

Choose Ohmite's 210 Type adjustable resistors for applications requiring settings at different resistance values. These wirewound resistors are equipped with an adjustable lug, making them ideal for adjusting circuits, obtaining odd resistance values and setting equipment to meet various line voltages.

210 Type resistors feature a hollow core to permit secure fastening with spring-type clips or thru bolts with washers. They also offer the durability of lead free vitreous enamel coating and all-welded construction.

Mounting brackets not included with resistors.

## FEATURES

- **Terminals suitable for soldering or bolt connection.**
- **Adjustable lug supplied.**
- **High wattage applications.**
- **All-welded construction.**
- **Rugged lead free vitreous enamel coating.**
- **Flame resistant coating.**
- **Thumb-screw-adjustable lug available (Part No. 2160) for 1.125" core resistors.**

## SPECIFICATIONS

### MATERIAL

**Coating:** Lead free vitreous enamel.

**Core:** Tubular ceramic.

**Terminals:** Solder coated radial lug.

### Adjustable terminal:

Nickel plated steel. (Screwdriver type adjustable lug supplied standard. Other types, including silver contact units, available.)

**Derating:** Linearly from 100% @ +25°C to 0% @ +350°C.

### ELECTRICAL

**Tolerance:** ±10% (K)

**Power rating:** Based on 25°C free air rating. The stated wattage rating applies only when the entire resistance is in the circuit. Setting the lug at an intermediate point reduces the wattage rating by the approximate same proportion. Example: If the lug is set at half resistance, the wattage is reduced by approximately one-half.

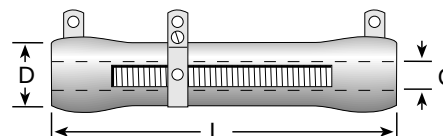
**Overload:** 10 times rated wattage for 5 seconds.

**Temperature coefficient:** 260 ppm/°C

See page 21 for mounting hardware

# 210 Series

Dividohm® Vitreous Enamel Adjustable Power Resistors



| Series | Wattage | Ohms      | Dimensions (in. / mm) |              | Core         | Voltage |
|--------|---------|-----------|-----------------------|--------------|--------------|---------|
|        |         |           | Length                | Diam.        |              |         |
| D12    | 12      | 1.0-10K   | 1.75 / 44.4           | 0.313 / 7.94 | 0.188 / 4.76 | 565     |
| D25    | 25      | 1.0-25K   | 2.0 / 50.8            | 0.562 / 14.3 | 0.313 / 7.94 | 625     |
| D50    | 50      | 1.0-100K  | 4.0 / 101.6           | 0.562 / 14.3 | 0.313 / 7.94 | 1625    |
| D75    | 75      | 1.0-100K  | 6.0 / 152.4           | 0.562 / 14.3 | 0.313 / 7.94 | 2625    |
| D100   | 100     | 1.0-100K  | 6.5 / 165.1           | 0.750 / 19.1 | 0.50 / 12.7  | 2845    |
| D175   | 175     | 1.0-100K  | 8.5 / 215.9           | 1.125 / 28.6 | 0.75 / 19.1  | 3595    |
| D225   | 225     | 1.0-100K  | 10.5 / 266.7          | 1.125 / 28.6 | 0.75 / 19.1  | 4595    |
| D500   | 500     | 1.5-15K   | 12.0 / 304.8          | 2.50 / 63.5  | 1.75 / 44.5  | 4970    |
| D1000  | 1000    | 3.0-27.7K | 20.0 / 508.0          | 2.50 / 63.5  | 1.75 / 44.5  | 8900    |

Other sizes available. Consult factory.

**Dielectric withstanding voltage:** 1000 VAC: 12 to 100 watt rating. 3000 VAC: 175 and 225 watt rating (measured from terminal to mounting bracket)

**To calculate max. amps:** use the formula  $\sqrt{P/R}$ .

**Power limitations for high resistance values:** When resistance exceeds the resistance values listed at right, derate the Power Rating by 25% to improve reliability:

| Power rating                                                   | Resistance value |
|----------------------------------------------------------------|------------------|
| 12W                                                            | 4,500Ω           |
| 25W                                                            | 9,000Ω           |
| 50W                                                            | 20,000Ω          |
| 75W                                                            | 35,000Ω          |
| 100W                                                           | 50,000Ω          |
| No power derating necessary for ratings higher than 100 watts. |                  |

## STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

| Wattage     |                                  |    |    |    |    |     |     |     |     |      | Wattage      |                                  |    |    |    |    |     |     |     |     |                | Wattage      |                                  |    |    |    |    |     |     |     |  |  |
|-------------|----------------------------------|----|----|----|----|-----|-----|-----|-----|------|--------------|----------------------------------|----|----|----|----|-----|-----|-----|-----|----------------|--------------|----------------------------------|----|----|----|----|-----|-----|-----|--|--|
| Ohmic value | Part No.<br>Prefix →<br>Suffix ↓ | 12 | 25 | 50 | 75 | 100 | 175 | 225 | 500 | 1000 | Ohmic value  | Part No.<br>Prefix →<br>Suffix ↓ | 12 | 25 | 50 | 75 | 100 | 175 | 225 | 500 | 1000           | Ohmic value  | Part No.<br>Prefix →<br>Suffix ↓ | 12 | 25 | 50 | 75 | 100 | 175 | 225 |  |  |
| 1.0 — 1R0   | ✓                                | ✗  | ✗  | ✗  | ✓  | ✗   | ✗   | ✗   |     |      | 400 — 400    | ✓                                | ✓  | ✓  | ✓  |    |     |     |     |     |                | 7,500 — 7K5  | ✓                                | ✓  | ✓  | ✗  |    |     |     |     |  |  |
| 2 — 2R0     | ✗                                | ✗  | ✗  | ✗  | ✓  | ✗   | ✗   | ✗   |     |      | 500 — 500    | ✓                                | ✓  | ✗  | ✓  |    | ✗   | ✓   | ✗   | ✓   | ✓              | 8,000 — 8K0  | ✗                                | ✗  | ✗  | ✗  |    |     |     |     |  |  |
| 3 — 3R0     | ✗                                | ✓  |    |    |    | ✗   | ✗   | ✗   |     |      | 600 — 600    | ✗                                |    |    |    |    |     |     |     |     |                | 8,500 — 8K5  | ✗                                |    |    |    |    |     |     |     |  |  |
| 4 — 4R0     |                                  |    |    | ✓  | ✗  | ✗   | ✓   | ✗   |     |      | 750 — 750    | ✓                                | ✓  | ✗  | ✗  | ✗  |     |     | ✗   |     |                | 9,000 — 9K0  | ✗                                | ✗  | ✗  | ✗  |    |     |     |     |  |  |
| 5 — 5R0     | ✗                                | ✓  | ✗  | ✓  | ✓  | ✗   | ✗   | ✗   | ✓   | ✓    | 800 — 800    | ✗                                | ✓  | ✓  | ✓  | ✗  |     |     |     |     |                | 10,000 — 10K | ✓                                | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   |     |  |  |
| 7.5 — 7R5   | ✓                                | ✓  |    |    |    |     |     |     |     |      | 1,000 — 1K0  | ✓                                | ✗  | ✗  | ✓  | ✗  | ✗   | ✓   | ✗   | ✓   | ✓              | 12,000 — 12K |                                  | ✗  | ✗  | ✗  |    |     |     |     |  |  |
| 10 — 10R    | ✗                                | ✗  | ✗  | ✓  |    | ✗   | ✗   | ✗   |     |      | 1,250 — 1K25 | ✓                                | ✓  |    | ✗  | ✓  |     |     |     |     | 15,000 — 15K   |              | ✓                                | ✓  | ✗  | ✗  | ✗  | ✗   | ✗   |     |  |  |
| 15 — 15R    | ✓                                |    |    |    | ✗  |     | ✗   |     |     |      | 1,500 — 1K5  | ✓                                | ✗  |    |    |    | ✓   | ✓   | ✓   |     | 20,000 — 20K   |              | ✓                                | ✓  | ✗  | ✗  | ✗  | ✗   | ✗   |     |  |  |
| 20 — 20R    | ✓                                | ✓  |    |    |    |     |     |     |     |      | 2,000 — 2K0  | ✓                                | ✓  | ✓  | ✓  | ✓  |     | ✓   |     |     | 25,000 — 25K   |              | ✓                                | ✓  | ✓  | ✗  | ✗  | ✗   | ✗   |     |  |  |
| 25 — 25R    | ✗                                | ✗  | ✗  | ✗  | ✗  | ✗   | ✗   | ✗   |     |      | 2,250 — 2K25 | ✗                                | ✗  | ✗  | ✗  | ✗  |     |     |     |     | 30,000 — 30K   |              |                                  |    | ✗  | ✗  | ✗  | ✗   | ✗   |     |  |  |
| 50 — 50R    | ✗                                | ✗  | ✗  | ✓  | ✗  | ✗   | ✗   | ✗   |     |      | 2,500 — 2K5  | ✓                                | ✓  | ✓  | ✗  |    | ✓   | ✓   | ✗   |     | 35,000 — 35K   |              |                                  |    |    | ✗  |    |     |     |     |  |  |
| 75 — 75R    | ✓                                | ✓  | ✓  |    |    | ✗   | ✗   | ✗   |     |      | 3,000 — 3K0  | ✗                                | ✓  | ✓  | ✗  | ✗  |     |     |     |     | 40,000 — 40K   |              |                                  |    | ✗  | ✗  | ✗  | ✗   |     |     |  |  |
| 100 — 100   | ✗                                | ✓  | ✓  | ✗  | ✗  | ✗   | ✗   | ✗   |     |      | 3,500 — 3K5  | ✓                                | ✗  | ✗  | ✗  | ✗  |     |     |     |     | 45,000 — 45K   |              |                                  |    |    | ✗  |    |     |     |     |  |  |
| 150 — 150   | ✓                                | ✓  | ✗  |    |    |     |     |     |     |      | 4,000 — 4K0  | ✓                                | ✗  | ✗  | ✗  | ✗  |     |     |     |     | 50,000 — 50K   |              |                                  | ✓  | ✗  | ✓  | ✗  |     |     |     |  |  |
| 200 — 200   | ✓                                | ✓  | ✓  | ✓  |    |     |     |     |     |      | 4,500 — 4K5  | ✗                                | ✗  | ✗  | ✗  | ✗  |     |     |     |     | 60,000 — 60K   |              |                                  |    | ✗  | ✗  |    |     |     |     |  |  |
| 250 — 250   | ✓                                | ✗  | ✓  | ✓  | ✓  | ✗   | ✗   | ✗   |     |      | 5,000 — 5K0  | ✗                                | ✓  | ✗  | ✗  | ✗  | ✗   | ✓   | ✓   |     | 75,000 — 75K   |              |                                  |    |    | ✗  | ✗  |     |     |     |  |  |
| 300 — 300   | ✓                                | ✓  | ✗  | ✗  |    |     |     |     |     |      | 6,000 — 6K0  | ✓                                | ✓  | ✗  | ✗  | ✗  |     |     |     |     | 80,000 — 80K   |              |                                  |    | ✗  | ✗  |    |     |     |     |  |  |
| 350 — 350   | ✗                                |    |    |    |    |     |     |     |     |      | 7,000 — 7K0  | ✓                                | ✗  | ✗  | ✗  | ✗  |     |     |     |     | 100,000 — 100K |              |                                  | ✓  | ✗  | ✓  | ✓  |     |     |     |  |  |

✓ = Most popular stock values

✓ = Stock values

✦ = Non-stock values subject to minimum handling charge per item

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.