

Model DB62

RESISTANCE STANDARDS & INSTRUMENTS

- Four Models each covering six decades
 - 0.01 Ω through 11.1111 k Ω
 - 0.1 Ω through 111.111 k Ω
 - 1 Ω through 1.11111 M Ω
 - 10 Ω through 11.1111 M Ω
- 0.01% Initial Accuracy
- Serves DC through Audio Frequency Applications
- Great Stability due to 5ppm/°C Temperature Coefficient and 0.15 ppm/mW Power Coefficient for values 1 k Ω and up
- Short term switch repeatability ± 0.24 m Ω typical

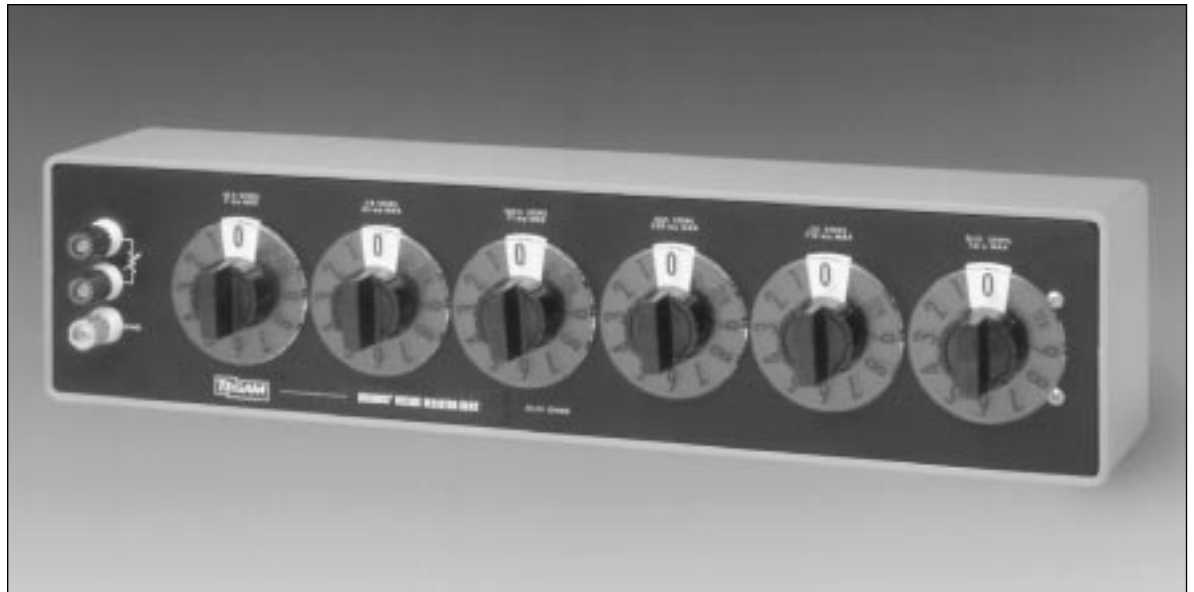
Dekabox In-Line Decade Resistors

The Model DB62 Dekabox In-Line Decade Resistor provides dependable long-term service in precision DC through audio frequency applications. Six decades of non-inductive, precision, wire-wound fixed resistors are mounted in a low noise shielded aluminum housing.

The DB62 is easy to use. It has the input terminals and a case connected ground terminal conveniently located on the front panel. The dials rotate independently through 360 degrees of rotation to simplify and speed settings. This allows for a coarse approximation and then precise finer steps to provide an exact resistance value.

Accuracy over a wide range of ambient conditions is assured by the use of resistors with good temperature and power coefficients. Repeatability is assured by the use of switches that have multiple contacts of solid silver-alloy.

The Dekabox resistance values are easily read from the large-numeral in-line presentation above the knobs. Resistance per step and current ratings of each decade are presented below the knobs for operator convenience and circuit safety.



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Model DB62

DEKABOX IN-LINE DECADE RESISTORS

Specifications

Model No.	Total Resistance Ω	Smallest Step Ω	Resistance Values (Ω)					
			R1	R2	R3	R4	R5	R6
DB62	11.1111M	10	1M	100K	10K	1K	100	10
	1.11111M	1	100K	10K	1K	100	10	1
	111.111K	0.1	10K	1K	100	10	1	0.1
	11.1111K	0.01	1K	100	10	1	0.1	0.01

Accuracy

Accuracy of resistance increments is given in the table below. Accuracy of resistance change from zero setting is given below.

Initial (60 days) $\pm(0.01\% + 6 \text{ m}\Omega)$

Long-term (two years) $\pm(0.02\% + 6 \text{ m}\Omega)$

Short-Term Switching Repeatability

$\pm 0.24 \text{ m}\Omega$ (typical).

Number of Decades

Six.

Total Resistance

See table above.

Resistance per Decade

See table above.

Smallest Step

See table above.

Resistance at Zero Setting

Approximately 12 m Ω .

Breakdown Voltage

1000 V p.case.

Dimensions

Height 4.3 in. (10.9cm).

Width 18.0 in. (45.7cm).

Depth 4.9 in. (12.45 cm).

Weight

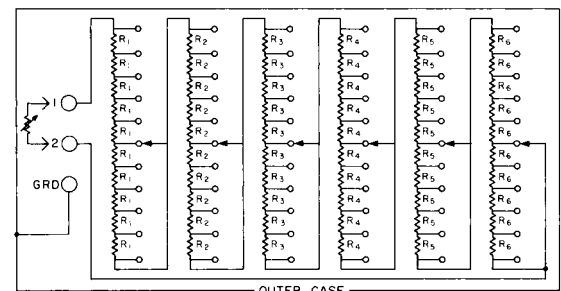
4.5 lb. (2.2 kg) net.

Model DB62 ratings per step for each decade

Resistance Per Decade (Ω)	Resistance ¹ Value R (Ω)	Incremental Accuracy		Coefficients		Measurement Duty ² Maximum Ratings		Peak Voltage (V/step)
		Initial (%)	Long-term (%)	Temperature (ppm/ $^{\circ}$ C)	Power (ppm/mW/step)	Power (mW/step)	Current (mA)	
10M	1M	0.01	0.02	5	0.15	100	0.3	300
1M	100k	0.01	0.02	5	0.15	1000	3.2	300
100k	10k	0.01	0.02	5	0.15	1000	10	1500
10k	1k	0.01	0.02	5	0.15	1000	32	1500
1k	100	0.01	0.02	5	0.15	1000	100	1500
100	10	0.012	0.025	15	0.45	1000	320	1500
10	1	0.03	0.07	20	0.6	1000	1000	1500
1	0.1	0.2	0.5	60	3	500	2200	1500
0.1	0.01	2	5	400	60	160	4000	1500

¹ Refers to previous table

² Intermittent use such that temperature rise of the resistor will not appreciably exceed that which would occur in free air.



Dekabox Schematic Diagram

Standard Equipment

Model DB62 comes with a 7275 instruction manual.

Calibration & Technical Services

For warranty and remedial repair, calibration services and spare parts, or for additional information on TEGAM sales and service offices around the world, contact us at 440-466-6100 (ph) or 440-466-6110 (fx).



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