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Standard base resistor values are given in the following tables for the most commonly used tolerances (1%, 5%, 10%), along with typically available resistance ranges. To determine values other than the base, multiply the base value by 10, 100, 1 000 or 10 000.

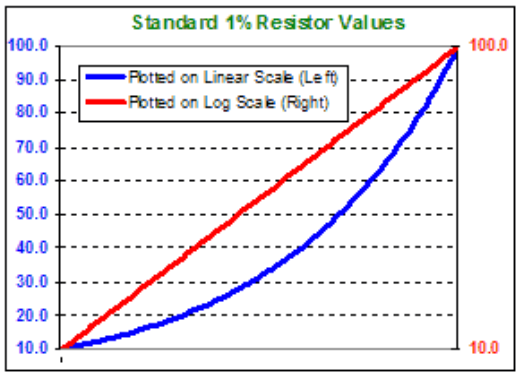
Example: Calculations indicate the need for a 355 kΩ resistor and a tolerance of 1% .

Look in the 1% table and select the 35.7 value (the nearest available standard value). Multiply by 10 000 to convert to 357 kΩ.

1% Standard Values
Decade multiples are available from 10.0 Ω through 1.00 MΩ
(also 1.10 MΩ, 1.20 MΩ, 1.30 MΩ, 1.50 MΩ, 1.60 MΩ, 1.80 MΩ, 2.00 MΩ and 2.20 MΩ)

10.0	10.2	10.5	10.7	11.0	11.3	11.5	11.8	12.1	12.4	12.7	13.0
13.3	13.7	14.0	14.3	14.7	15.0	15.4	15.8	16.2	16.5	16.9	17.4
17.8	18.2	18.7	19.1	19.6	20.0	20.5	21.0	21.5	22.1	22.6	23.2
23.7	24.3	24.9	25.5	26.1	26.7	27.4	28.0	28.7	29.4	30.1	30.9
31.6	32.4	33.2	34.0	34.8	35.7	36.5	37.4	38.3	39.2	40.2	41.2
42.2	43.2	44.2	45.3	46.4	47.5	48.7	49.9	51.1	52.3	53.6	54.9
56.2	57.6	59.0	60.4	61.9	63.4	64.9	66.5	68.1	69.8	71.5	73.2
75.0	76.8	78.7	80.6	82.5	84.5	86.6	88.7	90.9	93.1	95.3	97.6

Standard resistor values are calculated using the simple formula given below. Round the results to the proper number of significant figures (3 for 1% and 2%, 2 for 5% and 10%). As the chart at the right shows (created in Excel), plotting the values on a logarithmic scale results in a straight line.



$$R = d * 10^{\frac{i}{N}},$$

where
- d = decade multiplier : 10, 100, 10k, 100k
- N = tolerance series: 1% = 96, 2% = 48, 5% = 24, 10% = 12
- i = 0 ... N − 1

5% Standard Values
Decade multiples are available from 10 Ω through 22 MΩ

10	11	12	13	15	16	18	20	22	24	27	30
33	36	39	43	47	51	56	62	68	75	82	91

10% Standard Values
Decade multiples are available from 10 Ω through 1 MΩ

10	12	15	18	22	27	33	39	47	56	68	82