



Alloys : CN30 (Copper Nickel Resistance Wire Type 30)

Characteristic

Outstanding resistance to corrosion and can be operated to 300°C.

Non magnetic and are suitable for process.

Suitable for resistance heating element and heater.

JIS	JIS Code	Resistivity [$\mu\Omega\text{m}$]	Average TCR [$\times 10^{-6}/^{\circ}\text{C}$]
GCN30	C 2532	0.30 ± 0.024	* 180 (23~100°C)

Thermal coefficient expansion $\times 10^{-6}/^{\circ}\text{C}$	Density g/cm^3 (20°C)	Melting Point $^{\circ}\text{C}$	Max operating temperature $^{\circ}\text{C}$
17.5	8.9	1150	300

Chemical Composition	Mn	Ni	Cu+Ni+Mn
(%)	≤ 1.5	20~25	≥ 99

Alloys	Type	Diameter (mm)	
CN30W	Wire	$\phi 6.00 \sim 0.05$	
CN30R	Ribbon	$t=2.90 \sim 0.05$	$w=40 \sim 0.4$

Copper Nickel Resistance Wire **[Resistance • Length • Weight]**

Alloys CN30W	Resistivity (23°C μΩm) 0.30±0.024
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Diameter (mm)	Tolerance (mm)	Cross section (mm ²)	Resistance Tolerance (%)	DC Resistance (Ω/m)	Length (m/Kg)	Weight (g/m)
6.00	±0.080	28.27	±5	0.0106	3.97	252
5.50	±0.080	23.76	±5	0.0126	4.73	211
5.00	±0.080	19.64	±5	0.0153	5.72	175
4.50	±0.080	15.90	±5	0.0189	7.06	142
4.00	±0.080	12.57	±5	0.0239	8.94	112
3.50	±0.080	9.621	±5	0.0312	11.7	85.6
3.20	±0.060	8.042	±5	0.0373	14.0	71.6
2.90	±0.060	6.605	±5	0.0454	17.0	58.8
2.60	±0.060	5.309	±5	0.0565	21.2	47.3
2.30	±0.050	4.155	±5	0.0722	27.0	37.0
2.00	±0.050	3.142	±5	0.0955	35.8	28.0
1.80	±0.050	2.545	±5	0.118	44.2	22.6
1.60	±0.040	2.011	±5	0.149	55.9	17.9
1.50	±0.040	1.767	±5	0.170	63.6	15.7
1.40	±0.040	1.539	±5	0.195	73.0	13.7
1.30	±0.040	1.327	±5	0.226	84.7	11.8
1.20	±0.040	1.131	±5	0.265	99.3	10.1
1.10	±0.030	0.9503	±6	0.316	118	8.46
1.00	±0.030	0.7854	±6	0.382	143	6.99
0.90	±0.030	0.6362	±6	0.472	177	5.66
0.85	±0.030	0.5675	±6	0.529	198	5.05
0.80	±0.030	0.5027	±6	0.597	224	4.47
0.75	±0.025	0.4418	±6	0.679	254	3.93
0.70	±0.025	0.3848	±6	0.780	292	3.43
0.65	±0.025	0.3318	±6	0.904	339	2.95
0.60	±0.025	0.2827	±6	1.06	397	2.52
0.55	±0.020	0.2376	±7	1.26	473	2.11
0.50	±0.020	0.1964	±7	1.53	572	1.75
0.45	±0.020	0.1590	±7	1.89	706	1.42
0.40	±0.015	0.1257	±7	2.39	894	1.12

