

---

CATALOG

# Electrical non-metallic tubing (ENT) system **Carlton**<sup>®</sup>



---

**Carlon® electrical non-metallic tubing (ENT) is a light, flexible and strong non-metallic raceway system for use in walls, floors and non-plenum ceilings. Lightweight yet tough and durable, Carlon ENT is free of sharp edges, offering faster, safer installation and lower installed costs. Conductors easily push through the raceway up to 50 feet, and because it contains no metal, Carlon ENT won't conduct electricity or corrode.**

**Carlon ENT. Because those who do, trust blue.**



---

# Table of contents

<b>004–005</b>	<b>Electrical non-metallic tubing</b>
<b>006–018</b>	<b>Boxes and accessories</b>
<b>019–025</b>	<b>Flexible raceway systems</b>
<b>026–032</b>	<b>Flexible raceway system accessories</b>
<b>033–034</b>	<b>Technical information</b>
<b>035–036</b>	<b>Index</b>

# ENT

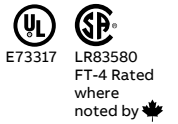
## Flex-Plus®



Flex-Plus ENT is a non-metallic flexible raceway for use in walls, floors and non-plenum ceilings. It's light-weight, 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 for communication circuits
  - Red for fire alarm circuits
  - Blue for power circuits
- Packaging: coils or reels



### 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	1/2	Blue	.56	.84	Empty	6	200	10
12005Y-200	1/2	Yellow	.56	.84	Empty	6	200	10
12005R-200	1/2	Red	.56	.84	Empty	6	200	10
12005C-370	1/2	Blue	.56	.84	Empty	6	200	10
12007-100	3/4	Blue	.76	1.05	Empty	6	100	14
12007Y-100	3/4	Yellow	.76	1.05	Empty	6	100	14
12007R-100	3/4	Red	.76	1.05	Empty	6	100	14
12007C-240	3/4	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	1/2	Blue	.56	.84	10 ft.	1.02
12007-UPC	3/4	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

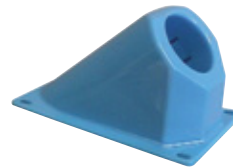
Carlton® stub downs are designed to provide various quick easy connections. The range of products enable connections to wood decks, transitions from slab to slab, switches from cross deck to vertical runs or enable connections to another conduit system. All are made from a highly engineered thermoplastic material to provide strength and durability. They are concrete tight when used with Carlton® ENT.



- For use with wood deck or slab-to-slab transition

### 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



- Enables cross deck to vertical transition

### 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



- Threaded port enables transition from ENT to alternate conduit systems

### Vertical stub down transition adapter



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



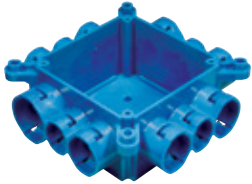
- Threaded port enables transition from ENT to alternate conduit systems

### 90° stub down transition adapter



Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A220D	½" Female ENT to NPSC (Female)	25	2.0
A220E	¾" Female ENT to NPSC (Female)	25	2.4
A220F	1" Female ENT to NPSC (Female)	25	3.3

## Mud box assemblies

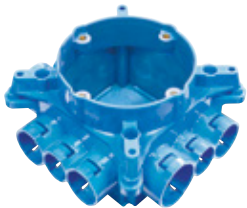


Mud box base with blank cover



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.	Description	Std. Ctn.	Std. Wt. (lbs.)
A863CF	Mud box with blank cover	24	15.5
► A863CFG	Mud box with ceiling ring and ground lug	24	16.1



Mud box with one-gang ring



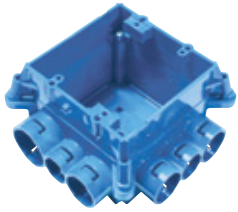
E11461



Except where noted by ►

Cat. No.	Description	Std. Ctn.	Std. Wt. (lbs.)
A863S	Mud box with one-gang ring	24	16.8
► A863SG	Mud box with one-gang ring and ground lug	24	16.2

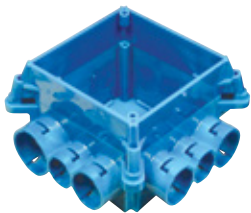
## Mud box assemblies



Mud box with two-gang ring



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



Mud box with 4" square ring



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

### 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.



Mud box with one-gang ring

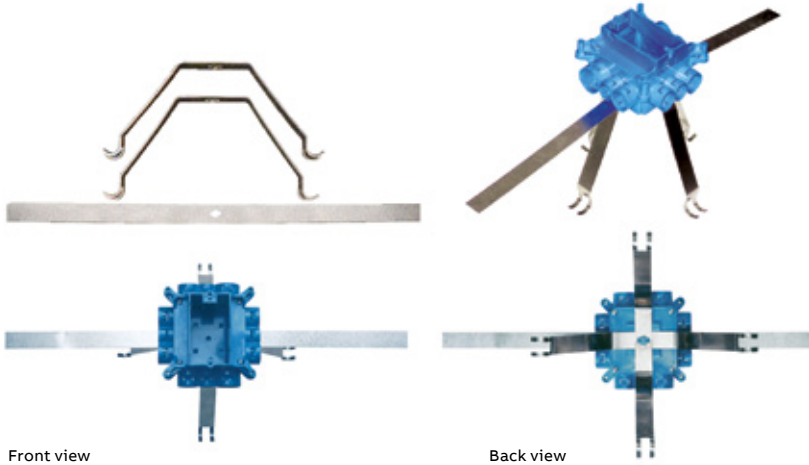


Cat. No.	Description	Std. Ctn.	Std. Wt. (lbs.)
A863-4SQF	4-square ring	24	17.15
A863CFF	Ceiling ring	24	16.61
A863CFGF	Ceiling ring and ground lug	24	17.46
A863DF	Double-gang	24	17.42
A863DGF	Double-gang and ground lug	24	17.99
A863SF	Single-gang	24	17.15
A863SGF	Single-gang and ground lug	24	17.44

Carlton 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.



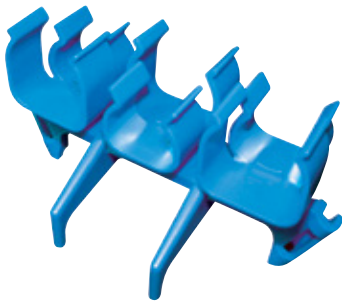
## Mounting brackets and ENT bridge



### Mounting brackets

Carlson exclusive...the Carlson ENT mounting bracket is specifically designed for use with Carlson ENT mud box assemblies in vertical concrete walls where one- or two-gang boxes are needed. The stainless steel spring-loaded mechanism provides a secure outlet box between concrete forms while the soft steel strap allows for the outlet box to be secured to rebar. The bracket combination assures a straight box opening and a concrete-tight fit. Mud box not included.

Cat. No.	Description	Std. Ctn.	Std. Wt. (lbs.)
A863MB	Mud box mounting kit	1	0.98



### ENT bridge

Carlson exclusive...The Carlson 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 Carlson ENT bridge is manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and can accommodate ENT sizes ½ in., ¾ in. and 1 in. (The Carlson ENT bridge can be used with rigid non-metallic conduit too.)

Cat. No.	Description	Std. Ctn.	Std. Wt. (lbs.)
A293DEF	ENT bridge	50	9.0

## Transition adapters



Male ENT to Schedule 40 and 80 PVC conduit



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

Carlson male ENT to Schedule 40 and 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. Carlson Male ENT to Schedule 40 & 80 adapters are concrete tight and available in sizes ½", ¾" and 1".



ENT to EMT



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

Carlson ENT to EMT transition adapters are designed to easily transition from Carlon Flex-Plus Blue™ ENT to EMT using Carlson'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".



ENT to EMT



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

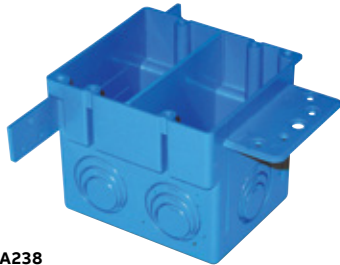
Carlson ENT reducers are designed to provide an easy transition from 1" Carlon ENT to ¾" ENT or from ¾" Carlon ENT to ½" ENT. They're concrete tight and manufactured out of polycarbonate material to provide extra strength and durability. Carlson ENT reducers provide flexibility while on the jobsite by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

## Outlet and switch boxes

### Eccentric knockouts



A122



A238

Carlson ENT outlet and switch boxes with eccentric knockouts are designed to enable selective ENT openings — ½", ¾" and 1" — based on project needs. The double gang can be mounted to steel or wood studs and is dimensionally a 4-inch square box.

—  
Single-gang — 22 cu. in.



E11461

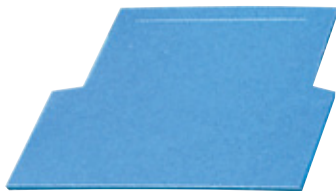
Cat. No.	Size	Capacity (cu. in.)	Std. Ctn.	Std. Wt. (lbs.)
A122	Single-gang	22	25	6.8

—  
Two-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



Carlson 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 Carlson ENT outlet box divider is UL® Recognized for use with the Carlson 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

- Innovative, improved two-piece design
- Strong polycarbonate material
- Available in 1/2", 3/4" and 1" sizes
- 8-finger snap provides over 200 lb. pull-out force, exceeding the UL standards requirement
- No taping or PVC cement required, thanks to the concrete-tight design
- Freely rotating pieces prevent kinks — excellent for use in long ENT runs



#### Couplings

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
A240D2	1/2	150	2.90
A240E2	3/4	100	3.00
A240F2	1	50	2.30

#### Threaded adapters

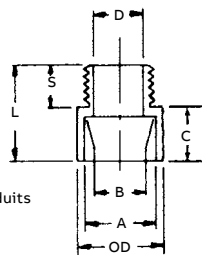
Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
A243D2	1/2	150	2.55
A243E2	3/4	100	2.30
A243F2	1	50	2.00

#### Snap-in adapters

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
A253D2	1/2	150	2.70
A253E2	3/4	100	2.90
A253F2	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.



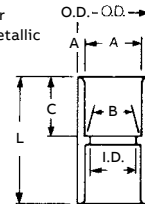
#### Male terminal adapters

Cat. No.	Size	Std. Ctn.	Typical		Min. D	Max. OD	C	Typical		Std. Wt. (lbs.)
			A	B				S	L	
E943D	1/2	150	.852	.836	.597	1 1/8	5/8	9/16	1 5/16	2.8
E943E	3/4	125	1.064	1.046	.800	1 1/32	3/4	9/16	1 3/8	3.5
E943F	1	50	1.330	1.310	1.018	1 5/8	1	1 1/16	1 25/32	3
E943G	1 1/4	50	1.677	1.655	1.332	2 1/32	1	3/4	1 15/16	4
E943H	1 1/2	25	1.918	1.894	1.566	2 5/32	1 3/16	3/4	2 1/16	2.5
E943J	2	50	2.393	2.369	2.000	2 21/32	1 3/16	3/4	2 1/8	7

\*All measurements in inches, unless otherwise noted.



Socket type for joining non-metallic conduit.



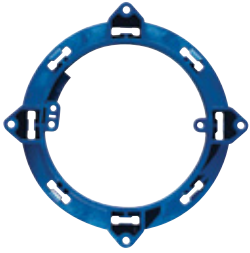
#### Standard couplings

Cat. No.	Size	Std. Ctn.	Typical		Min. D	Max. OD	C	L	Std. Wt. (lbs.)
			A	B					
E940D	1/2	150	.852	.836	.728	1 1/4	1 1/2	2.8	
E940E	3/4	100	1.064	1.046	.840	1 5/16	1 5/8	3.5	
E940F	1	50	1.330	1.310	1.210	1 5/8	2	3	
E940G	1 1/4	30	1.677	1.655	1.535	1 63/64	2 1/8	4	
E940H	1 1/2	25	1.918	1.894	1.755	2 15/64	2 3/8	2.5	
E940J	2	30	2.393	2.369	2.190	2 47/64	2 1/2	7	

\*All measurements in inches, unless otherwise noted.

## Mud boxes and covers

2½" and 4"



—  
Base ring

### 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.



Cat. No.	Description	Std. Ctn.	Std. Wt. (lbs.)
A861	Without ground lug	10	2.5



—  
Covers

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A864D	4 deep (½" KOs)	10	2.9
A864E	4 deep (¾" KOs)	10	2.9



## Quick-Connect

### Outlet and switch boxes



Single-gang – 16 cu. in.

#### Features and benefits:

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



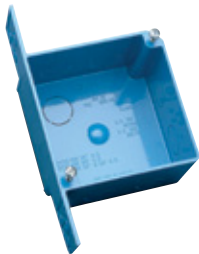
E11461

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A58381D	3 x 2 <sup>1</sup> / <sub>4</sub> x 3 (1 <sup>1</sup> / <sub>2</sub> " KOs)	25	4.6
A58381E	3 x 2 <sup>1</sup> / <sub>4</sub> x 3 (3 <sup>3</sup> / <sub>4</sub> " KOs)	25	4.6



4" Square – 20 cu. in.

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A52151D	4 x 4 x 1 <sup>1</sup> / <sub>2</sub> (1 <sup>1</sup> / <sub>2</sub> " KOs)	100	22.6
A52151E	4 x 4 x 1 <sup>1</sup> / <sub>2</sub> (3 <sup>3</sup> / <sub>4</sub> " KOs)	100	22.6
A521DE	4 x 4 x 1 <sup>1</sup> / <sub>2</sub> (1 <sup>1</sup> / <sub>2</sub> " & 3 <sup>3</sup> / <sub>4</sub> " KOs)	100	22.6



4" Square – 30.3 cu. in.

Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
A5217DE	4 x 4 x 2 <sup>3</sup> / <sub>8</sub> (1 <sup>1</sup> / <sub>2</sub> " & 3 <sup>3</sup> / <sub>4</sub> " KOs)	25	7.6

## ENT Box

Box back wall support

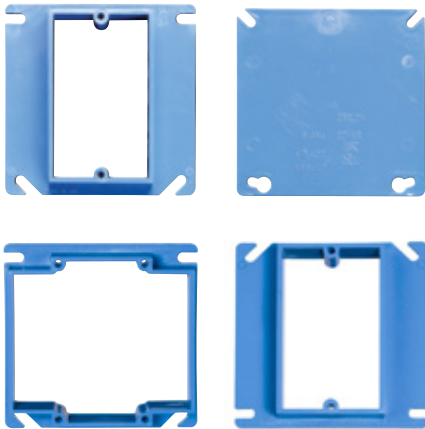


### Box back wall support

Cat. No.	Description	Std. Ctn.	Std. Wt. (lbs.)
A540DS	For use with 1/2" knockout	100	2.1

## ENT Box

Extenders



### Features and benefits:

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

### Single-gang



Cat. No.	Rise (in.)	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
A410	1/2	3.5	100	7.7
A413	1	6.6	40	5
A414	1 1/4	8.1	30	4.4

### Two-gang

Cat. No.	Rise (in.)	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
A400	Blank	—	—	7.7
A420	1/2	6.1	6.1	5.0
A421	5/8	7.4	7.4	4.2
A422	3/4	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	1/2	3.2	100	3.3



### Round blank covers

Cat. No.	Description	Cu. In.	Std. Ctn.	Std. Wt. (lbs.)
E460R-CAR	Blank	-	35	2.2
A470D	Blank with 1/2" KO	-	100	4.7

## Quick Connect 4"

### Octagon ceiling boxes



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 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

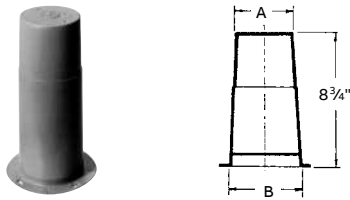


For fast, smooth field cuts of ½" through 1" Flex-Plus® Blue™ ENT.

Ceiling box – 20.5 cu. in.

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

## 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.

Ceiling box – 20.5 cu. in.

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

## Carlton low VOC cement

(MSDS sheet available here)

All Weather — ENT Blue



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

Recommended pipe application and sizes	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 Carlton PVC fittings. Up through 6" diameter.	40° to 110 °F	2 hrs. 250 PSI	800–1200 cps
	Can be used at temperatures down to -15 °F with special care.	16 hrs. 500 PSI	
		72 hrs. 900 PSI	

Average initial set schedule for Carlton PVC solvent cements

Temperature range	Pipe size ½" to 1¼" (20 mm to 40 mm)	Pipe size 2¼" to 6" (50 mm to 63 mm)	Pipe size 2¼" to 6" (75 mm to 200 mm)
60°–100° F/16°–38° C	2 minutes	5 minutes	30 minutes
40°–60° F/5°–16° C	5 minutes	10 minutes	2 hours
0°–40° F/18°–5° C	10 minutes	15 minutes	12 hours

Note: The handling/set schedule is the time required before handling joint. In case of humid/damp weather or loose fitting joints, allow +50% additional cure time.

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.



# Carlton® 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



### Technical Info

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

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



### 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	1/2	Orange	200 lb.	34 x 23	Wood	1,500	30	7
CE4X1-1000	3/4	Orange	Empty	34 x 23	Wood	1,000	30	8
CE4X1-1000S	3/4	Orange	Empty/split	34 x 23	Wood	1,000	30	8
CE4X1C-1000	3/4	Orange	900 lb.	34 x 23	Wood	1,000	30	8
CF4X1C-500	1	Orange	900 lb.	34 x 23	Wood	500	30	10
CF4X1C-1000	1	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	1	Orange	900 lb.	66 x 41	Wood	5,200	250	10
CF4X1C-6500	1	Orange	900 lb.	72 x 41	Wood	6,500	310	10
CF4X1C-8000	1	Orange	900 lb.	82 x 41	Wood	8,000	365	10
CG4X1C-500	1 1/4	Orange	900 lb.	48 x 28	Wood	500	79	14
CG4X1-500S	1 1/4	Orange	Empty/split	48 x 28	Wood	500	79	10
CG4X1C-900	1 1/4	Orange	900 lb.	48 x 45	Wood	900	96	14
CG4X1C-1600	1 1/4	Orange	900 lb.	48 x 45	Wood	1,600	96	14
CG4X1C-3200	1 1/4	Orange	900 lb.	66 x 41	Wood	3,200	250	14
CG4X1C-6500	1 1/4	Orange	900 lb.	96 x 41	Wood	6,500	700	14
CG4X1-900S	1 1/4	Orange	Empty/split	48 x 28	Wood	900	79	14
CH4X1C-350	1 1/2	Orange	900 lb.	48 x 28	Wood	350	79	16
CH4X1C-1200	1 1/2	Orange	900 lb.	48 x 45	Wood	1,200	96	16
CH4X1C-4000	1 1/2	Orange	900 lb.	82 x 41	Wood	4,000	365	16
CJ4X1-200S	2	Orange	Empty/split	48 x 28	Wood	200	79	21
CJ4X1C-225	2	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	2	Orange	900 lb.	82 x 41	Wood	1,400	365	21
CJ4X1C-2000	2	Orange	900 lb.	82 x 41	Wood	2,000	365	21
CJ4X1C-2800	2	Orange	900 lb.	82 x 41	Wood	2,800	365	21
CL4X1C-150	3	Orange	900 lb.	48 x 45	Wood	150	96	41

## Carlton

### 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	¾	Orange	Empty/split	350	8
CF4X1C-100*	1	Orange	900 lb.	100	10
CF4X1-100S*	1	Orange	Empty/split	100	10
CF4X1C-250*	1	Orange	900 lb.	250	10
CF4X1-250	1	Orange	Empty	250	10
CF4X1-250S*	1	Orange	Empty/split	250	10
CG4X1C-200*	1¼	Orange	900 lb.	200	14
CG4X1-200S	1¼	Orange	Empty/split	200	14
CH4X1C-150*	1½	Orange	900 lb.	150	16
CH4X1-150S	1½	Orange	Empty/split	150	16
CJ4X1C-100*	2	Orange	900 lb.	100	21
CJ4X1-100S	2	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 print line

#### Custom orders – 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		

# Carlton® 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



### 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

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



### 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	1	Orange	900 lb.	43 x 23	Wood	500	56	15
DF4X1C-1000	1	Orange	900 lb.	48 x 28	Wood	1,000	79	15
DF4X1C-1500	1	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	1	Orange	900 lb.	66 x 41	Wood	5,200	250	15
DF4X1C-6500	1	Orange	900 lb.	72 x 41	Wood	6,500	310	15
DF4X1C-7000	1	Orange	900 lb.	72 x 45	Steel	7,000	148	15
DF4X1C-9400	1	Orange	900 lb.	84 x 45	Steel	9,400	199	15
DG4X1C-900	1¼	Orange	900 lb.	48 x 28	Wood	900	79	17
DG4X1C-500R	1¼	Orange	900 lb.	48 x 23	Wood	500	56	17
DG4X1C-1500	1¼	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	1¼	Orange	900 lb.	66 x 41	Wood	3,200	250	17
DG4X1C-4500	1¼	Orange	900 lb.	72 x 45	Steel	4,500	148	17
DG4X1C-5600	1¼	Orange	900 lb.	82 x 41	Wood	5,600	365	17
DG4X1C-6500	1¼	Orange	900 lb.	96 x 41	Steel	6,500	700	17
DH4X1C-1200	1½	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	1½	Orange	900 lb.	84 x 45	Steel	4,500	199	22
DJ4X1C-700	2	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	2	Orange	900 lb.	84 x 45	Steel	2,800	199	27
DL4X1C-750	3	Orange	900 lb.	72 x 41	Wood	750	310	27

## Carlton

### 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	1	Orange	900 lb.	125	15
DF4X1C-250*	1	Orange	900 lb.	250	15
DF4X1-250	1	Orange	Empty	250	15
DF4X1C-500	1	Orange	900 lb.	500	15
DF4X1-250S*	1	Orange	Empty/split	250	15
DG4X1-200	1¼	Orange	Empty	200	17
DG4X1-200S*	1¼	Orange	Empty/split	200	17
DG4X1C-200*	1¼	Orange	900 lb.	200	17
DG4X1C-500	1¼	Orange	900 lb.	500	17
DH4X1-150S	1½	Orange	Empty/split	150	22
DH4X1C-150*	1½	Orange	900 lb.	150	22
DJ4X1-100S	2	Orange	Empty/split	100	27
DJ4X1C-100*	2	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 orders – 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® Riser-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 3/4" 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**

Cat. No.	Size (in.)	Pull tape	Description	Reel length (ft.)
SCE4X1-100	3/4	Empty*	Flexible Raceway	100
SCF4X1C-100	1	900 lbs.	Flexible Raceway	100
SCG4X1C-100	1 1/4	900 lbs.	Flexible Raceway	100
SCH4X1C-50	1 1/2	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\***

Cat. No.	Size (in.)	Pull tape	Description	Reel length (ft.)
SCE4X1-1000	3/4	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



# 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 1000 ft. 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



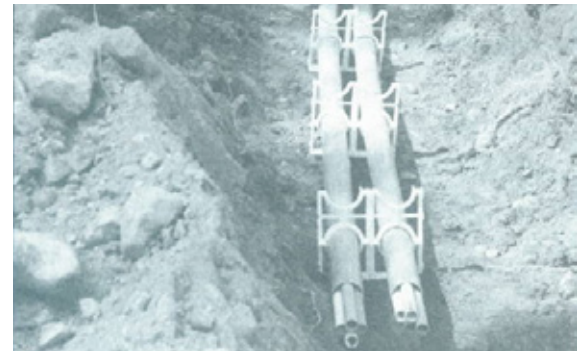
### PE corrugated options:

- Sizes 1" through 2"
- Sequentially marked footage
- Multiple colors
- Factory-installed pull tape

### Specifications:

Installation temperature range: -20 °F to 122 °F

Handling: -20 °F to 104 °F



—  
01

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	0.035	10.6	14	261
1 <sup>1</sup> / <sub>4</sub>	1.482	1.565	0.035	11.2	5	319
1 <sup>1</sup> / <sub>2</sub>	1.745	1.825	0.035	18.0	6	1,384
2	2.345	2.425	0.035	20.8	5 <sup>1</sup> / <sub>2</sub>	493

### Custom orders

#### 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" 6 = 1-1/4" 9 = 1-1/2" 13 = 2"	D = corrugated	2 = None- corr	N = None - E = Slit S = Standard	1 = 1 way 2 = 2 way 3 = 3 way	A = Black B = Blue C = Brown D = Buff E = Grey F = Green G = Lilac H = Lt. Green J = Orange K = Red L = Terra Cotta M = White N = Yellow	NN = None	A = empty B = 1250 lbs. polyester tape C = 1130 lbs. polyester tape D = 1800 lbs polyester tape	1500 (equals 1500 ft)

## Carlton

### 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	A5D2S1JNNB7000	1.049	1.340	1130	72-45-24	7000	12.5
1 <sup>1</sup> / <sub>4</sub> "	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	A6D2S1JNNB7000	1.250	1.565	1130	84-45-24	7000	14.4
1 <sup>1</sup> / <sub>2</sub> "	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
2"	Orange	A13D2S1JNNB500	2.000	2.425	1130	48-30-24	500	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	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 <sup>1</sup> / <sub>4</sub> "	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	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 <sup>1</sup> / <sub>2</sub> "	Orange	A9D2S1JNNB250	1.500	1.825	1130 lb.	Coil	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

## 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 Resi-Gard

### Couplings



Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
SCA240E	$\frac{3}{4}$	Orange	25	0.783
SCA240F	1	Orange	20	0.972

### Threaded adapters



Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
SCA243E	$\frac{3}{4}$	Orange	100	2.30
SCA243F	1	Orange	50	2.00

### Snap-in adapters



Cat. No.	Size	Color	Std. Ctn.	Std. Wt. (lbs.)
SCA253E	$\frac{3}{4}$	Orange	100	2.90
SCA253F	1	Orange	50	2.30

## Non-metallic adapters and couplings

For use with Resi-Gard



### Male terminal adapters\*



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.



### Standard couplings\*



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.

## Carlton® non-metallic push-in fittings

Superior pull-out performance and cost efficiency

**NEW**



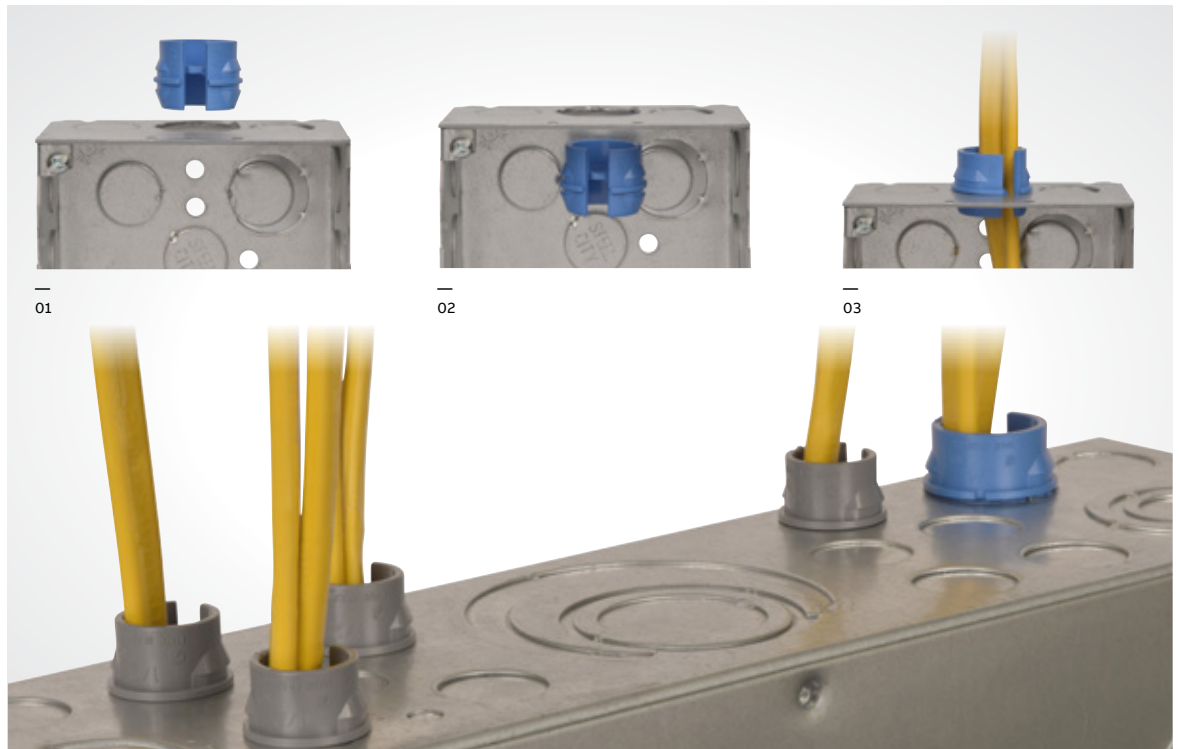
**Features and benefits:**

- 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.



**Carlton non-metallic push-in fittings**



Cat. No.	Description	Trade size (in.)	Clamping range		Suggested application (non metallic sheathed cable)	Packaging	
			Min. (in.)	Max. (in.)		Inner	Outer
SNM12-6R	Non-metallic fitting 1/2 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 1/2 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 3/4 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 3/4 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

**For use**

with Plenum-Gard



**Flat sealing washer**

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.



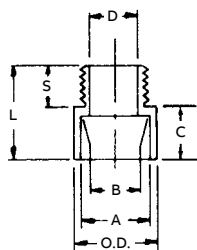
E23018  
Except where noted by ►

Cat. No.	Size (in.)	Std. Ctn.	Std. Wt. (lbs.)
► E943EW	3/4	125	0.45
► E943FW	1	100	0.46
► E943GW	1 1/4	50	0.44
► E943HW	1 1/2	50	0.45
► E943JW	2	25	0.42

**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.



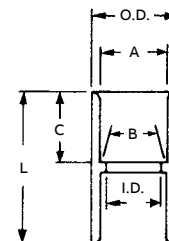
**Non-metallic male terminal adapters**

Cat. No.	Size (in.)	Std. Ctn.	Color	Dimensions (in.)					Std. Wt. (lbs.)		
				A	B	Min. D	Max. O.D.	C		T	L
E943E	3/4	125	Gray	1.064	1.046	.800	1 11/32	3/4	9/16	1 3/8	3.5
E943F	1	50	Gray	1.330	1.310	1.018	1 1/8	1 11/16	1 25/32	3	3
E943G	1 1/4	50	Gray	1.677	1.655	1.332	2 1/32	1 3/4	1 15/16	4	4
E943H	1 1/2	25	Gray	1.918	1.894	1.566	2 5/32	1 3/16	3/4	2 1/16	2.5
E943J	2	50	Gray	2.393	2.369	2.000	2 21/32	1 3/16	3/4	2 1/8	7
SCE943G	1 1/4	50	Orange	1.677	1.655	1.332	2 1/32	1 3/4	1 15/16	4	4
SCE943H	1 1/2	25	Orange	1.918	1.894	1.566	2 5/32	1 3/16	3/4	2 1/16	2.5
SCE943J	2	50	Orange	2.393	2.369	2.000	2 21/32	1 3/16	3/4	2 1/8	7

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



Socket type for joining non-metallic conduit.



**Non-metallic standard couplings**

Cat. No.	Size (in.)	Std. Ctn.	Color	Dimensions (in.)					Std. Wt. (lbs.)	
				A	B	Min. D	Max. O.D.	C		L
E940E	3/4	100	Gray	1.064	1.046	.840	1 5/16	3/4	1 3/8	4.4
E940F	1	50	Gray	1.330	1.310	1.210	1 5/8	1 5/16	2	3.5
E940G	1 1/4	30	Gray	1.677	1.655	1.535	1 63/64	1	2 1/8	3.5
E940H	1 1/2	25	Gray	1.918	1.894	1.755	2 15/64	1 1/8	2 3/8	3.9
E940J	2	30	Gray	2.393	2.369	2.190	2 47/64	1 3/16	2 1/2	5.25
SCE940G	1 1/4	30	Orange	1.677	1.655	1.535	1 63/64	1	2 1/8	3.5
SCE940H	1 1/2	25	Orange	1.918	1.894	1.755	2 15/64	1 1/8	2 3/8	3.9
SCE940J	2	30	Orange	2.393	2.369	2.190	2 47/64	1 3/16	2 1/2	5.25

## Low-voltage

### Boxes and brackets



Dual-voltage box/bracket\*



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\*



Cat. No.	Size	Std. Ctn.	Std. Wt. (lbs.)
SC100SCR	1-gang	24	2.3

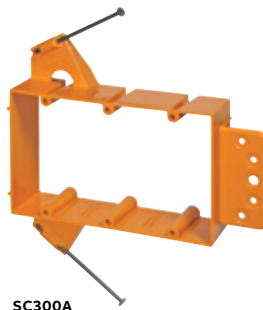
\*U.S. Patent D459,312. U.S. Patent 6,710,245. U.S. Patent 6,872,884.



SC100A



SC200A



SC300A

Low-voltage brackets\*



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.



# Carlton

## Low-VOC Cements

\*Meets ASTM D2564

### Medium – clear

Recommended pipe application and sizes	Recommended installation temp.	Lap Shear @ 73 °F	Viscosity at 75 °F as manufactured
Recommended for all grades and types of Carlton wireway and fittings, except Flex-Plus® Blue™ ENT (Electrical Non-Metallic Tubing.)	40° to 100 °F	2 hrs. 250 PSI	800–1200 PSI
		16 hrs. 500 PSI	
		72 hrs. 900 PSI	

Up through 6" diameter.

### Average initial set schedule for Carlton PVC solvent cements

Temperature range	Pipe size ½" to 1¼" (20 mm to 40 mm)	Pipe size 2½" to 6" (50 mm to 63 mm)	Pipe size 2½" to 6" (75 mm to 200 mm)
60°–100 °F/16°–38 °C	2 minutes	5 minutes	30 minutes
40°–60 °F/5°–16 °C	5 minutes	10 minutes	2 hours
0°–40 °F/18°–5 °C	10 minutes	15 minutes	12 hours

Note: The handling/set schedule is the time required before handling joint. In case of humid/damp weather or loose fitting joints, allow +50% additional cure time.



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

Meets ASTM D-2564.



Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
VC9964	½ Pint	Dauber	PVC regular clear	10	6.5

Meets ASTM D-2564.

## Carlton

### Low-VOC Cements

\*Meets ASTM D2564

All weather – clear

Recommended pipe application and sizes	Recommended installation temp.	Lap Shear @ 73 °F	Viscosity at 75 °F as manufactured
Recommended for all grades and types of Carlton wireway and fittings, except Flex-Plus® Blue™ ENT (Electrical Non-Metallic Tubing.) VOC emission of 490 grams/liter per the Bay and South coast test method. Up through 6" diameter.	40 °F to 110 °F.	2 hrs. 250 PSI	800–1200 cps
	Can be used at temperatures down to -15 °F with special care.	16 hrs. 500 PSI	
		72 hrs. 900 PSI	

#### Average initial set schedule for Carlton PVC solvent cements

Temperature range	Pipe size ½" to 1¼" (20 mm to 40 mm)	Pipe size 2½" to 6" (50 mm to 63 mm)	Pipe size 2½" to 6" (75 mm to 200 mm)
60°–100 °F/16°–38 °C	2 minutes	5 minutes	30 minutes
40°–60 °F/5°–16 °C	5 minutes	10 minutes	2 hours
0°–40 °F/18°–5 °C	10 minutes	15 minutes	12 hours

Note: The handling/set schedule is the time required before handling joint. In case of humid/damp weather or loose fitting joints, allow +50% additional cure time.



Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
VC9984	½ Pint	Dauber	All weather "Quick-Set" cement	10	7.0
VC9983	Quart	Dauber	All weather "Quick-Set" cement	24	30.0
VC9982	Quart	Dauber	All weather "Quick-Set" cement	12	29.0
VC9961P	Gallon	—	All weather "Quick-Set" cement	6	54.0

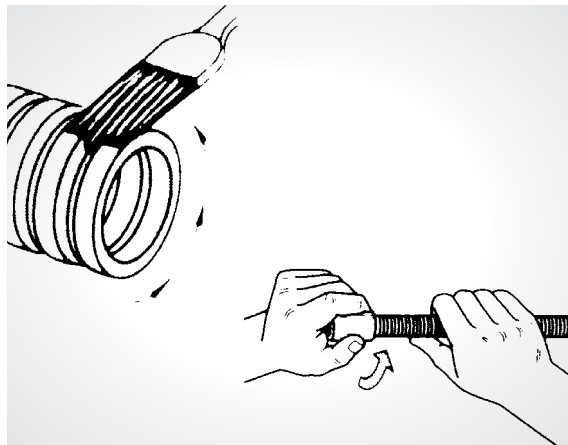


Cat. No.	Size	Applicator	Description	Std. Ctn.	Std. Wt. (lbs.)
VC9LV4-24	½ Pint	Dauber	Low VOC gray	24	15.5
VC9LV3L-12	Pint	Dauber	Low VOC gray	12	27.0
VC9LV2	Quart	Dauber	Low VOC gray	12	26.0

Meets ASTM D-2564.

# 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:



## 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

- 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.

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

---

## Concrete encasement guidelines

for Carlon ENT

### 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

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

# Index

Cat. no.	Page	Cat. no.	Page	Cat. no.	Page
12005-200	5	A240E2	12	A6D2S1JNNB250	25
12005AK-001	4	A240F2	12	A6D2S1JNNB2500	25
12005AKC-001	4	A243D2	12	A6D2S1JNNB4000	25
12005C-370	5	A243E2	12	A6D2S1JNNB500	25
12005R-200	5	A243F2	12	A6D2S1JNNB5000	25
12005-UPC	5	A245D	10	A6D2S1JNNB500B	25
12005Y-200	5	A245E	10	A6D2S1JNNB7000	25
12007-100	5	A245F	10	A861	13
12007AA-001	4	A253D2	12	A863-45Q	8
12007C-240	5	A253E2	12	A863-45QF	8
12007R-100	5	A253F2	12	A863BC	7
12007-UPC	5	A263D	10	A863CF	7
12007Y-100	5	A263E	10	A863CFF	8
12008-010	5	A263F	10	A863CFG	7
12008-100	5	A273DE	10	A863CFGF	8
12008-750	4	A273EF	10	A863D	8
12008C-160	5	A293DEF	9	A863DF	8
12008C-750	4	A340F	26	A863DG	8
12008R-100	5	A343F	26	A863DGF	8
12008R-750	4	A353F	26	A863MB	9
12008Y-100	5	A400	15	A863S	7
12008Y-750	4	A410	15	A863SF	8
12009-750	4	A413	15	A863SG	7
12010-750	4	A414	15	A863SGF	8
12010Y-750	4	A420	15	A864D	13
12011-500	4	A421	15	A864E	13
12011R-500	4	A422	15	A9D2S1JNNB1000	25
12011Y-500	4	A470D	16	A9D2S1JNNB2200	25
1205AKR-001	4	A471	16	A9D2S1JNNB250	25
1205AKY-001	4	A52151D	14	A9D2S1JNNB2900	25
1207AAC-001	4	A52151E	14	A9D2S1JNNB500	25
1207AAR-001	4	A5217DE	14	CC120B	18
1207AAY-001	4	A521DE	14	CD4X1C-1500	19
A122	11	A540DS	15	CD4X1C-500	20
A13D2S1JNNB1000	25	A58381D	14	CE4X1-1000	19
A13D2S1JNNB1500	25	A58381E	14	CE4X1-1000S	19
A13D2S1JNNB1800	25	A5D2E1JNNA250	25	CE4X1-350	20
A13D2S1JNNB2000	25	A5D2S1JNNB1000	25	CE4X1-350S	20
A13D2S1JNNB250	25	A5D2S1JNNB1800	25	CE4X1C-1000	19
A13D2S1JNNB500	25	A5D2S1JNNB2000	25	CF4X1-100S	20
A200D	6	A5D2S1JNNB250	25	CF4X1-250	20
A200E	6	A5D2S1JNNB250B	25	CF4X1-250S	20
A200F	6	A5D2S1JNNB2700	25	CF4X1C-100	20
A210D	6	A5D2S1JNNB500	25	CF4X1C-1000	19
A210E	6	A5D2S1JNNB5000	25	CF4X1C-1500	19
A210F	6	A5D2S1JNNB500B	25	CF4X1C-250	20
A220D	6	A5D2S1JNNB7000	25	CF4X1C-500	19
A220E	6	A615D	17	CF4X1C-5200	19
A220F	6	A615DE	17	CF4X1C-6500	19
A220G	6	A615DH	17	CF4X1C-8000	19
A220H	6	A615DL	17	CG4X1-200S	20
A220J	6	A615E	17	CG4X1-500S	19
A238	11	A6D2E1JNNA250B	25	CG4X1-900S	19
A238DIV	11	A6D2S1JNNB1000	25	CG4X1C-1600	19
A240D2	12	A6D2S1JNNB1600	25	CG4X1C-200	20

## Index

Cat. no.	Page	Cat. no.	Page	Cat. no.	Page
CG4X1C-3200	19	E92CSH	18	VC9984	32
CG4X1C-500	19	E92CSJ	18	VC9992	18
CG4X1C-6500	19	E92CSL	18	VC9LV2	32
CG4X1C-900	19	E92CSN	18	VC9LV3L-12	32
CH4X1-150S	20	E92CSP	18	VC9LV4-24	32
CH4X1C-1200	19	E92CSR	18	XPLFL110S	4
CH4X1C-150	20	E940D	12	XPLFL112S	4
CH4X1C-350	19	E940E	12, 29	XPLFL115S	4
CH4X1C-4000	19	E940F	12, 29	XPLFL118S	4
CJ4X1-100S	20	E940G	12, 29	XPLFL121S	4
CJ4X1-200S	19	E940H	12, 29	XPLFL124S	4
CJ4X1C-100	20	E940J	12, 29	XPLFL127S	4
CJ4X1C-1400	19	E943D	12	XPLFL130S	4
CJ4X1C-2000	19	E943E	12, 29	XPLFL16S	4
CJ4X1C-225	19	E943EW	29	XPLFL18S	4
CJ4X1C-2800	19	E943F	12, 29		
CJ4X1C-700	19	E943FW	29		
CL4X1C-150	19	E943G	12, 29		
DE4X1-1000	21	E943GW	29		
DE4X1-350	22	E943H	12, 29		
DF4X1-250	22	E943HW	29		
DF4X1-250S	22	E943J	12, 29		
DF4X1C-1000	21	E943JW	29		
DF4X1C-125	22	SC100A	30		
DF4X1C-1500	21	SC100SCR	30		
DF4X1C-250	22	SC200A	30		
DF4X1C-2700	21	SC200DV	30		
DF4X1C-500	22	SC300A	30		
DF4X1C-500R	21	SCA240E	26		
DF4X1C-5200	21	SCA240F	26		
DF4X1C-6500	21	SCA243E	26		
DF4X1C-7000	21	SCA243F	26		
DF4X1C-9400	21	SCA253E	26		
DG4X1-200	22	SCA253F	26		
DG4X1-200S	22	SCE4X1-100	23		
DG4X1C-1500	21	SCE4X1-1000	23		
DG4X1C-1600	21	SCE940G	27, 29		
DG4X1C-200	22	SCE940H	27, 29		
DG4X1C-3200	21	SCE940J	27, 29		
DG4X1C-4500	21	SCE943G	27, 29		
DG4X1C-500	22	SCE943H	27, 29		
DG4X1C-500R	21	SCE943J	27, 29		
DG4X1C-5600	21	SCF4X1C-100	23		
DG4X1C-6500	21	SCF4X1C-1500	23		
DG4X1C-900	21	SCG4X1C-100	23		
DH4X1-150S	22	SCH4X1C-50	23		
DH4X1C-1200	21	SCJ4X1C-100	23		
DH4X1C-150	22	SCJ4X1C-500	23		
DH4X1C-4000	21	SNM12-100CP	28		
DH4X1C-4500	21	SNM12-6R	28		
DJ4X1-100S	22	SNM34-100CP	28		
DJ4X1C-100	22	SNM34-6R	28		
DJ4X1C-2000	21	VC9961P	32		
DJ4X1C-2800	21	VC9962	31		
DJ4X1C-700	21	VC9963	31		
DL4X1C-250	22	VC9964	31		
DL4X1C-750	21	VC9982	32		
E460R-CAR	16	VC9983	32		





**Additional information**

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.





—  
**US**

ABB Installation Products  
Electrification business  
+1 901-252-5000

**[electrification.us.abb.com](http://electrification.us.abb.com)**