



Brand Name	JNL	
Material	Constantan	
Code	CuNi44	
Chemical composition (max) %		
Cu	Ni	Mn
Balance	44	1

**Form of Delivery**

JNL is supplied in the form of wires with dimensions from 0.02 to 8mm diameter in bare condition. Enamelled wires are available in dimensions 0.05-1.5mm. JNL can also supply in form of stranded wire, ribbon, flat wire and rods.

**Physical Characteristics (Reference Values)**

Density		Melting Point	Resistivity	coefficient of expansion		tensile strength	Elongation				
			20 °C	100 °C	400 °C		%				
g/cm <sup>3</sup>	lb/cub in	°C	Ω mm <sup>2</sup> /m	10 <sup>-6</sup> /K	10 <sup>-6</sup> /K	Mpa	Ø0.02-0.063	Ø0.063-0.125	Ø0.125-0.5	Ø0.5-1.0	Ø1.0-8.0
8.9	0.32	1280	0.49	1350	14.00	>500	≈10	≈15	≈18	≈25	>30

  

Diameter		Weight	Resistance	Diameter		Weight	Resistance
mm	Tolerance	g/km	Ω/m 20 °C	mm	Tolerance	kg/km	Ω/m 20 °C
0.03	±0.0015	6.29	693.56	0.45	±0.015	1.4	3.08
0.04	±0.002	11.18	390.13	0.50	±0.015	1.7	2.50
0.05	±0.002	17.47	249.68	0.55	±0.03	2.1	2.06
0.06	±0.0025	25.15	173.39	0.60	±0.03	2.5	1.73
0.07	±0.0025	34.23	127.39	0.65	±0.03	3.0	1.48
0.08	±0.003	44.71	97.53	0.70	±0.03	3.4	1.27
0.09	±0.003	56.59	77.06	0.75	±0.03	3.9	1.11
0.10	±0.003	69.87	62.42	0.80	±0.03	4.5	0.98
0.11	±0.004	84.54	51.59	0.85	±0.03	5.0	0.86
0.12	±0.004	101	43.35	0.90	±0.03	5.7	0.77
0.13	±0.004	118	36.94	1.00	±0.03	7.0	0.62
0.14	±0.004	137	31.85	1.10	±0.04	8.5	0.52
0.15	±0.005	157	27.74	1.20	±0.04	10.1	0.43
0.16	±0.005	179	24.38	1.30	±0.04	11.8	0.37
0.17	±0.005	202	21.60	1.40	±0.05	13.7	0.32
0.18	±0.005	226	19.27	1.50	±0.05	15.7	0.28
0.19	±0.005	252	17.29	1.60	±0.05	17.9	0.24
0.20	±0.006	279	15.61	1.70	±0.05	20.2	0.22
0.22	±0.006	338	12.90	1.80	±0.06	22.6	0.19
0.25	±0.006	437	9.99	1.90	±0.06	25.2	0.17
0.28	±0.007	548	7.96	2.00	±0.06	27.9	0.16
0.30	±0.007	629	6.94	2.10	±0.06	30.8	0.14
0.32	±0.01	715	6.10	2.20	±0.06	33.8	0.13
0.35	±0.01	856	5.10	2.30	±0.06	37.0	0.12
0.38	±0.01	1009	4.32	2.40	±0.06	40.2	0.11
0.40	±0.01	1118	3.90	2.50	±0.06	43.7	0.10