

RS3 SPECIFICATIONS

Model	Value	Uncertainty of Adjustment @20°C	Uncertainty of Certification	Temp Coeff Typical 15 to 20°C	Stability Over 1 Year	Dissipation Max in Air Watts	Dissipation Max in Oil Watts	Max. I in Air (Amps)	Max. I in Oil (Amps)
RS3/0001	0.0001Ω	0.02%	±200ppm	20ppm/°C	0.0025%	1	4	100	200
RS3/001	0.001Ω	0.01%	±50ppm	25ppm/°C	0.0025%	1	4	32	60
RS3/01	0.01Ω	0.01%	±25ppm	10ppm/°C	0.001%	1	4	10	20
RS3/02	0.02Ω	0.01%	±50ppm	10ppm/°C	0.001%	1	4	7	14
RS3/05	0.05Ω	0.01%	±50ppm	10ppm/°C	0.001%	1	4	4.5	9
RS3/0.1	0.0.1Ω	0.003%	±25ppm	10ppm/°C	0.001%	1	4	3	6
RS3/1	1Ω	0.003%	±25ppm	10ppm/°C	0.001%	2	10	1.4	3
RS3/10	10Ω	0.003%	±25ppm	10ppm/°C	0.001%	2	10	0.44	1
RS3/25	25Ω	0.005%	±25ppm	10ppm/°C	0.001%	1	10	0.2	1
RS3/50	50Ω	0.005%	±25ppm	3ppm/°C	0.001%	1	10	0.1	0.3
RS3/100	100Ω	0.003%	±25ppm	3ppm/°C	0.001%	1	10	0.1	0.3
RS3/250	250Ω	0.005%	±25ppm	3ppm/°C	0.001%	1	10	0.1	0.1
RS3/1k	1kΩ	0.003%	±25ppm	3ppm/°C	0.001%	1	10	0.03	0.030
RS3/10k	10kΩ	0.003%	±25ppm	3ppm/°C	0.001%	1	10	0.01	0.03
RS3/100k	100kΩ	0.003%	±25ppm	3ppm/°C	0.001%	1	1	0.003	0.003
RS3/1M	MΩ	0.01%	±25ppm	3ppm/°C	0.002%	1	1	0.0002	0.0002

*Special values can be made to order.

Value in ohms	Typical time constant
1Ω	+ 0.34μH/Ω
10Ω	+ 0.18μH/Ω
100Ω	+ 0.03μH/Ω
1kΩ	+ 0.04μH/Ω
10kΩ	+ 0.6μH/Ω

The resistance standards type RS3 were primarily designed as DC standards, however values above 0.1 ohm are non inductively wound and the adjacent AC characteristics are typical

Dimensions

160mm high x 90mm diameter approx

Mass

0.9kg approx

Resistance Elements

Manganin or Zeranin depending on the value. 100 ohm, 1, 10 and 100 kilo ohm low inductance winding on brass formers with PTFE insulation. 0.1, 1 and 10 ohm bifilar winding on cylindrical brass formers with PTFE insulation. 0.01, 0.001, and 0.0001 ohm resistance material in the form of straight rods or loops supported on 12mm brass conductors

Terminals

Potential — Copper 4mm
Current — Brass

Top Panel

Bakelite marked with the value, class designation and serial number

Case

Light alloy, black anodised to give maximum heat radiation
Thermometer Tube: Slotted extending the length of the resistance element

Label

Each standard is fitted with a label that describes its characteristic and operating parameters