

SCOPE

DecR series Resistance Decade Standard



High Resistance, High Voltage Decade Resistance Box...
...DecR series

The Product

High Resistance, High Voltage Decade Resistance Box

SCOPE offers High Resistance, High Voltage Decade Resistance Box - DecR. It contains number of smartly configured precision resistors. They are arranged in such a way that user can obtain desired resistance value by selecting appropriate decade switches.

DecR is designed using the high quality specially selected resistors. These range of high ohm resistance decades are ideal for variety of applications, having a voltage rating up to 5 kV. It covers the resistance range from 1 kilo ohm to 1 tera ohm. DecR can also be customized as per requirement.

DecR is housed in a rugged case and available in 3 / 4 / 6 / 9 decades or in binding post configuration



Special Features

- Lowest Resistance : 0.01Ω
- Highest Resistance : 11TΩ
- Max Voltage : 5kV
- Best Accuracy : ± 0.1% to ±2%
- Temp. Coefficient : 50ppm/°C
- Volt. Coefficient : 1ppm/V
- Configurable
- Decade or Binding Post

The Measurement

| Resistance Per Step | Total Decade Resistance | Max. Volt.(V) | Voltage Coefficient (ppm/V) | Temp Coefficient (ppm/°C) | Accuracy(%) | Power (Watt) |
|---------------------|-------------------------|---------------|-----------------------------|---------------------------|-------------|--------------|
| 0.01Ω | 0.1Ω | 500 | 0 | ±50 | ±0.5 | 1 |
| 0.1Ω | 1Ω | 500 | 0 | ±50 | ±0.5 | 0.4 |
| 1Ω | 10Ω | 500 | 0 | ±50 | ±0.5 | 1 |
| 10Ω | 100Ω | 500 | 0 | ±50 | ±0.1 | 0.4 |
| 100Ω | 1kΩ | 500 | 0 | ±50 | ±0.1 | 1 |
| 1kΩ | 10kΩ | 500 | 0 | ±50 | ±0.1 | 1 |
| 10kΩ | 100kΩ | 500 | 0 | ±50 | ±0.1 | 1 |
| 100kΩ | 1MΩ | 500 | 0 | ±50 | ±0.1 | 1 |
| 1MΩ | 10MΩ | 500 | 0 | ±50 | ±0.1 | 1.5 |
| 10MΩ | 100MΩ | 4,000 | 1 | ±100 | ±1 | 1.5 |
| 100MΩ | 1GΩ | 4,000 | 1 | ±100 | ±1 | 1.5 |
| 1GΩ | 10GΩ | 4,000 | 1 | ±100 | ±1 | 3.5 |
| 10GΩ | 100GΩ | 5000 | 1 | ±100 | ±1 | 3.5 |
| 100GΩ | 1TΩ | 5000 | 1 | ±2,000 | ±2 | 1.3 |
| 1TΩ | 10TΩ | 5000 | 1 | ±2,000 | ±2 | 1.3 |



Ordering Information

| Sl. No. | Base Resistance | Total Decade Resistance |
|---------|-----------------|-------------------------|
| 1 | 0.01Ω | 0.1Ω |
| 2 | 0.1Ω | 1Ω |
| 3 | 1Ω | 10Ω |
| 4 | 10Ω | 100Ω |
| 5 | 100Ω | 1kΩ |
| 6 | 1kΩ | 10kΩ |
| 7 | 10kΩ | 100kΩ |
| 8 | 100kΩ | 1MΩ |

| Sl. No. | Base Resistance | Total Decade Resistance |
|---------------------------------|-----------------|-------------------------|
| 9 | 1MΩ | 10MΩ |
| 10 | 1MΩ | 100MΩ |
| 11 | 100MΩ | 1GΩ |
| 12 | 1GΩ | 10GΩ |
| 13 | 10GΩ | 100GΩ |
| 14 | 100GΩ | 1TΩ |
| 15 | 1TΩ | 10TΩ |
| Other Values on special request | | |

| Type | A | Multi Decade |
|------|---|----------------------------|
| | B | Single Decade Binding Post |
| | C | Binding Post |

| Total Resistance (TR) |
|---|
| $TR = SBR \times \left(\frac{10^{n+1} - 1}{9} - 1 \right)$ |
| SBR = Starting Base Resistance, n = No. of Decades |

Fill the following table (Refer the above table)

| No. of Decades / Post | Starting Base Resistance | Maximum Base Resistance | Total Resistance | Type* | | |
|-----------------------|--------------------------|-------------------------|------------------|-------|---|---|
| | | | | A | B | C |
| | | | | | | |
| | | | | | | |

| Model Name | | | |
|------------|----------------|------------------|------|
| DecR | No. of Decades | Total Resistance | Type |
| DecR | | | |
| DecR | | | |

| Model Name | | | |
|------------|----------------|------------------|------|
| DecR | No. of Decades | Total Resistance | Type |
| DecR | 9 | 11TΩ | A |
| DecR | 6 | 1MΩ | C |

Note : Customize Models are available on Request.

Configuration Available

Multi Decade Configuration

- No of Decades : 3 / 4 / 6 / 9
- Housing : Metal Box / Molded Case



Multi Decade Configuration

Single Decade Binding Post Configuration

- No of Posts : 10 / 11
- Housing : Metal Box



Single Decade Binding Post Configuration

Binding Post Configuration

- No of Posts : Selectable from 3 to 15
- Housing : Metal Box / Molded Case
- Resistance value : as per choice



Binding Post Configuration

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