# 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.

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## 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 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
- Southwire SPEED Qualified for low volume requests
- 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 | Cond. Shape | Approx. OD | Approx. Weight | DC Resistance @ 25°C | Rated Strength |
|---|---|---|---|---|---|---|---|---|---|
| | AWG/kcmil | cmil | No. | | | inch | lb/1000ft | Ω/1000ft | lb |
| TBA | 350 | 351200 | 1 | CuMg0.5 | grooved | 0.62 | 1063 | 0.054 | 17240 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

**Notes:**

1. These numbers represent the minimum percent IACS conductivity of the alloys. Other alloys are available subject to special inquiry.

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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
* units in mm²
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