

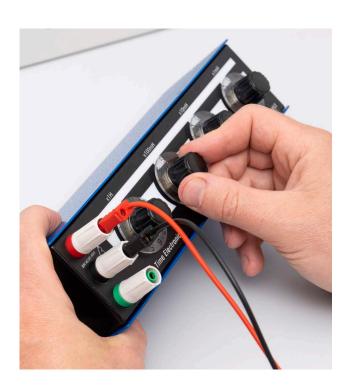
Decade Boxes



Performance and durability for industry and education









Decade Boxes

Time Electronics decade boxes are an established range of products with over 55 years of manufacturing history and quality behind them. These passive devices utilise a series of internal resistors, capacitors, or inductors to replicate specific electrical values. They are commonly used as a time-saving tool in electronic circuit design where electrical values can be substituted into a circuit and replace any standard value component. This enables users to find the optimum value for circuit operation instead of trialling several components individually.

For calibration work decade boxes are suitable for verifying the accuracy of measuring devices and test equipment including multimeters. Resistance decade boxes are commonly used for Pt100 simulation to calibrate RTD transmitters and various temperature devices.

Our decade boxes are dependable quality products that combine precision and long-term stability, with simple operation and robustness. We designed them for reliability to cover the requirements for both lab and field use. This has made them the preferred choice of engineers, technicians and educators for over half a century.



1051 – 8 Decade Low Ohm Resistance Box

					111122 / 0.1	01Ω steps
Decade 0.01Ω 0.1Ω	1Ω	10Ω	100Ω	1kΩ	10kΩ	100kΩ
Accuracy ± 10% ± 5%	± 1%	± 0.5%	± 0.1%	± 0.1%	± 0.1%	± 0.1%
Max Current 1A 1A	1A	0.3A	0.1A	33mA	10mA	3mA

 Residual Resistance:
 Less than 90mΩ

 Power Rating:
 1 watt per resistor

 Voltage Rating:
 Maximum 250V DC/AC RMS

 Temperature Coefficient:
 50ppm/°C

 Dimensions / Weight:
 W215 x H100 x D120mm / 1kg (incl. protective boot)

 Features:
 Colour coded digits, safety terminals, and protective rubber boot



1040 – 8 Decade Wide Range Resistance Box

Range / Resolution: 0 to 100M Ω / 1 Ω steps									
	Decade	1Ω	10Ω	100Ω	1kΩ	10kΩ	100kΩ	1ΜΩ	10ΜΩ
	Accuracy	± 1%	± 0.5%	± 0.1%	± 0.1%	± 0.1%	± 0.1%	± 0.1%	± 1%
	Max Current	0.5A	0.3A	100mA	30mA	3mA	0.3mA	30µA	3 <i>µ</i> A
Residual Resistance: Less than 250mΩ									

Power Rating: 1 watt per resistor
Voltage Rating: Maximum 250V DC/AC RMS
Temperature Coefficient: 50ppm/°C
Dimensions / Weight: W215 x H100 x D120mm / 1kg (incl. protective boot)
Features: Colour coded digits, safety terminals, and protective rubber boot



1041 – 5 Decade Low Ohm Resistance Box

Range / Resolution:	to	$1k\Omega$ /	0.01Ω steps

Decade	0.01Ω	0.1Ω	1Ω	10Ω	100Ω
Accuracy	± 10%	± 5%	± 1%	± 0.5%	± 0.1%
Max Current	1A	1A	1A	0.3A	0.1A



1061 – 6 Decade Resistance Box

Range / Resolution:	0 to 1.2M Ω / 1 Ω steps
Accuracy:	± 1%
Residual Resistance:	Less than 150m $Ω$
Power Rating:	
Voltage Rating:	
Dimensions / Weight:	W355 x H63 x D82mm / 0.75kg
Features:	Slimline design and front panel safety terminals

1067 – 6 Decade Precision Resistance Box

Range / Resolution:	0 to $12k\Omega$ / $10m\Omega$ steps
Accuracy:	
Residual Resistance:	Less than $10m\Omega$. Less than $1m\Omega$ variation
Power Rating:	
Stability:	20ppm/year (>1 Ω), 100ppm/year (<1 Ω)
Voltage Rating:	Maximum 200V DC/AC RMS
Insulation:	Case to resistance terminals 2kV / 50Hz maximum
Temperature Coefficient:	10ppm/°C (20ppm/°C below 1Ω)
Dimensions / Weight:	
Contacts:	Make before break – silver alloy



1065 – 6 Decade Power Resistance Box

Range / Resolution:	0 to $120k\Omega / 0.1\Omega$ steps
Accuracy:	\pm 5% (0.1 Ω), \pm 1% (1 Ω to 120k Ω)
Residual Resistance:	Less than 20m $Ω$
Power Rating:	10 watt per resistor
Voltage Rating:	Maximum 500V DC/AC RMS
Temperature Coefficient:	200ppm/°C
Dimensions / Weight:	
Features:	Ventilated robust metal case and multi-wafer
	switches for low switch contact resistance



1070 – 5 Decade Capacitance Box 1071 – 7 Decade Capacitance Box

	0 to 10µF / 100pF steps Less than 38pF
	0 to 100µF / 10pF steps Less than 50pF
Voltage Rating:	
Features:	, 3()



1053 – 4 Decade Inductance Box

Range / Resolution:	0 to 10H / 1mH steps
Accuracy at 1kHz:	
Voltage Rating:	Maximum 30V AC
Maximum Current:	150mA
Residual Resistance:	Less than 0.2Ω
Residual Inductance:	Less than 1μH
Dimensions / Weight:	
Features:	Robust metal case and front panel safety terminals







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