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# **52%NiFe**

## **Nickel Alloy Wire,Ribbon**

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# Alloys : 52%NiFe (Nickel Alloy Wire,Ribbon)

It is used in the electronics field such as IC leads using corrosion resistance such as hard and soft glass sealing materials.

Electrical Resistivity [ $\mu\Omega\text{m}$ ]	Average TCR [ $\times 10^{-6}/^{\circ}\text{C}$ ]
0.37	* 3900

(\* )Reference value

Thermal Expansion Coefficient $\times 10^{-6}/$		Density g/cm <sup>3</sup> (20°C)
30~300°C	9.7~10.2	8.35
30~450°C	10.0~10.5	

Chemical Composition	C	Si	Mn	Ni	Fe
(%)	$\leq 0.05$	$\leq 0.3$	$\leq 0.6$	50.5	BAL

Alloys	Type	Diameter (mm)
52%NiFe	Wire	$\phi 5.00 \sim 0.03$
	Ribbon	Please consult

# 52%NiFe (Nickel Alloy Wire, Ribbon)

## Resistance·Length·Weight

Wire Electrical Resistivity (23°CμΩm) 0.37 ( \* )Reference value

Diameter (mm)	Tolerance (mm)	Cross section (mm <sup>2</sup> )	Resistance Tolerance (%)	DC Resistance (Ω/m)	Length (m/Kg)	Weight (g/m)
5.00	±0.060	19.6	±5	0.0219	6.10	164
4.50	±0.050	15.9	±5	0.0271	7.53	133
4.00	±0.050	12.6	±5	0.0342	9.54	105
3.50	±0.050	0.62	±6	0.0447	12.5	80.3
3.20	±0.040	8.04	±6	0.0535	14.9	67.1
2.90	±0.040	6.60	±6	0.0651	18.1	55.1
2.60	±0.040	5.31	±6	0.0810	22.6	44.3
2.30	±0.040	4.15	±6	0.104	28.8	34.7
2.00	±0.030	3.14	±6	0.137	38.1	26.2
1.80	±0.030	2.54	±6	0.169	47.1	21.2
1.60	±0.030	2.01	±7	0.214	59.6	16.8
1.50	±0.030	1.77	±7	0.243	67.8	14.7
1.40	±0.030	1.54	±7	0.279	77.8	12.8
1.30	±0.030	1.33	±7	0.324	90.3	11.1
1.20	±0.030	1.13	±7	0.380	106	9.44
1.10	±0.030	0.950	±7	0.453	126	7.93
1.00	±0.030	0.785	±7	0.548	153	6.55
0.90	±0.030	0.636	±7	0.676	188	5.31
0.85	±0.030	0.567	±7	0.758	211	4.74
0.80	±0.020	0.502	±7	0.856	238	4.20
0.75	±0.020	0.442	±7	0.974	271	3.69
0.70	±0.020	0.385	±7	1.12	311	3.21
0.65	±0.020	0.332	±7	1.30	361	2.77
0.60	±0.020	0.283	±7	1.52	424	2.36
0.55	±0.020	0.237	±8	1.81	504	1.98
0.50	±0.010	0.196	±8	2.19	610	1.64
0.45	±0.010	0.159	±8	2.71	753	1.33
0.40	±0.010	0.126	±8	3.42	953	1.05
0.35	±0.010	0.0962	±8	4.47	1245	0.803
0.32	±0.010	0.0804	±8	5.35	1490	0.671
0.29	±0.010	0.0660	±8	6.51	1814	0.551
0.26	±0.010	0.0531	±8	8.10	2257	0.443
0.23	±0.010	0.0415	±8	10.4	2884	0.347
0.20	±0.006	0.0314	±9	13.7	3814	0.262
0.18	±0.006	0.0254	±9	16.9	4709	0.212
0.16	±0.006	0.0201	±9	21.4	5959	0.168
0.15	±0.006	0.0177	±9	24.3	6780	0.147
0.14	±0.006	0.0154	±9	27.9	7784	0.128
0.13	±0.006	0.0133	±9	32.4	9027	0.111
0.12	±0.006	0.01130	±9	38.0	10595	0.0944
0.11	±0.006	0.00950	±9	45.3	12608	0.0793
0.10	±0.006	0.00785	±9	54.8	15256	0.0655
0.09	±0.005	0.00636	±10	67.6	18835	0.0531
0.08	±0.005	0.00502	±10	85.6	23838	0.0420
0.07	±0.005	0.00385	±10	112	31135	0.0321
0.06	±0.004	0.00283	±11	152	42378	0.0236
0.05	±0.004	0.00196	±11	219	61024	0.0164
0.04	±0.003	0.00126	±12	432	96351	0.0105
0.03	±0.003	0.000707	±12	609	169512	0.00590