

HINTS & TIPS

HOW TO CALCULATE RESISTOR USAGE

Use the following formula to calculate resistance.

$$\frac{\text{Supply voltage} - V_F}{I_F} = R$$

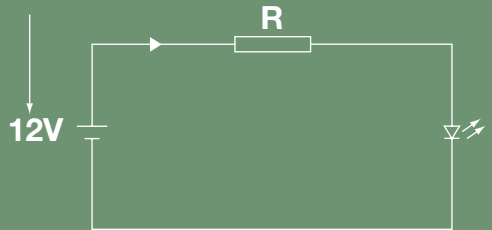
By relating the sample product from the Rapid website - (Standard 5mm LED – Kingbright range) to the diagram beneath it, you can work out resistor values.

Product Details	Technical Details	Data Sheets	Alternatives (4)	Accessories (1)	Quick Quote	
Colour	I_F	V_F	V_F	V_R	Lum. int. (mcd)	View
	max.	typ.	max.	max.	If (20mA)	angle
Red	30mA	2.5V	2.5V	5V	150	50°
Green	25mA	2.5V	2.5V	5V	70	50°
Yellow	30mA	2.5V	2.5V	5V	70	50°

I_F value*
(converted to Amps, e.g.
30mA = 0.03A)

V_F value*

Supply voltage value



Example:

If $V_F = 2V$ and $I_F = 30mA$ (0.03A)
then $R = 333\Omega$

N.B.

Blue and white LEDs
have a higher V_F
(typically 4V)

* I_F and V_F values given are maximum values and should not be exceeded

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