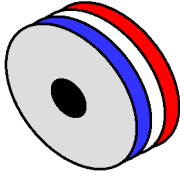


GAUGE AWG



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AWG Gauges Table

Tables des Jauges AWG

Section / Area

$a = \text{area / section [mm}^2\text{]}$
 $d = \text{diameter [mm]}$

$$a = \frac{\pi \cdot d^2}{4}$$

Resistance

$L = \text{length [mm]}$
 $a = \text{area / section [mm}^2\text{]}$
 $\rho = \text{resistivity [\Omega.m]}$

copper :
 $\rho = 1.724 \times 10^{-8} \Omega.m$

$$R = \rho \cdot \frac{L}{a}$$

Units

1 foot = 304.8 mm
1 inch = 25.4 mm
1 pound = 0.45359 kg

AWG	Construction	Metric			Resistance (Ω /km)	Imperial	
		Diameter (mm) Diamètre (mm)	Area (mm ²) Section (mm ²)	Weight (kg/km) Poids (kg/km)		Diameter (inch) Diamètre (inch)	Area (inch ²) Section (inch ²)
4	133 x AWG 25	6.480	21.6200	197.900	0.8	0.25512	0.033511
6	133 x AWG 27	5.140	13.6100	124.900	1.3	0.20236	0.021096
8	1 x AWG 8	3.260	8.3700	74.380	2.1	0.12835	0.012974
	133 x AWG 29	4.090	8.6000	79.020	2.0	0.16102	0.013330
10	1 x AWG 10	2.590	5.2600	46.770	3.3	0.10197	0.008153
	37 x AWG 26	2.800	4.7700	44.430	3.6	0.11024	0.007394
	91 x AWG 30	2.790	4.6100	41.490	3.7	0.10984	0.007146
12	1 x AWG 12	2.050	3.3100	29.460	5.2	0.08071	0.005131
	19 x AWG 25	2.270	3.0900	28.660	5.6	0.08937	0.004790
	37 x AWG 28	2.220	2.9800	27.880	5.8	0.08740	0.004619
	45 x 0.3 mm	2.450	3.1800	28.270	5.4	0.09646	0.004929
	91 x AWG 32	2.150	2.9500	27.610	5.8	0.08465	0.004573
13	1 x AWG 13	1.830	2.6300	23.360	6.6	0.07205	0.004077
14	1 x AWG 14	1.630	2.0800	18.450	8.3	0.06417	0.003224
	19 x AWG 27	1.700	1.9400	17.140	8.9	0.06693	0.003007
	27 x 0.3 mm	1.800	1.9100	16.980	9.0	0.07087	0.002961
	37 x AWG 30	1.780	1.8800	16.670	9.2	0.07008	0.002914
61 x 0.203 mm	1.760	1.9100	18.500	9.0	0.06929	0.002961	
15	1 x AWG 15	1.450	1.6500	14.680	10.4	0.05709	0.002558
16	1 x AWG 16	1.290	1.3100	11.620	13.2	0.05079	0.002031
	19 x AWG 29	1.360	1.2300	10.830	14.0	0.05354	0.001907
	19 x 0.3 mm	1.430	1.3400	11.860	12.9	0.05630	0.002077
	45 x AWG 32	1.500	1.4600	13.660	11.8	0.05906	0.002263
	61 x AWG 34	1.400	1.2300	11.465	14.0	0.05512	0.001907
315 x AWG 41	1.600	1.2500	11.800	13.8	0.06299	0.001938	
17	1 x AWG 17	1.150	1.0400	9.240	16.6	0.04528	0.001612
18	1 x AWG 18	1.020	0.8240	7.320	20.9	0.04016	0.001277
	7 x AWG 26	1.210	0.9010	8.250	19.1	0.04764	0.001397
	19 x AWG 30	1.210	0.9620	8.490	17.9	0.04764	0.001491
	45 x 0.165 mm	1.250	0.9620	8.980	17.9	0.04921	0.001491
61 x AWG 35	1.240	0.9660	9.000	17.8	0.04882	0.001497	
19	1 x AWG 19	0.910	0.6530	5.800	26.4	0.03583	0.001012
20	1 x AWG 20	0.813	0.5180	4.610	33.3	0.03201	0.000803
	7 x AWG 28	0.960	0.5630	5.170	30.6	0.03780	0.000873
	19 x AWG 32	0.966	0.6160	5.420	28.0	0.03803	0.000955
	37 x AWG 35	0.970	0.5860	5.500	29.4	0.03819	0.000908
	45 x AWG 36	0.960	0.5700	5.340	30.2	0.03780	0.000884
	135 x AWG 41	0.950	0.5340	4.900	32.3	0.03740	0.000828
21	1 x AWG 21	0.724	0.4120	3.660	41.8	0.02850	0.000639
22	1 x AWG 22	0.643	0.3240	2.880	53.2	0.02531	0.000502
	7 x AWG 30	0.762	0.3550	3.260	48.6	0.03000	0.000550
	19 x AWG 34	0.762	0.3820	3.370	45.1	0.03000	0.000592
	37 x AWG 37	0.780	0.3780	3.600	45.6	0.03071	0.000586
	45 x AWG 38	0.750	0.3680	3.400	46.8	0.02953	0.000570
72 x AWG 41	0.750	0.2850	2.600	60.5	0.02953	0.000442	
23	1 x AWG 23	0.574	0.2590	2.290	66.6	0.02260	0.000401
24	1 x AWG 24	0.511	0.2050	1.820	84.1	0.02012	0.000318
	7 x AWG 32	0.609	0.2270	2.080	75.9	0.02398	0.000352
	19 x AWG 36	0.597	0.2410	2.120	71.5	0.02350	0.000374
	56 x AWG 41	0.600	0.2220	2.000	77.7	0.02362	0.000344
25	1 x AWG 25	0.455	0.1630	1.440	105.8	0.01791	0.000253
26	1 x AWG 26	0.404	0.1280	1.140	134.7	0.01591	0.000198
	7 x AWG 34	0.480	0.1410	1.290	122.3	0.01890	0.000219
	19 x AWG 38	0.483	0.1550	1.370	111.2	0.01902	0.000240
	33 x AWG 41	0.450	0.1300	1.160	132.6	0.01772	0.000202
27	1 x AWG 27	0.361	0.1020	0.910	169.0	0.01421	0.000158
28	1 x AWG 28	0.320	0.0800	0.720	215.5	0.01260	0.000124
	7 x AWG 36	0.381	0.0890	0.820	193.7	0.01500	0.000138
	19 x AWG 40	0.395	0.0930	0.860	185.4	0.01555	0.000144
29	1 x AWG 29	0.287	0.0650	0.580	265.2	0.01130	0.000101
30	1 x AWG 30	0.254	0.0510	0.450	338.0	0.01000	0.000079
	7 x AWG 38	0.304	0.0570	0.530	302.5	0.01197	0.000088
	19 x AWG 40	0.315	0.0590	0.570	292.2	0.01240	0.000091
31	1 x AWG 31	0.226	0.0400	0.360	431.0	0.00890	0.000062
32	1 x AWG 32	0.203	0.0320	0.290	538.8	0.00799	0.000050
	7 x AWG 42	0.237	0.0340	0.320	507.1	0.00933	0.000053
	19 x AWG 44	0.250	0.0370	0.360	465.9	0.00984	0.000057
33	1 x AWG 33	0.180	0.0250	0.230	689.6	0.00709	0.000039
34	1 x AWG 34	0.160	0.0200	0.180	862.0	0.00630	0.000031
	7 x AWG 42	0.187	0.0220	0.210	783.6	0.00736	0.000034
35	1 x AWG 35	0.142	0.0160	0.140	1 077.5	0.00559	0.000025
36	1 x AWG 36	0.127	0.0127	0.110	1 357.5	0.00500	0.000020
37	7 x AWG 44	0.150	0.0137	0.130	1 258.4	0.00591	0.000021
	1 x AWG 37	0.114	0.0102	0.090	1 690.2	0.00449	0.000016
38	1 x AWG 38	0.102	0.0081	0.070	2 128.4	0.00402	0.000013
	7 x AWG 46	0.120	0.0088	0.078	1 959.1	0.00472	0.000014
39	1 x AWG 39	0.089	0.0062	0.060	2 771.7	0.00350	0.000010
40	1 x AWG 40	0.079	0.0049	0.044	3 518.4	0.00311	0.000008
	7 x AWG 48	0.090	0.0053	0.047	3 265.2	0.00354	0.000008
	1 x AWG 41	0.071	0.0040	0.035	4 353.5	0.00280	0.000006
42	1 x AWG 42	0.063	0.0032	0.028	5 455.7	0.00248	0.000005
	7 x AWG 50	0.075	0.0034	0.032	5 070.6	0.00295	0.000005
43	1 x AWG 43	0.056	0.0025	0.022	7 008.1	0.00220	0.000004
44	1 x AWG 44	0.050	0.0020	0.018	8 492.6	0.00197	0.000003
	7 x AWG 52	0.060	0.0022	0.020	7 836.4	0.00236	0.000003
46	1 x AWG 46	0.040	0.0013	0.011	13 682.5	0.00157	0.000002
48	7 x AWG 54	0.045	0.0012	0.011	13 903.2	0.00177	0.000002
	1 x AWG 48	0.031	0.0008	0.007	22 986.7	0.00122	0.000001
50	1 x AWG 50	0.025	0.0005	0.004	35 183.7	0.00098	0.000001
52	1 x AWG 52	0.020	0.0003	0.003	55 612.9	0.00079	0.000000
54	1 x AWG 54	0.015	0.0002	0.002	101 411.8	0.00059	0.000000