



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

Range / Resolution: 0 to 1M Ω / 0.01 Ω steps

Decade	0.01 Ω	0.1 Ω	1 Ω	10 Ω	100 Ω	1k Ω	10k Ω	100k Ω
Accuracy	$\pm 10\%$	$\pm 5\%$	$\pm 1\%$	$\pm 0.5\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$
Max Current	1A	1A	1A	0.3A	0.1A	33mA	10mA	3mA

Residual Resistance: Less than 90m Ω

Power Rating: 1 watt per resistor

Voltage Rating: Maximum 250V DC/AC RMS

Temperature Coefficient: 50ppm/ $^{\circ}$ 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	1 Ω	10 Ω	100 Ω	1k Ω	10k Ω	100k Ω	1M Ω	10M Ω
Accuracy	$\pm 1\%$	$\pm 0.5\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 1\%$
Max Current	0.5A	0.3A	100mA	30mA	3mA	0.3mA	30 μ A	3 μ A

Residual Resistance: Less than 250m Ω

Power Rating: 1 watt per resistor

Voltage Rating: Maximum 250V DC/AC RMS

Temperature Coefficient: 50ppm/ $^{\circ}$ 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: 0 to 1k Ω / 0.01 Ω steps

Decade	0.01 Ω	0.1 Ω	1 Ω	10 Ω	100 Ω
Accuracy	$\pm 10\%$	$\pm 5\%$	$\pm 1\%$	$\pm 0.5\%$	$\pm 0.1\%$
Max Current	1A	1A	1A	0.3A	0.1A

Residual Resistance: Less than 60m Ω

Power Rating: 1 watt per resistor

Voltage Rating: Maximum 100V DC/AC RMS

Temperature Coefficient: 50ppm/ $^{\circ}$ C

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

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



1061 – 6 Decade Resistance Box

Range / Resolution: 0 to 1.2M Ω / 1 Ω steps

Accuracy: $\pm 1\%$

Residual Resistance: Less than 150m Ω

Power Rating: 0.75 watt per resistor

Voltage Rating: Maximum 300V DC/AC RMS

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 Ω / 10m Ω steps
 Accuracy: \pm 0.01%
 Residual Resistance: Less than 10m Ω . Less than 1m Ω variation
 Power Rating: 0.35 watt per resistor
 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/ $^{\circ}$ C (20ppm/ $^{\circ}$ C below 1 Ω)
 Dimensions / Weight: W355 x H63 x D89mm / 1.1kg
 Contacts: Make before break – silver alloy



1065 – 6 Decade Power Resistance Box

Range / Resolution: 0 to 120k Ω / 0.1 Ω 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/ $^{\circ}$ C
 Dimensions / Weight: W390 x H80 x D150mm / 2k
 Features: Ventilated robust metal case and multi-wafer switches for low switch contact resistance



1070 – 5 Decade Capacitance Box

1071 – 7 Decade Capacitance Box

1070 Range / Resolution: 0 to 10 μ F / 100pF steps
 1070 Residual Capacitance: Less than 38pF
 1071 Range / Resolution: 0 to 100 μ F / 10pF steps
 1071 Residual Capacitance: Less than 50pF
 Accuracy: 1% (5% above 10 μ F – 1071)
 Voltage Rating: Maximum 300V DC, 200V AC
 Dimensions / Weight: W215 x H100 x D120mm / 1kg (incl. protective boot)
 Features: Bi-polar working, colour coded digits, safety terminals, and protective rubber boot



1053 – 4 Decade Inductance Box

Range / Resolution: 0 to 10H / 1mH steps
 Accuracy at 1kHz: 3% of setting
 Voltage Rating: Maximum 30V AC
 Maximum Current: 150mA
 Residual Resistance: Less than 0.2 Ω
 Residual Inductance: Less than 1 μ H
 Dimensions / Weight: W248 x H62 x D102mm / 0.8kg
 Features: Robust metal case and front panel safety terminals



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Y E A R S



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