

## Connector, Neutral Messenger, Aluminum Compression







### 1. Scope

This standard covers the requirements for neutral messenger aluminum compression connectors.

Neutral messenger connectors are also known as sleeves, neutral splices, or service entrance splicers.

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

Stock No.	Wire Size	Color End Caps
014204	#6 – ACSR/Str	Blue 
650501	#4 – ACSR/Str	Orange 
650502	#2 – ACSR/Str	Red 
650503	#1/0 – ACSR/Str	Yellow 

### 2. Application

Neutral messenger compression connectors are designed for service drops and short span overhead distribution lines. These connectors are typically used to splice the ACSR or AAC neutral messengers of triplex and quadruplex service conductors.

Neutral messenger compression connectors are prefilled with oxide inhibitor.

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**3. Industry Standards**

Compression connectors shall be meet the applicable requirements of the latest revision of the following industry standards:

**ANSI C119.4**; American National Standard for Electric Connectors-Connector for Use Between Aluminum-to-Aluminum and Aluminum-to-Copper Conductors Designed for Normal Operation at or Below 93° C and Copper-to Copper Conductors Designed for Normal Operation at or Below 100° C.

**ASTM D1248**; Standard Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable

**ASTM D566**; Standard Test Method for Dropping Point of Lubricating Grease

**4. Requirements**

**4.1 Material, Dimensions and Strength**

Compression connectors shall be made of 1350 grade aluminum. Length shall be as shown in Table 4.1.

**Table 4.1 Size, Color Code and Length**

Stock No.	Wire Size A	Color End Caps	Minimum Length (in)
014204	#6 – ACSR/Str	Blue 	4
650501	#4 – ACSR/Str	Orange 	4
650502	#2 – ACSR/Str	Red 	4
650503	#1/0 – ACSR/Str	Yellow 	6

Compression connectors shall be tensile strength Class 2, as defined in ANSI C119.4, for partial tension connectors, which is 40% of the conductor’s rated strength.

**4.2 End Caps**

The end caps shall be made of polyethylene conforming to ASTM D1248, Class C. End cap color shall be as shown in Table 4.1.

**4.3 Inhibitor**

Compression connectors shall be factory-filled with a measured amount of oxide-inhibiting compound. The dropping point of the inhibitor shall meet the requirements as stated in ASTM D566.

**4.4 Installing Tool and Die**

The connector shall be designed to be installed with the following dies:

**Table 4.4 Tool Die Codes**

Tool	Kearny	Thomas & Betts	Thomas & Betts	Burndy
Die Code	5/8	TU	52	BG

## 5. Marking

Each connector shall be legibly and permanently marked with the following information:

- Manufacturer name or symbol
  - Conductor range
  - Catalog number
  - Die size
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## 6. Packaging

Compression connectors shall be packaged to prevent damage during shipping, storing, and handling.

Each container shall be legibly marked with the following information:





- Manufacturer identification
  - Product description
  - Quantity
  - Seattle City Light purchase order number
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## 7. Issuance

Stock Unit: EA

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## 8. Approved Manufacturers

Stock No.	Color	End Caps	Homac Mfg. Co. (Thomas & Betts)	Blackburn, Inc. (FL Industries)	Burndy (Hubbell Inc.)	Penn-Union Corp.
014204	Blue		SNG66	TR61	YSS6RG2	–
650501	Orange		SNG44	TR63	YSS4R	PNK22
650502	Red		SNG22	TR64	YSS2R	PNK11
650503	Yellow		–	TR66	YCS25R	–

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## 9. Sources

**Tilley, Kathy**; SCL Electrical Engineering Support Specialist (kathy.tilley@seattle.gov)

**SCL Material Standard 6774.3**; “Splice, ASCR Neutral Messenger” (canceled)

[www.burndy.com](http://www.burndy.com)

[www.tnb.com](http://www.tnb.com)