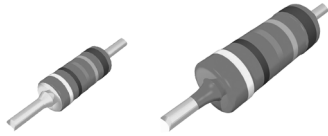


## Professional Leaded Resistors



### 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.

<b>TECHNICAL SPECIFICATIONS</b>		
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 $T_{amb} = 70\text{ °C}$	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)

<b>ORDERING INFORMATION - type description and ordering code</b>				
<b>MRS16, MRS25</b>	<b>TC 50</b>	<b>1 %</b>	<b>5 000 UNITS</b>	<b>50 R</b>
TYPE	TEMPERATURE COEFFICIENT	TOLERANCE	PACKAGING	RESISTANCE VALUE
	± 50 ppm/K	± 1 %	Number of units	See Temperature coefficient and resistance range table

## DIMENSIONS



DIMENSIONS - leaded resistor types, mass and relevant physical dimensions					
TYPE	D <sub>max</sub> (mm)	L <sub>max</sub> (mm)	d <sub>nom</sub> (mm)	M <sub>min</sub> (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....