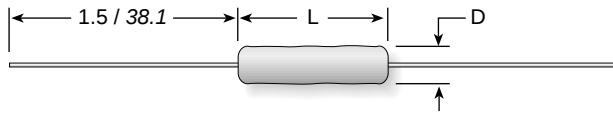


20 Series

Vitreous Enamel Conformal Axial Lead Wirewound Resistors 5% Tolerance Standard



Dimensions (in. / mm)						
Series	Wattage	Ohms	Length*	Diam.*	Voltage	Lead ga.
21	1	0.1-3.2K	0.406 / 10.3	0.156 / 4.0	75	24
22	2	0.1-4.4K	0.406 / 10.3	0.219 / 5.6	65	20
23	3	0.1-10K	0.500 / 12.7	0.220 / 5.6	135	20
25	5	0.1-28K	1.000 / 25.4	0.276 / 7.0	330	20
27	7	0.1-62K	1.250 / 31.8	0.394 / 10.0	450	20
20	10	0.1-100K	1.844 / 46.8	0.394 / 10.0	720	20

12.5 watt size available on special order

*For units below 1Ω, add 15% to body diameter, 10% to body length.

The 20 Series axial lead resistors are both durable and economical. They have all the electrical attributes of the more expensive 90 Series resistors, including an all-welded construction.

They offer the durability of a lead free conformal vitreous enamel coating and are ideal for computer, communications and industrial applications in which cost, quality and reliability are key considerations.

FEATURES

- Rugged vitreous enamel coating withstands high humidity and temperature cycling.
- Durable construction, recommended for industrial applications where reliability is paramount.
- All-welded construction.
- Flame resistant lead free vitreous enamel coating.

SPECIFICATIONS

Material

Coating: Conformal lead free vitreous enamel.

Core: Ceramic.

Terminals: Solder-coated axial lead.

Derating

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

Electrical

Tolerance: ±5% standard.
Other tolerances available.

Power rating: Based on 25°C free air rating (other wattages available).

Overload:

Under 7 watts: 5 times rated wattage for 5 seconds.
7 watts and over: 10 times rated wattage for 5 seconds.

Temperature coefficient:

1 to 9.99 ohms: ±50 ppm/°C
10 ohms and over: ±30 ppm/°C

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value	Part No. Prefix ▶ Suffix ▼	Wattage						Ohmic value	Part No. Prefix ▶ Suffix ▼	Wattage						Ohmic value	Part No. Prefix ▶ Suffix ▼	Wattage					
		1	2	3	5	7	10			1	2	3	5	7	10			1	2	3	5	7	10
0.10 — R10				✓	✓		✓	62 — 62R	✦	✦	✓	✓	✓	✦	✦	1,800 — 1K8	✓	✓	✓	✦	✦	✦	✦
0.13 — R13				✓	✓		✓	68 — 68R	✓	✓	✓	✓	✓	✦	✓	2,000 — 2K0	✦	✓	✓	✦	✦	✦	✓
0.15 — R15				✓	✓		✓	75 — 75R	✓	✓	✓	✓	✓	✦	✓	2,200 — 2K2	✓	✓	✓	✓	✓	✓	✓
0.20 — R20				✓	✓		✓	82 — 82R	✓	✓	✓	✓	✓	✦	✓	2,500 — 2K5	✦	✓	✓	✓	✦	✦	✦
0.25 — R25				✓	✓		✓	100 — 100	✦	✦	✦	✦	✓	✓	✓	2,700 — 2K7	✓	✓	✓	✦	✦	✓	✓
0.30 — R30				✓	✓		✓	120 — 120	✓	✓	✦	✓	✦	✦	✓	3,000 — 3K0	✓	✓	✦	✓	✦	✓	✓
0.33 — R33				✓	✓		✓	125 — 125	✦	✦	✓	✓	✓	✓	✓	3,300 — 3K3			✓	✓	✦	✦	✦
0.50 — R50				✓	✓		✓	150 — 150	✓		✦	✦	✓	✓	✓	3,500 — 3K5			✓	✓	✓	✓	✓
0.75 — R75				✓	✓		✓	180 — 180	✓	✓	✓	✓	✓	✦	✦	3,900 — 3K9			✓	✓	✓	✓	✓
1 — 1R0	✦	✦	✦	✦		✓	✓	200 — 200	✦	✓	✓	✓	✓	✓	✓	4,000 — 4K0			✦	✓	✦	✦	✓
1.5 — 1R5	✓	✓	✓	✓	✓	✓	✓	220 — 220	✦	✓	✓	✓	✓	✦	✓	4,500 — 4K5			✦	✓	✦	✦	✓
2 — 2R0	✦	✓	✓	✓	✦	✦	✓	225 — 225	✦	✦	✦	✦	✦	✦	✦	4,700 — 4K7			✓	✓	✓	✓	✓
2.2 — 2R2	✓	✓	✓	✓	✓	✦	✓	250 — 250	✓	✓	✓	✓	✓	✦	✓	5,000 — 5K0			✓	✦	✓	✓	✓
3 — 3R0	✓	✓	✓	✓	✓	✓	✓	270 — 270	✦	✓	✓	✓	✓	✦	✓	6,000 — 6K0			✓	✓	✓	✓	✓
4 — 4R0	✓	✦	✓	✓	✓	✦	✓	300 — 300	✓	✓	✓	✓	✓	✓	✓	6,800 — 6K8			✓	✓	✦	✦	✦
5 — 5R0	✓	✓	✓	✓	✦	✦	✦	330 — 330	✦	✓	✓	✓	✓	✓	✓	7,000 — 7K0			✓	✓	✦	✦	✦
7.5 — 7R5	✦	✓	✓	✓	✓	✦	✓	350 — 350	✓	✓	✦	✓	✓	✦	✓	7,500 — 7K5			✓	✓	✦	✓	✓
10 — 10R	✓	✓	✓	✓	✓	✦	✓	390 — 390	✓	✦	✦	✦	✦	✦	✦	8,000 — 8K0			✓	✓	✦	✦	✦
12 — 12R	✦	✦	✓	✓	✓	✓	✓	400 — 400	✦	✦	✓	✓	✓	✓	✓	9,000 — 9K0			✓	✦	✦	✦	✦
15 — 15R	✓	✦	✓	✦	✦	✓	✦	450 — 450	✦	✦	✦	✓	✓	✓	✓	10,000 — 10K			✦	✦	✦	✦	✦
18 — 18R	✓	✦	✓	✓	✓	✦	✓	470 — 470	✦	✓	✓	✓	✓	✓	✓	12,000 — 12K				✓	✦	✦	✓
20 — 20R	✓	✓	✓	✓	✓	✦	✓	500 — 500	✓	✓	✦	✓	✓	✓	✓	13,000 — 13K				✦	✦	✓	✓
22 — 22R	✓	✓	✓	✓	✓	✓	✓	560 — 560	✓	✓	✓	✓	✓	✦	✦	15,000 — 15K				✦	✦	✦	✦
25 — 25R	✦	✓	✓	✓	✓	✓	✓	600 — 600	✓	✓	✦	✓	✓	✓	✓	17,000 — 17K				✦	✦	✦	✦
27 — 27R	✓	✓	✓	✓	✓	✦	✦	680 — 680	✓	✦	✓	✓	✓	✓	✓	20,000 — 20K				✦	✓	✓	✓
30 — 30R	✦	✓	✓	✓	✓	✦	✓	750 — 750	✓	✓	✓	✓	✓	✓	✓	22,000 — 22K				✦	✦	✦	✦
33 — 33R	✓	✓	✓	✓	✓	✓	✓	800 — 800	✓	✓	✓	✓	✓	✦	✦	25,000 — 25K				✓	✦	✓	✓
35 — 35R	✦	✦	✦	✦	✓	✦	✦	820 — 820	✓	✓	✓	✓	✓	✦	✦	30,000 — 30K					✦	✦	✦
39 — 39R	✓	✓	✓	✓	✦	✓	✓	900 — 900	✦	✓	✓	✓	✓	✓	✓	33,000 — 33K					✦	✦	✦
40 — 40R	✓	✦	✓	✓	✓	✓	✓	1,000 — 1K0	✦	✦	✦	✦	✓	✦	✦	35,000 — 35K						✦	✦
47 — 47R	✦	✓	✓	✓	✓	✦	✓	1,100 — 1K1	✦	✦	✓	✓	✓	✦	✓	40,000 — 40K						✓	✓
50 — 50R	✓	✓	✓	✦	✓	✓	✓	1,200 — 1K2	✓	✓	✦	✓	✓	✓	✓	50,000 — 50K						✦	✦
56 — 56R	✦	✓	✓	✓	✓	✦	✦	1,500 — 1K5	✦	✓	✦	✓	✓	✓	✓								

✦ = 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.