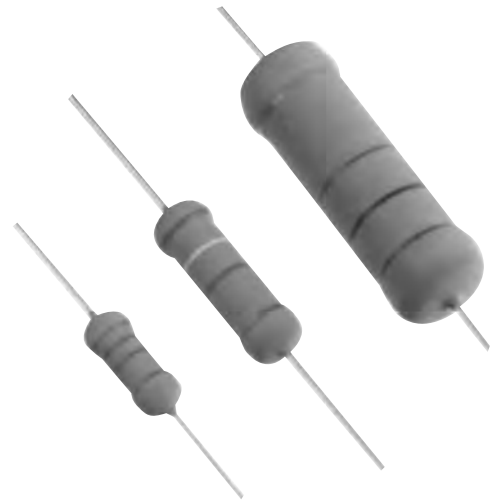


Flameproof Metal Oxide Resistors

WMO-S Series

- Cost effective
- Small size for power rating
- Good pulse handling capability
- Flameproof protection



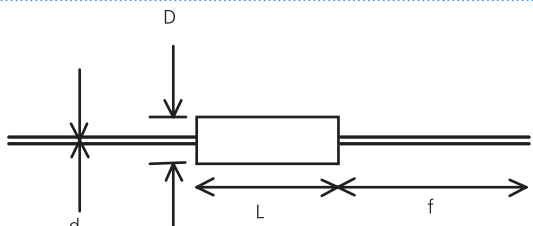
 All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

		WMO½S	WMO1S	WMO2S	WMO3S	WMO5S	WMO7S
Power rating @70°C	watts	½	1	2	3	5	7
Resistance range	ohms	10R-100K	10R-120K	10R-150K		10R-180K	20R-150K
Limiting element voltage	volts	250	300	350		500	750
TCR (25 to 75°C)	ppm/°C	350					
Isolation Voltage	volts	250	350			500	750
Resistance tolerance	%	5					
Standard Values		E24					
Thermal Impedance	°C/watt	125	105	75	63	42	36
Ambient temperature range	°C	-55 to +155					

Physical Data

Dimensions (mm) and Weight (g)							
Type	L max.	D max.	f min.	d nom.	PCB mounting centres	Min. bend radius	Wt. nom.
WMO½S	7.5	3	22	0.6	12.7	0.6	0.22
WMO1S	10	4.5	21	0.7	15.2	1.05	0.42
WMO2S	12	5	20	0.7	17.8	1.05	0.63
WMO3S	16	5.5	25	0.8	20.3	1.2	1.0
WMO5S	26	8.5	29	0.8	30.5	1.2	3.7
WMO7S	32	8.5	35	0.8	38.1	1.2	4.5



General Note

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All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

WMO-S Series

Construction

The resistive film is deposited onto a high purity ceramic rod. End caps are force fitted and termination wires are welded to the end caps. The element is adjusted to the required resistance value by a helical cut. Finally a cement protection is applied to the resistor body prior to marking with indelible ink.

Marking

WMO-S resistors are colour coded with four bands indicating value and tolerance in accordance with IEC62.

Solvent Resistance

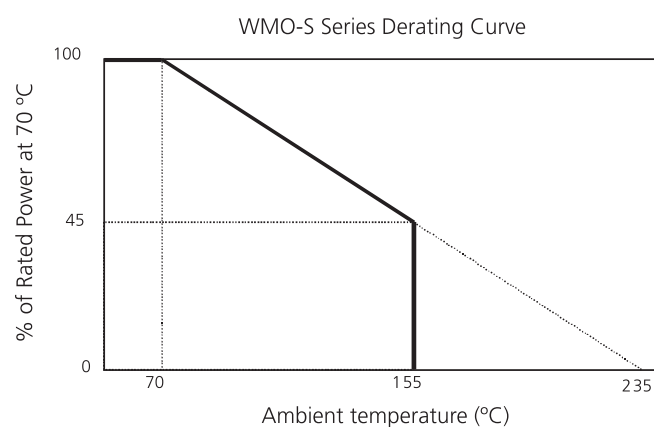
The body protection and marking are resistant to all normal industrial cleaning solvents suitable for printed circuits.

Flammability

The resistor coating will not burn under any condition of applied temperature or component overload.

Performance Data

		Maximum
Load at Rated Power: 1000hrs @ 70°C	ΔR%	5
Short term (5s) overload	ΔR%	2 + 0.05Ω
Derating		See derating curve
Temperature cycling	ΔR%	2 + 0.05Ω
Moisture resistance	ΔR%	5
Resistance to solder heat	ΔR%	1
Insulation resistance	GΩ	>10



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WMO-S Series

Application Notes

1. If the resistors are to dissipate full rated power, it is recommended that the terminations should not be soldered closer than 4mm from the body.
2. Due to operating temperature limits imposed by some PCB materials, derating may be necessary. An estimate of the temperature rise to be expected can be calculated using the thermal impedance figures given under Electrical Data.

Packaging

Our standard packaging for WMO-S is taped and boxed. The critical dimensions are shown in Figure 1. The component wires will not protrude beyond the outside edge of the tapes. Pre-formed resistors are supplied loose packed in plastic bags or boxes.

Dimensions mm	WMO½S	WMO1S	WMO2S	WMO3S	WMO5S	WMO7S
A	52	52	52	67	85	90
B	5	5	5	10	10	10

Figure 1

Body location $f1-f2 < 1.4\text{mm}$

Ordering Procedure

Example: WMO3S-1K5JA1 (WMO3S, 1.5 kilohms $\pm 5\%$, Pb-free)



1 Type	2 Value	3 Tolerance	4 Packing				
WMO1/2S	E24 = 3/4 characters R = ohms K = kilohms	J = $\pm 5\%$	A5	WMO1/2S	Ammo pack	5000/box	
WMO1S			A1	WMO1S, WMO2S, WMO3S		1000/box	
WMO2S			A05	WMO5S, WMO7S		500/box	
WMO3S							
WMO5S							
WMO7S							

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Mouser Electronics

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