

Power Wirewound Resistors  
flame retardant, safety version



### Specifications

Type		CRF251-4	CRF253-4	CRF254-4	CRF256-4	CRF257-4
Power rating $P_{40}$ $P_{70}$	W	1,1	2,2	3,0	4,0	5,0
		1,0	2,0	2,5	3,5	4,3
Resistance range	W	see next page ( higher values upon request )				
E-Series		E 24				
Tolerances	%	± 5				
Temperature coefficient	$10^{-6} * K^{-1}$	120 ±50				
max. cont. work. voltage	$V_{RMS}$	$\sqrt{P_{70} \cdot R}$				
Insulation voltage (1min.)	$V_{RMS}$	max 75V				
Insulation resistance	W	not insulated				
Derating linear	°C	70 ... 350 (0W)				
Climatic category		55/350/56				
Temperature range	°C	- 55 ... 350				
Thermal resistance	KW <sup>-1</sup>	280	140	112	80	65
Failure rate (Total, $J_o$ , max., 60% conf. lev.)	$10^{-9} * h^{-1}$	appr. 10, depends on value				
Endurance ( $P_{70}$ , 70°C, 1000)	$\left[\frac{DR}{R}\right] \%$	± 5,0 average				
Damp heat, steady state (40°C, 93% r.h., 56d)	$\left[\frac{DR}{R}\right] \%$	± 5,0				
Climatic sequence	$\left[\frac{DR}{R}\right] \%$	± 2,0				
Terminal strength	$\left[\frac{DR}{R}\right] \%$	± 0,2				
Terminal tensile strength	N	40				50
Resistance to soldering heat (260°C, 10s)	$\left[\frac{DR}{R}\right] \%$	± 0,5				
Solderability	s	2,5 Flowtime, solderglobule test, IEC 60068-2-20				
Marking		printed in clear				

Type	Resistance range	
	min.	max.
CRF251-4	*1R0	100R
CRF253-4	*1R0	330R
CRF254-4	*1R0	330R
CRF256-4	*1R0	330R
CRF257-4	*1R0	330R

Note: The special construction of resistance values >10R results in an immediate interruption (<1s, 200ms typical ) when mains voltage (220V/240V<sub>RMS</sub>) is applied. No flames, no explosion. After fusing, the resistance value is >100KOhm.

For other voltages test suitability in the application!

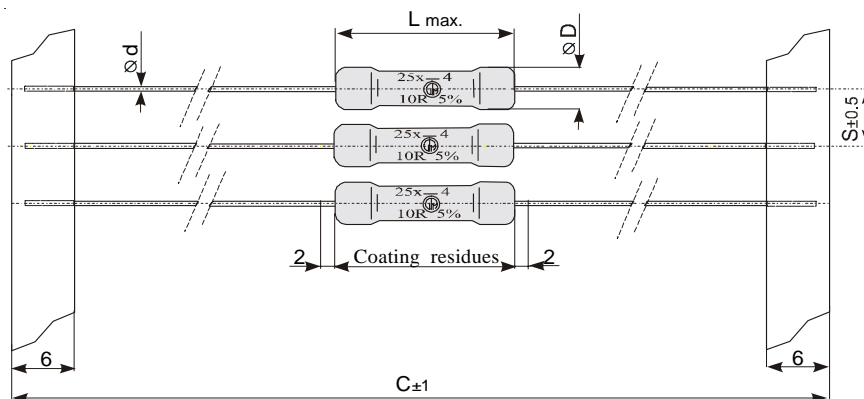
\* Resistance values < 10R are flame retardant.

The interruption mechanism is not clearly defined and has to be tested in the final application!

Type	L max.	ØD max.	Ød
CRF251-4	9,0	3,0	0,65
CRF253-4	14,5	4,0	0,65
CRF254-4	12,6	6,0	0,80
CRF256-4	17,0	6,0	0,80
CRF257-4	18,0	8,5	0,80

\*R <10R Dmax. +1

Dimensions in mm:



Packaging:

Type	Packaging	Pieces	Code	C	S
CRF251-4	taped/Ammopack	1000	T	65	5
CRF253-4	taped/Ammopack	1000	T	85	10
CRF254-4	taped/Ammopack	1000	T	85	10
CRF256-4	taped/Ammopack	1000	T	85	10
CRF257-4	taped/Ammopack	500	T	85	10

Ordering example: CRF254-4      5      T      15R  
Type      Tolerance      Pack.-Code      R-Value

Revision 200902