

Style C – Adjustable Mica Based Open Wound Resistor



Introduction

The C range of LPC Mica Based Open Wound Resistors are available from 45 to 260 Watts. They are RoHS Compliant. A mica card forms the basis of this resistor with termination taken to an eyelet suitable for a 2BA or M5 screw and having an insulated eyelet for mounting. One adjustable tapping band is supplied as standard. Standard Tolerance is $\pm 10\%$.

Ordering Procedure

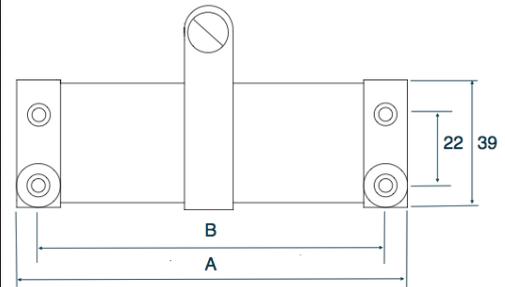
Adjustable Resistors—Specify: Type, Ohmic Value, Tolerance. E.g. C140-200R $\pm 10\%$

General Notes

Ohmic Values

The range of ohmic values and dimensions available are shown below. You may select any ohmic value between the max and min values. Ratings given are for continuous duty giving an approximate temp rise of 300°C on the surface of the winding in an ambient temp of 20°C with free ventilation.

Type	Watts	Resistance (Ohms)		Dimensions (mm) $\pm 2\text{mm}$	
		Min	Max	A	B
C45	45	0.5	2K4	60	45
C60	60	0.8	4K4	80	64
C80	80	1.2	6K5	99	83
C100	100	1.8	9K3	124	108
C140	140	2.5	13K5	162	146
C180	180	3.2	17K5	200	184
C220	220	3.9	21K7	238	222
C260	260	4.7	25K8	276	260



Product Details

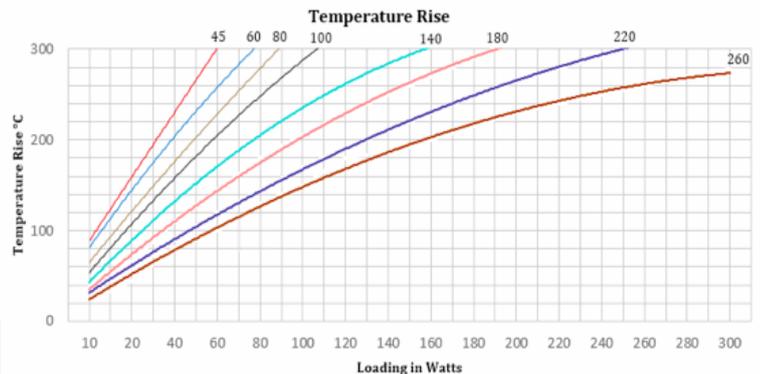
Due to the natural flexibility of the mica former this range of resistors is particularly suited to conditions of severe mechanical vibration and thermal shock as well as for mounting on machine structures where rapid change of vibration frequency occurs. For certain applications a rigid mica former may be utilised. They are suited for applications where a number of units are to be mounted in banks as they are economical in space and fixing. The former is made from high quality mica to give good mounting insulation and depending on the resistance value required the winding will be of (iron free) nickel copper wire, nickel chromium wire or nickel copper tape.

All flat mica card type resistors should be mounted horizontally on edge so as to obtain the lowest temperature rise. Vertical mounting results in peak temperature at one point about one third of the resistor length from the top, due to rising heat from the lower winding. For vertical mounting the wattage ratings given should be reduced by 30%.

These resistors are ideal for air blast cooling, having a very thin edge section and large cooling surface. Up-rating of more than 4 times may be obtained under suitable conditions. If the ambient temperature is higher than 20°C the rating must be reduced to prevent the final temperature reaching too high a figure.

Temperature Rise

The curves in the graph on the right give temperature rise against watts dissipated for cards mounted horizontally on edge in free air in an ambient temperature of 20°C:



Mounting in Groups

This form of resistor is particularly suited to mounting in groups to form units of high wattage dissipation but when doing so the rating of each card must be reduced to allow for radiation between adjacent surfaces. This table gives percentage of nominal watts rating for various distances between resistors:

Distance between resistors	25mm	37.5mm	50mm
Percentage of nominal rating	80%	85%	90%