

90 Series

Lead Free Vitreous Enamel Molded Axial Term. Wirewound, 5% Tolerance Standard



95J1K6E
16000J

When you need the highest quality wirewound axial terminal resistors available, choose Ohmite's 90 Series resistors.

They are manufactured by a unique process that molds the vitreous enamel over the resistive element, helping to ensure consistent dimensions. This uniformity permits 90 Series resistors to be mounted in clips, creating a heat-sinking benefit (see next page).

The durable vitreous enamel coating, which is totally lead free, permits the 90 Series resistors to maintain a hard coating while operating at high temperatures. Mechanical integrity is enhanced by the all-welded construction.

FEATURES

- Molded Construction provides consistent shape and size (Permits mounting in clips which extends power rating).
- Meets MIL-R-26 requirements for insulated resistors.
- All-welded construction.
- Flame resistant lead free vitreous enamel coating.
- Higher ratings in smaller sizes.
- Heat sink mounting clips available.
- RoHS compliant; add "E" suffix to part number to specify.

SERIES SPECIFICATIONS

Series	Wattage*	Ohms	Voltage
91	1.5	0.1Ω-3.6K	150
92	2.25	0.1Ω-3.5K	85
93	3.25	0.1Ω-10.5K	200
95	5.0	0.1Ω-25K	495
96	6.5	0.1Ω-50K	625
90	11.0	0.1Ω-91K	1080

* 2x power ratings by using heat-sink mounting clips shown on following page.

Note: Due to space restrictions, parts are stamped with wattage ratings reduced to the nearest whole number. The actual wattage ratings are as published in this catalog.

CHARACTERISTICS

Coating	Molded lead free vitreous enamel
Core	Ceramic
Terminals	Solder-coated copper clad axial. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Derating	Linearly from 100% @ +25°C to 0% @ +350°C
Tolerance	±5% (other tolerances available)
Power rating	Based on 25°C free air rating (other wattages available*)
Maximum ohmic values	See chart
Overload	Under 11 watts: 5 times rated wattage for 5 seconds. 11 watts: 10 times rated wattage for 5 seconds
Temperature coefficient	1 to 9.99Ω: ±100 ppm/°C; 10Ω and over: ±30 ppm/°C
Dielectric withstanding voltage	500 VAC: 1W rating; 1000 VAC: 2, 3, 5 and 11W

DIMENSIONS

(in./mm max.)



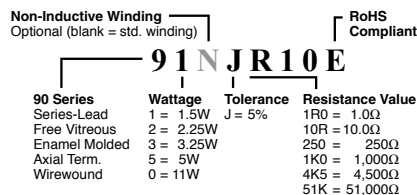
Series	Wattage	Length	Diameter	Lead gauge
91	1.5	0.452 / 11.5	0.140 / 3.6	24
92	2.25	0.405 / 10.3	0.219 / 5.6	20
93	3.25	0.577 / 14.7	0.234 / 5.9	20
95	5.0	0.968 / 24.6	0.265 / 6.7	20
96	6.5	0.952 / 24.2	0.343 / 8.7	20
90	11.0	1.811 / 46.0	0.343 / 8.7	20

(continued)

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Axial Term. Wirewound,
5% Tolerance Standard

ORDERING INFORMATION



Standard part numbers for 90 series

Ohmic value							Wattage							Ohmic value							Wattage							Ohmic value							Wattage							Ohmic value							Wattage																				
Part No. Prefix Suffix							Part No. Prefix Suffix							Part No. Prefix Suffix							Part No. Prefix Suffix							Part No. Prefix Suffix							Part No. Prefix Suffix							Part No. Prefix Suffix							Part No. Prefix Suffix																				
1.5							2.25							3.25							5							11							3.25							5							11							5							11						
91J							92J							93J							95J							90J							93J							95J							90J							95J							90J						
1							22							350							3,500							13,000							14,000							15,000							16,000							17,000													
1.1							24							360							3,600							14,000							14,000							15,000							16,000							17,000													
1.2							25							390							3,900							15,000							15,000							16,000							17,000																				
1.3							27							400							4,000							16,000							16,000							17,000							18,000																				
1.5							30							430							4,300							17,000							17,000							18,000							19,000																				
1.6							33							450							4,500							18,000							18,000							19,000							20,000																				
1.8							35							470							4,700							20,000							20,000							21,000							22,000																				
2							36							500							5,000							22,000							22,000							23,000							24,000																				
2.2							39							510							5,100							24,000							24,000							25,000							26,000																				
2.4							40							560							5,600							25,000							25,000							26,000							27,000																				
2.7							43							600							6,000							27,000							27,000							28,000							29,000																				
3							47							620							6,200							30,000							30,000							31,000							32,000																				
3.3							50							680							6,800							33,000							33,000							34,000							35,000																				
3.6							51							700							7,000							35,000							35,000							36,000							37,000																				
3.9							56							750							7,500							36,000							36,000							37,000							38,000																				
4							62							800							8,000							39,000							39,000							40,000							41,000																				
4.3							68							820							8,200							40,000							40,000							41,000							42,000																				
4.7							75							900							9,000							43,000							43,000							44,000							45,000																				
5							82							910							9,100							45,000							45,000							46,000							47,000																				
5.1							91							1,000							10,000							47,000							47,000							48,000							49,000																				
5.6							100							1,100							11,000							50,000							50,000							51,000							52,000																				
6.2							110							1,200							12,000							51,000							51,000							52,000							53,000																				
6.8							120							1,300																																																							
7.5							130							1,400																																																							
8.2							150							1,500																																																							
9.1							160							1,600																																																							
10							180							1,800																																																							
11							200							2,000																																																							
12							220							2,200																																																							
13							240							2,400																																																							
15							250							2,500																																																							
16							270							2,700																																																							
18							300							3,000																																																							
20							330							3,300																																																							

✓ = Standard values

✖ = Non-standard 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.

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MOUNTING CLIP



FEATURES

- Prevents severe vibration or mechanical shock to resistor
- Increases resistor wattage up to 100% when mounted on metal surface (1.5 sq. in. by 0.040 in. thick min. per watt dissipated)
- Holes in clip base permit fastening to chassis surface with machine screws, eyelets or rivets
- Sold in bags of ten (10)

Standard part numbers for mounting clip

Part No.	Resistor rating (watts)	Clip length (in./mm)	Clip width (in./mm)	Clip height (in./mm)	No. of holes	Hole centers (in./mm)	Hole diameter (in./mm)	
✓ 5900	1.5	0.40 / 10.319	0.150 / 3.810	0.250 / 6.350	1		0.71 / 1.803	✦ = Most popular standard values
✓ 5902	2.25	0.35 / 8.890	0.217 / 5.500	0.275 / 6.980	2	0.156 / 3.969	0.71 / 1.803	✓ = Standard values
✦ 5904	3.25	0.50 / 12.700	0.257 / 6.500	0.319 / 8.103	2	0.250 / 6.350	0.093 / 2.362	✦ = Non-standard values subject to minimum handling charge per item
✦ 5906	5.0	0.90 / 22.860	0.237 / 6.019	0.284 / 7.214	2	0.400 / 10.160	0.103 / 2.616	
✦ 5908	11.0	1.75 / 44.450	0.333 / 8.458	0.377 / 9.576	2	0.800 / 20.320	0.103 / 2.616	