



Document Title:
PVC Conduit & Fittings, SCH 40

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Related/Referenced Documents

N/A

Version History

| Version | Date | Revision Comments |
|---------|---------------|---|
| 1 | Aug. 9, 2022 | Initial Release. Converted from PREPA to LUMA format |
| 2 | Jul. 19, 2022 | Added Section 9.7. and 9.8. Added corresponding TOCs. |
| 3 | Aug. 10, 2022 | Added Section 10.9. Added corresponding TOC, corrected Section 9.8.g., and corrected suggested model on Section 10.1. and 10.4. |
| 4 | Sep. 08, 2022 | Added new items. Corrected dimensions for Section 10.1. |
| 5 | Feb. 28, 2023 | Modified Sections 10.2 and 10.8, added multiples item codes to each section modified. |
| 6 | Jun. 06, 2023 | Added item code 038-84894. |
| 7 | Jan. 22, 2024 | General format modifications including Tables 3, 5, 7, 8, and 9. Document changed as shared between T&D for items 038-83205 and 038-01750. Items 038-85650 and 038-85651 added. |



Item Version History

| Item | Version | Date |
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| 038-83422 | 2 | 01/22/2024 |
| 038-83424 | 2 | 01/22/2024 |
| 038-01867 | 5 | 01/22/2024 |
| 038-83182 | 2 | 01/22/2024 |
| 038-01792 | 5 | 01/22/2024 |
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| 038-83425 | 3 | 01/22/2024 |
| 038-83427 | 3 | 01/22/2024 |
| 038-01875 | 5 | 01/22/2024 |
| 038-82927 | 3 | 01/22/2024 |
| 038-01800 | 4 | 01/22/2024 |
| 038-01735 | 4 | 01/22/2024 |
| 038-01669 | 3 | 01/22/2024 |
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| 038-01818 | 3 | 01/22/2024 |
| 038-01743 | 3 | 01/22/2024 |
| 038-01677 | 3 | 01/22/2024 |
| 038-83428 | 2 | 01/22/2024 |
| 038-83429 | 2 | 01/22/2024 |
| 038-01909 | 4 | 01/22/2024 |
| 038-83198 | 3 | 01/22/2024 |
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| 038-01762 | 4 | 01/22/2024 |
| 038-01693 | 3 | 01/22/2024 |
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| Item | Version | Date |
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| 038-01891 | 3 | 01/22/2024 |
| 038-83201 | 2 | 01/22/2024 |
| 038-01826 | 3 | 01/22/2024 |
| * 038-01750 | 3 | 01/22/2024 |
| 038-01685 | 3 | 01/22/2024 |
| 038-01917 | 3 | 01/22/2024 |
| 038-01925 | 3 | 01/22/2024 |
| 038-83210 | 2 | 01/22/2024 |
| 038-83211 | 2 | 01/22/2024 |
| 038-01842 | 3 | 01/22/2024 |
| 038-01859 | 3 | 01/22/2024 |
| 038-01776 | 3 | 01/22/2024 |
| 038-01784 | 3 | 01/22/2024 |
| 038-01701 | 3 | 01/22/2024 |
| 038-01719 | 3 | 01/22/2024 |
| 038-85651 | 1 | 01/22/2024 |
| 038-83202 | 2 | 01/22/2024 |
| 038-83203 | 2 | 01/22/2024 |
| 038-83204 | 2 | 01/22/2024 |
| * 038-83205 | 2 | 01/22/2024 |
| 038-83213 | 4 | 01/22/2024 |
| 038-83214 | 4 | 01/22/2024 |
| 038-83215 | 4 | 01/22/2024 |
| 038-83216 | 4 | 01/22/2024 |
| 038-84335 | 2 | 01/22/2024 |
| 038-84336 | 2 | 01/22/2024 |
| 038-84337 | 2 | 01/22/2024 |
| 038-84338 | 2 | 01/22/2024 |
| 038-83310 | 2 | 01/22/2024 |
| 038-83311 | 2 | 01/22/2024 |
| 038-83312 | 2 | 01/22/2024 |
| 038-83313 | 2 | 01/22/2024 |

* These items are also used in the 38kV transmission system.

1. Introduction

This is a general specification that covers the minimum requirements for PVC conduits and fittings schedule 40 to be used in the distribution and transmission system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general mechanical characteristics of the equipment/material.

2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this equipment/material to LUMA on previous orders, will not have to furnish samples at bid opening. The equipment/material will be received at the LUMA's general warehouse (O11) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

3. Literature

Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature may include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. Failure to submit documents on time will cause bidder disqualification. Evidence of LUMA Energy's approval of the equipment/material shall be supplied by vendor if requested by LUMA Energy.

4. Markings

- 4.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 4.2. Packaging labels and tags shall be waterproof.
- 4.3. The following shall be printed on each conduit and fitting:
 - a. Size as indicated in Section 10.
 - b. PVC CONDUIT UNDERGROUND SCHEDULE 40.
 - c. NEMA TC-2 or NEMA TC-3 (where applicable).
 - d. Manufacturer's name and part number.

5. Compatible with:

For compatible manufacturers and models see tables in Section 10. These models are examples of the equipment/material described in this document and do not represent a preference. LUMA will evaluate equally any model not listed here during any acquisition event.

6. Packaging

All equipment/material shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

7. Number Per Package (Logistics)

As per tables in section 10 or as requested by LUMA.

8. Acceptance Criteria

8.1. Test required: certified by external qualified laboratories.

8.2. Latest applicable codes, standards, and other regulations:

- a. NEMA TC-2: Electrical Polyvinyl Chloride (PVC) Conduit.
- b. NEMA TC-3: Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing.
- c. UL 651: Schedule 40 and 80 Rigid PVC Conduit and Fittings.

9. Description

9.1. PVC SCH 40, 10 ft. Conduits

- a. PVC conduits (SCH or EPC 40) for normal-duty underground, aboveground, concrete-encased, or direct burial applications in the distribution system.
- b. The conduit must be PVC schedule 40 (EPC 40) conforming NEMA TC-2.
- c. Shall comply with the following:
 1. Material: Polyvinyl Chloride (PVC)
 2. Material color: Gray
 3. Shall be corrosion, rust, and sunlight resistant.
 4. Shall have one belled end.
 5. Shall be suitable for cables up to 194°F (90°C) operating temperature.
 6. Shall be suitable to be used on temperatures up to 122°F (50°C).
 7. Each conduit shall be 10 ft (3.05 m) long.
- d. For size and approximate outside diameter (OD) see Section 10 Table 1.

9.2. PVC SCH 40, Elbow 90 Degrees

- a. PVC schedule 40 (EPC-40), 90 degrees elbow to be used with PVC conduits. Shall be designed for normal-duty aboveground, concrete-encased, and direct burial applications, as per NEMA TC-3.

- b. Shall be suitable for cables rated up to 194° F (90° C).
- c. The material shall be resistant to external corrosion and chemicals. Shall also be nonconductive.
- d. The PVC elbow shall be compatible with the corresponding sized PVC conduit.
- e. The material color shall be gray.
- f. The PVC elbow shall be “bell ended”. In other words, one end of the elbow is designed to be slightly larger than the rest, so it will fit directly onto the next length of pipe to be attached. If the supplier cannot provide a “bell ended” elbow, they shall supply an appropriate coupling for one end of the elbow.
- g. Refer to Table 2 in Section 10 for more information on sizes.

9.3. **PVC SCH 40, End Cap**

- a. PVC schedule 40 (EPC-40), end caps to be used with PVC conduits. Shall be designed for normal-duty aboveground, concrete-encased, and direct burial applications, as per NEMA TC-3.
- b. Shall be suitable for cables rated up to 194° F (90° C).
- c. The material shall be resistant to external corrosion and chemicals. Shall also be nonconductive.
- d. The PVC end cap shall be compatible with the corresponding sized PVC conduit.
- e. The material color shall be gray.
- f. Refer to Table 3 in Section 10 for more information on sizes.

9.4. **PVC SCH 40, Couplings**

- a. PVC couplings (SCH or EPC 40) for normal-duty underground, aboveground, concrete-encased, or direct burial applications in the distribution system.
- b. The coupling must be PVC schedule 40 (EPC 40) conforming NEMA TC-3.
- c. Shall comply with the following:
 - 1. Material: Polyvinyl Chloride (PVC).
 - 2. The material color shall be gray.
 - 3. Shall be corrosion, rust, sunlight, and chemicals resistant.
 - 4. Shall have a center stop to determine proper depth of connection.
 - 5. Shall be easy to install.
- d. For size, approximate outside diameter (OD), and length see Section 10 Table 4.

9.5. **PVC SCH 40, End Bell**

- a. PVC schedule 40 (EPC-40), bell end to be used with PVC conduits. Shall be designed for normal-duty aboveground, concrete-encased, and direct burial applications, as per NEMA TC-3.
- b. Shall be suitable for cables rated up to 194° F (90° C).
- c. The material shall be resistant to external corrosion and chemicals. Shall also be nonconductive.
- d. The PVC elbow shall be compatible with the corresponding sized PVC conduit.
- e. The material color shall be gray.
- f. Refer to Table 5 in Section 10 for more information on sizes.

9.6. **Spacer for PVC Conduit**

- a. Spacer for PVC conduits (SCH 40 or EPC 40) used to create space between conduits on underground applications in the distribution system.
- b. The spacers must be suitable for PVC conduit schedule 40 & 80 (EPC 40 & EPC 80) on encased burial installations.
- c. Shall snap together easily providing a strong, secure, and steady field assembly without need of banding.
- d. Shall be a high impact polymer or plastic providing strength, rigidity, and corrosion resistance.
- e. When stacked, the distance center to center (horizontally and vertically) shall be as indicated on Section 11 table 1, separation distance.
- f. For size, see Section 10 Table 6.
- g. The base and intermediate spacer must be supplied from the same manufacturer to ensure compatibility when stacking both types of spacers.

9.7. **PVC Female Adapter**

- a. Used for adapting PVC or nonmetallic conduits or fittings to threaded fittings.
- b. Shall be furnished with female threads on one end and with a socket end on the other.
- c. Socket end shall be solvent welded.
- d. The material shall be PVC SCH 40, conforming with NEMA TC-3.
- e. Shall be compatible with any conduit and fitting of the corresponding trade size.
- f. Dimensions shall meet the characteristics in Table 10.7.

9.8. PVC SCH 40, Elbow 45 Degrees

- a. PVC schedule 40 (EPC-40), 45 degrees elbow to be used with PVC conduits. Shall be designed for normal-duty aboveground, concrete-encased, and direct burial applications, as per NEMA TC-3.
- b. Shall be suitable for cables rated up to 194° F (90° C).
- c. The material shall be resistant to external corrosion and chemicals. Shall also be nonconductive.
- d. The PVC elbow shall be compatible with the corresponding sized PVC conduit.
- e. The material color shall be gray.
- f. The PVC elbow shall be “bell ended”. In other words, one end of the elbow is designed to be slightly larger than the rest, so it will fit directly onto the next length of pipe to be attached. If the supplier cannot provide a “bell ended” elbow, they shall supply an appropriate coupling for one end of the elbow.
- g. Refer to Table 8 in Section 10 for more information on sizes.

9.9. PVC Sealing Plug

- a. Plug for temporary sealing of PVC conduit.
- b. The material shall be Low Density Polyethylene (LOPE) or Polyurethane. Shall be resistant to ultraviolet light.
- c. Shall be manufactured with ribbed side walls for a secure fit and a molded pull-eye for securing excess rope within the conduit.
- d. Shall be sized appropriated for the corresponding conduit trade sized. Refer to Table 9 for more information.

10. Dimensions and Schematics

10.1. Table 1: PVC Conduit Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Conduit Size | Approximate OD | Quantity Per Crate | Compatible Manufacturers and Models |
|---------------------|---------------|-------------------|----------------------|--------------------------|---|
| 038-83422 | 83422 | 3/4" (1.91 cm) | 1.05" (2.67") | 4,400 ft (1,341.12 m) | Cantex (A52AG12) Prime Conduit (49007-010) |
| 038-83424 | 83424 | 1" (2.54 cm) | 1.315" (3.34 cm) | 3,600 ft. (1,097.28) | Cantex (A52BA12) Prime Conduit (49008-010) |
| 038-01867 | 59318 | 2" (5.08 cm) | 2.375" (6.03 cm) | 2800 ft (853.44 m) | Cantex (A52CA12) Prime Conduit (49011-010) |
| 038-83182 | 83182 | 3" (7.62 cm) | 3.5" (8.89 cm) | 1760 ft (539.45 m) | Cantex: (A52DA12) Prime Conduit: (49013-010) |
| 038-01792 | 59311 | 4" (10.16 cm) | 4.5" (11.43 cm) | 1140 ft (347.47 m) | Cantex (A52EA12) Prime Conduit (49015-010) |
| 038-01727 | 56927 | 6" (15.24 cm) | 6.625" (16.83 cm) | 520 ft (158.50 m) | Cantex (A52GA12) Prime Conduit (49017-010) |
| 038-01651 | 56920 | 8" (20.32 cm) | 8.625" (21.91 cm) | 300 ft (91.44 m) | Cantex (A52JA12) Prime Conduit (*) |

Notes:

* Supplier shall indicate the appropriate catalog number for 10 ft conduit length.

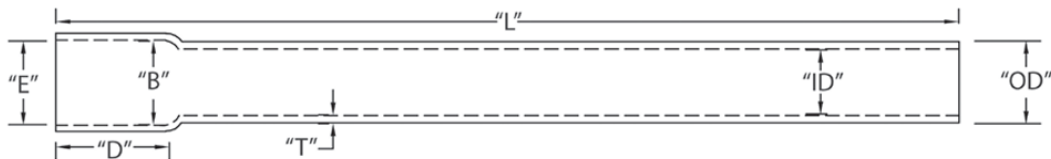


Figure 1: Conduit Dimension Schematic

10.2. Table 2: PVC SCH 40, 90 Degrees Elbow Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Trade Size Inch | Outside Diameter A | Tangent Length B | Radius C | Compatible Manufacturers and Models |
|------------------------|---------------|-----------------|----------------------|----------------------|---------------------|---|
| Standard Radius | | | | | | |
| 038-83425 | 83425 | 3/4 | 1.05" (2.67 cm) | 1.5" (3.81 cm) | 4.5" (11.43 cm) | Atkore: 802753 Prime Conduit: UA9AEB |
| 038-83427 | 83427 | 1 | 1.315" (3.34 cm) | 1.875" (4.76 cm) | 5.75" (14.60 cm) | Atkore: 802754 Prime Conduit: UA9AJB |
| 038-01875 | 59319 | 2 | 2.375" (6.03 cm) | 2" (5.08 cm) | 9.5" (24.13 cm) | Atkore: 802757 Prime Conduit: UA9AJB |
| 038-82927 | 82927 | 3 | 3.5" (8.89 cm) | 3.125" (7.94 cm) | 13" (33.02 cm) | Atkore: 802759 Prime Conduit: UA9ALB |
| 038-01800 | 59312 | 4 | 4.5" (11.43 cm) | 3.375" (8.57 cm) | 16" (40.64 cm) | Atkore: 802762 Prime Conduit: UA9ANB |
| 038-01735 | 56928 | 6 | 6.625" (16.83 cm) | 3.75" (9.52 cm) | 30" (76.2 cm) | Atkore: 802764 Prime Conduit: UA9ARB |
| 038-01669 | 56921 | 8 | 8.625" (21.91 cm) | 6.125" (15.56 cm) | - | Prime Conduit: UA9FT* |
| Special Radius | | | | | | |
| 038-84331 | 84331 | 2 | 2.375" (6.03 cm) | 2" (5.08 cm) | 36" (91.44 cm) | Atkore: 862294 Prime Conduit: UA9FJB |
| 038-84332 | 84332 | 3 | 3.5" (8.89 cm) | 3.125" (7.94 cm) | 36" (91.44 cm) | Atkore: 865576 Prime Conduit: UA9FLB |
| 038-84333 | 84333 | 4 | 4.5" (11.43 cm) | 3.375" (8.57 cm) | 36" (91.44 cm) | Atkore: 862293 Prime Conduit: UA9FNB |
| 038-84334 | 84334 | 6 | 6.625" (16.83 cm) | 3.75" (9.53 cm) | 48" (121.92 cm) | Atkore: 873695 Prime Conduit: UA9HRB |

Notes:

Supplier must provide quantity per package at bid opening.

* Supplier must provide item with Bell End or appropriate accessory, according to Section 9.6.

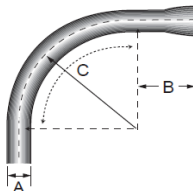


Figure 2: Elbow Dimension Schematic

10.3. Table 3: PVC SCH 40, End Cap Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Trade Size Inch | Inside Height B | Quantity Per Carton | Compatible Manufacturers and Models |
|---------------------|---------------|-----------------|---------------------|---------------------|-------------------------------------|
| 038-85650 | 85650 | 1 | 1.25" (3.18 cm) | 50 | Kraloy: EC10 Cantex: 5140033 |
| 038-01883 | 59320 | 2 | 1.625" (4.13 cm) | 50 | Kraloy: EC20 Cantex: 5140037 |
| 038-83194 | 83194 | 3 | 2.375" (6.03 cm) | 25 | Kraloy: EC30 Cantex: 5140039 |
| 038-01818 | 59313 | 4 | 2.375" (6.03 cm) | 25 | Kraloy: EC40 Cantex: 5140040 |
| 038-01743 | 56929 | 6 | 3.0" (7.62 cm) | 10 | Kraloy: EC60 Cantex: 5140042 |
| 038-01677 | 56922 | 8 | * | * | Kraloy: EC80 |

Note:

* Supplier must provide required dimension and package per carton for product offered.

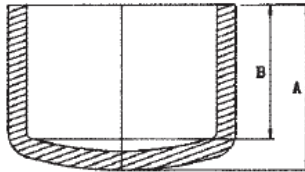


Figure 3: End Cap Dimensions Schematics

10.4. Table 4: PVC SCH 40 Coupling Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Coupling Size | Approximate OD "W" | Quantity Per Carton | Compatible Manufacturers and Models |
|---------------------|---------------|-------------------|--------------------|---------------------|---|
| | | | Length "L" | | |
| 038-83428 | 83428 | 3/4" (1.91 cm) | 1.313" (3.34 cm) | 125 | Cantex (6141624) Prime Conduit (CP075) |
| | | | 1.563" (3.97 cm) | | |
| 038-83429 | 83429 | 1" (2.54 cm) | 1.625" (4.13 cm) | 70 | Cantex (6141625) Prime Conduit (CP100) |
| | | | 2" (5.08 cm) | | |
| 038-01909 | 58486 | 2" (5.08 cm) | 2.688" (6.83 cm) | 40 | Cantex (6141628) Prime Conduit (CP200) |
| | | | 2.6" (6.60 cm) | | |
| 038-83198 | 83198 | 3" (7.62 CM) | 4" (10.16 cm) | 40 | Cantex (6141630) Prime Conduit (CP300) |
| | | | 3.875" (9.84 cm) | | |
| 038-01834 | 59315 | 4" (10.16 cm) | 5" (12.70 cm) | 20 | Cantex (6141632) Prime Conduit (CP400) |
| | | | 4.188" (10.64 cm) | | |
| 038-01762 | 56931 | 6" (15.24 cm) | 7.25" (18.42 cm) | 8 | Cantex (6141634) Prime Conduit (CP600) |
| | | | 6.375" (16.19 cm) | | |
| 038-01693 | 56924 | 8" (20.32 cm) | 9.313" (23.66 cm) | Not Indicated | Cantex (6141635D) Prime Conduit (**) |
| | | | 13" (33.02 cm) | | |

Note:

** Supplier shall indicate the appropriate catalog number.

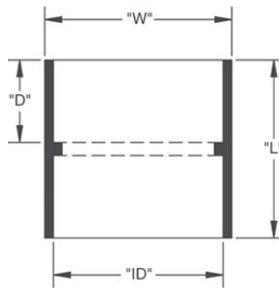


Figure 4: Coupling Dimension Schematic

10.5. Table 5: PVC SCH 40 End Bell Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Trade Size Inch | Minimum Overall Diameter OD | Minimum Overall Length OL | Quantity Per Carton | Compatible Manufacturers and Models |
|---------------------|---------------|-----------------|-----------------------------|---------------------------|---------------------|-------------------------------------|
| 038-84894 | 84894 | 3/4 | 1.5" (3.81 cm) | 1" (2.54 cm) | 100 | Kraloy: MEB07 Cantex: 5144004 |
| 038-01891 | 59321 | 2 | 2.813" (7.14 cm) | 1.44" (3.66 cm) | 40 | Kraloy: MEB20 Cantex: 5144008 |
| 038-83201 | 83201 | 3 | 3.865" (9.82 cm) | 1.91" (4.85 cm) | 50 | Kraloy: MEB30 Cantex: 5144010 |
| 038-01826 | 59314 | 4 | 4.87" (12.37 cm) | 2.175" (5.52 cm) | 50 | Kraloy: MEB40 Cantex: 5144012 |
| ** 038-01750 | 56930 | 6 | 7.187" (18.25 cm) | 2.562" (6.51 cm) | 15 | Kraloy: MEB60 Cantex: 5144014 |
| 038-01685 | 56923 | 8 | * | * | * | Kraloy: MEB80 |

Notes:

* Supplier must provide dimensions and package per carton for this model.

** Item 038-01750 is also used in the 38kV transmission system.

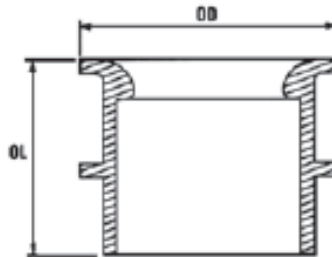


Figure 5: End Bell Dimensions Schematic

10.6. Table 6: Spacer Dimensions and Warehouse Identification

| Item | Warehouse Catalog # | Asset Suite # | Spacer Size | Separation Distance (A) | Quantity Per Carton | Compatible Manufacturers and Models |
|--------------|---------------------|---------------|----------------------------|-------------------------|---------------------|--|
| Base | 038-01917 | 58487 | 2" x 3" (5.1 x 7.6 cm) | 5.5" (14.0 cm) | 100 | Cantex (5335979) Prime Conduit (SPB200X300) |
| Intermediate | 038-01925 | 58488 | | | 110 | Cantex (5336032) Prime Conduit (SPL200X300) |
| Base | 038-83210 | 83210 | 3" x 3" (7.6 x 7.6 cm) | 6.6 " (16.8 cm) | 70 | Cantex (5335975) Prime Conduit (SPB300X300) |
| Intermediate | 038-83211 | 83211 | | | 75 | Cantex (5336031) Prime Conduit (SPL300X300) |
| Base | 038-01842 | 59316 | 4" x 3" (10.2 x 7.6 cm) | 7.6" (19.3 cm) | 65 | Cantex (5335969) Prime Conduit (SPB400X300) |
| Intermediate | 038-01859 | 59317 | | | 55 | Cantex (5336024) Prime Conduit (SPL400X300) |
| Base | 038-01776 | 59309 | 6" x 3" (15.2 x 7.6 cm) | 9.8" (24.9 cm) | 50 | Cantex (5336040) Prime Conduit (SPB600X300) |
| Intermediate | 038-01784 | 59310 | | | 40 | Cantex (5336041) Prime Conduit (SPL600X300) |
| Base | 038-01701 | 56925 | 8" x 3" (20.3 x 7.6 cm) | 11.8" (30.0 cm) | * | Cantex (**) Prime Conduit (*SPB800X300) |
| Intermediate | 038-01719 | 56926 | | | * | Cantex (**) Prime Conduit (*SPL800X300) |

Notes:

* Supplier must indicate standard quantity per package and any special requirements regarding this.

** Supplier shall indicate the appropriate catalog number.

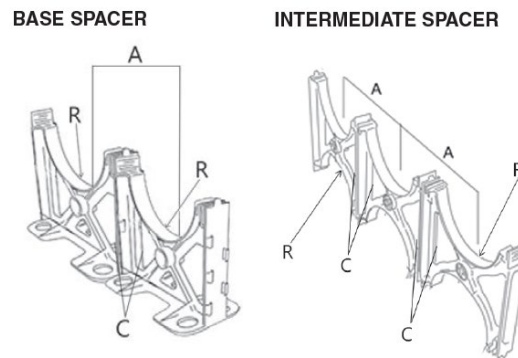


Figure 6: Spacer Dimensions Schematics

10.7. Table 7: PVC SCH 40 Female Adapter Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Trade Size (inch) | W | L | D | Quantity Per Carton | Compatible Manufacturers and Models |
|---------------------|---------------|-------------------|---------------------|----------------------|---------------------|---------------------|---|
| 038-85651 | 85651 | 1 | 1.563" (3.97 cm) | 1.875" (4.76 cm) | 0.875" (2.22 cm) | 70 | Prime Conduit: FA100 Cantex: 5140045 |
| 038-83202 | 83202 | 2 | 2.688" (6.83 cm) | 2.125" (5.4 cm) | 0.938" (2.38 cm) | 40 | Prime Conduit: FA200 Cantex: 5140048 |
| 038-83203 | 83203 | 3 | 4" (10.16 cm) | 3.063" (7.78 cm) | 1.25" (3.18 cm) | 40 | Prime Conduit: FA300 Cantex: 5140050 |
| 038-83204 | 83204 | 4 | 5" (12.7 cm) | 3.25" (8.26 cm) | 1.375" (3.49 cm) | 20 | Prime Conduit: FA400 Cantex: 5140052 |
| * 038-83205 | 83205 | 6 | 7.25" (18.42 cm) | 4.375" (11.11 cm) | 1.625" (4.13 cm) | 8 | Prime Conduit: FA600 Cantex: 5140054 |

Note:

* Item 038-83205 is also used in the 38kV transmission system.

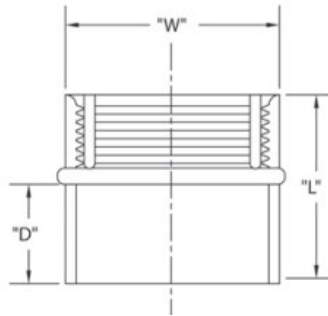


Figure 7: Female Adapter Dimensions Schematics

10.8. Table 8: PVC SCH 40, 45 Degrees Elbow Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Trade Size Inch | Radius C | Tangent Length B Minimum | Compatible Manufacturers and Models |
|------------------------|---------------|-----------------|--------------------|--------------------------|---|
| Standard Radius | | | | | |
| 038-83213 | 83213 | 2 | 9.5" (24.13 cm) | 2" (5.08 cm) | Atkore: 802771 Prime Conduit: UA7AJB |
| 038-83214 | 83214 | 3 | 13" (33.02 cm) | 2.5" (6.35cm) | Atkore:802773 Prime Conduit: UA7ALB |
| 038-83215 | 83215 | 4 | 16" (40.64 cm) | 3.25" (8.26 cm) | Atkore:802775 Prime Conduit: UA7ANB |
| 038-83216 | 83216 | 6 | 30" (76.2cm) | 3.75" (9.53cm) | Atkore:802777 Prime Conduit: UA7ARB |
| Special Radius | | | | | |
| 038-84335 | 84335 | 2 | 36" (91.44 cm) | 2" (5.08 cm) | Atkore: 866991 Prime Conduit: UA7FJB |
| 038-84336 | 84336 | 3 | 36" (91.44 cm) | 2.5" (6.35 cm) | Atkore: 870397 Prime Conduit: UA7FLB |
| 038-84337 | 84337 | 4 | 36" (91.44 cm) | 3.25" (8.26 cm) | Atkore: 866990 Prime Conduit: UA7FNB |
| 038-84338 | 84338 | 6 | 48" (121.92 cm) | 3.75" (9.53 cm) | Atkore: 878951 Prime Conduit: UA7HRB |

Note:

Supplier must provide quantity per package at bid opening.

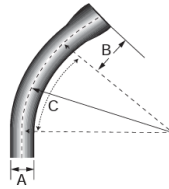


Figure 7: Elbow Dimension Schematic

10.9. Table 9: PVC Sealing Plug Dimensions and Warehouse Identification

| Warehouse Catalog # | Asset Suite # | Trade Size Inch | Approx. Length "L" | Approx. Diameter D-1 | Approx. Diameter D-2 | Quantity Per Carton | Compatible Manufacturers and Models |
|---------------------|---------------|-----------------|---------------------|----------------------|----------------------|---------------------|---|
| 038-83310 | 83310 | 2 | 3" (7.62 cm) | 2" (5.08 cm) | 2.5" (6.35 cm) | 70 | Cantex 5315258 Prime Conduit PEPT200 |
| 038-83311 | 83311 | 3 | 3.75" (9.53 cm) | 2.875" (7.30 cm) | 3.5" (8.89 cm) | 45 | Cantex 5315260 Prime Conduit PEPT300 |
| 038-83312 | 83312 | 4 | 3.875" (9.84 cm) | 3.75" (9.53 cm) | 4.5" (11.43 cm) | 80 | Cantex 5315262 Prime Conduit PEPT400 |
| 038-83313 | 83313 | 6 | 3.875" (9.84 cm) | 5.625" (14.29 cm) | 6.875" (17.46 cm) | 35 | Cantex 5315264 Prime Conduit PEPT600 |

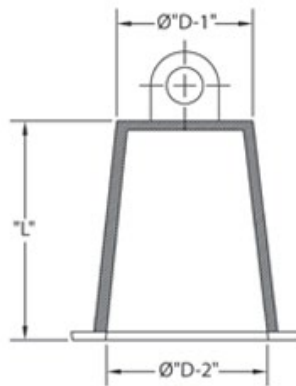


Figure 8: PVC Sealing Plug

11. Inspection

The acceptance of any equipment/material shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such equipment/materials were found later to be defective.

12. Proposal Information

12.1. Submitted proposals must include:

- a. Technical information
- b. Table of Compliance completed by the bidder with reference (see Appendix Section).

— End of Specification —



Appendix



Appendix 1: Table of Compliance for PVC Conduit

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|--------------------|--|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document (ASTM, UL). | | |
| 3 | Outside Diameter | <ul style="list-style-type: none">• 038-83422: 1.05"• 038-83424: 1.315"• 038-01867: 2.393"• 038-83182: 3.5"• 038-01792: 4.515"• 038-01727: 6.658"• 038-01651: 8.625" | | |
| 4 | Length | 10' for each conduit size. | | |
| 5 | Material | PVC SCH 40, resistant to corrosion and chemicals, nonconductive, and gray color. | | |
| 6 | Compatibility | For use with cables rated up to 90°C | | |

Appendix 2: Table of Compliance for PVC Elbow 90 Degree

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|-----------------------------------|---|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document (ASTM, UL). | | |
| 3 | Outside Diameter & Tangent Length | <ul style="list-style-type: none"> • Trade size 3/4": 1.05" & 1.5" • Trade size 1": 1.315" & 1.875" • Trade size 2": 2.375" & 2" • Trade size 3": 3.5" & 3.125" • Trade size 4": 4.5" & 3.75" • Trade size 6": 6.625" & 3.75" • Trade size 8": 8.625" & 6.125" | | |
| 4 | Standard Radius & Special Radius | <ul style="list-style-type: none"> • Trade size 3/4": 4.5" & N/A • Trade size 1": 5.75" & N/A • Trade size 2": 9.5" & 36" • Trade size 3": 13" & 36" • Trade size 4": 16" & 36" • Trade size 6": 30" & 48" | | |
| 5 | Material | PVC SCH 40, resistant to corrosion and chemicals, nonconductive, gray color. | | |
| 6 | Compatibility | For use with cables rated up to 90° Celsius | | |
| 7 | Accessories | Shall include appropriate coupling if elbow plain ended. | | |

Appendix 3: Table of Compliance for PVC End Cap

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|--------------------|--|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document (ASTM, UL). | | |
| 3 | Inside Height | <ul style="list-style-type: none"> • 038-85650: 1.25" • 038-01883: 1.625" • 038-83194: 2.375" • 038-01818: 2.375" • 038-01743: 3" • 038-01677: * | | |
| 4 | Material | PVC SCH 40, resistant to corrosion and chemicals, nonconductive, gray color. | | |
| 5 | Compatibility | For use with cables rated up to 90° Celsius. | | |

Note: *Supplier must provide required dimension for product offered.

Appendix 4: Table of Compliance for PVC Coupling

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|--------------------|---|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document. (ASTM, UL) | | |
| 3 | Outside Diameter | <ul style="list-style-type: none"> • 038-83428: 1.313" • 038-83429: 1.625" • 038-01909: 2.688" • 038-83198: 4" • 038-01834: 5" • 038-01762: 7.250" • 038-01693: 9.313" | | |
| 4 | Length | <ul style="list-style-type: none"> • 038-83428: 1.563" • 038-83429: 2" • 038-01909: 2.6" • 038-83198: 3.875" • 038-01834: 4.188" • 038-01762: 6.375" • 038-01693: 13" | | |
| 5 | Material | PVC SCH 40, resistant to corrosion and chemicals, nonconductive, and gray color. | | |
| 6 | Compatibility | For use with cables rated up to 90°C | | |



Appendix 5: Table of Compliance for PVC End Bell

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|--------------------|---|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document. (ASTM, UL) | | |
| 3 | Overall Diameter | <ul style="list-style-type: none">• 038-84894: 1.5"• 038-01891: 2.813"• 038-83201: 3.865"• 038-01826: 4.87"• 038-01750: 7.187"• 038-01685: * | | |
| 4 | Overall Length | <ul style="list-style-type: none">• 038-84894: 1"• 038-01891: 1.44"• 038-83201: 1.91"• 038-01826: 2.175"• 038-01750: 2.562"• 038-01685: * | | |
| 5 | Material | PVC SCH 40, resistant to corrosion and chemicals, nonconductive, gray color. | | |
| 6 | Compatibility | For use with cables rated up to 90° Celsius | | |

Note: *Supplier must provide required dimension for product offered.

Appendix 6: Table of Compliance for Spacer for PVC Conduit

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|---------------------------------|--|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document. | | |
| 3 | Size | <ul style="list-style-type: none"> • 038-01917 & 038-01925: 2" x 3" • 038-83427 & 038-83211: 3" x 3" • 038-01842 & 038-01859: 4" x 3" • 038-01776 & 038-01784: 6" x 3" • 038-01701 & 038-01719: 8" x 3" | | |
| 4 | Approximate Separation Distance | <ul style="list-style-type: none"> • 2"x3": 5.5" • 3"x3": 6.6" • 4"x3": 7.6" • 6"x3": 9.8" • 8"x3": 11.8" | | |
| 5 | Material | High impact polymer or plastic providing strength, rigidity, and corrosion resistant. | | |
| 6 | Requirement | Shall snap together easily providing a strong, secure, and steady field assembly without need of banding. Both types must be of the same manufacturer. | | |
| 7 | Compatibility | For use with PVC conduit SCH 40 & 80 | | |



Appendix 7: Table of Compliance for PVC Female Adapter

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|--------------------|---|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document. | | |
| 3 | Size | <ul style="list-style-type: none">• 038-85651: 1"• 038-83202: 2"• 038-83203: 3"• 038-83204: 4"• 038-83205: 6" | | |
| 5 | Material | PVC SCH 40 | | |
| 6 | Construction | Shall be furnished with female threads on one end and with a socket end on the other. Socket end shall be solvent welded. | | |
| 7 | Compatibility | For use with PVC conduit SCH 40 | | |

Appendix 8: Table of Compliance for PVC Elbow 45 Degree

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|----------------------------------|---|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document. (ASTM, UL) | | |
| 3 | Tangent length | <ul style="list-style-type: none"> • Trade size 2": 2" • Trade size 3": 3.125" • Trade size 4": 3.75" • Trade size 6": 3.75" | | |
| 4 | Standard Radius & Special Radius | <ul style="list-style-type: none"> • Trade size 2": 9.5" & 36" • Trade size 3": 13" & 36" • Trade size 4": 16" & 36" • Trade size 6": 30" & 48" | | |
| 5 | Material | PVC SCH 40, resistant to corrosion and chemicals, nonconductive, gray color. | | |
| 6 | Compatibility | For use with cables rated up to 90° Celsius | | |
| 7 | Accessories | Shall include appropriate coupling if elbow plain ended. | | |



Appendix 9: Table of Compliance for PVC Sealing Plug

| Line | Criteria | Description | Pass/Fail (P/F) | Comments |
|------|--------------------|--|-----------------|----------|
| 1 | Specification | The Proponent complies with the corresponding specification document. | | |
| 2 | Industry Standards | The Proponent complies with the industry standards established in the specification document. (ASTM, UL) | | |
| 3 | Length (inch) | <ul style="list-style-type: none">• Trade size 2": 3"• Trade size 3": 3.75"• Trade size 4": 3.875"• Trade size 6": 3.758" | | |
| 4 | Diameter D-1 & D-2 | <ul style="list-style-type: none">• Trade size 2": 2" & 2.5"• Trade size 3": 2.875" & 3.5"• Trade size 4": 3.75" & 4.5"• Trade size 6": 5.625" & 6.875" | | |
| 5 | Material | LOPE or Polyurethane | | |
| | Construction | Shall be manufactured with ribbed side walls for a secure fit and a molded pull-eye for securing excess rope withing the conduit. | | |











4350.235 PVC SCH 40 Conduit & Fittings (01-22-2024)


Final Audit Report

2024-01-22

| | |
|-----------------|--|
| Created: | 2024-01-22 |
| By: | Miguel Rios (miguel.rioslopez@lumapr.com) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAAXC7eGsUz44s1LnJ27v5AEMdB_LIVUahZ |

"4350.235 PVC SCH 40 Conduit & Fittings (01-22-2024)" History

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-  Document e-signed by Miguel Rios (miguel.rioslopez@lumapr.com)
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-  Document emailed to oscar.venegas@lumapr.com for signature
2024-01-22 - 3:13:48 PM GMT
-  Email viewed by oscar.venegas@lumapr.com
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-  Signer oscar.venegas@lumapr.com entered name at signing as Oscar E Venegas
2024-01-22 - 8:16:55 PM GMT
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 Document e-signed by Ricardo Castro Gómez (ricardo.castro@lumapr.com)

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 Agreement completed.

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