	UA6HJB	2	48	1	1
	UA6DK	–	2½	24	1	–
	UA6CL	–	3	18	1	–
	UA6DL	UA6DLB	3	24	1	1
	UA6FL	UA6FLB	3	36	1	1
	UA6HL	–	3	48	1	1
	UA6FM	–	3½	36	1	–
	UA6DN	–	4	24	1	–
	UA6FN	UA6FNB	4	36	1	1
	UA6HN	UA6HNB	4	48	1	1
	UA6FP	UA6FPB	5	36	1	1
	UA6HP	UA6HPB	5	48	1	1
	UA6FR	UA6FRB	6	36	1	1
	UA6HR	UA6HRB	6	48	1	1
11¼˚ elbow 	UA3DJ	UA3DJB	2	24	1	25
	UA3FJ	UA3FJB	2	36	1	1
	UA3FL	UA3FLB	3	36	1	1
	UA3HL	–	3	48	1	–
	UA3DN	UA3DNB	4	24	1	1
	UA3FN	UA3FNB	4	36	1	1
	–	UA3SNB	4	150	–	1
	UA3HN	UA3HNB	4	48	1	1
	UA3FP	UA3FPB	5	36	1	1
	UA3HP	–	5	48	1	–
	UA3FR	UA3FRB	6	36	1	1
	UA3HR	–	6	48	1	–

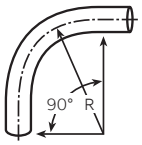
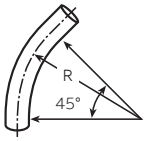
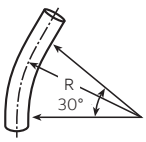
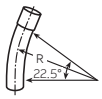
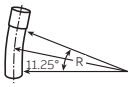
Segment	Plain end Cat. No.	Belled end Cat. No.	Nom. Dia. (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
22½˚ elbow 	UA5FF	–	1	36	1	–
	UA5FH	–	1½	36	1	1
	UA5CJ	–	2	18	1	1
	UA5DJ	UA5DJB	2	24	1	25
	UA5EJ	–	2	30	1	1
	UA5FJ	UA5FJB	2	36	1	1
	UA5CK	–	2½	18	1	–
	UA5EK	–	2½	30	1	–
	UA5FK	–	2½	36	1	–
	–	UA5CLB	3	18	–	1
	UA5DL	UA5DLB	3	24	1	1
	UA5FL	UA5FLB	3	36	1	1
	UA5HL	–	3	48	1	–
	UA5DM	–	3½	24	1	–
	UA5DN	UA5DNB	4	24	1	1
	UA5EN	–	4	30	1	1
	UA5FN	UA5FNB	4	36	1	1
	UA5HN	UA5HNB	4	48	1	1
	UA5IN	–	4	60	1	–
	–	UA5SNB	4	150	1	1
	–	UA5DPB	5	24	–	1
	–	UA5EPB	5	30	1	1
	UA5FP	UA5FPB	5	36	1	1
	UA5HP	UA5HPB	5	48	1	1
	UA5IP	–	5	60	1	–
	–	UA5UPB	5	240	–	1
	UA5FR	UA5FRB	6	36	1	1
	UA5HR	UA5HRB	6	48	1	1
	UA5IR	–	6	60	1	–
	UA5HT*	–	8	48	1	–

Note: Elbows 72" and larger may be shipped in segments. Consult factory for specifics.
* 8" elbows are not UL Listed.

Elbows, sweeps and accessories

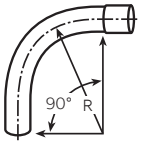
Schedule 80 elbows

Standard radius

Item	Plain end Cat. No.	Belled end Cat. No.	Size (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
90˚ elbow 	UB9AD	–	½	50	–
	UB9AE	–	¾	25	–
	UB9AF	–	1	25	–
	UB9AG	–	1¼	20	–
	UB9AH	–	1½	25	–
	UB9AJ	–	2	20	–
	UB9AK	–	2½	10	–
	UB9AL	–	3	5	–
	UB9AN	–	4	1	–
	UB9AP	UB9APB	5	1	1
	UB9AR	–	6	1	–
45˚ elbow 	UB7AD	–	½	50	–
	UB7AE-UPC	–	¾	25	–
	UB7AF-UPC	–	1	20	–
	UB7AG	–	1¼	20	–
	UB7AH	–	1½	20	–
	UB7AH-CAR	–	1½	5	–
	UB7AJ-UPC	–	2	20	–
	UB7AK	–	2½	20	–
	UB7AL	–	3	1	–
	UB7AN	–	4	1	–
	UB7AP	–	5	1	1
	UB7AR	–	6	1	–
30˚ elbow 	UB6AD	–	½	50	–
	UB6AE	–	¾	25	–
	UB6AF	–	1	25	–
	UB6AG	–	1¼	5	–
	UB6AH	–	1½	25	–
	UB6AJ	–	2	20	–
	UB6AK	–	2½	1	–
	UB6AL	–	3	1	–
	UB6AN	–	4	1	–
	UB6AP	–	5	1	–
	UB6AR	–	6	1	–
22½˚ elbow 	UB5AL	–	3	5	–
	UB5AN	–	4	1	–
	UB5AP	–	5	1	1
11¼˚ elbow 	UB3AL	–	3	1	–

For use with non-metallic solvent weld fittings.

Special radius

Segment	Plain end Cat. No.	Belled end Cat. No.	Nom. Dia. (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
90˚ elbow 	UB9CF	–	1	18	1	–
	UB9DF	–	1	24	1	–
	UB9FF	–	1	36	1	–
	UB9CG	–	1¼	18	1	–
	UB9DG	–	1¼	24	1	–
	UB9FG	–	1¼	36	1	–
	UB9CH	–	1½	18	1	–
	UB9DH-UPC	UB9DHB	1½	24	1	1
	UB9FH	–	1½	36	1	–
	UB9HH	–	1½	48	1	–
	UB9CJ	–	2	18	1	–
	UB9DJ-UPC	UB9DJB	2	24	1	1
	UB9FJ	UB9FJB	2	36	1	1
	UB9HJ	–	2	48	1	–
	UB9CK	–	2½	18	1	–
	UB9DK-UPC	UB9DKB	2½	24	1	1
	UB9FK	UB9FKB	2½	36	1	1
	UB9HK	–	2½	48	1	–
	UB9CL	–	3	18	1	–
	UB9DL	UB9DLB	3	24	1	1
	UB9FL	UB9FLB	3	36	1	1
	UB9HL	–	3	48	1	–
	UB9DN	UB9DNB	4	24	1	1
	UB9FN	UB9FNB	4	36	1	1
	UB9HN	UB9HNB	4	48	1	1
	UB9NN	–	4	120	1	–
	UB9FP	–	5	36	1	–
	UB9HP	–	5	48	1	–
	UB9IP	–	5	60	1	–
	UB9FR	–	6	36	1	–
	UB9HR	–	6	48	1	–
	UB9IR	–	6	60	1	–

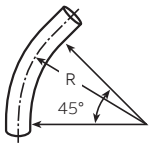
Note: Elbows 72" and larger may be shipped in segments. Consult factory for specifics.

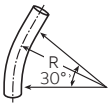
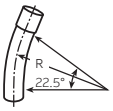
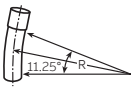
Elbows, sweeps and accessories

Schedule 80 elbows

Special radius (continued)

LISTED
E323335

Segment	Plain end Cat. No.	Belled end Cat. No.	Nom (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
45˚ elbow 	UB7CF	–	1	18	1	–
	UB7DF	–	1	24	1	–
	UB7FF	–	1	36	1	–
	UB7FG	–	1¼	36	1	–
	UB7DH	UB7DHB	1½	24	1	1
	UB7FH	–	1½	36	1	–
	UB7CJ	–	2	18	1	–
	UB7DJ	UB7DJB	2	24	1	1
	UB7FJ	UB7FJB	2	36	1	1
	UB7HJ	–	2	48	1	–
	UB7FK	–	2½	36	1	–
	UB7HK	–	2½	48	1	–
	UB7CL	–	3	18	1	–
	UB7DL	UB7DLB	3	24	1	1
	UB7FL	UB7FLB	3	36	1	1
	UB7DN	UB7DNB	4	24	1	1
	UB7FN	UB7FNB	4	36	1	1
	UB7HN	–	4	48	1	–

Segment	Plain end Cat. No.	Belled end Cat. No.	Nom. Dia. (in.)	Radius (in.)	Plain end Std. Ctn.	Belled end Std. Ctn.
45˚ elbow	UB7FP	–	5	36	1	–
	UB7FR	–	6	36	1	–
	UB7HR	–	6	48	1	–
	UB7IR	–	6	60	1	–
30˚ elbow 	UB6FN	–	4	36	1	–
22½˚ elbow 	–	UB5DJB	2	24	–	20
	–	UB5FJB	2	36	–	25
	–	–	2½	24	–	15
	UB5DL	–	3	24	1	10
	–	UB5FLB	3	36	–	1
	–	UB5FNB	4	36	–	1
	UB5FP	–	5	36	1	–
11¼˚ elbow 	UB3FP	–	5	36	1	–

Note: Elbows 72" and larger may be shipped in segments. Consult factory for specifics.

Elbows, sweeps and accessories

P&C duct adapters

Male adapter

Cat. No.	Size (in.)	Std. Ctn.
E943F	1	50
E943H	1½	25
E943J	2	50
E943L	3	50
E943N	4	20
E943P	5	5
E943R	6	10

Female adapter

Cat. No.	Size (in.)	Std. Ctn.
E942F	1	50
E942H	1½	25
E942J	2	30
E942L	3	25
E942N	4	15
E942P	5	8
E942R	6	6

P&C duct swedge reducer (male x male)

Cat. No.	Size (in.)	Std. Ctn.
E252LJ	3 x 2	50
E252NJS	4 x 2	25
E252NL	4 x 3	25
E252PN	5 x 4	20
E252RNS	6 x 4	6
E252RP	6 x 5	10

P&C duct cable marker

Cat. No.	Size (in.)	Std. Ctn.
E299JM	2 x 42	1
E299JR	2 x 78	1
E299NX7	4 x 84	1

P&C duct end bells

End bell

Cat. No.	Size (in.)	Std. Ctn.
E997F	1	50
E997H	1½	30
E997J	2	40
E997L	3	50
E997N	4	30
E997P	5	15
E997R	6	10

Molded end bell

Cat. No.	Size (in.)	Std. Ctn.
E297J	2	40
E297L	3	50
E297N	4	30
E297P	5	15

Fabricated end bell

Cat. No.	Size (in.)	Std. Ctn.
E297JN	2 x 4	25
E297NT	4 x 10	15
E297PS	5 x 8	10
E297PT	5 x 10	10
E297RF	6 x 5	10

Long-length end bell P&C duct

Cat. No.	Size (in.)	Std. Ctn.
E297RR	6 (6 long)	10

Elbows, sweeps and accessories

Split sleeve coupling

Split sleeve coupling
For joining split duct to existing duct.

Split sleeve coupling

Cat. No.	Size (in.)	Description	Length (in.)	Split	Std. Ctn.	Std. Wt. (lbs.)
Schedule 40 and 80						
E200JS6	2	Split coupling	6	1	25	6.1
E200KS7	2½	Split coupling	7	1	25	21
E200LS7	3	Split coupling	7	1	25	15.5
E200LSS*	3	Split coupling	6.5	1	25	10
E200MS8	3½	Split coupling	8	1	25	41.2
E200NS8	4	Split coupling	8	1	15	16
E200NSS*	4	Split coupling	6	2	25	17
E200PS8	5	Split coupling	8	1	15	25
E200PS9	5	Split coupling	9	1	8	16.4
E200RS1	6	Split coupling	10	1	6	24.2
C Duct						
E900NS8 (White)	4	C Duct split coupling	8	1	15	19
E900NSW (White)	4	C Duct split coupling	6	1	25	22

* Two-piece design

Split sleeve sweeps

Cat. No.	Cat. No.	Nom. Size (in.)	Radius (in.)	Std. Ctn.	Std. Wt. (lbs.)
45° Sweep	UA7DJSD	2	24	1	1.4
	UA7FJSD	2	36	1	2.1
	UA7FLSD	3	36	1	4.7
	UA7HLSD	3	48	1	6.1
	UA7IJSD	2	60	1	3.2
	UA7ILSD	3	60	1	7.2
	UA7INSD	4	60	1	10.2
22½° sweep	UA5INSD	4	60	1	6.1
11¼° Sweep	UA3IJSD	2	60	1	1
	UA3INSD	4	60	1	5.1

Two 45° elbows may be segmented for 90°.

Elbows, sweeps and accessories

Low-VOC solvent cements

ASTM D2564
CSA C22.2 211.1
CSA C22.2 211.2

Recommended pipe viscosity at 75° F application and sizes	Set-up time (Evaporation rate)	Recommended installation temp	Lap Shear @ 73° F	Viscosity at 75° F as manufactured
Recommended for all grades and types of Carlon wireway and fittings, except Flex-Plus Blue ENT (Electrical non-metallic tubing).	10°–30° F Not recommended	40° to 100° F	2 hrs. 350 psi	500–900 cps
	30°–50° F 5–6 minutes		16 hrs. 800 psi	
Up through 6" diameter.	50°–70° F 3–4 minutes		72 hrs. 1,500 psi	
	70°–90° F 1–2 minutes			

Low-VOC PVC solvent cement - gray

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9LV4-24	Half pint	Dauber	Low VOC gray	24	15.5
	VVC9LV3	Pint	Dauber	Low VOC gray	24	27.0
	VC9LV2	Quart	Dauber	Low VOC gray	12	26.0

Low-VOC medium - clear

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9963	Pint	Dauber	PVC medium clear	24	29.0
	VC9962	Quart	Dauber	PVC medium clear	12	27.5
	VC9961P	Gallon	–	PVC medium clear	6	53.5

Meets ASTM D-2564.

Low-VOC medium - gray

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9923	Pint	Dauber	PVC medium gray	24	29.0
	VC9922	Quart	Dauber	PVC medium gray	12	27.5
	VC9941P	Gallon	–	PVC medium gray	6	53.5

Meets ASTM D-2564.

Low-VOC regular - clear

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9964	Half pint	Dauber	PVC regular clear	10	29.0

Meets ASTM D-2564. **Note:** Rated for Schedule 40 through 4" and Schedule 80 through 2".

Low-VOC regular - gray

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9924-24	Half pint	Dauber	PVC regular clear	24	15.0

Meets ASTM D-2564.

Elbows, sweeps and accessories

Primers and Low-VOC "Quick-Set" cement

NSF Electrical US
ASTM D2564
CSA C22.2 211.1
CSA C22.2 211.2

Recommended pipe application and sizes	Recommended installation temp
Recommended for use with Carlon cement	5° to 100° F

Clear primer

	Cat. No.	Size	Applicator	Std. Ctn.	Std. Wt. (lbs.)
	VC9903	Pint	Dauber	24	27.0
	VC9902	Quart	Dauber	12	25.0

Meets ASTM F-686.

Purple primer

	Cat. No.	Size	Applicator	Std. Ctn.	Std. Wt. (lbs.)
	VC9932	Quart	Dauber	12	25.0

Meets ASTM F-686.

Recommended pipe application and sizes	Viscosity at 75° F as manufactured	Set-up time (Evaporation rate)	Recommended installation temp	Lap Shear @ 73° F
Recommended for all grades and types of Carlon wireway and fittings, except Flex-Plus Blue ENT (Electrical Non-Metallic Tubing).	400–700 cps	-5°–10° F 6–8 minutes	-5° to 100° F	2 hrs. 350 psi
		10°–30° F 4–5 minutes		16 hrs. 800 psi
		30°–50° F 3–4 minutes		72 hrs. 1,500 psi
		50°–70° F 1–2 minutes		
Up through 6" diameter.		70°–90° F ½–1½ minutes		

Low-VOC All Weather - clear

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9984	Half Pint	Dauber	All weather "Quick-Set" cement	10	7
	VC9983	Pint	Dauber	All weather "Quick-Set" cement	24	30
	VC9982	Quart	Dauber	All weather "Quick-Set" cement	12	29
	VC9981P	Gallon	—	All weather "Quick-Set" cement	6	54

Meets ASTM D-2564.

Elbows, sweeps and accessories

Low-VOC "Quick-Set" and corrugated conduit cements

Recommended pipe viscosity at 75° F application and sizes	Set-up time (Evaporation rate)	Recommended installation temp	Lap Shear @ 73° F	Viscosity a t 75° F as manufactured
Required for use with Flex-Plus Blue ENT (Electrical Non-Metall ic Tubing), Riser-Gard, P&C Flex and Carlon PVC fittings.	-5°–10° F 6–8 minutes	-5° to 100° F	2 hrs. 350 psi	400–700 cps
	10°–30° F 4–5 minutes		16 hrs. 800 psi	
	30°–50° F 3–4 minutes		72 hrs. 1,500 psi	
	50°–70° F 1–2 minutes			
Up through 6" diameter.	70°–90° F ½–1½ minutes			

Low-VOC all weather - ENT Blue

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9992	Quart	Dauber	All Weather “Quick-Set” blue	12	29.0

Meets ASTM D-2564.

Recommended pipe viscosity at 75° F application and sizes	Set-up time (Evaporation rate)	Recommended installation temp	Lap Shear @ 73° F	Viscosity a t 75° F as manufactured
For use with Resi-Gard, Riser-Gard, P&C Flex and Carlon PVC fittings.	10°–30° F 4–5 minutes	40° to 100° F	2 hrs. 350 psi	500–900 cps
	30°–50° F 3–4 minutes		16 hrs. 800 psi	
	50°–70° F 1–2 minutes		72 hrs. 1,500 psi	
	70°–90° F ½–1½ minutes			
Up through 6" diameter.	70°–90° F ½–1½ minutes			

Low-VOC Resi-Gard®- Clear

	Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
	VC9963SC	Pint	Brush	Resi-Gard® solvent cement clear	24	28.0

Meets ASTM D-2564.

Elbows, sweeps and accessories

Installation instructions - cement joints

01 **Cementing PVC conduit:**
1. Make square saw cut with fine-tooth saw.
2. Deburr and round inside edge of the cut end.
3. Clean socket I.D. and spigot O.D. of dirt and moisture.
4. Apply a uniform coat of cement to spigot end and push onto socket bottom, rotating ¼ turn.
5. Allow time to set before disturbing. Setting time will depend upon temperature.

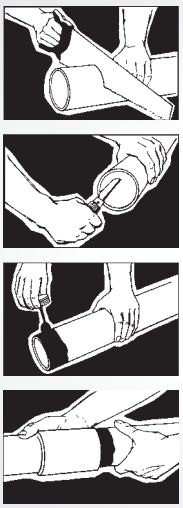
02 **Cementing PVC conduit: for submerged areas requiring air or water tightness:**
1. Follow the procedure above for cementing conduit.
2. Test workmanship by conducting a low pressure air (3.0–5.0 psi) test after system is installed and cemented joints are set.
3. Plug and block ends to prevent movement prior to pressurization.
4. Check for leaks with soap solution.
5. Even low pressure air can cause high-thrust loads and caution must be observed.

03 **Cementing ENT for concrete-tight applications:**
1. Use Carlon socket tight fittings or couplings.
2. Do not use chemical primer or cleaner.
3. Apply a light uniform coat of cement labeled for use with ENT.
4. Use a brush to apply the cement.
5. Brush excess cement out of ENT grooves.
6. Promptly insert ENT into fitting while cement is wet until the fitting stop is reached and give ¼ turn.
7. Do not disturb until the joint is set.

Carlon non-metallic products are joined by means of solvent cement joints. Sizes ½" through 1½" should be cut square (using a fine-tooth handsaw) and deburred. For sizes 2" through 6", a miter box or similar saw guide should be utilized to keep the material steady. After cutting and deburring, wipe ends clean of dust, dirt and shavings.

Joining process as follows:
- Be sure that conduit end is clean and dry.
- Apply coat of Carlon Solvent Cement (use dauber) to end of conduit for the length of the socket to be attached.
- Push conduit firmly into fitting while rotating conduit slightly, about one-quarter turn to spread cement evenly.
- Allow joint to set approximately 10 minutes.

Carlon recommends the use of Carlon cement for proper solvent cement joints. Because this cement is prepared particularly for our product compounds and tolerances, we cannot guarantee joints assembled with cement materials supplied by other manufacturers. Regular-grade gray solvent cement will accommodate most application situations being of a general-purpose nature. In situations requiring an extremely fast-setting joint (low temperature or difficult installation conditions), Carlon All Weather Quick-Set Cement is recommended. Standard-grade clear cement is recommended for non-critical utility applications where gap filling and leak testing are not required.



01

02

Average number of joints per can

Trade size (in.)	½ Pint 8 oz.	Pint 16 oz.	Quart 32 oz.	Gallon 128 oz.
½	140	275	550	2,200
¾	90	180	360	1,440
1	70	140	280	1,120
1¼	50	100	200	800
1½	37	75	150	600
2	20	40	80	320
2½	17	35	70	280
3	15	30	60	240
3½	13	27	54	216
4	12	25	50	200
5	9	19	38	150
6	6	12	24	95

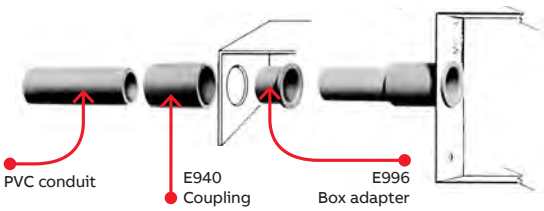
Can: Average shelf life of all Carlon cement is 24 months (unopened cans stored below 80° F). All Carlon cements are specially formulated to be used with Carlon PVC products, and do not require primers when parts are clean of dirt and moisture. MSDS available at www.carlon.com.

Elbows, sweeps and accessories

Installation instructions - fittings and adapters for terminating non-metallic rigid conduit

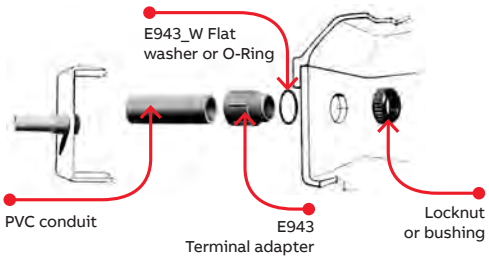
Terminating non-metallic rigid conduit is quick and easy utilizing either of the methods indicated below. Terminations may be made in any electrical box or enclosure using standard size knockouts or drilled holes.

Method 1. Permanent termination



Apply solvent cement to shoulder and shank of box adapter and insert through knockout from inside the enclosure. Push coupling over the shank of the box adapter, tight against the enclosure wall. Rotate the coupling about one-half turn while installing, and hold in position for a few seconds to permit setting of solvent cement. The coupling is now ready for the conduit to be installed. Only the shoulder of the box adapter extends inside the enclosure.

Method 2. Separable termination



If a “wet location” as defined in Article 100 of the NEC® construction is required, place a flat washer or O-ring over the threads of the terminal adapter, securely against the shoulder. Insert the adapter threads through knockout and secure using either a standard locknut or threaded bushing. If watertight construction is not required, eliminate flat washer.

PVC Conduit cutters

Small cutter - For fast, smooth field cuts of ½" through 1"non-metallic rigid conduit, Flex-Plus Blue ENT and Carflex liquidtight flexible non-metallic conduit.

	Cat. No.	Size (in.)	Std. Ctn.
	CC120B	8	10

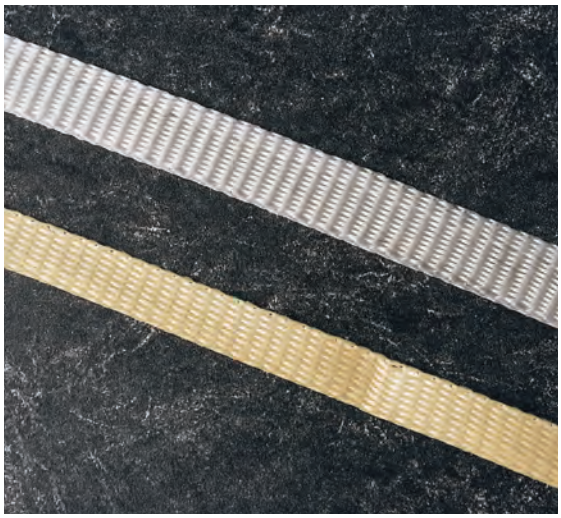
Elbows, sweeps and accessories

Conduit pulling lines for conductors or fiber optics

This rope is constructed of polyethylene over polyester, designed specifically for fiber optic pulling. The polyethylene jacket has a “slippery” feel that gives less drag in pulling through conduit.

White diamond braid rope

Cat. No.	Reel Lengths (ft.)	Diameter (in.)	Recommended Working Load (in.)	Approximate Avg. Tensile (lbs.)	Approximate Std. Wt. (lbs.)
SB14105	5,000	1/4	260	1,700	1,000



Pre-lubricated, woven polyester tape made from low-friction, high abrasion-resistant yarns, provides a low coefficient of friction. Tape is printed with sequential footage markings for accurate measurements.

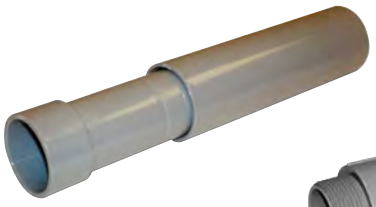
Tape

Cat. No.	Size (in.)	Tensile strength (lbs.)	Reel lengths (ft.)
TL14203	1/2	1,130	3,000
TL14505	1/2	1,250	5,000
TL14510	1/2	1,250	10,000
TL38203	5/8	1,800	3,000
TL38265	5/8	1,800	6,500
TL38210	5/8	1,800	10,000

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

E945 series expansion fittings are designed to compensate for length changes due to temperature variations in exposed conduit runs.



Coupling end

Male terminal adapter end

Features and benefits:

- Exclusive molded-in mid-point indicator on the piston
- Exclusive 2" expansion fitting with an 8" travel distance
- Two-piece molded design with lubricated seals for easier movement for the life of the product
- Ridges on the fitting for easier installation (sizes 2"–6" only)
- Male terminal adapter end design (½"–2" NPT Threads and 2½"–6" NPSC threads)
- Two O-rings to prevent leakage
- Can be installed vertically or horizontally

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E23018

Expansion fittings

Cat. No.	Male terminal adapter end Cat. No.	Size (in.)	Std. Ctn.	Travel length (in.)
E945D	E945DX	½	20	4
E945E	E945EX	¾	15	4
E945F	E945FX	1	10	4
E945G	E945GX	1¼	5	4
E945H	E945HX	1½	5	4
E945J	E945JX	2	15	8
E945K	E945KX	2½	10	8
E945L	E945LX	3	10	8
E945M	E945MX	3½	5	8
E945N	E945NX	4	5	8
E945P	E945PX	5	1	8
E945R	E945RX	6	1	8

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E23018

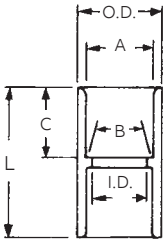
Short expansion couplings - Expand to a maximum of 2"

Cat. No.	Size (in.)	Std. Ctn.
E955D	½	40
E955E	¾	40
E955F	1	25
E955G	1¼	15
E955H	1½	10
E955J	2	6

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

Socket type for joining non-metallic conduit.



All socket fittings should be attached using Carlon solvent cement.

LR33856

Standard couplings

Cat. No.	Size (in.)	Std. Ctn.	Typical (in.) A	Typical (in.) B	I.D. (in.)	O.D. (in.)	Typical (in.) C	Typical (in.) L
E940D	½	150	.852	.836	.728	1 7/64	11/16	1 ½
CE940DR-CTN	½	75	.852	.836	.728	1 7/64	11/16	1 ½
E940E	¾	100	1.064	1.046	.840	1 5/16	¾	1 5/8
CE940ER-CTN	¾	45	1.064	1.046	.840	1 5/16	¾	1 5/8
E940F	1	50	1.330	1.310	1.210	1 5/8	1 5/16	2
CE940F-UPC	1	50	1.330	1.310	1.210	1 5/8	1 5/16	2
E940G	1 ¼	30	1.677	1.655	1.535	1 63/64	1	2 ⅛
E940H	1 ½	25	1.918	1.894	1.755	2 15/64	1 ⅛	2 ⅛
E940J	2	30	2.393	2.369	2.190	2 47/64	1 3/16	2 ½
E940K	2 ½	20	2.890	2.868	2.688	3 5/16	1 33/64	3 3/16
E940L	3	25	3.515	3.492	3.375	3 31/32	1 ¾	3 13/32
E940M	3 ½	20	4.015	3.992	3.780	4 9/16	1 ¾	3 ⅜
E940N	4	15	4.515	4.491	4.265	5 3/32	1 25/32	3 ¾
E940P	5	8	5.593	5.553	5.097	6 ¼	15/16	4 1/16
E940R	6	5	6.658	6.614	6.115	7 ½	23/16	4 5/8

Canada only.

Special long-line couplings (with conduit stop)

UL LISTED E23018

Except where noted by ▶

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)	Length (in.)
E941H	1 ½	40	9	3.19
E941J	2	25	8	3.59
E941K	2 ½	15	8	4.29
E941L	3	15	14	6.44
E941N	4	10	15	6.96
E941PF	5	4	12	9.63
▶ E941RF	6	5	21	11.75

Fabricated expansion couplings

c UL us LISTED E23018

Cat. No.	Size (in.)	Std. Ctn.	Travel length (in.)
E945KXL	2 ½	10	12

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

Sleeve coupling (For repair work)
No internal stop

UL LISTED E23018

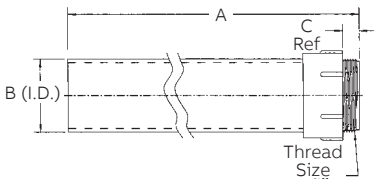
Except where noted by ▶

Special long-line sleeve couplings

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)	Length (in.)
▶ E948H	1½	25	6	4
▶ E948J	2	25	5	3
▶ E948K	2½	25	16	6
▶ E948L	3	25	13	4
▶ E948N	4	10	8	6.5
▶ E948P	5	14	33	7
▶ E948R	6	6	16	6
▶ E948JR	2	15	8	6
▶ E948JS	2 (Sch. 40 split duct)	25	6	—
▶ E948KS7	21/2 (Sch. 40 split duct)	25	19	7
▶ E948L12	3	1	1	12
▶ E948L6	3	15	15	6
▶ E948LS	3 (Sch. 40 split duct)	25	17	—
▶ E948N12	4	10	28	12
▶ E948N7	4	15	25	7
▶ E948NS	4 (Sch. 40 split duct)	10	15	—
▶ E948PS	5 (Sch. 40 split duct)	1	2	—
▶ E948R10	6	6	25	10
▶ E948R12	6	6	25	12
▶ E948RS	6 (Sch. 40 split duct)	1	2	—

Special Schedule 40 swedge couplings

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E442R	6	6	27
▶ E442T	8	2	17



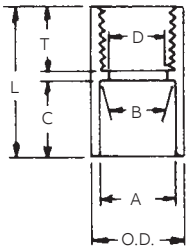
Schedule 40 risers

Cat. No.	Size (in.)	A (in.) (Length)	B (in.)	C (in.)	Thread size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E954HX	1½	80	1.567	.950	1½ NPT	1	3.8
▶ E954J	2	60	2.024	.825	2 NPT	1	3.7
▶ E954JX	2	80	2.024	.825	2 NPT	1	5
▶ E954K	2½	60	2.418	.812	2½ NPSC	1	6
▶ E954KX	2½	80	2.418	.812	2½ NPSC	1	8.4
▶ E954L	3	60	3.616	.798	3 NPSC	1	8.7
▶ E954LX	3	80	3.616	.798	3 NPSC	1	11

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

For adapting non-metallic conduits to threaded fittings, metallic systems. Female threads on one end, socket end on other.



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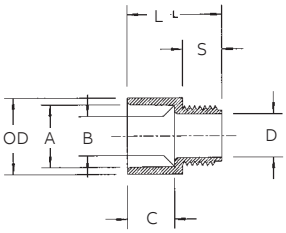
Except where noted by ▶

Female adapters

Cat. No.	Size (in.)	Std. Ctn.	Typical (in.) A	Typical (in.) B	Min. D (in.)	Max. O.D. (in.)	C	S	Typical (in.) L
E942D	1/2	150	.852	.836	.620	17/64	11/16	3/4	19/16
E942E	3/4	100	1.064	1.046	.822	15/16	13/16	3/4	15/8
E942F	1	50	1.330	1.310	1.046	15/8	15/16	7/8	115/16
E942G	11/4	30	1.677	1.655	1.377	163/64	1	7/8	2
E942H	11/2	25	1.918	1.894	1.607	25/32	11/8	7/8	27/32
E942J	2	30	2.393	2.369	2.064	247/64	13/16	1	25/16
E942K	21/2	20	2.890	2.868	2.450	311/32	15/8	11/8	215/16
E942L	3	25	3.515	3.492	3.000	331/32	13/4	11/8	31/16
E942M	31/2	20	4.015	3.992	3.500	41/2	17/8	11/8	31/4
E942N	4	15	4.515	4.491	4.000	51/64	13/4	11/16	313/64
▶ E942NX9*	4	15							(Call for information)
E942P	5	8	5.593	5.553	5.047	61/4	115/16	11/16	33/16
E942R	6	6	6.658	6.614	6.055	71/4	21/8	11/16	33/8
▶ E942RX*	6	6							(Call for information)

* Long-Line Adapter

For adapting non-metallic conduits to boxes, threaded fittings, metallic systems. Male threads on one end, socket end on other.



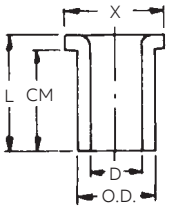
Male terminal adapters

Cat. No.	Size (in.)	Std. Ctn.	Typical (in.) A	Typical (in.) B	Min. D (in.)	Max. O.D. (in.)	C	S	Typical (in.) L
E943D	1/2	150	.852	.836	.594	1.042	.652	.545	1.310
E943E	3/4	125	1.064	1.046	.793	1.290	.809	.553	1.470
E943F	1	50	1.330	1.310	1.025	1.580	.965	.812	1.902
E943G	11/4	50	1.677	1.655	1.345	1.973	1.208	.816	1.986
E943H	11/2	25	1.918	1.894	1.574	2.188	1.155	.802	2.105
E943J	2	50	2.393	2.369	1.998	2.713	1.145	.825	2.093
E943K	21/2	25	2.890	2.868	2.400	3.290	1.490	.812	2.480
E943L	3	45	3.515	3.492	2.989	3.965	1.643	.797	2.660
E943M	31/2	30	4.015	3.992	3.405	4.515	1.720	.802	2.740
E943N	4	20	4.515	4.491	3.895	5.065	1.788	.733	2.830
E943P	5	5	5.593	5.553	4.900	6.104	1.935	.990	3.200
E943R	6	10	6.658	6.614	5.900	7.288	2.128	.985	3.410

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

Adapts non-metallic conduit to all electrical enclosures by inserting adapter through knockout and cementing into Carlon couplings.



Box adapters for enclosures

Cat. No.	Size (in.)	Std. Ctn.	Min. D (in.)	OD (in.) Typical	Max. X (in.)	CM (in.) Typical	L (in.) Typical
E996D	½	100	.662	0.840	1 7/64	2 3/32	2 7/32
E996E	¾	100	.824	1.050	1 21/64	2 5/32	2 9/32
E996F	1	100	1.049	1.315	1 5/8	6 1/64	1 3/32
E996G	1¼	50	1.380	1.660	1 31/32	1 1/16	1¼
E996H	1½	50	1.610	1.900	2 13/64	1 3/16	1 3/8
E996J	2	25	2.067	2.375	2 29/32	1¼	1 7/16
E996K	2½	15	2.469	2.875	3 7/16	1 7/8	1 15/16
E996L	3	20	3.068	3.500	4 1/8	2	2 1/16
E996N	4	10	4.026	4.500	5 1/8	2½	2¼

Threaded adapters

Cat. No.	Size (in.)	Std. Ctn.
E9842D [1]	½	25
E9842E [2]	¾	25

[1] Fits ¾" sockets
[2] Fits 1" sockets

Reducer plugs

UL LISTED E23018 Except where noted by ▶

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E971C	¾ x ½	100	2
▶ E971D	1 x ¾	100	3

Plugs (Polyethylene)

UL LISTED E23018 Except where noted by ▶

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ P258H	1½	50	2
▶ P258K	2½	25	1.5

Plugs with pull tabs (Polyethylene)

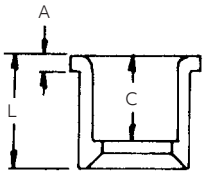
UL LISTED E23018 Except where noted by ▶

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ P258JT	2	60	3
▶ P258LT	3	30	3
▶ P258NT	4	48	8
▶ P258PT	5	30	6
▶ P258RT	6	30	9

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

For connecting different sizes of conduit. Bell x Spigot.



UL LISTED E23018 Except where noted by ▶

Reducer bushings

Cat. No.	Size (in.)	Std. Ctn.	L (in.) Typical	A (in.) Typical	C (in.) Typical
E950ED	¾ x ½	100	1 5/32	1 3/64	1 1/32
E950FD-CAR	1 x ½	25	1 11/32	3/16	57/64
E950FE	1 x ¾	100	1 11/32	3/16	1 1/64
E950GE-CAR	1¼ x ¾	10	1 15/32	3/16	1 1/64
E950GF	1¼ x 1	50	1 15/32	3/16	1 9/64
E950HF-CAR	1½ x 1	10	1 19/32	3/16	1 9/64
E950HG-CAR	1½ x 1¼	10	1 19/32	3/16	1 17/64
E950JG-CAR	2 x 1¼	10	1 3/4	7/32	1 17/64
E950JH-CAR	2 x 1½	10	1 3/4	7/32	1 25/64
E950KJ-CAR	2½ x 2	10	2 5/32	3/8	1 27/64
E950LJ-CAR	3 x 2	10	2 1/8	1/4	1 7/8
▶ E950LK	3 x 2½	25	1 15/16	1/4	1 11/16
E950NL	4 x 3	25	2 3/4	5/16	1 15/16

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Fabricated reducers

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
Male x male			
▶ E952JH	1½ x 2	48	20
▶ E952KJ	2½ x 2	48	26
▶ E952LJ	3 x 2	36	21
▶ E952LK	3 x 2½	36	32
▶ E952NL	4 x 3	15	21
▶ E952NM	4 x 3½	15	25
▶ E952PN	5 x 4	12	27
▶ E952RP	6 x 5	10	31
Male x female			
▶ E952NJF	4 x 2	15	16
▶ E952RNF	6 x 4	10	28

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Service entrance caps (Vertical applications only)

Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) E	F	G	H
E998D	½	5	1.76	.45	.45	–
E998E	¾	20	1.76	.45	.45	–
E998E-CAR	¾	5	1.76	.45	.45	–
E998F	1	15	2.26	.59	.58	–
E998F-CAR	1	5	2.26	.59	.58	–
E998G-CAR	1¼	5	3.52	.74	.71	.50
E998H-CAR	1½	5	3.52	.74	.71	.50
E998J-CAR	2	5	4.26	.83	.78	.56
E998K-UPC	2½	2	7.47	1.70	1.31	1.00
E998L	3	2	7.47	1.70	1.31	1.00
E998N	4	2	10.45	2.25	1.88	1.31

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End caps

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E958D	½	100	3
▶ E958E	¾	100	4
▶ E958F	1	75	5
▶ E958G	1¼	40	4
▶ E958H	1½	30	4
▶ E958J	2	25	5
▶ E958K	2½	10	4
▶ E958L	3	10	5
▶ E958N	4	5	17
▶ E958P	5	5	11
▶ E958R	6	5	13

PVC riser caps

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E935J	2	25	3
▶ E935L	3	25	5
▶ E935N	4	25	7
▶ E935P	5	25	35
▶ E935R	6	10	7

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

LR31146 E23018

Except where noted by ▶

Meter offset

Cat. No.	Size (in.)	Std. Ctn.	Offset (in.)	A (in.)
▶ E995G	1¼	15	.758	4.230
▶ E995J	2	8	.684	4.270

Offset

Cat. No.	Size (in.)	Std. Ctn.	Offset (in.)	Std. Wt. (lbs.)
▶ E994D	½	.250	25	3
▶ E994E	¾	.250	25	3
▶ E994F	1	.500	50	12

End bells

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
E997F	1	50	2.6
E997G	1¼	35	2.5
E997H	1½	30	2.5
E997J	2	40	5.0
E997K	2½	30	2
E997L	3	50	10
E997M	3½	40	11
E997N	4	30	16
▶ E997P	5	15	8
▶ E997R	6	10	7
▶ E997T	8	3	15

End bells - Schedule 40 fabricated

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
▶ E949J5	2 x 5	50	10
▶ E949J6	2 x 6	25	12
▶ E949JN	2 x 4	25	7
▶ E949JX	2 x 8	12	7
▶ E949LR	3 x 6	20	21
▶ E949N5	4 x 5	20	2
▶ E949NR	4 x 6	15	21
▶ E949R5	6 x 5	12	27
▶ E949RX	6 x 8	6	17

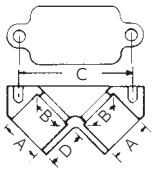
Where a waterproof termination is required into any enclosure (metallic or non-metallic), install the neoprene washer over the threads of a terminal adapter before inserting into the enclosure. Use a standard locknut or threaded bushing to secure the assembly.

Flat sealing washers

Cat. No.	Size (in.)	Std. Ctn.
▶ E943DW	½	125
▶ E943EW	¾	125
▶ E943FW	1	100
▶ E943GW	1¼	50
▶ E943HW	1½	50
E943JW	2	25

PVC locknuts

Cat. No.	Size (in.)	Std. Ctn.
▶ LT9LD	½	1200
▶ LT9LE	¾	700
▶ LT9LF	1	600



Access pull elbows

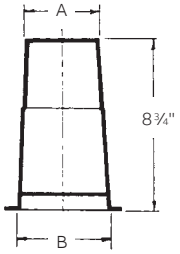
Cat. No.	Size (in.)	Std. Ctn.	A (in.) Typical	B (in.) Typical	C (in.) Typical	D (in.) Typical
E990D†	½	75	.852	.836	2.187	.718
E990E†	¾	50	1.064	1.046	2.531	.718

† Gasket included.

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

HOLFORM™ non-metallic concrete sleeve forms are the easy way to form holes in concrete. They install in seconds with nails, screws or staples and are easily removed. Concrete will not adhere to them. Sleeves are adjustable to any slab thickness.



LR31146 Except where noted by †

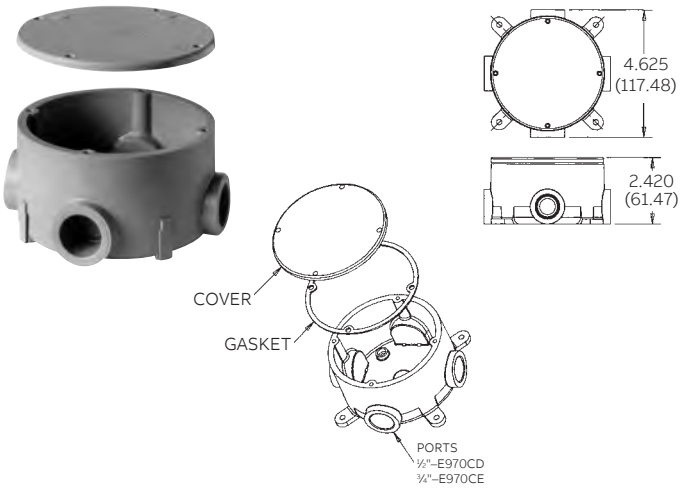
E23018 Except where noted by ▶

HOLFORM Concrete sleeves

Cat. No.	Min. O.D. A (in.)	B. (in.)	Std. Ctn.	Std. Wt. (lbs.)
†▶ E92CSH	1½	1¾	20	3
†▶ E92CSJ	2	2 13/32	25	6
†▶ E92CSL	3	3 13/32	25	8
†▶ E92CSN	4	4 13/32	18	8
†▶ E92CSP	5	5 13/32	15	8
†▶ E92CSR	6	6 13/32	12	8

Four knock-out type socket openings, 90° spacing. Available with 1/2" or 3/4" socket outlets. Includes cover and gasket.

Note: Not fixture rated.

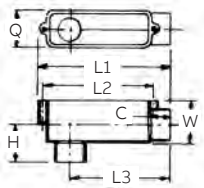


Conduit bodies Type X with cover

Cat. No.	Size (in.)	Vol. (cu.in.)	Std. Ctn.
▶ E970CD	½	15.16	15
E970CE	¾	15.16	15

Supplied with four stainless steel cover screws. Diameter 4 1/8", thickness 1/4".
Not designed for use with wiring devices or light fixtures.

Feature unthreaded hubs and textured lids with foam-in-place gaskets.



Conduit bodies - Type LB

LR31146

E11461 Except where noted by ▶

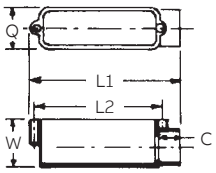
Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) Typical max. C	Typical max. L1	Typical L2	Typical L3	Max. H	Max. Q	Max. W	Vol. Cu. (in.)
E986D	½	25	1 1/16	4 5/16	3 7/32	3 1/16	1 5/16	1 11/32	1½	4.0
E986E	¾	15	29/32	6 9/32	5 9/32	4 25/32	1 25/32	1¾	2 1/32	12.0
E986F	1	10	29/32	6 9/32	5 9/32	4 25/32	1 25/32	1¾	2 1/32	12.0
E986G	1¼	10	1 3/32	7 31/32	6 13/32	6	2 5/16	2½	2¾	32.0
E986H	1½	10	1 3/32	7 31/32	6 13/32	6	2 5/16	2½	2¾	32.0
E986J	2	10	1 5/32	9 31/32	8 13/32	7¼	2 9/16	3 5/32	3 15/32	63.0
▶ E986K	2½	4	1⅝	14⅞	13¼	11 31/32	3¾	4 11/32	4⅝	210
▶ E986L	3	4	1⅝	14⅞	13¼	11 31/32	3¾	4 11/32	4⅝	210
▶ E986M	3½	4	1 25/32	17 23/32	15⅞	14 17/64	4 7/16	5 11/32	5 21/32	390
▶ E986N	4	4	1 25/32	17 23/32	15⅞	14 17/64	4 7/16	5 11/32	5 21/32	390

Note: Covers are not sold as separate item.

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

Feature unthreaded hubs and textured lids with foam-in-place gaskets.



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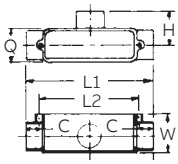
Conduit bodies - Type E

Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) Typical max. C	Typical max. L1	Typical L2	Max. Q	Max. W	Vol. Cu. (in.)
988D	1/2	25	1/16	4 5/16	3 1/2	1 11/32	1 1/2	4.0
E988E	3/4	20	29/32	6 11/32	5 9/32	1 3/4	2 1/32	12.0
E988F	1	10	29/32	6 11/32	5 9/32	1 3/4	2 1/32	12.0
E988G	1 1/4	10	1 3/32	8	6 13/32	2 1/2	2 3/4	32.0
E988H	1 1/2	10	1 3/32	8	6 13/32	2 1/2	2 3/4	32.0
E988J	2	5	1 5/32	9 15/32	8 13/32	3 5/32	31 5/32	63.0



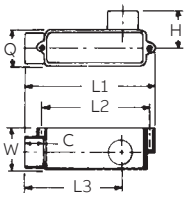
Conduit bodies - Type C

Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) Typical max. C	Typical max. L1	Typical L2	Max. Q	Max. W	Vol. Cu. (in.)
E987D	1/2	25	11/16	4 11/16	3 1/2	1 11/32	1 1/2	4.0
E987E-CAR	3/4	10	29/32	6 7/8	5 32/64	1 3/4	2 1/32	12.0
E987F-CAR	1	10	29/32	6 7/8	5 9/32	1 3/4	2 1/32	12.0
E987G	1 1/4	10	1 3/32	8 21/32	6 13/32	2 1/2	2 3/4	32.0
E987H	1 1/2	10	1 3/32	8 21/32	6 13/32	2 1/2	2 3/4	32.0
E987J	2	15	1 5/32	10 5/16	8 13/32	3 5/32	31 15/32	63.0

Conduit bodies and fittings

For use with Schedule 40 and 80 conduit

Feature unthreaded hubs and textured lids with foam-in-place gaskets.



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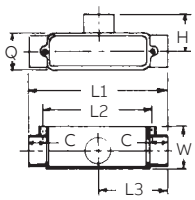
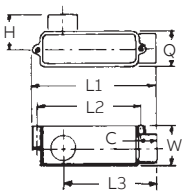
Conduit bodies - Type LR

Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) Typical max. C	Typical max. L1	Typical L2	Typical L3	Max. H	Max. Q	Max. W	Vol. Cu. (in.)
E985D-CAR	1/2	10	11/16	4 5/16	3 7/32	3 1/16	1 5/16	1 11/32	1 1/2	4.0
E985E-CAR	3/4	10	29/32	6 9/32	5 9/32	4 25/32	1 25/32	1 3/4	2 1/32	12.0
E985F	1	10	29/32	6 9/32	5 9/32	4 25/32	1 25/32	1 3/4	2 1/32	12.0
E985G	1 1/4	10	1 3/32	7 31/32	6 13/32	6	2 5/16	2 1/2	2 3/4	32.0
E985H-CAR	1 1/2	5	1 3/32	7 31/32	6 13/32	6	2 5/16	2 1/2	2 3/4	32.0
E985J	2	10	1 5/32	9 31/32	8 13/32	7 1/4	2 9/16	3 5/32	3 15/32	63.0



Conduit bodies - Type T

Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) Typical max. C	Typical max. L1	Typical L2	Typical L3	Max. H	Max. Q	Max. W	Vol. Cu. (in.)
E983D-CAR	1/2	10	11/16	4 11/16	3 7/32	2 11/32	1 5/16	1 11/32	1 1/2	4.0
E983E	3/4	15	29/32	6 7/8	5 9/32	4 7/16	1 25/32	1 3/4	2 1/32	12.0
E983F	1	20	29/32	6 7/8	5 9/32	3 7/16	1 25/32	1 3/4	2 1/32	12.0
E983G	1 1/4	10	1 3/32	8 21/32	6 13/32	4 21/64	2 5/16	2 1/2	2 3/4	32.0
E983H	1 1/2	10	1 3/32	8 21/32	6 13/32	4 21/64	2 5/16	2 1/2	2 3/4	32.0
E983J	2	10	1 5/32	10 5/16	8 13/32	5 5/32	2 9/16	3 5/32	3 15/16	63.0



Conduit bodies - Type LL

Cat. No.	Size (in.)	Std. Ctn.	Dimensions (in.) Typical max. C	Typical max. L1	Typical L2	Typical L3	Max. H	Max. Q	Max. W	Vol. Cu. (in.)
E984D-CAR	1/2	10	11/16	4 5/16	3 7/32	2 1/16	1 5/16	1 11/32	1 1/2	4.0
E984E	3/4	20	29/32	6 9/32	5 9/32	4 25/32	1 25/32	1 3/4	2 1/32	12.0
E984F-CAR	1	10	29/32	6 9/32	5 9/32	4 25/32	1 25/32	1 3/4	2 1/32	12.0
E984G-CAR	1 1/4	5	1 3/32	7 31/32	6 13/32	6	2 5/16	2 1/2	2 3/4	32.0
E984H	1 1/2	10	1 3/32	7 31/32	6 13/32	6	2 5/16	2 1/2	2 3/4	32.0
E984J	2	10	1 5/32	9 9/32	8 13/32	7 1/4	2 9/16	3 5/32	3 15/16	63.0

Switch and junction boxes

Molded non-metallic junction boxes – 6P rated

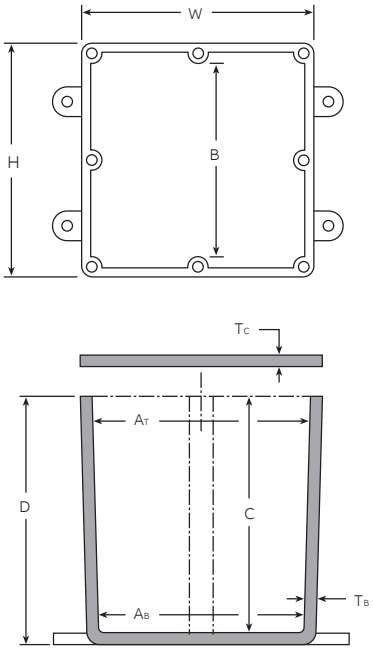
Non-metallic junction boxes are UL Listed with a NEMA 6P rating per Section 314.29, Exception of the National Electrical Code® and CSA Certified per Section 12 of the Canadian Electrical Code. Manufactured from PVC or PPO thermoplastic molding compound and featuring foam in-place gasketed lids attached with stainless steel screws, these rugged enclosures offer all the corrosion resistance and physical properties you need for direct-burial applications.

Type 6P enclosures are intended for indoor or outdoor use, primarily to provide a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during prolonged submersion at a limited depth and external ice formation.

Features and benefits:

- All Carlon junction boxes are UL Listed/CSA Certified and maintain a minimum of a NEMA Type 4/4X Rating
- Part numbers with an asterisk (*) are UL Listed and maintain a NEMA Type 6P Rating and Type 4/4X Rating
- Covers are not sold as separate item
- Temperature range: -250° F to 125° F
- UL94V-2 flammability rating

Note: Not rated for pedestrian traffic.



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E11461

Molded non-metallic junction boxes – 6P rated

Cat. No.	Size H x W x D (in.)	Std. Ctn.	Min. AT	Min. AB	Min. B	Min. C	Dimensions (in.) T_B	Dimensions (in.) T_C	Material PVC	Material Thermo-plastic	Std. Wt.
E989NNJ*	4 x 4 x 2	10	3 11/16	3 5/8	N/A	2	0.160	0.155	X		3
E987N*	4 x 4 x 4	10	3 11/16	3 1/2	N/A	4	0.160	0.155	X		4
▶ E989NNR*	4 x 4 x 6	10	3 11/16	3 3/8	N/A	6	0.160	0.200	X		5
E989PPJ*	5 x 5 x 2	10	4 11/16	4 1/2	N/A	2	0.110	0.150		X	3
E987R-CAR*	6 x 6 x 4	2	6	5 5/8	N/A	4	0.190	0.190		X	3
E989RRR-UPC*	6 x 6 x 6	8	5 5/8	5 3/8	N/A	6	0.160	0.150		X	14
E989N-CAR	8 x 8 x 4	1	8	8	N/A	4	0.185	0.190		X	2
E989SSX-UPC	8 x 8 x 7	2	7 21/32	7 5/16	N/A	7	0.160	0.150		X	6
E989UUN	12 x 12 x 4	3	11 5/8	11 1/2	11 1/8	4	0.160	0.150		X	12
E989R-UPC	12 x 12 x 6	2	11 15/16	11 7/8	11 7/16	6	0.265	0.185		X	10

*Gaskets are FIP (foam in place).

Switch and junction boxes

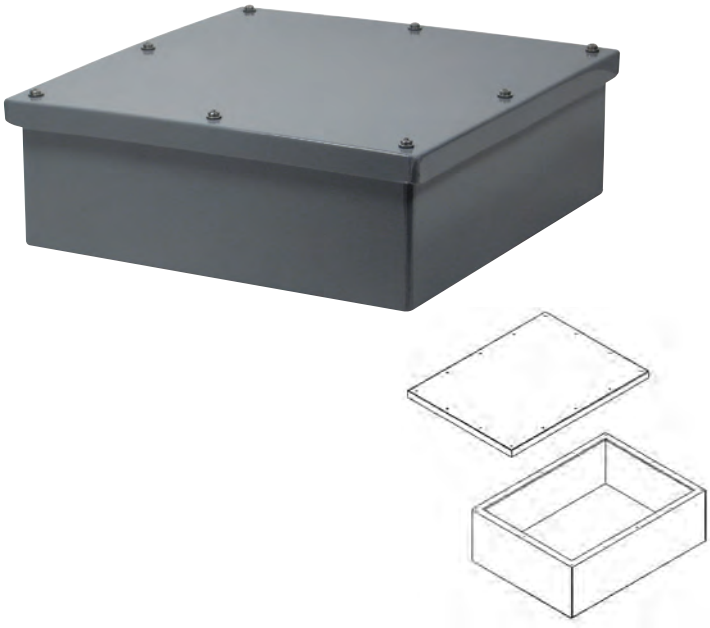
Large PVC junction boxes – NEMA 4X

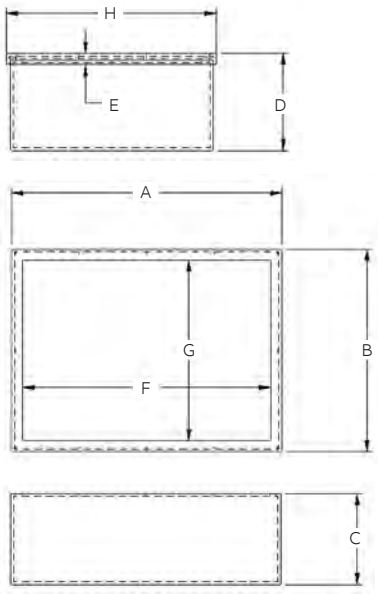
Large PVC junction boxes are fabricated from Type II PVC sheet using a unique technology. Reduce the use of steel boxes and keep your wiring connections clean, safe and dry using these high-quality, fully gasketed junction boxes.

Features and benefits:

- PVC Type II material with “Uni-Body” construction and penetration welding providing a very strong, durable enclosure
- UL94V-0 flame rating
- Suitable for exposure of up to 90° C
- PVC material enables the use of standard solvent cements for fitting attachment
- Junction boxes are available with or without mounting flanges
- Individual mounting feet are available and provided in kits of four
- Custom features such as windows or panel mounts are available
- Custom sizes are also available upon request
- Made in the USA

Note: Not rated for pedestrian traffic.





Large PVC junction boxes – NEMA 4X

Cat. No.	Dimensions (in.) A	B	C	D	E	F	G	H	Std. Wt. (lbs.)
EP12128	12	12	8	8.25	1.00	10.5	10.5	12.75	11
EP181812	18	18	12	12.25	1.00	16	16	18.75	21
EP201808	20	18	8	8.25	1.00	18	16	18.75	20
EP202008	20	20	8	8.25	1.00	18	18	20.75	22
EP241808	24	18	8	8.25	1.00	22	16	18.75	24
EP242008	24	20	8	8.25	1.00	21.5	17.5	20.75	25
EP242408	24	24	8	8.25	1.00	21.5	21.5	24.75	29
EP302408	30	24	8	8.25	1.00	27.5	21.5	24.75	34
EP362408	36	24	8	8.25	1.00	33.5	21.5	24.75	39

Accessories

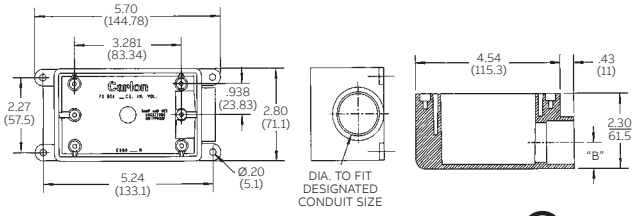
Cat. No.	Description	Std. Wt. (lbs.)
ESMFK-1	“CleverMount” Mounting feet (Four feet and fasteners)	5

Switch and junction boxes

Single-gang FS boxes

Features and benefits:

- For dead-end terminations
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



LR31146 Where noted by

E11461

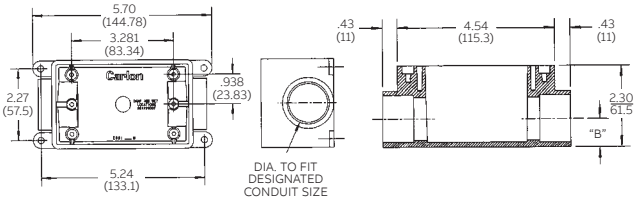
Type FSE

Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
E980DFN	½	19	10
C980DFN-CTN	½	18	12
E980EFN	¾	19	10
C980EFN-CTN	¾	18	12
E980FFN	1	19	18
C980FFN-CTN	1	18	8
E980FFN-CAR	1	19	10

Canada only.

Features and benefits:

- For through terminations
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



LR31146 Where noted by

E11461

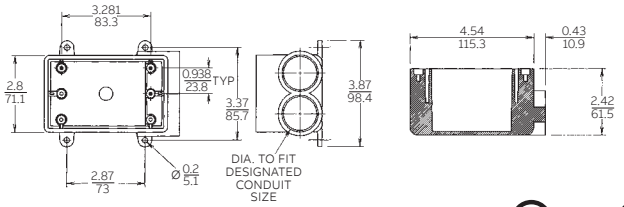
Type FSC

Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
E981DFN	½	19	15
C981DFN-CTN	½	18	12
E981EFN	¾	19	15
C981EFN-CTN	¾	18	12
E981FFN	1	19	18
E981FFN-CAR	1	19	10
C981FFN-CTN	1	18	8

Canada only.

Features and benefits:

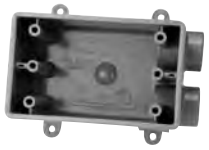
- For multiple dead-end circuit terminations or where additional support is required in stub-up applications
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



LR31146 Where noted by

E11461

Type FSS

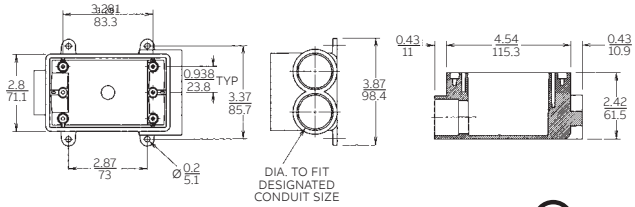


Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
E982DFN	½	19	10
C982DFN-CTN	½	18	12
E982EFN	¾	19	10
C982EFN-CTN	¾	18	12
E982FFN	1	19	10
C982FFN-CTN	1	18	8

Canada only.

Features and benefits:

- For multiple through-circuit terminations or where additional support is required in stub-up applications
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



LR31146 Where noted by

E11461

Type FSCC

Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
E979DFN-CAR	½	19	10
C979DFN	½	18	15
E979EFN-CAR	¾	19	10
C979EFN	¾	18	15
E979FFN	1	19	15
C979FFN	1	18	15

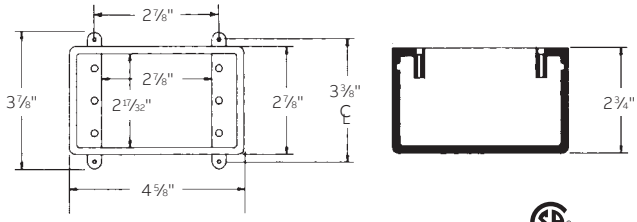
Canada only.

Switch and junction boxes

Single-gang FD deep device boxes

Features and benefits:

- For terminations where hub requirements vary according to application – hubs easily made with flared wood bit or hole saw
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



LR31146 Where noted by

LISTED E11461

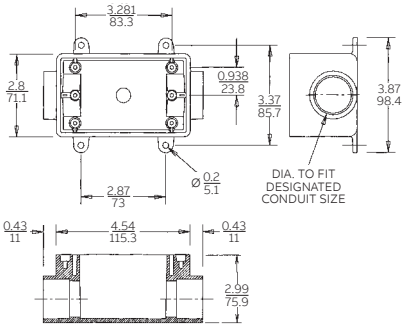
Type FD

	Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
	E9801	N/A	25	10
	CE9801-CTN	N/A	25	10
	C9801-347	N/A	25	10

Canada only.

Features and benefits:

- For through terminations where large devices or additional wiring capacity is required
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



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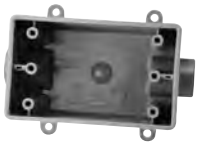
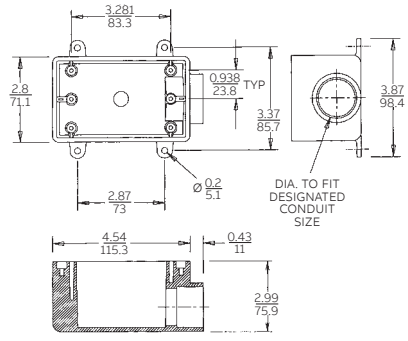
LISTED E11461

Type FDC

	Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
	E9811DN	½	25	10
	C9811DN	½	25	10
	E9811EN	¾	25	10
	C9811EN	¾	25	10
	E9811FN	1	25	10
	C9811FN	1	25	10

Canada only.



LR31146 Where noted by

LISTED E11461

Type FDE

	Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
	E9801DN	½	25	10
	C9801DN	½	25	10
	E9801EN	¾	25	10
	C9801EN	¾	25	10
	E9801FN	1	25	10
	C9801FN	1	25	10

Canada only.

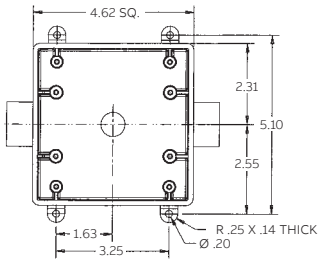
Features and benefits:

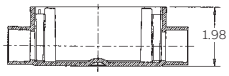
- For dead-end terminations where large devices or additional wiring capacity is required
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting

Switch and junction boxes

Two-gang FS boxes

Features and benefits:
- For through terminations where two devices or additional wiring capacity is required
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting





LR31146 Where noted by

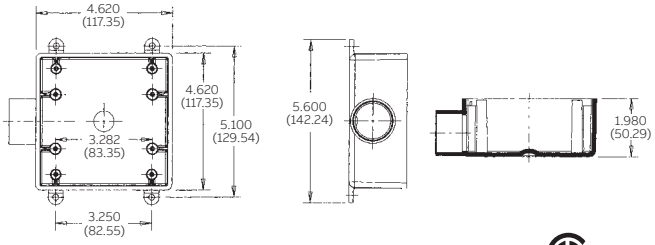
LISTED E11461

Type 2FSC

	Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
	E9812D	½	32	10
	CE9812D-CTN	½	32	10
	E9812E	¾	32	10
	CE9812E-CTN	¾	32	10
	E9812F	1	32	10
	C9812F	1	32	10

Canada only.

Features and benefits:
- For dead-end terminations where two devices or additional wiring capacity is required
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting



LR31146 Where noted by

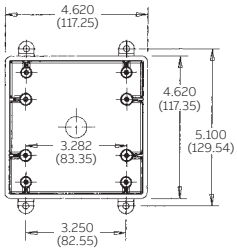
LISTED E11461

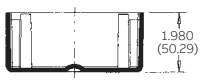
Type 2FSE

	Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
	E9802D	½	32	10
	CE9802D-CTN	½	32	10
	E9802E	¾	32	10
	CE9802E-CTN	¾	32	10
	E9802F	1	32	10
	C9802F	1	32	1

Canada only.

Features and benefits:
- For terminations where hub requirements vary according to application – hubs easily made with flared wood bit or hole saw
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting





LR31146 Where noted by

LISTED E11461

Type FS

	Cat. No.	Size (in.)	Vol. Cu. (in.)	Std. Ctn.
	E9802	N/A	32	10
	CE9802	N/A	32	10

Canada only.

Blank covers

Features and benefits:
- Fits Carlon single-gang FS boxes
- Supplied with stainless steel mounting screws and gasket

Single-gang

	Cat. No.	Color	Std. Ctn.	Std. Wt. (lbs.)
	E980CN-CAR	Gray	12	1.60
	E980CM-CAR	White	12	1.60

Features and benefits:
- Fits Carlon two-gang FS boxes, other non-metallic and metallic FS boxes
- Supplied with stainless steel mounting screws and gasket

Two-gang

	Cat. No.	Color	Std. Ctn.	Std. Wt. (lbs.)
	E9802CN-CAR	Gray	10	2.17

Straps, clamps and accessories

Snap Strap™ conduit support straps

Carlon's Snap Strap offers a unique support strap designed especially for the installation of PVC conduit. Also usable for installations of rigid steel. This high-strength, non-metallic clamp enables conduit to expand and contract freely, eliminating the bowing commonly seen from the expansion and contraction of conduit caused by varying temperature changes. Finished installations have a neat, attractive appearance on exposed applications.

To be used in accordance with conduit spacing requirements per NEC® Section 352.30 and 12-1114 of the CEC. This part is not supplied with screws.

- UV inhibited for use in direct sunlight

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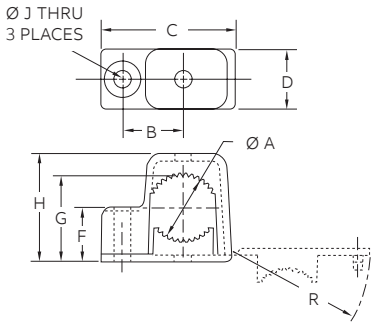
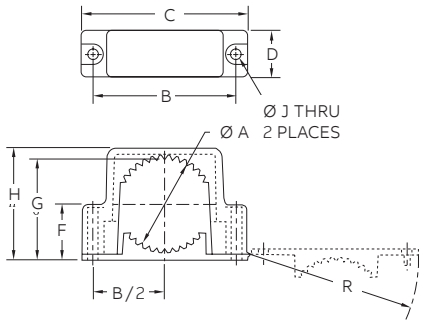


Single mount



Double mount

Single mount

Cat. No.	Size in. (mm)	Std. Ctn.	Std. Wt. (lbs.)	Dimensions in. (mm) A	B	C	D	F	G	H	J	R
E978DC-CAR	½	40	1	0.80	0.75	1.63	.75	.68	1.08	1.36	.21	1.67
	(16)			(20.3)	(1.90)	(41.4)	(19.1)	(14.9)	(25.1)	(34.5)	(5.33)	(42.4)
E978EC-CAR	¼	40	3	1.00	.88	1.92	.75	.79	1.29	1.58	.21	1.96
	(21)			(25.4)	(22.4)	(48.7)	(19.1)	(17.8)	(30.4)	(39.9)	(5.33)	(49.8)
E978FC-CAR	1	30	4	1.20	1.02	2.17	.75	.92	1.54	1.84	.21	2.22
	(27)			(30.5)	(25.9)	(55.1)	(19.1)	(21.1)	(36.3)	(46.7)	(5.33)	(56.3)

Double mount

Cat. No.	Size in. (mm)	Std. Ctn.	Std. Wt. (lbs.)	Dimensions in. (mm) A	B	C	D	F	G	H	J	R
E978GC-CAR	1¼	15	4	1.66	2.75	3.23	1.00	1.07	1.90	2.15	.218	3.28
	(35)			(42.16)	(69.9)	(82.0)	(25.4)	(24.1)	(45.2)	(54.61)	(5.54)	(83.3)
E978HC-CAR	1½	15	5	1.92	3.05	3.53	1.00	1.20	2.16	2.40	.218	3.58
	(41)			(48.77)	(77.5)	(89.7)	(25.4)	(27.4)	(51.8)	(60.96)	(5.54)	(90.9)
E978JC-CAR	2	10	5	2.34	3.50	4.00	1.00	1.43	2.59	2.86	.218	4.06
	(53)			(59.44)	(88.9)	(101.6)	(25.4)	(33.3)	(63.0)	(72.64)	(5.54)	(103.1)

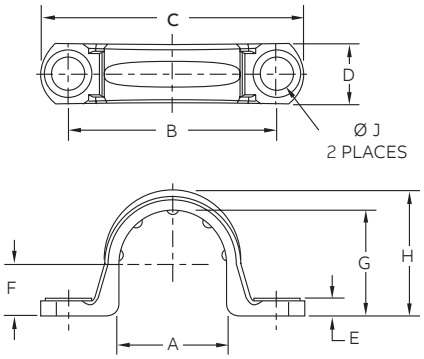
Straps, clamps and accessories

Non-metallic clamps

Non-metallic clamps offer the same chemical resistance as Carlon non-metallic conduits for a complete, corrosion-resistant system.

To be used in accordance with conduit spacing requirements per NEC® Section 352.30 and 12-1114 of the CEC.

- UV inhibited for use in direct sunlight



Conduit Clamp

Conduit clamps

Cat. No.	Size in. (mm)	Std. Ctn.	Std. Wt. (lbs.)	Dimensions in. (mm) A	B	C	D	E	F	G	H	J
E977DC	½	100	1.2	0.892	1.71	2.16	.50	.14	.42	.866	1.04	.260
	(16)			(22.6)	(43.4)	(54.8)	(12.7)	(3.5)	(10.6)	(21.9)	(26.4)	(6.6)
E977EC	¼	100	1.4	1.102	1.97	2.40	.50	.14	0.525	1.076	1.255	0.26
	(21)			(27.9)	(50.0)	(60.9)	(12.7)	(3.5)	(13.3)	(27.3)	(31.8)	(6.6)
E977FC	1	100	2	1.39	2.25	2.81	.594	.14	0.658	1.342	1.574	0.26
	(27)			(35.3)	(57.1)	(71.3)	(15.0)	(3.5)	(16.7)	(34.0)	(39.9)	(6.6)
E977GC	1¼	50	5	1.714	2.68	3.28	0.64	.15	0.83	1.687	1.89	.32
	(35)			(43.5)	(68.0)	(83.3)	(16.2)	(3.8)	(21.0)	(42.8)	(48.0)	(8.1)
E977HC	1½	50	6	1.92	2.82	3.44	.70	0.15	0.97	1.93	2.12	.312
	(41)			(48.7)	(71.6)	(87.3)	(17.7)	(3.8)	(24.6)	(49)	(53.8)	(7.9)
E977JC	2	25	4.5	2.54	3.54	4.18	.76	.16	1.05	2.29	2.49	.315
	(53)			(64.5)	(89.9)	(106.1)	(19.3)	(4.0)	(26.6)	(58.1)	(63.2)	(8)
E977KC-CAR	2½	25	1.4	2.86	4.50	5.46	1.00	0.20	1.43	2.86	3.12	.36
	(63)			(72.6)	(114.3)	(138.7)	(25.4)	(5.08)	(36.3)	(72.6)	(79.2)	(9.14)
E977LC-CAR	3	20	1.4	3.47	5.00	6.00	1.00	.20	1.74	3.48	3.70	.36
	(78)			(88.2)	(127.0)	(152.4)	(25.4)	(5.08)	(44.3)	(88.4)	(94.0)	(9.14)
E977NC-CAR	4	15	12.2	4.366	6.15	7.20	1.00	.20	2.32	4.50	4.70	.36
	(103)			(110.9)	(156.2)	(182.9)	(25.4)	(5.08)	(58.8)	(114.3)	(119.4)	(9.14)

Note: Some clamp applications require two screws, two nuts and two washers.

Straps, clamps and accessories

Carlon masonry pipe clamps

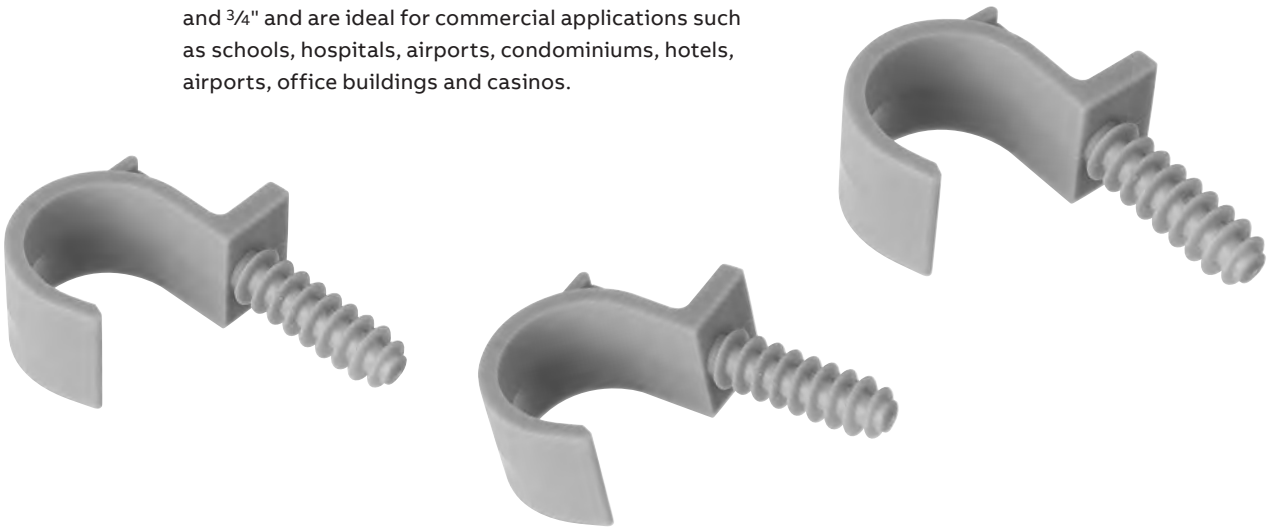
Carlon masonry pipe clamps make installations faster and easier by eliminating the use of bolts and anchors. The one-piece design features an anchoring projection designed to push into a 5⁄16" drill hole.

The clamps are used to securely support pipe/conduit and electrical cables on concrete and masonry block, and unlike metallic clamps Carlon masonry camps won't rust or corrode.

Carlon masonry pipe clamps are available in sizes 1⁄2" and 3⁄4" and are ideal for commercial applications such as schools, hospitals, airports, condominiums, hotels, airports, office buildings and casinos.

Features and benefits:

- One-piece design
- Material: Nylon PA6
- Color: Gray
- Flame resistance: V2
- Anchor length: 1.2" threaded
- Drill hole: 5⁄16"



Installation

Note: Follow NEC® guidelines for conduit clamp spacing.

01 Using a 5⁄16" masonry drill bit, drill a hole into the concrete.

02 Tap clamp with hammer until fully inserted.

03 Conduit, pipe or cable

01

02

03

Carlon masonry pipe clamps

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
E977NDC-CTN	1⁄2	12 (Equals 12 bags of 5 clamps)	1.2
E977NEC-CTN	3⁄4	12 (Equals 12 bags of 5 clamps)	1.3

Straps, clamps and accessories

Slip meter risers

Carlon slip meter risers are designed for use in electrical service entrance applications. They provide solutions for applications requiring a non-rigid connection, with incoming service conduit diameters ranging from 2" to 4". The slip meter risers are fitted with a terminal adapter for easy installation at the service entrance location and provide a low-cost method to comply with NEC® 300.5(J), which requires protection for buried cables in areas subject to ground movement due to frost or trench settling.

Note: Meter box is not included.

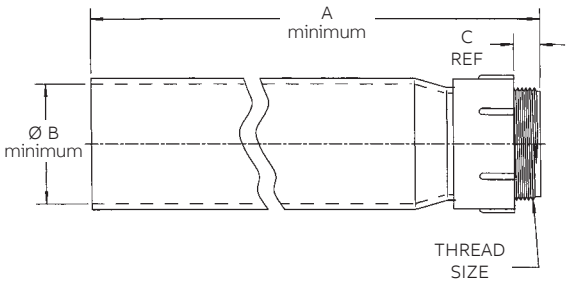
Features and benefits:

- Designed to provide faster and easier underground service entrance installations
- Provides cable protection from ground movement
- Accommodates incoming service conduit diameters ranging from 2" to 4"
- Fitted with terminal adapters for easy installing
- Allows ground water in raceway system to drain
- Complies with NEC® 300.5 paragraph 4, Schedule 80 rated

Article 300 – Wiring methods

(J) Ground movement
Where direct buried conductors, raceways, or cables are subject to movement by settlement or frost, direct buried conductors, raceways, or cables shall be arranged to prevent damage to the enclosed conductors or to equipment connected to the raceways.

(FPN)
This section recognizes “S” loops in underground direct burial to raceway transitions, expansion joints in raceway risers to fixed equipment, and, generally, the provision of flexible connections to equipment subject to settlement or frost heaves.



Slip meter risers

Cat. No.	Size (in.)	A Length	B (Minimum)	C	Thread size	Std. Carton Qty.	Std. Carton Wt.(lbs.)
E954JXX	2	24.00	2.492	.83	2" NPT	20	46
E954JXS (Split)	2	24.00	2.492	.83	2" NPT	1	2.2
E954KXX	2½	24.00	2.961	.81	2½" NPSC	10	28
E954LXX	3	24.00	3.616	.80	3" NPSC	10	35
E954LXS (Split)	3	24.00	3.616	.80	3" NPSC	10	36
E977NEC-CTN	4	24.00	4.859	.77	4" NPSC	5	23

Spacers

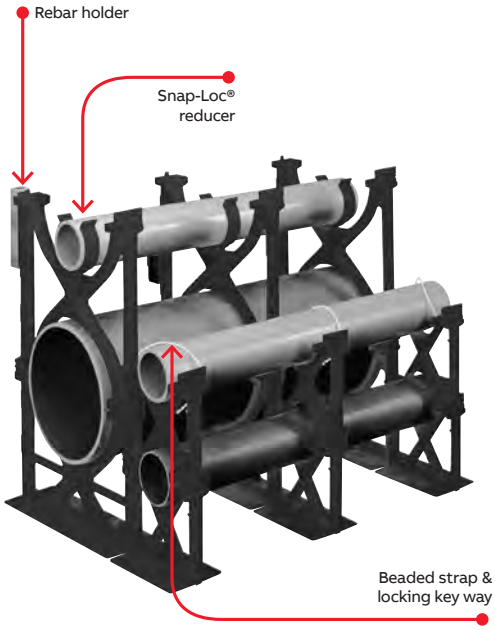
Carlon® Snap-Loc® spacers

Carlon Snap-Loc duct spacers provide stability, consistent separation and relieve direct stress for duct materials encased in concrete and direct-burial applications.

Non-metallic Snap-Loc spacers are designed specifically for use with non-metallic duct, with maximum O.D. dimensions as specified in NEMA TC-2, TC-6 & 8 and ASTM F512. The innovative vertical and horizontal interlocking Snap-Loc design has tapered joining slots with maximum tolerances for easy jobsite assembly.

Features and benefits:

- A side dovetail rail-and-groove design enabling side-by-side interchangeability of conduit spacer sizes while maintaining horizontal stability
- Locking keyways incorporated into intermediate spacers eliminate the need for costly top spacers in each size. The locking keyways provide for the use of a beaded strap that secures the top section of conduit
- 1" and 2" Snap-Loc reducers enable fixturing of 1" or 2" conduit inside larger spacers
- The Snap-Loc Rebar holder provides stabilization on large banks of spacers



Installation note

The spacers and Rebar holder are designed with a dovetail tongue-and-groove feature for easy installation.

If required to permanently fix the position of a group of Spacers and/or Rebar Holder, the following are recommended procedures:

1. Use Carlon Quick-Set cement glue during assembly or spot glue after assembly to secure.
2. During assembly, deform the edge of the tongue or groove portion of the dovetail slide with a pair of pliers or similar tool. This deformation will create an interference, restricting movement.
3. An assembled system may be wired together for additional support.

Important:
The use of duct spacers for direct burial may result in excessive point deflections unless proper design engineering is applied, such as the proper compaction of the appropriate backfill material.

Note: Spacers are not UL® Listed.

Spacers

Carlon Snap-Loc spacers

Dimensions – Base spacers

Cat. No.	Size (in.)	A (in.)	C (in.)	D (Dia.) (in.)	Std. Ctn.
S288JHN	2 x 1½	4.25	4.12	2.50	100
S288JJN	2 x 2	4.25	4.62	2.50	100
S288JLN	2 x 3	4.25	5.62	2.50	100
S288LHN	3 x 1½	4.81	5.25	3.63	90
S288LJN	3 x 2	4.81	5.75	3.63	80
S288LLN	3 x 3	4.81	6.75	3.63	60
S288NFN	4 x 1	4.50	5.75	4.63	70
S288NHN	4 x 1½	5.31	6.25	4.63	50
S288NJN	4 x 2	5.31	6.75	4.63	50
S288NLN	4 x 3	5.31	7.75	4.63	60
S288PHN	5 x 1½	5.84	7.31	5.69	50
S288PJN	5 x 2	5.84	7.81	5.69	60
S288PLN	5 x 3	5.84	8.81	5.69	50
S288RHN	6 x 1½	6.38	8.38	6.75	50
S288RJN	6 x 2	6.38	8.88	6.75	50
S288RLN	6 x 3	6.38	9.88	6.75	40
S288SHN	8 x 1½	7.38	10.3	8.75	30
S288SJN	8 x 2	7.38	10.76	8.75	30

* First number indicates trade size of duct, second number indicates separation between conduits or ducts.

Dimensions – Intermediate spacers

Cat. No.	Size (in.)	A (in.)	C (in.)	D (Dia.) (in.)	Std. Ctn.
S289JHN	2 x 1½	3.88	4.12	2.50	120
S289JJN	2 x 2	4.38	4.62	2.50	100
S289JLN	2 x 3	5.38	5.62	2.50	80
S289LHN	3 x 1½	5.01	5.25	3.63	100
S289LJN	3 x 2	5.51	5.75	3.63	80
S289LLN	3 x 3	6.51	6.75	3.63	60
S289NFN	4 x 1	5.51	5.73	4.63	70
S289NHN	4 x 1½	6.01	6.25	4.63	60
S289NJN	4 x 2	6.51	6.75	4.63	60
S289NLN	4 x 3	7.51	7.75	4.63	50
S289PHN	5 x 1½	7.07	7.31	5.69	50
S289PJN	5 x 2	7.57	7.81	5.69	50
S289PLN	5 x 3	8.57	8.81	5.69	30
S289RHN	6 x 1½	8.14	8.38	6.75	50
S289RJN	6 x 2	8.64	8.88	6.75	40
S289RLN	6 x 3	9.64	9.88	6.75	30
S289SHN	8 x 1½	10.14	10.3	8.75	30
S289SJN	8 x 2	10.64	10.76	8.75	30

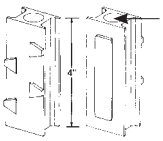
* First number indicates trade size of duct, second number indicates separation between conduits or ducts.

Accessories

Snap-Loc reducer

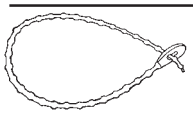
Cat. No.	Size (in.)	Std. Ctn.
S287F	1	100
S287J	2	100

Rebar holder



Cat. No.	Std. Ctn.
S258RH	100

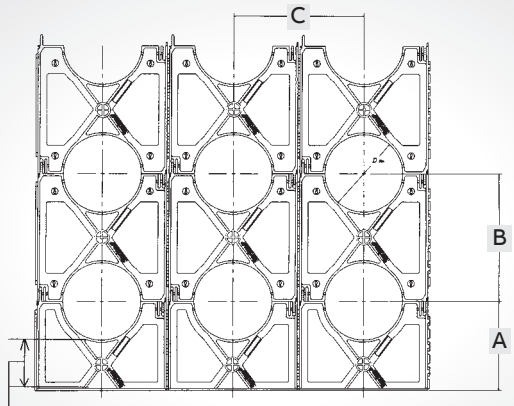
Beaded strap



15" in length

Cat. No.	Std. Ctn.
S28612	1 Bag of 250

Specifications



3" Standard for all Base Spacers
(with the exception of the 4X1-S288NFN)

Suggested Specification:
(Duct) (Conduit) bank shall be encased in concrete with at least three inches of concrete at the top and bottom and two inches on each side. A horizontal and vertical separation between the ducts of ____* inches shall be maintained by installing high-impact spacers with horizontal and vertical locking intervals of ____** feet.

*Standard Separations of 1", 1½", 2" and 3" are available.
**Preferred interval between spacer assemblies is 8 to 10 feet.

Spacers

Carlon® Snap-N-Stac™ combo spacers

Carlon Snap-N-Stac Combo Duct Spacers are specifically designed to replace the two-piece base and intermediate spacer system, by combining the conventional base and intermediate spacer into a single unit.

Manufactured out of highly engineered thermoplastic material, Snap-N-Stac Spacers are strong, durable and able to withstand the rigors of concrete construction. They feature an innovative horizontal and EXCLUSIVE vertical locking system, and can be used as either a base or intermediate spacer.

Snap-N-Stac Spacers are available in one-way, two-way and three-way configurations (one-way and three-way only available in sizes 2" and 4"). They accept 2", 3", 4", 5" and 6" pipe and can be installed horizontally, vertically or turned upright for unique duct bank configurations.

This NEW one-piece design makes underground duct bank installations faster and easier than the conventional two-piece system – saving material and labor costs.

Carlon Snap-N-Stac Combo Spacers…
The IDEAL solution for underground duct bank installations.

Features and benefits:

- Conventional base and intermediate spacer in a single unit
- Less inventory required
- EXCLUSIVE vertical locking system
- Horizontal locking system
- Installs horizontally or turned upright
- Molded-in rebar holder on two-way and three-way
- One-, two- and three-way configurations (one way and three-way only available in sizes 2" and 4")
- Five sizes: 2", 3", 4", 5" and 6"
- Reducer to accommodate smaller duct sizes
- Can be used as either an intermediate or base spacer
- Spacers interlock horizontally regardless of size
- Non-metallic, non-corrosive, non-conductive
- Strong and durable
- Easy to handle
- Fast installation

One-way Three-way

Installations

01 Horizontal Locking
02 Vertical Interlocking
03 With reducer

01

02

03

Spacers

Carlon Snap-N-Stac combo spacers

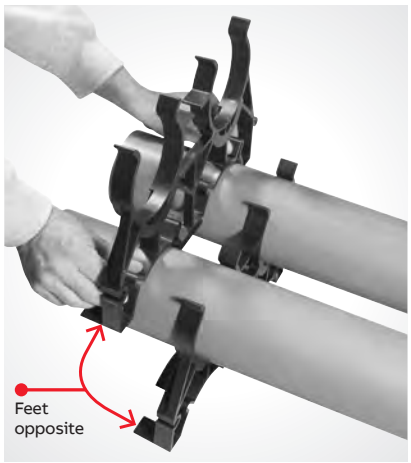
Installation instructions

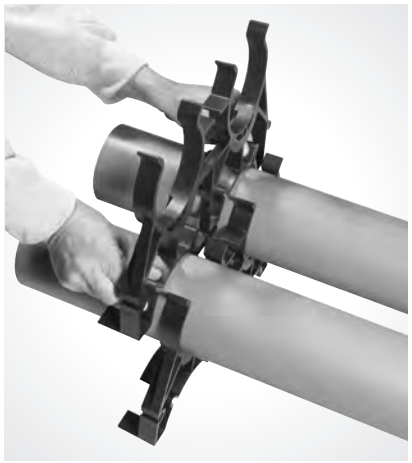
Important:

1. Snap-N-Stac Spacers are recommended for concrete-encased applications only.
2. The use of duct spacers for direct burial may result in excessive point deflections unless proper design engineering is applied, such as the proper compaction of the appropriate backfill material.

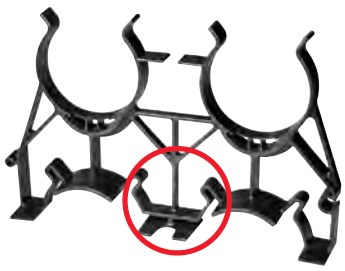
Vertical interlocking

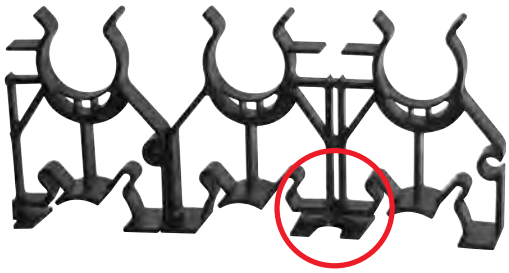
Slide spacers together “feet facing feet” or “feet opposite.”





Molded-in Rebar holder





Spacers

Carlon Snap-N-Stac combo spacers

Installation instructions

01 **Vertical free standing**
If spacers are installed using free-standing method, it is recommended to install the spacer on the upper row mid-way between the two spacers on the bottom row.

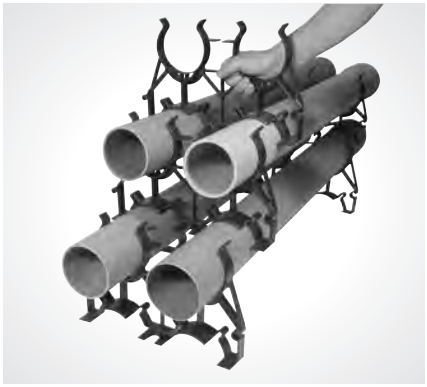
02 **Reducer**
1" and 2" Snap-Loc reducers enable fixturing of 1" and 2" conduit inside of larger spacers.

03 **Transition to various duct sizes**
Install spacers side-by-side by inserting the male adapter into the female adapter.

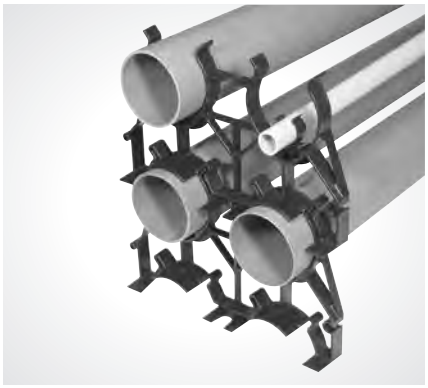
Note: All Snap-N-Stac spacers are designed to interlock horizontally, regardless of size.

04 **Odd number of ducts**
Two-way spacers, size 2" and 4" only, can easily be cut apart to produce two one-way spacers. Create three-way and five-way spacers using the one-way spacer. Install spacers side-by-side by inserting the male adapter into the female adapter.

01

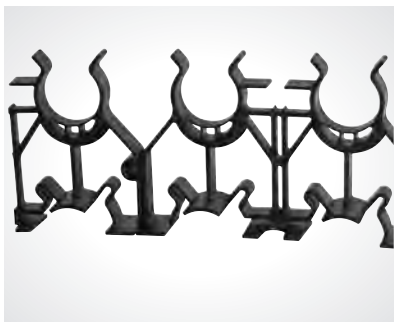


02



03

04



Spacers

Carlon Snap-N-Stac combo spacers

Carlon Snap-N-Stac combo spacers

Cat. No.	Description	Size (in.)	Separation (in.)	Std. Ctn.	Std. Wt. (lbs.)
SP2W20-1	1-way spacers	2	2	56	15.0
SP2W30-1		2	3	40	13.0
SP4W15-1		4	1½	26	9.6
SP4W20-1		4	2	20	10.0
SP4W30-1		4	3	20	9.4
SP2W20-2*	2-way spacers	2	2	56	28.5
SP2W30-2*		2	3	40	23.8
SP3W20-2		3	2	40	24.0
SP3W30-2		3	3	24	17.9
SP4W15-2*		4	1½	26	18.3
SP4W20-2*		4	2	24	18.8
SP4W30-2*		4	3	20	17.6
SP5W20-2		5	2	20	17.2
SP5W30-2		5	3	14	15.5
SP6W20-2		6	2	12	12.8
SP6W30-2		6	3	12	14.1
SP2W20-3	3-way spacers	2	2	36	28.5
SP2W30-3		2	3	18	17.8
SP4W15-3		4	1½	18	19.4
SP4W20-3		4	2	16	19.3
SP4W30-3		4	3	14	19.1

*Can be cut apart to make (2) one-way spacers.

How to interpret the part number:

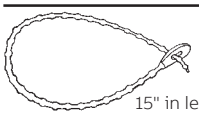
Position 1	Position 2	Position 3	Position 4
Product type	Duct size	Duct-to-duct spacing horizontal and vertical	Horizontal duct positions
SP = Spacer	2W = 2" width	15 = 1½"	-1 = one-way
	3W = 3" width	20 = 2"	-2 = two-way
	4W = 4" width	30 = 3"	-3 = three-way
	5W = 5" width		
	6W = 6" width		

Accessories

Snap-Loc reducer

	Cat. No.	Size (in.)	Std. Ctn.
	S287F	1	100
	S287J	2	100

Beaded strap

	Cat. No.	Std. Ctn.
 15" in length	S28612	100

Technical information

Cat. No.	Duct size (in.)	Duct O.D.	Duct-to-Duct Spacing Horizontal duct positions	Duct-to-Duct Spacing Vertical (in.)	Center-to-Center Spacing Horizontal (in.)	Center-to-Center Spacing Vertical (in.)	Horizontal (in.)	Bottom of trench to bottom of duct	Bottom of Trench to center of bottom of duct	Overall length
SP2W20-1	2	2.375	1	2	2	2.19	2.19	3.13	4.25	4.38
SP2W30-1	2	2.375	1	3	3	2.69	2.69	4.13	5.25	5.38
SP4W15-1	4	4.500	1	1.5	1.5	3.00	3.00	3.38	5.56	6.00
SP4W20-1	4	4.500	1	2	2	3.25	3.25	3.88	6.06	6.50
SP4W30-1	4	4.500	1	3	3	3.75	3.75	4.88	7.06	7.50
SP2W20-2	2	2.375	2	2	2	4.38	4.38	3.13	4.25	8.75
SP2W30-2	2	2.375	2	3	3	5.38	5.38	4.13	5.25	10.75
SP3W20-2	3	3.500	2	2	2	5.50	5.50	3.63	5.38	11.00
SP3W30-2	3	3.500	2	3	3	6.50	6.50	4.63	6.38	13.00
SP4W15-2	4	4.500	2	1.5	1.5	6.00	6.00	3.38	5.56	12.00
SP4W20-2	4	4.500	2	2	2	6.50	6.50	3.88	6.06	13.00
SP4W30-2	4	4.500	2	3	3	7.50	7.5.0	4.88	7.06	15.00
SP5W20-2	5	5.500	2	2	2	7.56	7.56	4.38	7.25	15.12
SP5W30-2	5	5.500	2	3	3	8.56	8.56	5.38	8.25	17.14
SP6W20-2	6	6.625	2	2	2	8.62	8.62	4.13	7.38	17.25
SP6W30-2	6	6.625	2	3	3	9.62	9.62	5.13	8.38	19.25
SP2W20-3	2	2.375	3	2	2	4.38	4.38	3.13	4.25	13.13
SP2W30-3	2	2.375	3	3	3	5.38	5.38	4.13	5.25	16.13
SP4W15-3	4	4.500	3	1.5	1.5	6.00	6.00	3.38	5.56	18.00
SP4W20-3	4	4.500	3	2	2	6.50	6.50	3.88	6.06	19.50
SP4W30-3	4	4.500	3	3	3	7.50	7.50	4.88	7.06	22.50

Technical information

Typical properties of conduit raw material compound

Thermal	ASTM Test	Typical values
Co-effecient of thermal expansion-inch/inch/° F (properties @ 73.4° F)	D696	3.38 x 10^{-5}
Heat distortion ° F at 264 psi	D648	160° F
Thermal conductivity BTU (hr.) (ft.) (° F/in.)	N/A	1.3

Mechanical	ASTM Test	Typical values
Specific gravity	D792	1.43 - 1.6
Tensile strength (psi) @ 73.4° F	D648	5,000-6,500
Izod impact ft lbs./in. of notch	D256	.65 - 1.5
Flexural strength (psi)	D790	12,500
Compressive strength (psi)	D695	9,000
Hardness (Durometer D)	D2240	85

ELECTRICAL	ASTM Test	Typical values
Dielectrical strength volts/mil	D149	1100
Dielectric constant 60 CPS @ 30° C	D150	4.00
Power factor 60 CPS @ 30° C	D150	1.93

Impedance (Volts lost per Ampere per 100 feet)	3Ø90% P.F.	80% P.F.	1Ø90% P.F.	80% P.F.
Steel conduit	.0118	.0123	.0136	.0142
Schedule 40	.0105	.0106	.0121	.0122

Using 250 kcmil copper conductor. Comparable values for other conductor sizes.

Weight comparison

Carlon Schedule 40 rigid non-metallic conduit compared to other conduit in pounds per 100 feet (approx.)

Nom. size (in.)	Carlon Schedule 40 rigid non-metallic conduit	Carlon Schedule 80 rigid non-metallic conduit	Aluminum	Electrical metallic tubing (EMT)	Intermediate metal conduit (IMC)	Rigid metal conduit (RMC)
½	18	22	27	30	57	79
¾	23	29	36	46	78	105
1	35	43	53	66	112	153
1¼	48	60	70	96	114	201
1½	57	72	86	112	176	246
2	76	100	116	142	230	334
2½	125	153	183	230	393	527
3	164	212	239	270	483	690
3½	198		288	350	561	831
4	234	310	340	400	625	982
5	317	431	465	Not made	Not made	1344
6	412	592	612	Not made	Not made	1770

Technical information

Wire fill

Maximum number of conductors in Schedule 40 PVC conduit (Based on Table 1, Chapter 9 of the NEC®)

Type letters	Conductor size AWG, KCMIL	Trade size ½	¾	1	1¼	1½	2	2½	3	3½	4	4¼	5	6	8
THWN	14	13	24	39	69	94	154								
	12	10	18	29	51	79	114	164							
THHN	10	6	11	18	32	44	73	194	160						
	8	3	5	9	19	22	36	51	71	106	136				
FEP	6	1	4	6	11	15	26	37	57	76	98	125	154		
(14 thru 2)	4	1	2	4	7	9	16	22	35	47	60	75	94	137	236
	3	1	1	3	6	8	13	19	29	39	51	64	90	116	201
FEPB	2	1	1	3	5	7	11	16	25	33	43	54	67	97	169
(14 thru 8)	1		1	1	3	5	9	12	18	25	32	49	59	72	125
	1/0		1	1	3	4	7	10	15	21	27	33	42	61	105
PFA	2/0		1	1	2	3	6	8	13	17	22	28	35	51	88
(14 thru 4/0)	3/0		1	1	1	3	5	7	11	14	18	23	29	42	73
	4/0		1	1	1	2	4	6	9	12	15	19	24	35	61
PFAH	250			1	1	1	3	4	7	10	12	16	20	28	49
(14 thru 4/0)	300			1	1	1	3	4	6	8	11	13	17	24	42
	350			1	1	1	2	3	5	7	9	12	15	21	37
Z	400				1	1	1	3	5	6	8	10	13	19	33
(14 thru 4/0)	500				1	1	1	2	4	5	7	9	11	16	27
	600				1	1	1	1	3	4	5	7	9	13	22
XHHW	700					1	1	1	3	4	5	6	8	11	19
(4 thru 500)	750					1	1	1	2	3	4	6	7	11	19
	6	1	3	5	9	13	21	30	47	63	81	102	128	185	320
XHHW	600				1	1	1	1	3	4	5	7	9	13	22
	700					1	1	1	3	4	5	6	7	11	19
	750					1	1	1	2	3	4	6	7	10	18

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Technical information

Wire fill (continued)

Maximum number of conductors in Schedule 80 PVC conduit (Based on Table 1, Chapter 9 of the NEC®)

Type lLetters	Conductor size AWG, KCMIL	Trade size									
		½	¾	1	1¼	1½	2	2½	3	4	5
#14	THW	4	8	13	24	34	57	82	128		
	THHN	10	19	33	58	81	135	194	0		
12	THW	3	6	11	20	28	47	67	105	183	
	THHN	8	14	24	43	60	100	144	0		
10	THW	3	5	9	16	22	37	54	85	148	
	THHN	5	9	15	27	38	64	92	143		
8	THW	1	2	4	8	11	19	28	44	77	121
	THHN	1	4	7	13	18	31	45	70	123	195
6	THW	1	1	3	6	8	14	20	32	56	88
	THHN	1	3	5	9	13	22	32	50	88	140
4	THW	0	1	2	4	6	10	15	24	42	66
	THHN	1	1	3	6	8	13	20	31	54	86
3	THW	0	1	1	4	5	9	13	20	36	57
	THHN	1	1	2	5	7	11	17	26	46	73
2	THW	0	1	1	3	4	8	11	17	31	49
	THHN	1	1	1	4	5	9	14	22	38	61
1	THW	0	1	1	1	3	5	8	13	22	35
	THHN	0	1	1	3	4	7	10	16	28	45
0	THW	0	0	1	1	2	4	7	11	19	30
	THHN	0	1	1	2	3	6	8	13	24	38
00	THW	0	0	1	1	1	4	6	9	16	26
	THHN	0	1	1	1	3	5	7	11	20	32
000	THW	0	0	1	1	1	3	5	8	14	22
	THHN	0	0	1	1	2	4	6	9	16	26
0000	THW	0	0	1	1	1	3	4	6	11	18
	THHN	0	0	1	1	1	3	5	8	14	22
250	THW	0	0	0	1	1	1	3	5	9	14
	THHN	0	0	0	1	1	2	4	6	11	18
300	THW	0	0	0	1	1	1	3	4	8	13
	THHN	0	0	0	1	1	1	3	5	9	15
350	THW	0	0	0	1	1	1	2	4	7	11
	THHN	0	0	0	1	1	1	3	4	8	13
400	THW	0	0	0	0	1	1	1	3	6	10
	THHN	0	0	0	1	1	1	2	4	7	12
500	THW	0	0	0	0	1	1	1	3	5	8
	THHN	0	0	0	0	1	1	1	3	6	10
600	THW	0	0	0	0	0	1	1	1	4	7
	THHN	0	0	0	0	1	1	1	3	5	8
700	THW	0	0	0	0	0	1	1	1	3	6

Technical information

Expansion and contraction

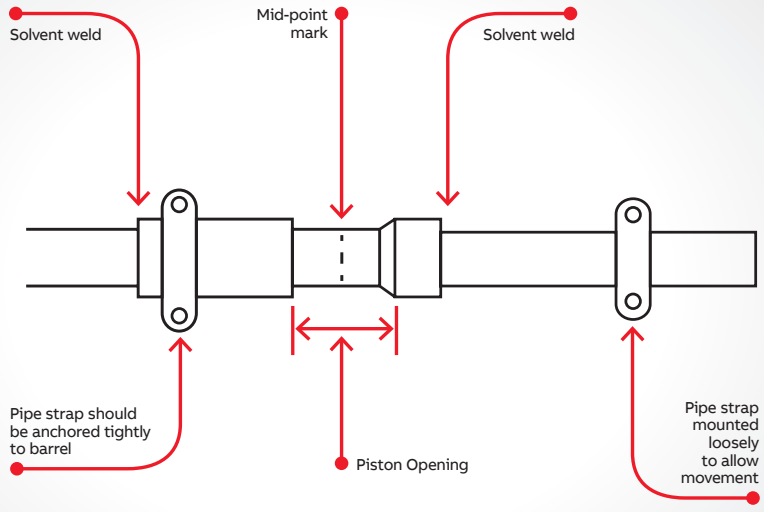
Temperature considerations for rigid non-metallic conduit compensation for linear expansion.

Like all construction materials, PVC will expand or contract with variations in temperatures. The coefficient of linear expansion in PVC conduit is 3.38 x 10-5 in./in./°F as compared to 1.2 x 10-5 for aluminum and .6 x 10-5 for steel. An expansion fitting is needed whenever the change in length due to temperature variation will be ¼" or greater per 352.44 of the NEC.

Add 30°F to the estimated temperature range when conduit is installed in direct sunlight to allow for radiant heating.

An expansion fitting consists of two sections, one telescoping inside another. When installing expansion fittings, alignment of piston and barrel is important. Be sure to mount expansion fitting level for best performance.

For a vertical run, the expansion fitting must be installed close to the top of the run with the barrel jointing down, in order that rain water does not run into the opening. The lower end of the conduit run must be secured at the bottom so that any length change due to temperature variation will result in an upward movement.



Determine the piston opening

The expansion joint must be installed to allow both expansion and contraction of the conduit run. The correct piston opening for any installation condition should use the following formula:

$$O = \left[\frac{T_{max} - T_{installed}}{\Delta T} \right] E$$

Example

380 ft. cf conduit is to be installed on the outside of a building exposed to the sun in a single straight run. It is expected that the conduit will vary in temperature from O°F in the winter to 140°F in the summer (this includes the 30°F for radiant heating from the sun.) The installation is to be made at a conduit temperature of 90°F. From this table, a 140°F temperature change will cause a 5.7". length change in 100 ft. of conduit. The total change for this example is 5.7" x 3.8 = 21.67" which should be rounded to 22". The number of expansion fittings will be 22" x fitting range (4" for Carlon trade sizes ½" through 1½", and 8" for sizes 2" through 6"). If the E945D fitting is used, the number will be 22"/ 4 = 5.50 which should be rounded to 6. The fitting should be placed at 62 ft. intervals (380 / 6). The proper piston setting at the time of installation is calculated as explained above.

$$O = \left[\frac{140-90}{140} \right] 4.0=1.4 \text{ in.}$$

Insert the piston into the barrel to the maximum depth. Place a mark on the piston at the end of the barrel. To properly set the piston, pull the piston out of the barrel to correspond to the 1.4" calculated above. See drawing at left.

Summary

1. Anticipate expansion and contraction of PVC conduit in above ground, exposed installation.
2. Use an expansion fitting when length change due to temperature variation will be ¼" or greater per 352.44 of the NEC®.
3. PVC conduit expands 4.1" for each 100 feet of run and a 100°F temperature change.
4. Align expansion fitting with the conduit run to prevent binding.
5. Follow the instructions to set the piston opening.
6. Rigidly fix the outer barrel of the expansion fitting so it cannot move. Mount the conduit connected to the piston loosely enough to allow the conduit to move as the temperature changes.

Technical information

Expansion and contraction

Expansion characteristics of PVC rigid non-metallic conduit coefficient of thermal expansion = 3.38 x 10-5 in./in./°F

Temperature change in degrees F	Length change in inches per 100 ft. of PVC conduit	Temperature change in degrees F	Length change in inches per 100 ft. of PVC conduit	Temperature change in degrees F	Length change in inches per 100 ft. of PVC conduit	Temperature change in degrees F	Length change in inches per 100 ft. of PVC conduit
5	0.2	55	2.2	105	4.2	155	6.3
10	0.4	60	2.4	110	4.5	160	6.5
15	0.6	65	2.6	115	4.7	165	6.7
20	0.8	70	2.8	120	4.9	170	6.9
25	1.0	75	3.0	125	5.1	175	7.1
30	1.2	80	3.2	130	5.3	180	7.3
35	1.4	85	3.4	135	5.5	185	7.5
40	1.6	90	3.6	140	5.7	190	7.7
45	1.8	95	3.8	145	5.9	195	7.9
50	2.0	100	4.0	150	6.1	200	8.1

Technical information

Corrosion resistance of Carlon Schedule 40 and Schedule 80 fittings

Carlon Schedule 40 and Schedule 80 fittings are generally acceptable for use in environments containing the chemicals below. These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Schedule 40 and Schedule 80 fittings can be used in many process areas where chemicals not on this list are manufactured or used because worker safety requirements dictate that any air presence or splashing be at a very low level.

If there are any questions about specific suitability in a given environment, prototype samples should be tested under actual conditions.

Chemical Environment					
Acetic Acid O – 20%	Bismuth Carbonate	Copper Fluoride	Hydrofluoric Acid 10%	Perchloric Acid 10%	Sodium Dichromate
Acetic Acid 20 – 30%	Black Liquor (Paper Industry)	Copper Nitrate	Hydrofluorosilicic Acid	Phenylhydrazine Hydrochloride	Sodium Ferricyanide
Acetic Acid 3O – 60%		Copper Sulfate	Hydrogen Phosphide		Sodium Ferrocyanide
Acetic Acid 80%	Bleach – 12.5% Active CL2	Cottonseed Oil	Hydrogen Sulfide – Dry	Phosgene, Gas	Sodium Fluoride
Acetic Acid – Glacial		Cresylic Acid 50%	Hydrogen Sulfide – Aqueous Solution	Phosphoric Acid - 0 - 25%	Sodium Hydroxide
Acetic Acid Vapors	Borax	Crude Oil – Sour			Sodium Hypochlorite
Acetylene	Boric Acid	Crude Oil – Sweet	Hydroquinone	Phosphoric Acid - 25 - 50%	Sodium Nitrate
Adipic Acid	Brine	Demineralized Water	Hydroxylamine Sulfate		Sodium Nitrite
Alum	Breeder Pellets – Dane. Fish	Dextrin	Iodine	Phosphoric Acid - 50 - 85%	Sodium Sulfate
Aluminum Chloride		Dextrose	Kerosene		Sodium Sulfide
Aluminum Fluoride	Bromic Acid	Diglycolic Acid	Lactic Acid 28%	Photographic Chemicals	Sodium Sulfite
Aluminum Hydroxide	Bromine – Water	Disodium Phosphate	Lauric Acid	Plating Solutions	Sodium Thiosulfate (Hypo)
Aluminum Oxychloride	Butane	Ethyl Alcohol	Lauryl Chloride	Potassium Bicarbonate	
Aluminum Nitrate	Butadiene	Ethylene Glycol	Lauryl Sulfate	Potassium Bichromate	Stannic Chloride
Aluminum Sulfate	Butyl Alcohol	Fatty Acids	Lead Acetate	Potassium Borate	Stannous Chloride
Ammonia-Dry Gas	Butyl Phenol	Ferric Chloride	Lime Sulfur	Potassium Bromide	Stearic Acid
Ammonium Bifluoride	Butylene	Ferric Nitrate	Linoleic Acid	Potassium Carbonate	Sulfur
Ammonium Carbonate	Butyric Acid	Ferric Sulfate	Linseed Oil	Potassium Chloride	Sulfur Dioxide – Gas Dry
Ammonium Chloride	Calcium Bisulfite	Ferrous Chloride	Lubricating Oils	Potassium Chromate	Sulfur Trioxide
Ammonium Hydroxide 28%	Calcium Carbonate	Ferrous Sulfate	Magnesium Carbonate	Potassium Cyanide	Sulfuric Acid – 0 – 10%
	Calcium Chlorate	Fluorine Gas – Wet	Magnesium Chloride	Potassium Dichromate	Sulfuric Acid – 10 – 75%
Ammonium Metaphosphate	Calcium Chloride	Fluorine Gas – Dry	Magnesium Hydroxide	Potassium Ferricyanide	Sulfuric Acid – 75 – 90%
	Calcium Hydroxide	Fluoroboric Acid	Magnesium Nitrate	Potassium Ferrocyanide	Sulfurous Acid
Ammonium Nitrate	Calcium Hypochlorite	Fluorosilicic Acid	Magnesium Sulfate	Potassium Fluoride	Tannic Acid
Ammonium Persulfate	Calcium Nitrate	Formaldehyde	Maleic Acid	Potassium Hydroxide	Titanium Tetrachloride
Ammonium Phosphate – Neutral	Calcium Sulfate	Formic Acid	Malic Acid	Potassium Nitrate	Triethanolamine
	Carbonic Acid	Fructose	Mercuric Chloride	Potassium Perborate	Trimethyl Propane
Ammonium Sulfate	Carbon Dioxide Gas – Wet	Gallic Acid	Mercuric Cyanide	Potassium Perchlorite	Trisodium Phosphate
Ammonium Sulfide		Gas – Coke Oven	Mercurous Nitrate	Potassium Permanganate 10%	Turpentine
Ammonium Thiocyanate	Carbon Dioxide – Aqueous Solution	Gas – Natural (Dry)	Mercury		Urea
		Gas – Natural (Wet)	Methyl Sulfate	Potassium Persulfate	Vinegar
Amyl Alcohol	Carbon Monoxide	Gasoline – Sour	Methylene Chloride	Potassium Sulfate	Whiskey
Anthraquinone	Caustic Potash	Gasoline – Refined	Mineral Oils	Propane	White Liquor (Paper Industry)
Anthraquinonesulfonic Acid	Caustic Soda	Glucose	Naphthalene	Propyl Alcohol	
	Chloracatic Acid	Glycerine (Glycerol)	Nickel Chloride	Silicic Acid	Wines
Antimony Trichloride	Chloral Hydrate	Glycol	Nickel Nitrate	Silver Cyanide	Zinc Chloride
Aqua Regia	Chlorine Gas (Dry)	Glycolic Acid	Nitric Acid, Anydrous	Silver Nitrate	Zinc Chromate
Arsenic Acid 80%	Chlorine Gas (Moist)	Green Liquor (Paper Industry)	Nitric Acid 20%	Silver Plating Solutions	Zinc Cyanide
Arylsulfonic Acid	Chlorine Water		Nitric Acid 40%	Sodium Acetate	Zinc Nitrate
Barium Carbonate	Chlorosulfonic Acid	Heptane	Nitric Acid 60%	Sodium Arsenite	Zinc Sulfate
Barium Chloride	Chrome Alum	Hexanol, Tertiary	Nitrobenzene	Sodium Benzoate	
Barium Hydroxide	Chromic Acid 10%	Hydrobromic Acid 20%	Nitrous Oxide	Sodium Bicarbonate	
Barium Sulfate	Chromic Acid 30%	Hydrochloric Acid 0% – 25%	Oils and Fats	Sodium Bisulfate	
Barium Sulfide	Chromic Acid 40%		Oils – Petroleum – (See Type)	Sodium Bisulfite	
Beet – Sugar Liquor	Chromic Acid 50%	Hydrochloric Acid 25% – 40%		Sodium Bromide	
Benzine Sulfonic Acid 10%	Citric Acid		Oleic Acid	Sodium Chlorate	
	Copper Chloride	Hydrocyanic Acid or Hydrogen Cyanide	Oxalic Acid	Sodium Chloride	
Benzoic Acid	Copper Cyanide		Palmitic Acid 10%	Sodium Cyanide	

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