

SRX-SRC Series

**Economical high performance
resistance standards.**

Features:

- Very stable - as low as 10 ppm/yr
- Excellent temperature coefficient - as low as 1 ppm/°C
- Rugged
- Wide range of values - 1 mΩ to 10 TΩ
- Custom values are available
- Optional transit case
- High voltage operation - up to 5000 V for SRC series

SRX SERIES

Designed for use as a reference or working standard in industrial, research, and educational laboratories.



SRX Series Resistance Standard 190 kΩ and under



SRX Series Resistance Standard 1 MΩ and over

SRC SERIES

Economical high resistance, high voltage standards for applications requiring values from 190 MΩ up to 10 TΩ.

SRC Maximum Voltage: 5000 V



SRC Series Resistance Standard Two Terminals with Kel-F Washers and Guard Terminal

SPECIFICATIONS

Calibration Conditions:

At 23°C, low power, traceable to SI.
Connections as indicated in table.

Terminals:

Gold plated, tellurium copper, high current, heavy duty, low thermal-emf binding position standard 3/4 inch spacing. A case **GROUND** terminal is provided on all units.

Dimensions: 8.6 cm H x 10.5 cm W x 12.7 cm D (3.4" x 4.15" x 5")

Environmental Conditions:

Operating Conditions: 10°C to 40°C
Storage Conditions: -40°C to 70°C

Transit Case:

Optional **Model SRC-100** lightweight transit case with handle, suitable for transporting and storing two units. The case provides mechanical protection and insulation from temperature changes during transportation or shipping.

Optional **Model SRC-100-5** lightweight transit case with handle, suitable for transporting and storing 5 SRC/SRX resistance standards.



SRC-100-5 Lightweight transit case for 5 standards

SPECIFICATIONS

Model SRX-	Nominal (Ω)	Initial Adjustment to Nominal (ppm)	Calibration Uncertainty (Typical) (ppm)	Stability 1 year (ppm)	Tempco (ppm/ $^{\circ}$ C)	Resistor type	Max. Power* (W)	Power Coef.** (ppm/mW)	Max. Voltage (V)	Max. Current (A)	Terminals	
0.001	0.001	200	200	50	20	Manganin strip	0.2	0.1	0.015	14 A	4 bp's + gnd	
0.0019	0.0019	200	200	50	20		0.38	0.1	0.03	14 A		
0.002	0.002	200	200	50	20		0.4	0.1	0.02	14 A		
0.01	0.01	200	100	50	20	Manganin wire	0.2	0.1	0.15	4.5 A		
0.019	0.019	200	100	50	20		0.38	0.1	0.3	4.5 A		
0.1	0.1	200	20	50	20		0.2	0.1	0.3	1.4 A		
0.19	0.19	200	20	50	20	Hermetically sealed wirewound	0.38	0.1	0.6	1.4 A		
1	1	20	10	20	10		0.25	0.5	0.5	0.5 A		
1.9	1.9	20	10	20	10		0.25	0.5	0.7	0.36 A		
10	10	10	5	10	3		0.1	0.15	1	0.1 A		
19	19	10	5	10	3		0.1	0.15	1.4	70 mA		
50	50	10	5	10	1		0.1	0.05	2.3	45 mA		
100	100	10	5	10	1		0.1	0.05	3	30 mA		
190	190	10	5	10	1		0.1	0.05	4.4	23 mA		
1K	1 k	10	5	10	1		0.1	0.05	10	10 mA		
1.9K	1.9 k	10	2	10	1		0.1	0.05	14	7 mA		
10K	10 k	10	2	10	1		0.1	0.05	30	3 mA		
19K	19 k	10	2	10	1		0.1	0.05	43	2.2 mA		
100K	100 k	10	2	10	1		0.1	0.05	100	1 mA		
190K	190 k	10	2	10	1		0.1	0.05	140	0.7 mA		
1M	1 M	20	5	15	3		0.1	0.15	316	0.3 mA		
1.9M	1.9 M	20	5	15	3		0.1	0.15	440	0.23 mA		
10M	10 M	20	10	20	5		0.1	0.25	2000	0.1 mA		
19M	19 M	20	10	20	5		0.05	0.7	5000	50 μ A		
100M	100 M	50	15	20	5		Precision thick film resistors sealed in a case	0.01	1.2	5000	10 μ A	2 bp's + gnd and guard

*Maximum Power is specified for no change in resistance value beyond stated stability. See ** Power Coefficient note for maximum rated power.

**Power Coefficient: SRX units with hermetically sealed wirewound resistors have a maximum rated power of 1.0 W. Operation at values higher than 0.1 W will cause self-heating effects on the order of 50 $^{\circ}$ C/W, assuming a 23 $^{\circ}$ C ambient temperature. This will cause a reversible change in resistance beyond stated stability.

Model SRC-	Nominal (Ω)	Initial Adjustment to Nominal (ppm)	Calibration Uncertainty (Typical) (ppm)	Stability 1 year (ppm)	Tempco (ppm/ $^{\circ}$ C)	Resistor type	Max. Voltage (V)	Terminals
190M	190 M	0.1%	30	500	25	Precision thick film resistor sealed in a case	5000	2 bp's + gnd and guard
1G	1 G	0.5%	100	500	50			
1.9G	1.9 G	0.5%	100	500	50			
10G	10 G	0.5%	200	500	50			
19G	19 G	0.5%	500	500	50			
100G	100 G	0.5%	900	500	50			
190G	190 G	1%	900	500	50			
1T	1 T	2%	2500	500	100			
1.9T	1.9 T	2%	2500	1000	200			
10T	10 T	3%	10000	2000	300			

ORDERING INFORMATION

Standard model Select from table above
 Custom value SRX-XXX or SRC-XXX
 Transit case for SRL units SRC-100, for 2 units
 SRC-100-5, for 5 units

Options:
 Triax and bnc terminals are also available
 Combination units in single housing available



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