

# Penn-Union IISRB Pre-Insulated In-Line Splicer/Reducers



Penn-Union's Type IISRB Pre-Insulated In-Line Splicer/Reducers accommodate two conductors in any of the following combinations: AL-to-AL, AL-to-CU, or CU-to-CU. They are suitable for use with aluminum or copper Class B and C stranded wire as well as with copper class G, H, I, K and DLO flexible stranded wire. Manufactured from high-strength aluminum alloy and dual rated for aluminum and copper conductors, they are suitable for use in cable trays, raceways, ducts and troughs. These splicer/reducers allow flexibility in the field, reduce installation time, and allow a reduction in the number of connectors which must be kept in inventory.

## Features

- Dual rated for aluminum and copper conductors (600V, 90 °C)
- Wide conductor range: 500 kcmil to 14 solid
- Sizes 1/0 and larger suitable for use on line side of service equipment (SVC)
- Temperature rating of insulation: -40 to +135 °C
- Pre-filled with oxide inhibitor to prevent oxidation while keeping moisture and contaminants from entering contact area
- Supplied with removable access plugs over screw and conductor ports for further protection against contaminants
- Pre-insulated at factory with black UV-resistant high dielectric strength plastisol
- Saves time, eliminates taping, and reduces overall installation costs
- Abrasion and chemical resistant



**IISRB-2-1**



**IISRB-500-1**

## Standards

UL 486A-486B, "Wire Connectors"

CSA C22.2 No. 65, "Wire Connectors"



460C  
WIRE CONNECTOR  
AL9CU

UL File E12822

Penn-Union IISRB Pre-Insulated In-Line Splicer/Reducer Selection Guide									
Part Number	Price	Conductor Size & Stranding Class (Strand Count / Individual Strand Diameter in Inches)						Tightening Torque (in • lb)	Drawing
		CL / AL	CU Only						
		Class B & C	Class G	Class H	Class I	Class K	Diesel Locomotive Cable (DLO)		
<b><u>IISRB-2-1</u></b>	\$16.00	CU: 2-14 Str. 10-14 Sol. AL: 2-10 Str. 10-12 Sol.	#4 (49 / 0.0292) to #14 (49 / 0.0092)	#4 (133 / 0.0177) to #9 (133 / 0.0099)	#4 (105 / 0.0201) to #6 (63 / 0.0201)	#4 (420 / 0.0100) to #9 (133 / 0.0100)	#4 (105 / 0.0201) to #1 (19 / 0.0142)	90	<a href="#">PDF</a>
<b><u>IISRB-1/0-1*</u></b>	\$23.00	CU: 1/0-12 Str. 10-14 Sol. AL: 1/0 -10 Str. 10-12 Sol.	#1 (133 / 0.0251) to #14 (49 / 0.0092)	#1 (259 / 0.0180) to #9 (133 / 0.0099)	#1 (210 / 0.0201) to #6 (63 / 0.0201)	#1 (836 / .0100) to #9 (133 / 0.0100)	#1 (225 / 0.0201) to #14 (19 / 0.0142)	120	<a href="#">PDF</a>
<b><u>IISRB-250-1*</u></b>	\$28.00	CU or AL: 250 kcmil -10 Str. 10 Sol.	3/0 (133 / 0.0355) to #10 (49 / 0.0146)	3/0 (259 / 0.0255) to #9 (133 / 0.0099)	3/0 (418 / 0.0201) to #6 (63 / 0.0201)	3/0 (1666 / 0.0100) to #9 (133 / 0.0100)	3/0 (450 / 0.0201) to #10 (27 / 0.0201)	275	<a href="#">PDF</a>
<b><u>IISRB-350-1*</u></b>	\$35.00	CU or AL: 350 kcmil - 10 Str. 10 Sol.	250 kcmil (259 / 0.0311) to #10 (49 / 0.0146)	250 kcmil (427 / 0.0242) to #9 (133 / 0.0099)	250 kcmil (637 / 0.0201) to #6 (63 / 0.0201)	250 kcmil (2499 / 0.0100) to #9 (133 / 0.0100)	4/0 (550 / 0.0201) to #10 (27 / 0.0201)	275	<a href="#">PDF</a>
<b><u>IISRB-500-1*</u></b>	\$54.00	CU or AL: 500 kcmil - 6 Str.	350 kcmil (259 / 0.0368) to #6 (49 / 0.0231)	350 kcmil (427 / 0.0286) to #6 (133 / 0.0140)	350 kcmil (882 / 0.0201) to #6 (63 / 0.0201)	350 kcmi (3458 / 0.0100) to #6 (266 / 0.0100)	373 kcmil (925 / 0.0201) to #6 (61 / 0.0201)	500	<a href="#">PDF</a>

\* Suitable for use on line side of service equipment, "SVC"

# Penn-Union CUAL-GEL and CUAL-AID Oxide Inhibitors



Penn-Union CUAL-GEL and CUAL-AID Selection Guide			
Part Number	Price	Recommended Use	Unit Packaging
<a href="#">1/2PT10CUALGEL-1</a>	\$15.00	CUAL-GEL is for use with conductors, connectors and conduit	8 oz squeeze bottle
<a href="#">1/2PT10NO11C-1</a>	\$18.00	CUAL-AID #11C is for aluminum-to-aluminum, aluminum-to-copper, conduit threads, and bolted applications	8 oz squeeze bottle
<a href="#">1/2PT10NO12C-1</a>	\$27.00	CUAL-AID #12C is for use with compression lugs and splices for aluminum-to-aluminum and aluminum-to-copper in all compression applications. Not for use on threads or bolted applications.	8 oz squeeze bottle

## [1/2PT10CUALGEL-1](#)

### CUAL-GEL

Penn-Union CUAL-GEL is a non-melting, non-petroleum-based compound specifically designed to prevent oxidation and corrosion of aluminum, copper, tin and steel. It offers advanced protection under a variety of environmental conditions.

### Features

- Prevents oxidation and corrosion
- Multiple uses with conductors, connectors and conduit
- Has little or no effect on rubber and other insulating materials
- Easy clean-up with soap and water

## [CUAL-AID #11C](#)

Penn-Union CUAL-AID #11C is a high quality, non-melting, non-petroleum base electrical joint compound with suspended zinc particles. It is for use with compression lugs and splices and is recommended for aluminum-to-aluminum, aluminum-to-copper, conduit threads, and bolted applications.

### Features

- Prevents oxidation and corrosion
- Has little or no effect on rubber and other insulating materials

## [CUAL-AID #12C](#)

Penn-Union CUAL-AID #12C is a high quality compression use compound consisting of a non-melting, non-petroleum base material with suspended zinc particles and abrasive grit. It is for use with compression lugs and splices.

### Features

- Prevents oxidation and corrosion
- Has little or no effect on rubber and other insulating materials

## Easy to Apply

**Connectors:** DO NOT wire-brush the grooves or contact surfaces of plated or grease coated connectors. For unplated, ungreased connectors, wire-brush contact surfaces until bright and clean. Immediately apply compound to the conductive surfaces. Install conductor and finish installation.

**Cable:** Apply compound and wire-brush into strands of aluminum cable. This removes oxide coating from the strands and prevents it from reforming. Install conductor and finish installation.

**Bar:** Wire-brush compound across the surface of the bar to remove oxide coating and finish installation. DO NOT wire-brush plated surfaces; simply apply compound and finish installation.

Properties of CUAL-AID and CUAL-GEL				
Property	Definition	CUAL-GEL	CUAL-AID #11C (With zinc particles)	CUAL-AID #12C (With zinc and grit)
<b>Penetration (Unworked)</b>	The value in accordance with ASTM D217 indicates the consistency of a compound. The higher the number, the softer the compound.	230-270	240-280	220-260
<b>Dropping Point (Min)</b>	The temperature at which the compound passes from semi-solid to liquid state under test conditions	500 °F [260 °C] Non-melting		
<b>Pour Point (Max)</b>	The lowest temperature at which the compound will flow. Pour point is the lubricant's ability to perform in cold conditions.	-10 °F [-23.3 °C]		
<b>Service Temperature Range</b>	After installation, the temperature at which the compound is expected to perform and protect.	-58 to +302 °F [-50 to +150 °C]		