Bronze and Alloy, Grooved Contact Wire

CuMg 0.2 (Alloy80)/CuMg 0.5 (Alloy 55) Contact CuAg0.1 and CuSn0.2/ Trolley Wire



Image not to scale. See Table 1 for dimensions.

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

This product combines excellent wear characteristics, and high-tensile strength properties. Contact/ Trolley wire is available in a choice of two alloys to provide the best match of electrical and mechanical wear properties for each application - 55 percent and 80 percent conductivity IACS (CA165 and A162), and is offered in both ASTM and EN/IEC configurations: round (upon request), grooved, figure 8, or figure 9.

APPLICATIONS AND FEATURES:

For use as overhead power source on streetcars, trolleys, electric trolley buses, light rail and heavy mass transit systems. Also used on electrically powered mine train, and industrial cranes. High-tensile strength properties allow for reduced clearance maintenance in tunnel applications. Southwire's bronze contact/trolley wire is ideal for transportation systems with increased line speeds just over 200 mph (322 km/h).

- High Tensile Strength and Breaking Load
- Highest Half-Hard Value of any Materials in Present Day Use.
- Durable and Reliable Support.
- Allows for Increase in Max Line Speeds
- Mechanically Rugged
- RoHS/Proposition 65 Compliant
- Ships on N-42 wooden reels (S-77 steel reels available per SW reel policy)
- Available with top lobe identification marking per IEEE 1896-2016
- Buy America Compliant

SPECIFICATIONS:

- ASTM B9 Bronze Trolley Wire
- EN 50149 Railway Applications. Fixed Installations. Electric Traction. Copper and Copper Alloy Grooved Contact Wires.

Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Cmil	Cond. Number	Alloy	Approx. OD	Approx. Weight	DC Resistance @ 25°C	Rated Strength
	AWG/kcmil	cmil	No.		inch	lb/1000ft	Ω/1000ft	lb
649153	107*	211600	1	CuAg	0.482	642	0.052	8408

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* units in mm²
† Alloy 85
Notes:

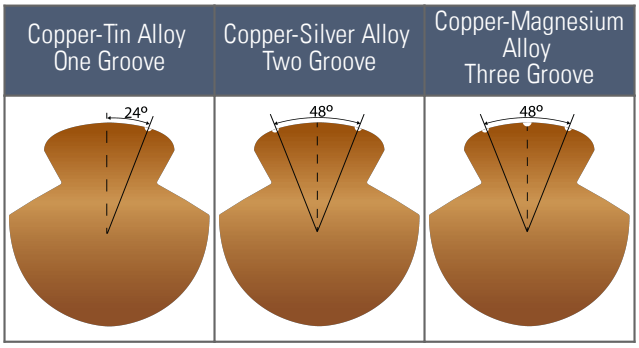
We've got it MADE IN AMERICA

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

1. These numbers represent the minimum percent IACS conductivity of the alloys. Other alloys are available subject to special inquiry.
2. Bronze trolley wire is normally manufactured from alloys 55 or 80.
3. Figure 9 wire, dimensions given are nominal height of entire section and width of lower lobe.
4. Tolerances: The above data are approximately and subject to normal manufacturing tolerances Weights, breaking strengths and resistance are base on nominal dimensions

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Contact Wire



Copyright © 2026 Southwire Company, LLC. All Rights Reserved