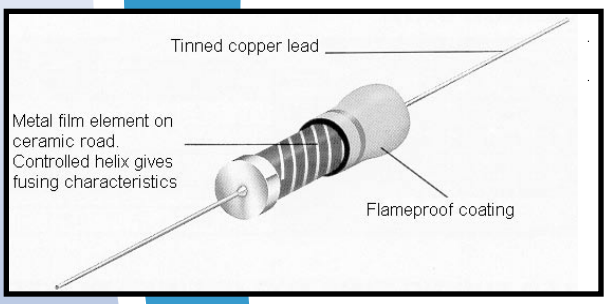




FUSIBLE METAL FILM RESISTOR



CONSTRUCTION

These resistors are constructed by depositing a precisely controlled thin film of metal alloy on a high purity ceramic core. After fitting the end caps the resistors are helically cut using a laser to produce a reliable fusing characteristic and to adjust the resistor to the correct ohmic value. Wires are then welded to the end caps after which a flameproof coating is applied to protect the construction from environmental influences. The resistor is marked with IEC four colour code plus a white band.

PERFORMANCE

ELECTRICAL

Resistance range	R27 – 1K0
Standard tolerance	± 5%
Power rating	See table
Temperature coefficient	±100 ppm/ °C
Voltage coefficient	< 1ppm / V
Derating linearly to zero at from 70°C	200°C
Maximum working voltage	See table
Insulation resistance	$>10^4$ MΩ
Insulation voltage	500 V Min

ENVIRONMENTAL

Temperature range	- 55° to + 200°C
Load life 1000 hrs	5%
Damp heat	5%
Climatic category	50/200/56

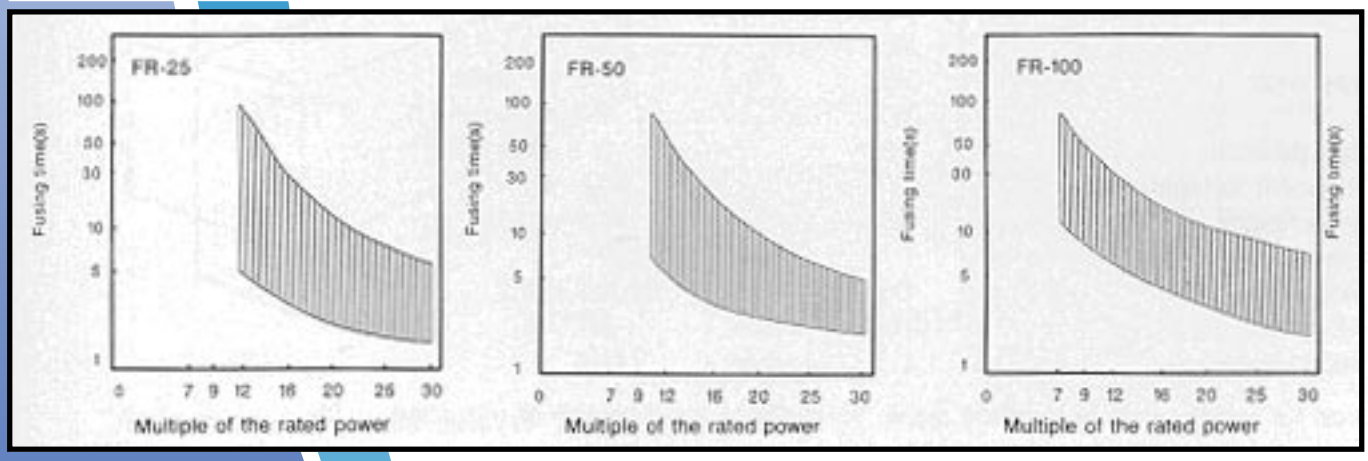
MECHANICAL

Leads	Solder plated copper
Solderability	< 2.5 secs (solder globule test)
Marking	IEC four colour bands Plus White (fuse)

PACKING DATA

Ammo packed	1000 pcs
Bandoliered & reeled	5000 pcs

FUSING CHARACTERISTICS

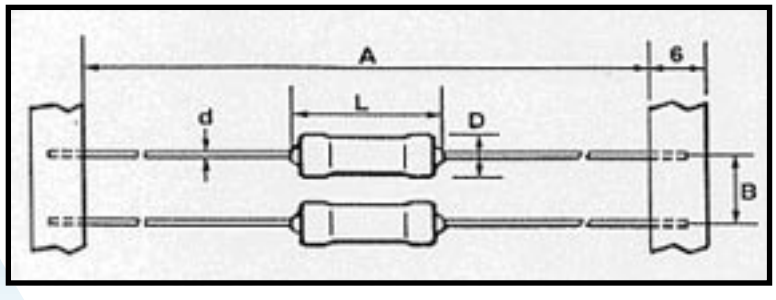


		FR 25	FR 50	FR 100
L	mm	6.3 ± 0.5	9.0 ± 0.5	11.5 ± 1.0
D	mm	2.3 ± 0.3	3.2 ± 0.3	4.5 ± 0.5
d	mm	0.6 ± 0.05	0.6 ± 0.05	0.8 ± 0.05
A	mm	52.5 ± 1.5	52.5 ± 1.5	73.0 ± 1.5
B	mm	5	5	5
Power rating	P_{70}	0.25	0.5	1.0
Max. cont. working voltage	V_{rms}	200	250	300
Max. overload voltage	V	400	500	600

APPLICATIONS

Suitable for use where overload protection is required in lower power circuits.
Short term overloads will be limited by the resistance value chosen, but permanent overloads will be safely isolated by the fusing characteristic of the resistors.

DIMENSIONS



series FR

Resistor + Fuse In One
Flameproof Coating
Safety Applications