



## Dekabox In-Line Decade Resistors

### DB62 Series

The DB62 Series offers a dependable, long-term service in precision dc through audio frequency applications. The units feature 6 decades with non-inductive, precision resistors mounted in a low-noise, shielded housing. After inheriting the DB62 series from esi, IET used its own resistance technology to significantly improve the stability of the unit.



Sample DB62 Decade Resistor

#### Features:

- Four available models
- High accuracy:  $\pm(0.01\% + 2 \text{ m}\Omega)$
- Serves DC through audio frequency applications
- Improved stability:  $\pm 20 \text{ ppm/year}$
- Low TC:  $\pm 5 \text{ ppm}/^\circ\text{C}$

### SPECIFICATIONS

Resistance per step	Total decade resistance	Max current	Max voltage (per step)	Max power (per step)	Stability ( $\pm\text{ppm/yr}$ )	Long-term stability ( $\pm\text{ppm/3 yrs}$ )	Temperature coefficient ( $\pm\text{ppm}/^\circ\text{C}$ )	Resistor type
10 m $\Omega$	100 m $\Omega$	4.0 A	40 mV	0.16 W	50	75	20	Resistance wire
100 m $\Omega$	1 $\Omega$	1.6 A	0.16 V	0.25 W	50	75	20	
1 $\Omega$	10 $\Omega$	0.8 A	0.8 V	0.6 W	20	25	20	
10 $\Omega$	100 $\Omega$	0.25 A	2.5 V	0.6 W	20	25	15	Wirewound, non-inductive
100 $\Omega$	1 k $\Omega$	80 mA	8 V	0.6 W	20	25	5	
1 k $\Omega$	10 k $\Omega$	23 mA	23 V	0.5 W	20	25	5	
10 k $\Omega$	100 k $\Omega$	7 mA	70 V	0.5 W	20	25	5	
100 k $\Omega$	1 M $\Omega$	2.3 mA*	230 V*	0.5 W*	20	25	5	
1 M $\Omega$	10 M $\Omega$	0.7 mA*	700 V*	0.5 W*	20	25	10	

\*Subject to maximum of 2000 V to case

#### Accuracy:

$\pm(0.01\% + 2 \text{ m}\Omega)$   
after subtraction of zero resistance, at 23°C;  
traceable to SI

#### Zero resistance:

<1 m $\Omega$  per decade at dc

#### Max voltage to case:

2000 V peak

#### Terminals:

Gold-plated, 5-way, tellurium-copper binding posts with low thermal emf and low resistance. Rear outputs are available as an option.

#### Environmental conditions:

**Operating:** 10°C to 40°C; <50% RH  
**Storage:** -40°C to 70°C

#### Switches:

Six decades  
Continuous rotation  
11 positions marked "0"- "10"  
Multiple solid silver-alloy contacts

#### Mechanical:

**Dimensions:** 43.9 cm W x 8.9 cm H x 10.2 cm D  
(17.3" x 3.5" x 4")  
**Weight:** 2.4 kg (5.3 lb)

### ORDERING INFORMATION

DB62-11K	Dekabox, 6-decade, 11.111 k $\Omega$ , 0.01 $\Omega$ per step
DB62-111K	Dekabox, 6-decade, 111.111 k $\Omega$ , 0.1 $\Omega$ per step
DB62-1M	Dekabox, 6-decade, 1.11111 M $\Omega$ , 1 $\Omega$ per step
DB62-11M	Dekabox, 6-decade, 11.1111 M $\Omega$ , 10 $\Omega$ per step