

Metric Conversion Guides

Conversion Factors

Metric units are used for most linear, weight, and temperature measurements, as well as for thread descriptions.

Length Inch x 25.40 = Millimeters
 Millimeters x 0.03937 = Inches
 Feet x 0.3048 = Meters
 Meters x 3.281 = Feet
 Miles x 1.609 = Kilometers
 Kilometers x 0.6214 = Miles
 Ohms/Kilometer x 0.3048 = Ohms/1000 ft.
 Ohms/1000 ft. x 3.2808 = Ohms/Kilometer

Area Sq. Inch x 6.452 = Sq. Centimeter
 Sq. Centimeter x 0.1550 = Sq. Inch
 Sq. Foot x 0.0929 = Sq. Meter
 Sq. Meter x 10.76 = Sq. Foot
 Sq. Mile x 2.590 = Sq. Kilometer
 Sq. Kilometer x 0.3861 = Sq. Mile
 Circular Mil x 1,000,000 = Circular In.
 Circular Mil x 0.7854 = Sq. Mil

Volume Cu. Inch x 16.39 = Cu. Centimeter
 Cu. Centimeter x 0.06102 = Cu. In.
 Cu. Foot x 0.02832 = Cu. Meter
 Cu. Meter x 35.31 = Cu. Foot

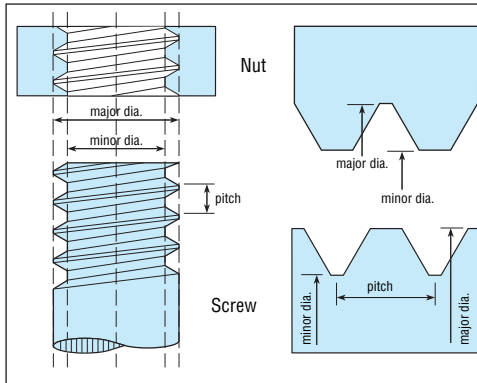
Mass Ounce x 28.35 = Gram
 Gram x 0.03527 = Ounce
 Pound x 0.4536 = Kilogram
 Kilogram x 2.205 = Pound

Metric Threads

Most threaded components and components with mounting holes (such as AC power inlets) listed in this catalog are referred to in terms of their metric dimensions. For example, an M3 mounting hole indicates that the hole is sized for an M3 mounting screw. The metric screw will be referred to in the following format:

M3 X 0.50

As these drawings illustrate, M3 refers to a major diameter of 3mm. The pitch or distance between threads is 0.50mm.



Metric Prefixes

Tera10¹²T
 Giga10⁹G
 Mega10⁶M
 Kilo10³k
 Hecto10²h
 Deca10¹da
 Deci10⁻¹d
 Centi10⁻²c
 Milli10⁻³m
 Micro10⁻⁶µ
 Nano10⁻⁹n
 Pico10⁻¹²p

A.W.G. to Metric Wire Sizes Conversion Chart

AWG	Equivalent in mm ²
20 (7 X 28)*	0.562
18 (7 X 26)	0.902
16 (19 X 29)	1.327
14 (19 X 27)	1.954
12 (19 X 25)	3.105
10 (37 X 26)	4.770
8 (49 X 25)	8.007
6 (133 X 27)	13.675
4 (133 X 25)	21.733
2 (133 X 23)	34.648
1 (817 X 30)	41.667
0 (133 X 21)	55.098

*Number in parenthesis denotes stranding. Actual stranding may vary depending on primary conductor construction. Cross section in mm² will vary when stranding changes.

Temperature Conversion (Fahrenheit to Celsius)

°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C
-40	-40.00	15	9.44	50	10.00	85	29.44	120	48.89	155	68.33	190	87.78
-38	-38.89	16	8.89	51	10.56	86	30.00	121	49.44	156	68.88	191	88.33
-36	-37.78	17	8.33	52	11.11	87	30.56	122	50.00	157	69.44	192	88.88
-34	-36.67	18	7.78	53	11.67	88	31.11	123	50.55	158	70.00	193	89.44
-32	-35.56	19	7.22	54	12.22	89	31.67	124	51.11	159	70.55	194	90.00
-30	-34.44	20	6.67	55	12.78	90	32.22	125	51.67	160	71.11	195	90.55
-28	-33.33	21	6.11	56	13.33	91	32.78	126	52.22	161	71.66	196	91.11
-26	-32.22	22	5.56	57	13.89	92	33.33	127	52.77	162	72.22	197	91.66
-24	-31.11	23	5.00	58	14.44	93	33.89	128	53.33	163	72.77	198	92.22
-22	-30.00	24	4.44	59	15.00	94	34.44	129	53.88	164	73.33	199	92.77
-20	-28.89	25	3.89	60	15.56	95	35.00	130	54.44	165	73.89	200	93.33
-18	-27.78	26	3.33	61	16.11	96	35.56	131	55.00	166	74.44	205	96.11
-16	-26.67	27	2.78	62	16.67	97	36.11	132	55.55	167	75.00	210	98.89
-14	-25.56	28	2.22	63	17.22	98	36.67	133	56.11	168	75.55	215	101.67
-12	-24.44	29	1.67	64	17.78	99	37.22	134	56.66	169	76.11	220	104.44
-10	-23.33	30	1.11	65	18.33	100	37.78	135	57.22	170	76.67	225	107.22
-8	-22.22	31	0.56	66	18.89	101	38.33	136	57.77	171	77.22	230	110.00
-6	-21.11	32	0.00	67	19.44	102	38.88	137	58.33	172	77.77	235	112.78
-4	-20.00	33	0.56	68	20.00	103	39.44	138	58.88	173	78.33	240	115.56
-2	-18.89	34	1.11	69	20.56	104	40.00	139	59.44	174	78.88	245	118.33
0	-17.78	35	1.67	70	21.11	105	40.55	140	60.00	175	79.44	250	121.11
1	-16.67	36	2.22	71	21.67	106	41.11	141	60.55	176	80.00	255	123.89
2	-15.56	37	2.78	72	22.22	107	41.66	142	61.11	177	80.55	260	126.67
3	-14.44	38	3.33	73	22.78	108	42.22	143	61.66	178	81.11	265	129.44
4	-13.33	39	3.89	74	23.33	109	42.77	144	62.22	179	81.66	270	132.22
5	-12.22	40	4.44	75	23.89	110	43.33	145	62.78	180	82.22	275	135.00
6	-11.11	41	5.00	76	24.44	111	43.88	146	63.33	181	82.77	280	137.78
7	-10.00	42	5.56	77	25.00	112	44.44	147	63.88	182	83.33	285	140.55
8	-8.89	43	6.11	78	25.56	113	45.00	148	64.44	183	83.88	290	143.33
9	-7.78	44	6.67	79	26.11	114	45.55	149	65.00	184	84.44	295	146.11
10	-6.67	45	7.22	80	26.67	115	46.11	150	65.56	185	85.00	300	148.89
11	-5.56	46	7.78	81	27.22	116	46.66	151	66.11	186	85.55	305	151.67
12	-4.44	47	8.33	82	27.78	117	47.22	152	66.66	187	86.11	310	154.44
13	-3.33	48	8.89	83	28.33	118	47.77	153	67.22	188	86.66	315	157.22
14	-2.22	49	9.44	84	28.89	119	48.33	154	67.77	189	87.22	320	160.00