

Colour code for Carbon Resistors:

A colour code is used to indicate the resistance value of a carbon resistor and its percentage accuracy. The colour code used throughout the world is shown in table:

Colour	Letter as an aid to memory	Number	Multiplier
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Black	B	0	10^0
Brown	B	1	10^1
Red	R	2	10^2
Orange	O	3	10^3
Yellow	Y	4	10^4
Green	G	5	10^5
Blue	B	6	10^6
Violet	V	7	10^7
Grey	G	8	10^8
White	W	9	10^9

Colour	Tolerance
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Gold	5%
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Silver	10%
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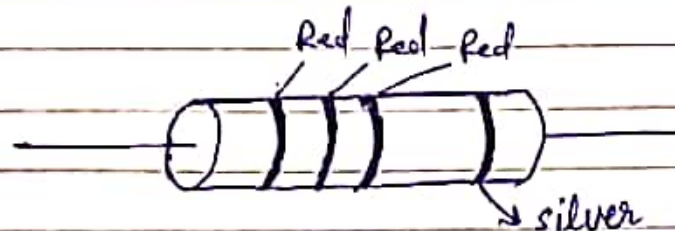
No fourth band	20%
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There are two systems of making the colour codes:

First system: A set of coloured co-axial rings or bands is printed on the resistor which reveals the following facts:

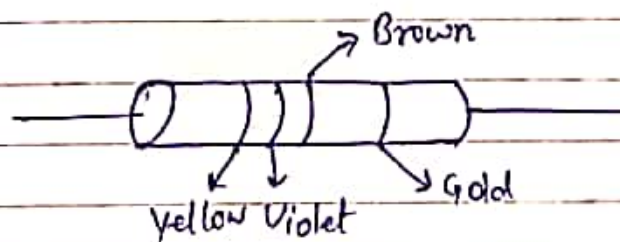
- 1) The first band indicates the first significant figure.
- 2) The second band indicates the second significant figure.
- 3) The third band indicates the power of ten with which the above two significant figures must be multiplied to get the resistance value in ohms.
- 4) The fourth band indicates the tolerance or possible variation in percent of the indicated value. If the fourth band is absent, it implies a tolerance of $\pm 20\%$.

Example!



The colours of the four bands are red, red, red and silver; the resistance value is

$$R = 22 \times 10^2 \Omega \pm 10\%$$



Yellow - 4, Violet - 7, Brown - 1, Gold - $\pm 5\%$

$$R = 47 \times 10^1 \Omega \pm 5\%$$