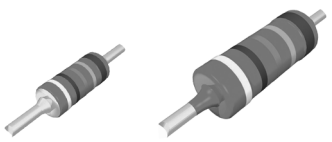
Professional Leaded Resistors



FEATURES

- Professional resistors in small outlines
- Low noise.

APPLICATIONS

- All general purpose applications.

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**.

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 MΩ	1 Ω to 10 MΩ
Resistance tolerance and series	± 1 %; E24/E96 series	
Maximum dissipation at T_{amb} = 70 °C	0.4 W	0.6 W
Thermal resistance (R_{th})	170 K/W	150 K/W
Temperature coefficient	± 50 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 ≤ 100 kΩ	± (0.5 % + 0.05 Ω)	± (0.5 % + 0.05 Ω)
R > 100 kΩ	± (1 % + 0.05 Ω)	± (0.5 % + 0.05 Ω)
climatic tests:		
R ≤ 100 kΩ	± (0.5 % + 0.05 Ω)	± (0.5 % + 0.05 Ω)
R > 100 kΩ	± (1 % + 0.05 Ω)	± (0.5 % + 0.05 Ω)
soldering:		
R ≤ 100 kΩ	± (0.1 % + 0.05 Ω)	± (0.1 % + 0.05 Ω)
R > 100 kΩ	± (0.25 % + 0.05 Ω)	± (0.1 % + 0.05 Ω)
short time overload	± (0.25 % + 0.05 Ω)	± (0.25 % + 0.05 Ω)

ORDERING INFORMATION - type description and ordering code

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

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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 kΩ to 9.76 kΩ	2
10 kΩ to 97.6 kΩ	3
100 kΩ to 976 kΩ	4
1 MΩ to 9.76 MΩ	5
10 MΩ	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....

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