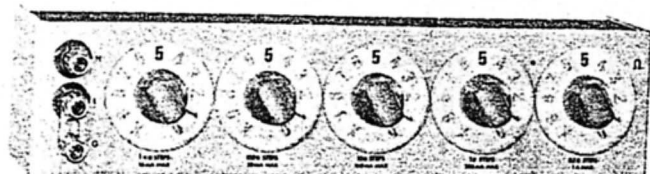
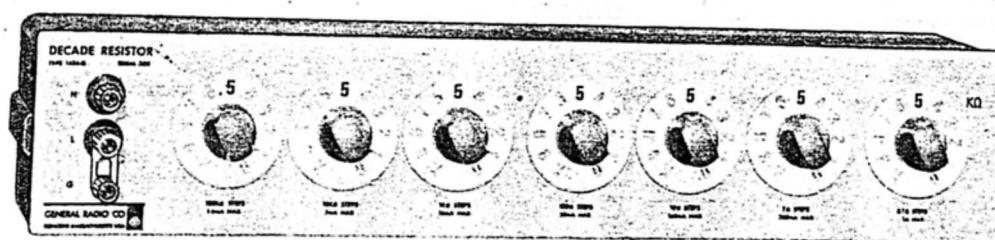




TYPE 1434 DECADE RESISTORS



1434-N



1434-G

Figure 1. Type 1434-N and -G Decade Resistor boxes.

SPECIFICATIONS

Accuracy

Long-term: Two-year warranty applies to the tolerances given barring damage by excessive current. Tolerances apply at low currents and at dc or low-frequency ac.

Over-all: The resistance difference between that at any setting and at the zero setting is equal to the indicated value $\pm(0.05\% + 5 \text{ m}\Omega)$.

Incremental: See table. This is the accuracy of the change in resistance between any two settings of the same dial.

Zero Resistance: Approx 3 m Ω per dial at low frequencies except for the 1434-QC for which it is approx 30 m Ω .

Max Current: See table; these values also appear on the panel of each decade box. When this max current is passed through a decade, the temporary change in value will be less than the accuracy specification. Currents appreciably higher than this will cause permanent damage.

Temperature Coefficient: $< \pm 10 \text{ ppm}/^\circ\text{C}$ at room temperature, except for the low-valued units where the $+0.4\%/^\circ\text{C}$ temperature coefficient of the zero resistance must be added.

Frequency Characteristics: Generally similar to those of the 1433 Decades.

Switches: Multiple, solid-silver-alloy switches are used to obtain low and stable zero resistance.

Terminals: Jack-top binding posts on standard $3/4$ -in. spacing. A shield terminal is also provided. The 1434-G has lug connections accessible from the rear.

Mounting: All types except the 1434-G are in small cabinets for bench use. The 1434-G is also designed for bench use but, with the addition of mounting hardware, becomes $3\frac{1}{2}$ -in. high, 19-in. relay-rack unit.

Total R of Decade	Resistance Per step	Incremental Accuracy*	Max Current	Inductance Per step
1 Ω	0.1 Ω	$\pm 3.0\%$	1 A	0.01 μH
10 Ω	1.0 Ω	$\pm 0.3\%$	0.3 A	0.05 μH
100 Ω	10 Ω	$\pm 0.08\%$	160 mA	0.08 μH
1 k Ω	100 Ω	$\pm 0.05\%$	50 mA	0.18 μH
10 k Ω	1 k Ω	$\pm 0.05\%$	16 mA	1.8 μH
100 k Ω	10 k Ω	$\pm 0.05\%$	5 mA	22.0 μH
1 M Ω	100 k Ω	$\pm 0.05\%$	1.6 mA	
100 Ω **	1 Ω /div	$\pm 1 \Omega$	200 mA	

Mechanical Data:

Models	Width		Height		Depth		Net Weight		Shipping Weight	
	in.	mm.	in.	mm.	in.	mm.	lb.	kg.	lb.	kg.
M, N, P, QC	1.134	300	2 3/4	70	4 1/4	110	3	1.4	4	1.9
B, X	1.334	350	2 3/4	70	4 1/4	110	3 1/4	1.5	4	1.9
G (bench)	1.734	442	3 1/2	89	5 3/8	130	6	2.8	7	3.2
G (rack)	1.9	485	3 1/2	89	3 1/2	89	6	2.8	7	3.2

*At low currents and low frequencies. **Except 1434-QC — add $\pm 1 \Omega$ if rheostat moved from zero.

Catalog Number	Description	Total Resistance (Ω)	Resistance Per Step	Number of Decades
	Decade Resistor			
1434-9714	1434-N	11,111	0.1 Ω	5
1434-9713	1434-M	111,110	1.0 Ω	5
1434-9716	1434-P	1,111,100	10 Ω	5
1434-9576	1434-QC	1,111,105	1 Ω /div	4 + rheostat
1434-9702	1434-B	1,111,100	1.0 Ω	6
1434-9724	1434-X	111,111	0.1 Ω	6
1434-9707	1434-G	1,111,111	0.1 Ω	7

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