

CU MEDIUM-HARD DRAWN OVERHEAD CATENARY SYSTEMS MESSENGER WIRE

Messenger Wire for Transit Systems



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

This product can be made in variations of Hard Drawn or Medium-Hard Drawn Copper with concentric or unilay stranding options. Tinned coated copper and Proof Positive™ anti-theft conductors are also available upon request.

APPLICATIONS AND FEATURES:

For use in Trolley and High Speed Rail applications as supports for contact and dropper wires in overhead catenary systems. Southwire's messenger wire is designed for long service life with the ability to maintain rugged strength through sustained performance.

- Pure Copper
- Flexible to Wind and Vibration
- Durable and Reliable Support
- Mechanically Rugged
- High Tensile Strength and Breaking Load
- RoHS/Proposition 65 Compliant

SPECIFICATIONS:

- ASTM B2 Medium-Hard Drawn Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | www.southwire.com

Copyright © 2021 Southwire Company, LLC. All Rights Reserved



Southwire

**CABLETECH
SUPPORT™**

Services

SPEC 48304 DATE: 02/24/2021 21:13 UTC Rev: 3.0.00M

Table 1 – Physical and Electrical Data

Cond. Size	Strand Count	Strand Class	Cond. Number	Approx. OD	Approx. Weight	DC Resistance @ 20°C	Rated Strength
AWG/kcmil	No. of Strands		No.	inch	lb/1000ft	Ω/1000ft	lb
8	7	B	1	0.146	51	0.6629	610
6	7	B	1	0.184	81	0.4169	959
4	7	A B	1	0.232	129	0.2622	1505
3	7	A B	1	0.26	163	0.2079	1885
2	7	A B	1	0.292	205	0.165	2360
1	7	A	1	0.328	258	0.1309	2955
1/0	7	A AA	1	0.368	326	0.1037	3705
1/0	19	B	1	0.373	326	0.1037	3705
2/0	7	A AA	1	0.414	411	0.0822	4640
2/0	19	B	1	0.418	411	0.0822	4765
3/0	7	A AA	1	0.464	518	0.0652	5812
4/0	7	A AA	1	0.522	653	0.0517	7278
4/0	19	B	1	0.528	653	0.0517	7479
250	19	A	1	0.574	772	0.0438	8836
250	37	B	1	0.575	772	0.0438	8952
300	19	A	1	0.628	926	0.0365	10530
350	19	A	1	0.679	1081	0.0313	12200
500	19	A	1	0.814	1544	0.0219	17550
500	37	B	1	0.814	1544	0.0219	17550
600	37	A AA	1	0.891	1853	0.0183	21060
750	61	A B	1	0.998	2316	0.0146	26510
1000	61	A B	1	1.152	3088	0.0109	35100

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Notes:

+Ampacity based on 75°C conductor temperature 25°C ambient temperature 2 ft./sec. wind in sun. Numbers shown above are for concentrically stranded constructions and may vary slightly for combination unilay stranded constructions. Dimensions and weights shown above are nominal and subject to industry tolerances.

