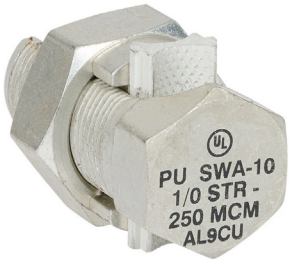
Penn-Union Type SWA Aluminum Split Bolt Connectors

Penn-Union Type SWA Aluminum Split Bolt Connectors are designed for use with two conductors in electrical power applications. They may be used for copper-to-copper, copper-to-aluminum, and aluminum-to-aluminum connections. They are manufactured from high-strength, heat treated aluminum alloy and are highly resistant to corrosion.

Use of an oxide inhibiting compound such as CUAL-AID #11C is recommended with this connector.

Features

- All components manufactured from tin-plated high-strength aluminum
- True hex design allows easy installation with standard tooling (torque wrench, standard socket, box, or open-end wrench)
- Under torque, this design provides high contact pressure between conductors
- Meet and exceed requirements of the UL486A-B standard
- Wide wire range
- Reusable with proper installation practice



SWA-10-1

Standards

UL 486A-486B, "Wire Connectors"

460C
WIRE CONNECTOR
AL9CU
UL File E12822

Penn-Union Type SWA Aluminum Split Bolt Connectors Selection Guide

Part Number	Price	Range of Equal Main and Tap (Copper and Aluminum)	Wire Diameter Range (in)	Body Hex Size (in)	Nut Hex Size (in)	Torque (in•lb)	Drawing
SWA-7-1	$22.00	6 solid to 1/0 stranded	0.165 - 0.373	3/4	1	385	PDF
SWA-8-1	$30.00	2 solid to 2/0 stranded	0.257 - 0.418	7/8	1-1/8	390	PDF
SWA-10-1	$37.00	1/0 stranded to 250 kcmil	0.368 - 0.575	1-3/16	1-1/2	650	PDF

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

1/2PT10CUALGEL-1

Penn-Union CUAL-GEL and CUAL-AID Selection Guide			
Part Number	***Price***	***Recommended Use***	***Unit Packaging***
1/2PT10CUALGEL-1	$15.00	CUAL-GEL is for use with conductors, connectors and conduit	8 oz squeeze bottle
1/2PT10NO11C-1	$18.00	CUAL-AID #11C is for aluminum-to-aluminum, aluminum-to-copper, conduit threads, and bolted applications	8 oz squeeze bottle
1/2PT10NO12C-1	$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

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.

Recommended for aluminum-to-aluminum, aluminum-to-copper in all compression applications. Not for use on threads or bolted applications.

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)***
Penetration (Unworked)	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
Dropping Point (Min)	The temperature at which the compound passes from semi-solid to liquid state under test conditions	500 °F [260 °C] Non-melting		
Pour Point (Max)	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]		
Service Temperature Range	After installation, the temperature at which the compound is expected to perform and protect.	-58 to +302 °F [-50 to +150 °C]		