


# fixed resistors

## carbon film

CR16 CR25 CR37  
CR52 CR68 CR93

For detailed information  
Handbook CM2a

Resistance ranges	from 1 $\Omega$ to 10 M $\Omega$ ; E12 or E24 series		
Resistance tolerance	5 and 10%		
Abs. max. dissipation	CR16	0,2 W	CR52 0,67 W
at $T_{amb} = 70^\circ\text{C}$	CR25	0,33 W	CR68 1,15 W
	CR37	0,5 W	CR93 2 W
Basic specification	IEC 115-1, 115-2		
Climatic category (IEC 68)	55/155/56		
Stability after load	see nomogram		



colour	first two digits of resistance value	multiplier	tolerance
black	0	1 x	
brown	1	10 x	
red	2	100 x	
orange	3	1 000 x	
yellow	4	10 000 x	
green	5	100 000 x	
blue	6	1 000 000 x	
violet	7		
grey	8		
white	9		
silver			$\pm 10\%$
gold			$\pm 5\%$

style	limiting voltage V(r.m.s.)	rated dissipation at 70 °C W	resistance range	tolerance %	series	catalogue no.
CR16	150	0,2	10 $\Omega$ - 220 k $\Omega$ 270 k $\Omega$ - 1 M $\Omega$	5 10	E24 E12	2322 210 13 ... 2322 210 12 ...
CR16 on reel			10 $\Omega$ - 220 k $\Omega$ 270 k $\Omega$ - 1 M $\Omega$	5 10	E24 E12	2322 210 23 ... 2322 210 22 ...
CR25	150	0,33	1 $\Omega$ - 1 M $\Omega$ 1,2 M $\Omega$ - 10 M $\Omega$	5 10	E24 E12	2322 211 13 ... 2322 211 12 ...
CR25 on reel			1 $\Omega$ - 1 M $\Omega$ 1,2 M $\Omega$ - 10 M $\Omega$	5 10	E24 E12	2322 211 23 ... 2322 211 22 ...
CR25A	250	0,33	1 $\Omega$ - 1 M $\Omega$ 1,2 M $\Omega$ - 10 M $\Omega$	5 10	E24 E12	2322 106 33 ... 2322 106 32 ...
CR37	350	0,5	1 $\Omega$ - 1 M $\Omega$ 1,2 M $\Omega$ - 10 M $\Omega$	5 10	E24 E12	2322 212 13 ... 2322 212 12 ...
CR37 on reel			1 $\Omega$ - 1 M $\Omega$ 1,2 M $\Omega$ - 10 M $\Omega$	5 10	E24 E12	2322 212 23 ... 2322 212 22 ...
CR52 <sup>1)</sup>	500	0,67	1 $\Omega$ - 1 M $\Omega$	5	E24	2322 213 13 ...
CR68 <sup>1)</sup>	750	1,15	1 $\Omega$ - 1 M $\Omega$	5	E24	2322 214 13 ...
CR93 <sup>1)</sup>	1000	2	10 $\Omega$ - 1 M $\Omega$	5	E24	2322 215 13 ...

<sup>1)</sup> For values > 1 M $\Omega$  see high-voltage resistors VR37 and VR68

### Composition of the catalogue no.

In the above-mentioned catalogue no., replace the first two dots by the first two digits of the resistance value.

Replace the third dot by a figure according to the following table:

1 - 9,1 $\Omega$	8	10 - 91 k $\Omega$	3
10 - 91 $\Omega$	9	100 - 910 k $\Omega$	4
100 - 910 $\Omega$	1	1 - 9,1 M $\Omega$	5
1 - 9,1 k $\Omega$	2	10 M $\Omega$	6

Example  
Style CR25 (not on reel) 10  $\Omega$ , 5% cat. no. 2322 211 13109