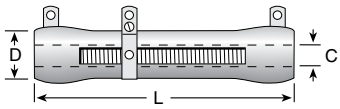
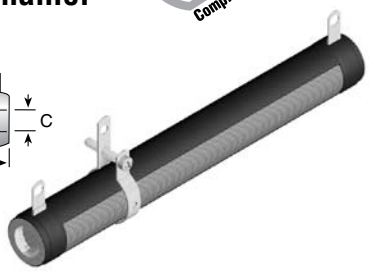
210 Series

Dividohm® Vitreous Enamel Adjustable Power





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.
- RoHS compliant product available. Add "E" suffix to part number to specify.

Series	Wattage	Ohms	Dimensions (in. / *mm*) L	D	C	Core Code	Voltage	Standard Terminal
D12	12	1.0-10K	1.75 / *44.4*	0.313 / *7.94*	0.188 / *4.76*	D	565	57
D25	25	1.0-25K	2.0 / *50.8*	0.562 / *14.3*	0.313 / *7.94*	K	625	40
D50	50	1.0-100K	4.0 / *101.6*	0.562 / *14.3*	0.313 / *7.94*	K	1625	40
D75	75	1.0-100K	6.0 / *152.4*	0.562 / *14.3*	0.313 / *7.94*	K	2625	40
D100	100	1.0-100K	6.5 / *165.1*	0.750 / *19.1*	0.50 / *12.7*	M	2845	40
D175	175	1.0-100K	8.5 / *215.9*	1.125 / *28.6*	0.75 / *19.1*	P	3595	46
D225	225	1.0-100K	10.5 / *266.7*	1.125 / *28.6*	0.75 / *19.1*	P	4595	46
D500	500	1.5-15K	12.0 / *304.8*	2.50 / *63.5*	1.75 / *44.5*	S	4970	45
D1000	1000	3.0-27.7K	20.0 / *508.0*	2.50 / *63.5*	1.75 / *44.5*	S	8900	45

Other sizes available; contact Ohmite. Also available in low cost Centohm or Silicone coating; contact Ohmite.

Choose Ohmite's 210 Type adjustable resistors for applications requiring settings at different resistance values. These wire-wound 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.

SPECIFICATIONS

Adjustability is 10% to 90% of full value. Wattage is proportional to this adjusted resistance value.

Material

Coating: Lead free vitreous enamel.

Core: Tubular ceramic.

Terminals: Solder coated radial lug. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu

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 approximately the 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

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 $\sqrt{P/R}$.

See page 36 for mounting hardware

ORDERING INFO

Coating
Blank = Vitreous
C = Centohm
S = Silicone

RoHS Compliant

D 2 5 K 1 0 0 E

Series — **Wattage** — **Tolerance** (J = 5%, K = 10%) — **Ohms** (1R0 = 1 Ω, 250 = 250 Ω, 1K0 = 1,000 Ω, 25K = 25,000 Ω, 25K5 = 25,500 Ω)

MADE-TO-ORDER

Core Diameter See "Core and Terminal Selection"
Terminal Type See "Resistor Terminals for Tubular Cores"
RoHS Compliant

2 1 0 5 0 K 4 0 5 R 0 0 J E

Coating (210 = Vitreous, 410 = Silicone Ceramic, 610 = Centohm) — **Wattage** — **Ohms** (R500 = 0.500 Ω, 1R00 = 1 Ω, 250R = 250 Ω, 1K00 = 1,000 Ω, 25K0 = 25,000 Ω, 25K5 = 25,500 Ω) — **Tolerance** (J = 5%, K = 10%)

See website for custom core and terminal info

Power limitations for high resistance values: When resistance exceeds the resistance values listed below, 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 100W.

STANDARD PART NUMBERS FOR 210 SERIES

Ohmic value	Part No. Prefix ➤ / Suffix ▼	Wattage 12 (D12K)	25 (D25K)	50 (D50K)	75 (D75K)	100 (D100K)	175 (D175K)	225 (D225K)	500 (D500K)	1000 (D1000K)
1.0	1R0E	✔	✔	✔	✔	✔	✔	✔		
2	2R0E	✔	✔	✔	✔	✔	✔	✔		
3	3R0E		✔	✔	✔	✔	✔	✔		
4	4R0E			✔		✔	✔	✔		
5	5R0E	✔	✔	✔	✔	✔	✔	✔	✔	✔
7.5	7R5E	✔	✔							
10	10RE	✔	✔	✔	✔	✔	✔	✔		
15	15RE	✔	✔		✔					
20	20RE	✔	✔							
25	25RE	✔	✔	✔	✔	✔	✔	✔		
50	50RE	✔	✔	✔	✔	✔	✔	✔		
75	75RE	✔	✔	✔						
100	100E	✔	✔	✔	✔	✔	✔	✔		

Ohmic value	Part No. Prefix ➤ / Suffix ▼	Wattage 12 (D12K)	25 (D25K)	50 (D50K)	75 (D75K)	100 (D100K)	175 (D175K)	225 (D225K)	500 (D500K)	1000 (D1000K)
150	150E	✔	✔	✔						
200	200E	✔	✔	✔	✔					
250	250E	✔	✔	✔	✔	✔	✔	✔		
300	300E	✔	✔	✔	✔					
400	400E	✔	✔	✔	✔					
500	500E	✔	✔	✔	✔	✔	✔	✔	✔	✔
750	750E	✔	✔	✔	✔					
800	800E		✔	✔						
1,000	1K0E	✔	✔	✔	✔	✔	✔	✔	✔	✔
1,250	1K25E	✔	✔							
1,500	1K5E	✔	✔	✔	✔	✔	✔	✔		
2,000	2K0E	✔	✔	✔	✔					
2,500	2K5E	✔	✔	✔		✔	✔	✔		

Ohmic value	Part No. Prefix ➤ / Suffix ▼	Wattage 12 (D12K)	25 (D25K)	50 (D50K)	75 (D75K)	100 (D100K)	175 (D175K)	225 (D225K)
3,000	3K0E	✔	✔	✔				
4,000	4K0E	✔						
5,000	5K0E	✔	✔	✔		✔	✔	✔
6,000	6K0E		✔					
7,000	7K0E	✔	✔					
7,500	7K5E	✔	✔	✔				
10,000	10KE	✔	✔	✔	✔	✔	✔	
12,000	12KE							
15,000	15KE		✔	✔				
20,000	20KE		✔	✔	✔			
25,000	25KE		✔	✔				
50,000	50KE			✔		✔		
100,000	100KE			✔		✔	✔	

✔ = Standard values; check availability using the worldwide inventory search at www.ohmite.com

50KΩ and 100KΩ resistance values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.