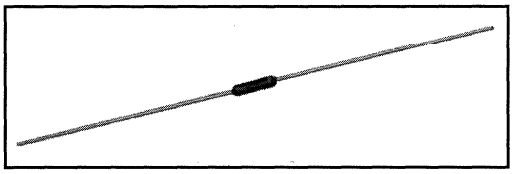
MODEL RS
Wirewound Resistors
Miniature, Precision Power, Coated

A COMPANY OF VISHAY DALE®



FEATURES

- High performance for low cost
- High power/size ratio
- High-temperature silicone coating
- Excellent stability in operation
- Complete welded construction
- Available in non-inductive styles (NS)

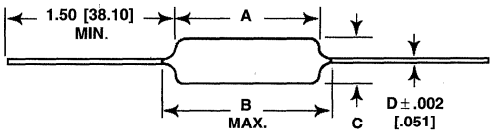
STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING	RESISTANCE RANGE (Ohms) .05%	.1%	.25%	.5%, 1% 3%, 5%	MAXIMUM WORKING VOLTAGE *	MAXIMUM WEIGHT (Grams)
RS-1/4-90	.4 W	1-1k	.499-1k	.499-3.4k	.1-3.4k	20	.21
RS-1/2-90	.75 W	1-1.3k	.499-1.3k	.499-4.9k	.1-4.9k	29	.23
RS-1A-90	1.0 W	1-2.74k	.499-2.74k	.499-10.4k	.1-10.4k	52	.34
RS-1M	1.0 W	1-1.67k	.499-1.67k	.499-6.85k	.1-6.85k	41	.30
RS-2M	3.0 W	.499-4.49k	.499-4.49k	.1-18.74k	.1-18.74k	95	.65

* Maximum working voltage determined at .0008" diameter wire resistance value.

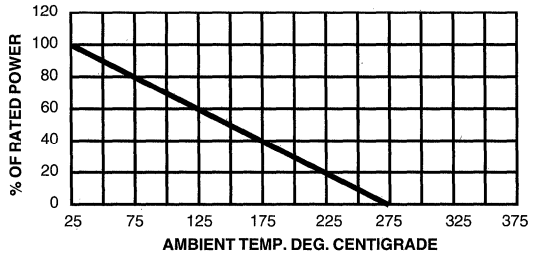
DIMENSIONAL CONFIGURATIONS

[Numbers in brackets indicate millimeters]



MODEL	A	B (Max.)	C	D
RS-1/4-90	.250±.015 [6.35±.381]	.265 [6.73]	.078±.015 [1.98±.381]	.020 [.508]
RS-1/2-90	.312±.015 [7.92±.381]	.327 [8.30]	.078±.015 [1.98±.381]	.020 [.508]
RS-1A-90	.422±.015 [10.72±.381]	.437 [11.10]	.110±.015 [2.79±.381]	.020 [.508]
RS-1M	.295±.015 [7.50±.381]	.311 [7.90]	.110±.015 [2.79±.381]	.020 [.508]
RS-2M	.500±.062 [12.70±1.57]	.562 [14.27]	.185±.015 [4.70±.381]	.032 [.813]

DERATING



NS - NON-INDUCTIVE

Models of equivalent physical and electrical specifications are available with non-inductive (Aryton-Perry) winding. They are identified by substituting the letter N for R in the part number (NS-5, for example). Four conditions apply:

1. For NS models, divide maximum resistance values by two.
2. For NS models, multiply maximum working voltage by .707.
3. For NS models, maximum weights may slightly exceed those shown on low values.
4. Body O.D. on NS-2M may exceed that of the RS-2M by .015" [.381].

NS-1/4-90
NS-1/2-90
NS-1A-90
NS-1M
NS-2M

ELECTRICAL SPECIFICATIONS

Resistance Tolerance: ±5%, ±3%, ±1%, ±.5%, ±.25%, ±.1%, ±.05%.

Temperature Coefficient: (- 55°C to + 275°C).
±90PPM/°C below 1 ohm.
±50PPM/°C 1.0 ohm - 9.9 ohm.
±20PPM/°C 10 ohm and above.

Short Time Overload: 5 seconds at 5 times rated power.

Dielectric Strength: 1000 VAC minimum for RS-2M. 500 VAC minimum for all other styles.

Insulation Resistance: 1000 Megohm minimum dry. 100 Megohm minimum after moisture test.

MATERIAL SPECIFICATIONS

Core Ceramic: Alumina.

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value.

End Caps: Stainless steel.

Coating: Special high temperature silicone.

Standard Terminals: Tinned Copperweld®.

MECHANICAL SPECIFICATIONS

Terminal Strength: 10 pound pull test = RS-2M. 5 pound pull test = all other styles.

Solderability: 60/40 electro tin plated terminals to facilitate soldering.

ENVIRONMENTAL PERFORMANCE *

TEST	DALE® MAXIMUM
Temperature Coefficient	±90PPM/°C below 1Ω ±50PPM/°C 1.0Ω - 9.9Ω ±20PPM/°C 10Ω and above
Thermal Shock	±(.2% + .05Ω) ΔR
Short Time Overload	±(.2% + .05Ω) ΔR
Dielectric	±(.1% + .05Ω) ΔR
Low Temperature Storage	±(.2% + .05Ω) ΔR
High Temperature Exposure	±(.5% + .05Ω) ΔR
Moisture Resistance	±(.2% + .05Ω) ΔR
Shock	±(.1% + .05Ω) ΔR
Vibration	±(.1% + .05Ω) ΔR
Load Life	±(.5% + .05Ω) ΔR
Terminal Strength	±(.1% + .05Ω) ΔR

* All ΔR figures shown are maximum based on units with an initial tolerance of 1% and maximum operating temperature of 275°C.

POWER RATING

- 275°C maximum hotspot temperature.
- .5% maximum ΔR in 2000 hour load life.

NOTE: For Part Marking and How To Order Information see the RS Precision Power, MIL-R-26, data sheet.
In the How To Order Information, substitute RS-1M for Model.

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