Service Entrance Caps, PVC

1. Scope

This standard covers the requirements for extruded threadless rigid PVC (poly vinyl chloride) service entrance caps.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Conduit Trade Size, IPS (in)
013570	1/2
013571	3/4
013572	1
013573	1-1/4
013574	1-1/2
013575	2
013576	2-1/2
013577	3
013578	3-1/2
013579	4

2. Application

PVC service entrance caps are used as a weatherproof service drop entrance point where overhead power cable enters a building. Caps are suitable for both overhead and underground secondary service lateral, where cable transitions between overhead and underground.

PVC service entrance caps are only used for low voltages (up to 600 volts). These caps are threadless, and attach to the PVC riser with adhesive.

PVC service entrance caps replace aluminum service entrance caps. The PVC version allows for ease of service cable installation as well as to reduce scarring of the cable jacket.

3. Industry Standards

PVC service entrance caps shall meet the requirements of the following industry standards:

UL 514B – Fittings for Cable and Conduit, 6th Edition, July 2012

NEMA TC-3 - Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing, 2013

4. General Requirements

PVC service entrance caps shall:

- Be suitable for above ground use indoors or outdoors exposed to sunlight and weather.
- Fit conduit and fitting dimensions conforming to UL 651 and the Iron Pipe Standard (IPS), where dimensions are based on outside diameters of iron pipe sizes.
- Be medium to dark gray in color.
- Not have any features that can abrade or otherwise damage cable.
- Be certified by Underwriters Laboratories or one of the following NRTLs (Nationally Recognized Testing Laboratories) as meeting the minimum requirements of Standard UL 514B:
  - CSA (Canadian Standards Association)
  - ETL (Electrical Testing Labs)
  - NSF (National Sanitation Foundation) International.
- Meet the performance requirements as described in Table 4.

Table 4. Conduit Performance Requirements

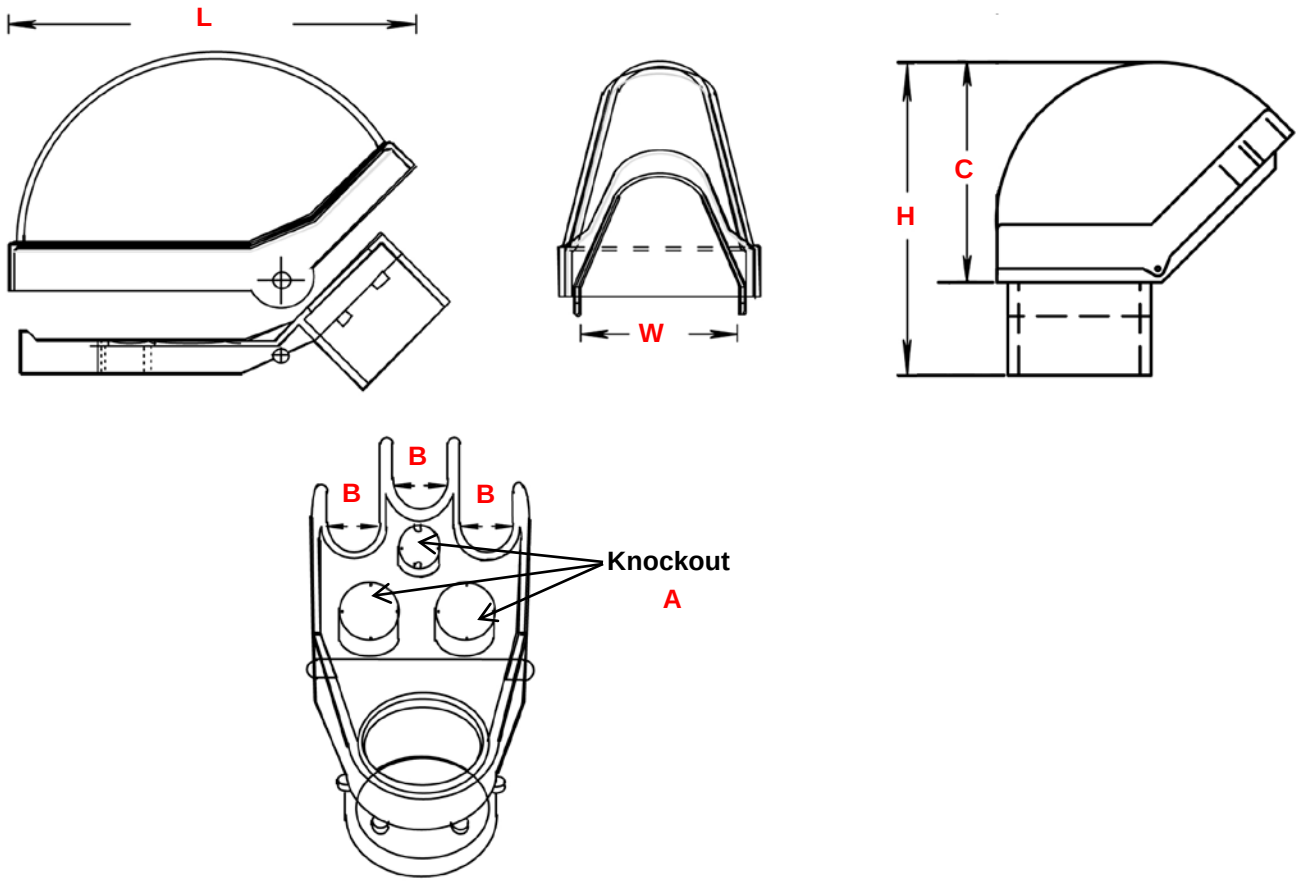
Description	UL 514B Section
Water absorption	91
Flame	92
Extrusion or Molding process	94
Identification	95
Resistance to crushing	96
Low temperature handling	97
Ultraviolet-Light and Water	101.2
Aging	101.3
Resistance to impact	101.4
Impact after Cold Conditioning	101.5
Heat distortion	101.6
Pull	101.7
Wet location	39
Marking	102

5. Detailed Requirements

Table 5. Service Entrance Cap Dimension, Nominal

Stock No.	Conduit Trade Size, IPS (in)	L Length (in)	W Width (in)	C Cap Height (in)	H Overall Height (in)	A Knockout diam. (in)	B Fork (in)
013570	1/2	3	2	2	2.75	0.45	0.45
013571	3/4	3	2	2	2.75	0.45	0.45
013572	1	3.5	2.5	2.5	3.25	0.6	0.6
013573	1-1/4	5	3.5	4	5	0.75	0.75
013574	1-1/2	6.5	3.5	4	5	0.8	0.75
013575	2	6.5	4.25	4.5	6	0.8	0.85
013576	2-1/2	12.25	7.5	7.25	9	1.25	1.75
013577	3	12.25	7.5	7	9	1.25	1.75
013578	3-1/2	12.25	7.5	8	11	1.25	1.75
013579	4	16	11	10.5	12.5	1.25	1.55

Figure 5. Service Entrance Cap



6. Marking

Each conduit section shall be marked according to the requirements of UL 514B, Section 102.

The outer surface of each fitting shall be marked with the following minimum information:

- Manufacturer's name or symbol
- Catalog number
- Trade size.

7. Testing

PVC service entrance cap test data that establishes compliance with the requirements of UL 514B and this material standard shall be provided upon request.

8. Packaging

PVC service entrance caps shall be packaged to prevent damage during shipping, handling and storage.

Each carton shall be legibly marked with the following information:

- Manufacturer's identification
- Product description
- Manufacturer’s catalog number
- Quantity.

9. Issuance

EA

10. Approved Manufacturers

		Approved Manufacturers			
Stock No.	**Trade Size, IPS (in)**	**Carlon (Thomas & Betts)**	**Kraloy (IPEX)**	**Cantex (Mitsubushi Corp.)**	**Royal Pipe Systems**
013570	1/2	E988D	MH05	5133590	E025050
013571	3/4	E998E	MH07	5133591	E025075
013572	1	E998F	MH10	5133741	E025100
013573	1-1/4	E998G	MH12	5133742	E025125
013574	1-1/2	E998H	MH15	5133695	E025150
013575	2	E998J	MH20	5133743	E025200
013576	2-1/2	E998K-UPC	MH25	5133696	E025250
013577	3	E998L	MH30	5133697	E025300
013578	3-1/2	--	MH35	5133698	E025350
013579	4	E998N	MH40	5133699	E025400

11. References

SCL Material Standard 7015.05; “Schedule 40 PVC Conduit and Fittings”

SCL Material Standard 7020.05; “Schedule 80 PVC”

12. Sources

Wang, Quan; SCL Standards Engineer, subject matter expert and originator of 7314.15 (quan.wang@seattle.gov)