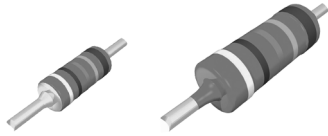


Professional Leaded Resistors



DESCRIPTION

A homogeneous film of metal alloy is deposited on a high grade ceramic body. After a helical groove has been cut in the resistive layer, tinned connecting wires of electrolytic copper are welded to the end-caps. The resistors are coated with lacquer which provides electrical, mechanical, and climatic protection. Four or five colour code rings designate the resistance value and tolerance according to **IEC 60 062**.

FEATURES

- Professional resistors in small outlines
- Low noise.

APPLICATIONS

- All general purpose applications.

The resistors are completely lead-free, the pure tin plating provides compatibility with lead-free and lead-containing soldering processes.

Suitable replacements for MRS16 and MRS25 are the MBA 0204 and MBB 0207 professional.

TECHNICAL SPECIFICATIONS

DESCRIPTION	VALUE	
	MRS16	MRS25
Resistance range	4.99 Ω to 1 M Ω	1 Ω to 10 M Ω
Resistance tolerance and series	$\pm 1\%$; E24/E96 series	
Maximum dissipation at $T_{amb} = 70\text{ }^{\circ}\text{C}$	0.4 W	0.6 W
Thermal resistance (R_{th})	170 K/W	150 K/W
Temperature coefficient	$\pm 50\text{ ppm/K}$	
Maximum permissible voltage (DC or RMS)	200 V	350 V
Basic specifications	IEC 60115-1 and 60115-2	
Climatic category (IEC 60068)	55/155/56	
Max. resistance change for resistance range, $\Delta R/R$ max., after:		
load:		
$R \leq 100\text{ k}\Omega$	$\pm (0.5\% + 0.05\ \Omega)$	$\pm (0.5\% + 0.05\ \Omega)$
$R > 100\text{ k}\Omega$	$\pm (1\% + 0.05\ \Omega)$	$\pm (0.5\% + 0.05\ \Omega)$
climatic tests:		
$R \leq 100\text{ k}\Omega$	$\pm (0.5\% + 0.05\ \Omega)$	$\pm (0.5\% + 0.05\ \Omega)$
$R > 100\text{ k}\Omega$	$\pm (1\% + 0.05\ \Omega)$	$\pm (0.5\% + 0.05\ \Omega)$
soldering:		
$R \leq 100\text{ k}\Omega$	$\pm (0.1\% + 0.05\ \Omega)$	$\pm (0.1\% + 0.05\ \Omega)$
$R > 100\text{ k}\Omega$	$\pm (0.25\% + 0.05\ \Omega)$	$\pm (0.1\% + 0.05\ \Omega)$
short time overload	$\pm (0.25\% + 0.05\ \Omega)$	$\pm (0.25\% + 0.05\ \Omega)$

ORDERING INFORMATION - type description and ordering code

MRS16, MRS25	TC 50	1 %	5 000 UNITS	50 R
TYPE	TEMPERATURE COEFFICIENT	TOLERANCE	PACKAGING	RESISTANCE VALUE
	$\pm 50\text{ ppm/K}$	$\pm 1\%$	Number of units	See Temperature coefficient and resistance range table

DIMENSIONS



DIMENSIONS - leaded resistor types, mass and relevant physical dimensions

TYPE	D _{max} (mm)	L _{max} (mm)	d _{nom} (mm)	M _{min} (mm)	MASS (mg)
MRS16	1.6	3.6	0.5	5.0	125
MRS25	2.5	6.5	0.6	10.0	220

ORDERING INFORMATION

Numeric Ordering code (12NC)

- The resistors have a 12-digit ordering code starting with 2322 15.
- The subsequent 2 digits indicate the resistor type and packaging; see the 12NC Ordering Code table.
- The remaining 4 digits indicate the resistance value:
 - The first 3 digits indicate the resistance value.
 - The last digit indicates the resistance decade in accordance with the 12NC Indicating Resistance Decade table.

Last Digit of 12NC Indicating Resistance Decade

RESISTANCE DECADE	LAST DIGIT
1 Ω to 9.76 Ω	8
10 Ω to 97.6 Ω	9
100 Ω to 976 Ω	1
1 k Ω to 9.76 k Ω	2
10 k Ω to 97.6 k Ω	3
100 k Ω to 976 k Ω	4
1 M Ω to 9.76 M Ω	5
10 M Ω	6

Ordering Example

The ordering code of a MRS16 resistor, value 750 Ω , on a bandolier of 1000 units in ammopack is: 2322 157 17501.

12NC ORDERING CODE - resistors type and packaging

TYPE	ORDERING CODE 2322 15.		
	BANDOLIER IN AMMOPACK		BANDOLIER ON REEL
	1000 UNITS	5000 UNITS	5000 UNITS
MRS16	7 1....	7 2....	7 3....
MRS25	6 1....	6 2....	6 3....