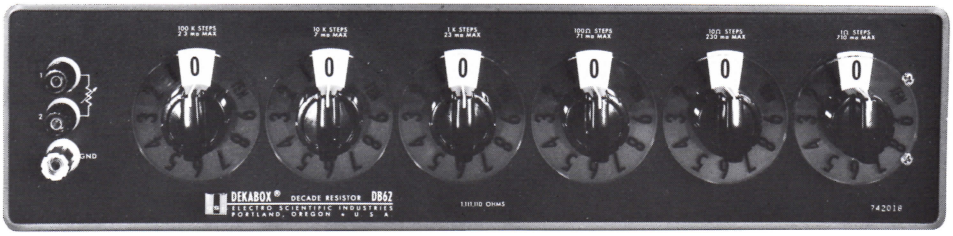
DATA SHEET

Model DB62

Dekabox® In-line Decade Resistors

- **0.02% nominal accuracy**
- **Precision DC use**
- **Six dual in-line decades**
- **Low temperature and power coefficient shielding**
- **Four standard values**



Dekabox in-line decade resistors are designed for precision DC and audio frequency use. They feature high accuracy, ease of setting, and rapid, error-free reading. The smallest step provided is 0.01Ω; the largest total resistance available is slightly greater than 11MΩ.

Initial adjustment precision is maintained by sound electrical and mechanical design and by the use of materials of highest stability. Accuracy over a wide range of ambient conditions is assured by the use of resistors of low temperature and power coefficients. Switches having multiple contacts made of solid silver-alloy provide low, stable contact resistance. Insulation and circuit design minimize leakage effects.

The bar knobs that rotate the decade switches are especially designed to permit decade setting with a minimum of visual attention. All dials turn a full 360 degrees to simplify and speed settings. The "10" position on each dial gives the overlap on every decade; the unused "11" position is not detented and can be identified by feel.

The Dekabox resistance values are easily read from the large-numeral in-line presentation above the knobs. Resistance per step and current rating of each decade are presented below the knobs for operator convenience and circuit safety. A sturdy aluminum housing provides both mechanical protection and electrical shielding for the resistance decades.

Specifications

MODEL NO.	TOTAL RESISTANCE	RESISTANCE PER STEP	RESISTANCE VALUES (Ω)					
	(Ω)	(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 accompanying table. Accuracy of resistance change from zero setting is given below.

Initial (60 days)	±(0.01% + 6mΩ)
Long-term (two years)	±(0.02% + 6mΩ)

Short-Term Switching Repeatability
±0.24mΩ (typical)
Number of Decades
Six
Total Resistance
See table
Resistance per Decade
See table
Smallest Step
See table
Ratings per step for each decade

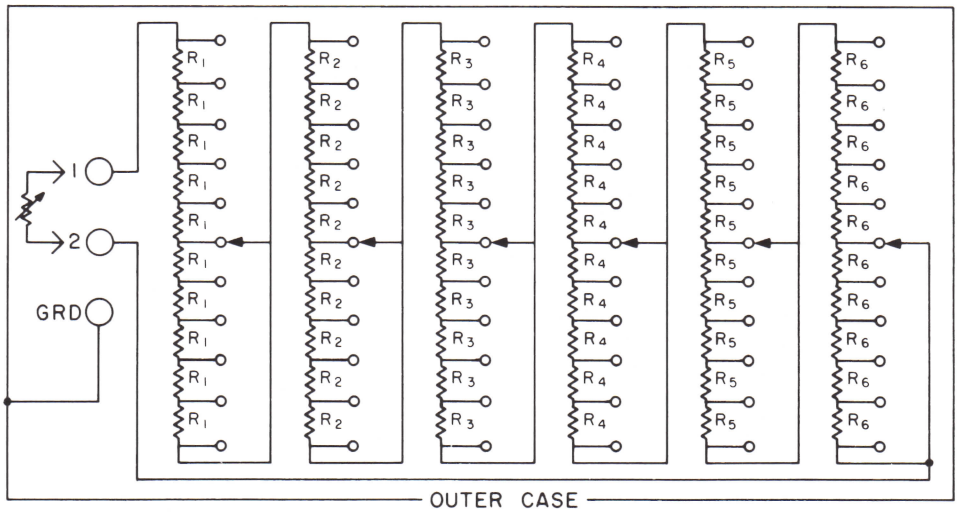
RESISTANCE PER DECADE (Ω)	RESISTANCE① VALUE R (Ω)	INCREMENTAL ACCURACY INITIAL (%)	INCREMENTAL ACCURACY LONG TERM (%)	COEFFICIENTS TEMPERATURE (ppm/°C)	COEFFICIENTS POWER (ppm/mW/step)	MEASUREMENT DUTY② MAXIMUM RATINGS POWER (mW/step)	MEASUREMENT DUTY② MAXIMUM RATINGS CURRENT (mA)	PEAK VOLTAGE (V/Step)
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	
10k	1k	0.01	0.02	5	0.15	1000	32	
1k	100	0.01	0.02	5	0.15	1000	100	
100	10	0.012	0.025	15	0.45	1000	320	
10	1	0.03	0.07	20	0.6	1000	1000	
1	0.1	0.2	0.5	60	3	500	3200	
0.1	0.01	2	5	400	60	160	4000	

①Refers to previous table
②Intermittent use such that temperature rise of the resistor will not appreciably exceed that which would occur in free air.

Resistance at Zero Setting
Approximately 12mΩ
Breakdown Voltage
1000V peak to case
Dimensions
Height 4.3 in. (10.9cm)
Width 18.0 in. (45.7cm)
Depth 4.9 in. (12.45cm)
Weight
4.5 lbs (2.2kg) net

Standard Equipment

Model DB62 comes with a 7275 instruction manual.



Dekabox Schematic Diagram

I841-1188-A2K

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