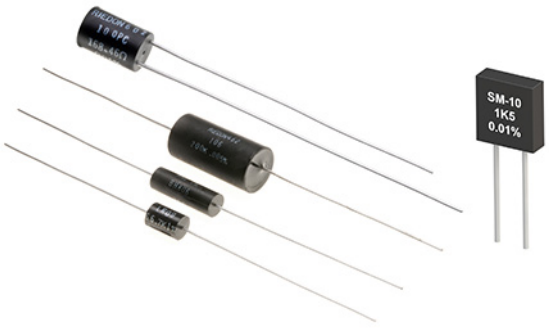
THE DATASHEET OF

SM15-100KX

Precision Wirewound Resistors

100 Series / SM Series / PC Series Precision Resistors



- **Resistances to 6 Megohms**
- **Resistance Tolerances to ±0.005%**
- **Temperature Coefficients of ±2 ppm/°C**
- **Non-Inductive Multi-Pi cores**
- **High TCR Available (Balco & Platinum Wire)**
- **100% Acceptance Tested / Traceable to NIST**
- **Long Term Stability / 100ppm/year**
- **Matched Resistance Sets to ±0.001% and ±0.5 ppm/°C**
- **Flame & Moisture Resistant Protective Encapsulation**

RoHS compliant

SPECIFICATIONS

Type	Commercial Power (Watts)	Resistance Range[1,2] (Ohms)	Dimensions			Maximum Working Voltage
			Diameter ±0.005" [±0.13mm]	Length ±0.025" [±0.64mm]	Lead Diameter[3] ±0.002" [±0.05mm]	
SM-2	0.06	1 - 75k	0.100 [2.5]	0.210 [5.3]	0.020 [0.5]	75
SM-3	0.08	1 - 150k	0.125 [3.2]	0.260 [6.6]	**0.020 [0.5]** 0.025 [0.6]	100
SM-4	0.10	1 - 250k	0.125 [3.2]	0.375 [9.5]	0.020 [0.5]	100
SM-13	0.10	1 - 250k	0.156 [4.0]	0.312 [7.9]	0.020 [0.5]	100
SM-5	0.12	1 - 400k	0.187 [4.7]	0.250 [6.4]	0.025 [0.6]	150
SM-6	0.15	1 - 500k	0.187 [4.7]	0.295 [7.5]	0.025 [0.6]	150
139A	0.15	1 - 500k	0.250 [6.4]	0.250 [6.4]	0.025 [0.6]	100
SM-15	0.175	1 - 750k	0.187 [4.7]	0.375 [9.5]	0.025 [0.6]	200
SM-12	0.20	1 - 750k	0.187 [4.7]	0.450 [11.4]	0.025 [0.6]	200
100	0.20	1 - 1M	0.250 [6.4]	0.375 [9.5]	**0.032 [0.8]** 0.025 [0.6]	200
SM-7	0.25	1 - 1M	0.210 [5.3]	0.465 [11.8]	0.025 [0.6]	250
101	0.25	1 - 1.2M	0.250 [6.4]	0.500 [12.7]	**0.032 [0.8]** 0.025 [0.6]	300
102	0.33	1 - 2.5M	0.250 [6.4]	0.750 [19.1]	**0.032 [0.8]** 0.025 [0.6]	400
120	0.40	1 - 3.8M	0.375 [9.5]	0.500 [12.7]	0.032 [0.8]	300
121	0.50	1 - 3.8M	0.375 [9.5]	0.750 [19.1]	0.032 [0.8]	400
129	0.75	1 - 6M	0.375 [9.5]	1.000 [25.4]	0.032 [0.8]	600
106	1.00	1 - 6M	0.500 [12.7]	1.000 [25.4]	0.032 [0.8]	800
107	1.50	1 - 6M	0.500 [12.7]	1.500 [38.1]	0.032 [0.8]	900
108	2.00	1 - 6M	0.500 [12.7]	2.000 [50.8]	0.032 [0.8]	1000

[1] May not apply for all wire types
[2] Please consult factory for lower/higher values or additional information
[3] Where more than one lead is listed / the top value is Standard

Ordering Information

Part Description: Part Type - Resistance - Tolerance - TCR (If not standard)
Example: SM-6 25K Ohms 0.1%

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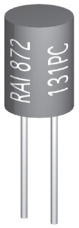
Precision Wirewound Resistors

100 Series / SM Series / PC Series Precision Resistors

PC Series

Type	Commercial Power (Watts)	Resistance Range[1] (Ohms)	Dimensions				Maximum Working Voltage
			Diameter ±0.005" [±0.13mm]	Length ±0.025" [±0.64mm]	Lead Diameter[2] ±0.002" [±0.05mm]	Lead Spacing ±0.015" [±0.4mm]	
110PC	0.05	1 - 75k	0.130 [3.3]	0.200 [5.1]	0.016 [0.4]	0.075 [2.5]	150
100PC	0.125	1 - 500k	0.250 [6.4]	0.375 [9.5]	0.025 [0.6]	0.150 [3.8]	150
130PC	0.125	1 - 500k	0.250 [6.4]	0.312 [7.9]	0.025 [0.6]	0.150 [3.8]	150
131PC	0.125	1 - 500k	0.250 [6.4]	0.312 [7.9]	0.025 [0.6]	0.200 [5.1]	150
101PC	0.25	1 - 600k	0.250 [6.4]	0.500 [12.7]	0.025 [0.6]	0.150 [3.8]	150
120PC	0.40	1 - 800k	0.375 [9.5]	0.500 [12.7]	0.032 [0.8]	0.200 [5.1]	300
104PC	0.50	1 - 1M	0.500 [12.7]	0.500 [12.7]	**0.032 [0.8]** 0.025 [0.6]	0.300 [7.6]	400



Rectangular Series

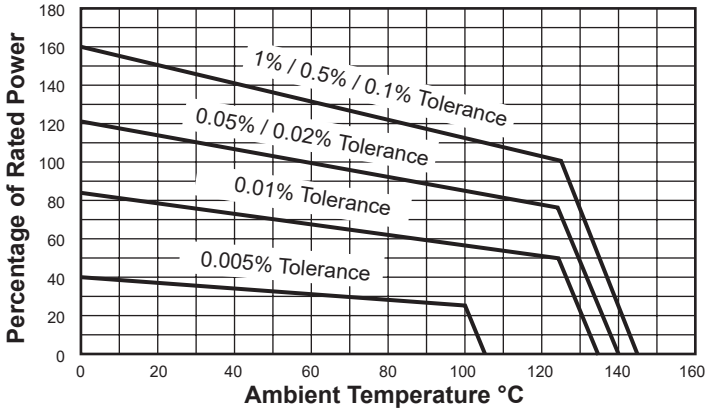
Type	Commercial Power (Watts)	Resistance Range[1] (Ohms)	Dimensions					Maximum Working Voltage
			Width ±0.010" [±0.25mm]	Height ±0.025" [±0.64mm]	Length ±0.010" [±0.25mm]	Lead Diameter[1] ±0.002" [±0.05mm]	Lead Spacing ±0.015" [±0.4mm]	
SM-8	0.125	1 - 500k	0.140 [3.6]	0.250 [6.4]	0.270 [6.9]	0.032 [0.8]	0.125 [3.2]	150
SM-10	0.300	1 - 500k	0.102 [2.6]	0.320 [8.1]	0.300 [7.6]	0.025 [0.6]	0.150 [3.8]	150

[1]May not apply for all wire types. Please consult factory for addtional values or information.
[2]Where more than one lead is listed / the top value is Standard

Lead Length = 1.00 [25] Min.

Specification	Value
Tolerances	±0.005% to ±1% (See Derating Curve)
Standard Temperature Coefficients Consult factory for other options TCR down to 2ppm may be available on request	from 1Ω to 5Ω : ±50ppm/°C greater than 5Ω to 10Ω : ±30ppm/°C greater than 10Ω to 100Ω : ±20ppm/°C greater than 100Ω : ±10ppm/°C
Temperature Range	-55°C to +145°C (See Derating Curve)
Termination Finish	100% Matte Tin over Copper

Power Derating Curve



Notes: (Contact Factory for these options)

Fast Rise Time - These resistors are available in a low reactance design for fast rise time and extended frequency response.

High Stability - These resistors are available in a High Stability version with maximum resistance change of ±20ppm/year under normal conditions.

Wide TCR Range - These resistors are available in Low and High TC configurations from -20ppm/K to +6000ppm/K.

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