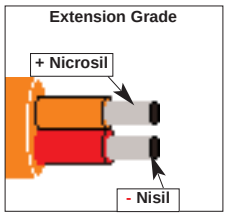
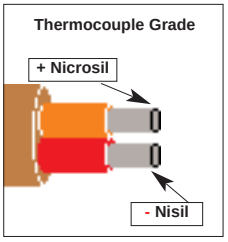
Technical Information Data Bulletin

Type N Thermocouple
Nicrosil-Nisil

TEMPERATURE & PROCESS INSTRUMENTS INC



Temperature vs Millivolt Table
Reference Junction 32°F



Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -450 to 2372°F
-270 to 1300°C
Extension Grade: 32 to 392°F
0 to 200°C

Maximum Thermocouple Grade
Temperature Range
-450 to 2372°F
-270 to 1300°C
Accuracy: Standard: 1.7°C or 0.5%
Special: 1.0°C or 0.4%

Recommended Applications:
Alternative to Type K. Thermocouples More Stable at High Temperature

Temp	0	-1	-2	-3	-4	-5	-6	-7	-8	-9
-450	-4.3441	-4.3444	-4.3447	-4.3449	-4.3451					
-440	-4.3389	-4.3396	-4.3402	-4.3408	-4.3414	-4.3420	-4.3425	-4.3429	-4.3434	-4.3438
-430	-4.3297	-4.3308	-4.3319	-4.3329	-4.3339	-4.3348	-4.3357	-4.3366	-4.3374	-4.3381
-420	-4.3164	-4.3179	-4.3194	-4.3209	-4.3222	-4.3236	-4.3249	-4.3262	-4.3274	-4.3286
-410	-4.2989	-4.3008	-4.3027	-4.3046	-4.3064	-4.3082	-4.3099	-4.3116	-4.3133	-4.3149
-400	-4.2770	-4.2794	-4.2817	-4.2840	-4.2863	-4.2885	-4.2906	-4.2928	-4.2948	-4.2969
-390	-4.2507	-4.2535	-4.2563	-4.2590	-4.2617	-4.2644	-4.2670	-4.2695	-4.2721	-4.2745
-380	-4.2200	-4.2233	-4.2265	-4.2297	-4.2328	-4.2359	-4.2389	-4.2419	-4.2449	-4.2478
-370	-4.1849	-4.1886	-4.1923	-4.1959	-4.1995	-4.2030	-4.2065	-4.2099	-4.2133	-4.2167
-360	-4.1454	-4.1496	-4.1537	-4.1577	-4.1617	-4.1657	-4.1696	-4.1735	-4.1774	-4.1811
-350	-4.1017	-4.1062	-4.1108	-4.1152	-4.1197	-4.1241	-4.1284	-4.1328	-4.1370	-4.1413
-340	-4.0536	-4.0586	-4.0635	-4.0685	-4.0733	-4.0782	-4.0829	-4.0877	-4.0924	-4.0970
-330	-4.0013	-4.0067	-4.0121	-4.0174	-4.0227	-4.0280	-4.0332	-4.0384	-4.0435	-4.0486
-320	-3.9449	-3.9508	-3.9565	-3.9623	-3.9680	-3.9736	-3.9793	-3.9848	-3.9904	-3.9959
-310	-3.8845	-3.8907	-3.8969	-3.9030	-3.9091	-3.9152	-3.9212	-3.9272	-3.9332	-3.9391
-300	-3.8200	-3.8266	-3.8332	-3.8398	-3.8463	-3.8527	-3.8592	-3.8656	-3.8719	-3.8782
-290	-3.7517	-3.7587	-3.7656	-3.7726	-3.7795	-3.7863	-3.7931	-3.7999	-3.8067	-3.8134
-280	-3.6795	-3.6869	-3.6942	-3.7015	-3.7088	-3.7161	-3.7233	-3.7304	-3.7375	-3.7446
-270	-3.6036	-3.6113	-3.6190	-3.6267	-3.6344	-3.6420	-3.6496	-3.6571	-3.6646	-3.6721
-260	-3.5240	-3.5321	-3.5402	-3.5482	-3.5562	-3.5642	-3.5722	-3.5801	-3.5879	-3.5958
-250	-3.4408	-3.4493	-3.4577	-3.4661	-3.4745	-3.4828	-3.4911	-3.4994	-3.5076	-3.5158
-240	-3.3541	-3.3629	-3.3717	-3.3805	-3.3892	-3.3979	-3.4065	-3.4151	-3.4237	-3.4323
-230	-3.2640	-3.2731	-3.2823	-3.2914	-3.3004	-3.3095	-3.3185	-3.3274	-3.3363	-3.3452
-220	-3.1705	-3.1800	-3.1895	-3.1989	-3.2083	-3.2177	-3.2270	-3.2363	-3.2456	-3.2548
-210	-3.0738	-3.0836	-3.0934	-3.1032	-3.1129	-3.1226	-3.1322	-3.1418	-3.1514	-3.1610
-200	-2.9739	-2.9841	-2.9942	-3.0042	-3.0143	-3.0243	-3.0342	-3.0442	-3.0541	-3.0640
-190	-2.8709	-2.8814	-2.8918	-2.9022	-2.9125	-2.9228	-2.9331	-2.9434	-2.9536	-2.9638
-180	-2.7650	-2.7757	-2.7864	-2.7971	-2.8077	-2.8183	-2.8289	-2.8395	-2.8500	-2.8605
-170	-2.6561	-2.6671	-2.6781	-2.6891	-2.7000	-2.7109	-2.7218	-2.7326	-2.7434	-2.7542
-160	-2.5444	-2.5557	-2.5670	-2.5782	-2.5894	-2.6006	-2.6118	-2.6229	-2.6340	-2.6451
-150	-2.4300	-2.4416	-2.4531	-2.4646	-2.4761	-2.4875	-2.4990	-2.5104	-2.5217	-2.5331
-140	-2.3130	-2.3248	-2.3366	-2.3484	-2.3601	-2.3718	-2.3835	-2.3952	-2.4068	-2.4184
-130	-2.1935	-2.2055	-2.2176	-2.2296	-2.2416	-2.2535	-2.2655	-2.2774	-2.2893	-2.3012
-120	-2.0715	-2.0838	-2.0961	-2.1084	-2.1206	-2.1328	-2.1450	-2.1571	-2.1693	-2.1814
-110	-1.9473	-1.9598	-1.9723	-1.9848	-1.9973	-2.0097	-2.0221	-2.0345	-2.0469	-2.0592
-100	-1.8209	-1.8336	-1.8464	-1.8590	-1.8717	-1.8844	-1.8970	-1.9096	-1.9222	-1.9348
-90	-1.6924	-1.7054	-1.7183	-1.7312	-1.7440	-1.7569	-1.7697	-1.7826	-1.7954	-1.8081
-80	-1.5620	-1.5751	-1.5882	-1.6013	-1.6144	-1.6274	-1.6405	-1.6535	-1.6665	-1.6795
-70	-1.4297	-1.4430	-1.4563	-1.4695	-1.4828	-1.4960	-1.5093	-1.5225	-1.5356	-1.5488
-60	-1.2956	-1.3091	-1.3226	-1.3360	-1.3494	-1.3628	-1.3762	-1.3896	-1.4030	-1.4163
-50	-1.1599	-1.1736	-1.1872	-1.2008	-1.2144	-1.2280	-1.2415	-1.2551	-1.2686	-1.2821
-40	-1.0228	-1.0365	-1.0503	-1.0641	-1.0778	-1.0915	-1.1052	-1.1189	-1.1326	-1.1463
-30	-0.8842	-0.8981	-0.9120	-0.9259	-0.9398	-0.9536	-0.9675	-0.9813	-0.9952	-1.0090
-20	-0.7443	-0.7583	-0.7724	-0.7864	-0.8004	-0.8144	-0.8284	-0.8423	-0.8563	-0.8702
-10	-0.6032	-0.6174	-0.6315	-0.6457	-0.6598	-0.6739	-0.6880	-0.7021	-0.7162	-0.7302
0	-0.4611	-0.4753	-0.4896	-0.5038	-0.5181	-0.5323	-0.5465	-0.5607	-0.5749	-0.5891

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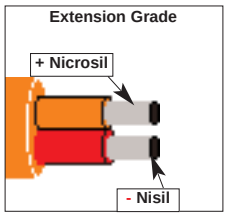
Technical Information Data Bulletin

Type N Thermocouple
Nicrosil-Nisil

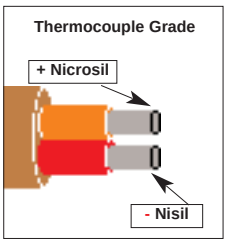
TEMPERATURE & PROCESS INSTRUMENTS INC



Temperature vs Millivolt Table
Reference Junction 32°F

Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -450 to 2372°F
-270 to 1300°C
Extension Grade: 32 to 392°F
0 to 200°C

Maximum Thermocouple Grade Temperature Range
-450 to 2372°F
-270 to 1300°C
Accuracy: Standard: 1.7°C or 0.5%
Special: 1.0°C or 0.4%



Recommended Applications:
Alternative to Type K. Thermocouples More Stable at High Temperature

Temp	0	1	2	3	4	5	6	7	8	9
0	-0.4611	-0.4468	-0.4325	-0.4182	-0.4039	-0.3896	-0.3753	-0.3610	-0.3466	-0.3323
10	-0.3179	-0.3036	-0.2892	-0.2748	-0.2604	-0.2460	-0.2316	-0.2172	-0.2028	-0.1883
20	-0.1739	-0.1594	-0.1450	-0.1305	-0.1160	-0.1016	-0.0871	-0.0726	-0.0581	-0.0436
30	-0.0291	-0.0145	0.0000	0.0144	0.0288	0.0433	0.0577	0.0722	0.0866	0.1011
40	0.1156	0.1301	0.1445	0.1591	0.1736	0.1881	0.2026	0.2172	0.2318	0.2463
50	0.2609	0.2755	0.2901	0.3047	0.3193	0.3340	0.3486	0.3633	0.3779	0.3926
60	0.4073	0.4220	0.4367	0.4514	0.4662	0.4809	0.4957	0.5104	0.5252	0.5400
70	0.5548	0.5696	0.5844	0.5992	0.6141	0.6289	0.6438	0.6587	0.6735	0.6884
80	0.7033	0.7183	0.7332	0.7481	0.7631	0.7780	0.7930	0.8080	0.8230	0.8380
90	0.8530	0.8681	0.8831	0.8982	0.9132	0.9283	0.9434	0.9585	0.9736	0.9887
100	1.0039	1.0190	1.0342	1.0494	1.0645	1.0797	1.0949	1.1102	1.1254	1.1406
110	1.1559	1.1711	1.1864	1.2017	1.2170	1.2323	1.2476	1.2630	1.2783	1.2937
120	1.3091	1.3244	1.3398	1.3552	1.3707	1.3861	1.4015	1.4170	1.4325	1.4479
130	1.4634	1.4789	1.4944	1.5100	1.5255	1.5410	1.5566	1.5722	1.5878	1.6034
140	1.6190	1.6346	1.6502	1.6659	1.6815	1.6972	1.7129	1.7286	1.7443	1.7600
150	1.7757	1.7915	1.8072	1.8230	1.8388	1.8545	1.8703	1.8862	1.9020	1.9178
160	1.9337	1.9495	1.9654	1.9813	1.9972	2.0131	2.0290	2.0449	2.0609	2.0768
170	2.0928	2.1088	2.1248	2.1408	2.1568	2.1728	2.1889	2.2049	2.2210	2.2370
180	2.2531	2.2692	2.2853	2.3015	2.3176	2.3337	2.3499	2.3661	2.3822	2.3984
190	2.4146	2.4309	2.4471	2.4633	2.4796	2.4958	2.5121	2.5284	2.5447	2.5610
200	2.5773	2.5937	2.6100	2.6264	2.6428	2.6591	2.6755	2.6919	2.7083	2.7248
210	2.7412	2.7577	2.7741	2.7906	2.8071	2.8236	2.8401	2.8566	2.8731	2.8897
220	2.9062	2.9228	2.9394	2.9560	2.9726	2.9892	3.0058	3.0225	3.0391	3.0558
230	3.0724	3.0891	3.1058	3.1225	3.1392	3.1560	3.1727	3.1894	3.2062	3.2230
240	3.2398	3.2566	3.2734	3.2902	3.3070	3.3239	3.3407	3.3576	3.3744	3.3913
250	3.4082	3.4251	3.4420	3.4590	3.4759	3.4929	3.5098	3.5268	3.5438	3.5608
260	3.5778	3.5948	3.6118	3.6289	3.6459	3.6630	3.6801	3.6971	3.7142	3.7313
270	3.7485	3.7656	3.7827	3.7999	3.8170	3.8342	3.8514	3.8686	3.8858	3.9030
280	3.9202	3.9375	3.9547	3.9720	3.9892	4.0065	4.0238	4.0411	4.0584	4.0757
290	4.0931	4.1104	4.1278	4.1451	4.1625	4.1799	4.1973	4.2147	4.2321	4.2495
300	4.2669	4.2844	4.3018	4.3193	4.3368	4.3543	4.3718	4.3893	4.4068	4.4243
310	4.4419	4.4594	4.4770	4.4946	4.5121	4.5297	4.5473	4.5649	4.5826	4.6002
320	4.6178	4.6355	4.6531	4.6708	4.6885	4.7062	4.7239	4.7416	4.7593	4.7770
330	4.7948	4.8125	4.8303	4.8481	4.8659	4.8836	4.9014	4.9193	4.9371	4.9549
340	4.9727	4.9906	5.0084	5.0263	5.0442	5.0621	5.0800	5.0979	5.1158	5.1337
350	5.1517	5.1696	5.1876	5.2055	5.2235	5.2415	5.2595	5.2775	5.2955	5.3135
360	5.3316	5.3496	5.3676	5.3857	5.4038	5.4218	5.4399	5.4580	5.4761	5.4943
370	5.5124	5.5305	5.5487	5.5668	5.5850	5.6031	5.6213	5.6395	5.6577	5.6759
380	5.6941	5.7124	5.7306	5.7488	5.7671	5.7853	5.8036	5.8219	5.8402	5.8585
390	5.8768	5.8951	5.9134	5.9318	5.9501	5.9684	5.9868	6.0052	6.0235	6.0419
400	6.0603	6.0787	6.0971	6.1156	6.1340	6.1524	6.1709	6.1893	6.2078	6.2263
410	6.2448	6.2632	6.2817	6.3002	6.3188	6.3373	6.3558	6.3744	6.3929	6.4115
420	6.4300	6.4486	6.4672	6.4858	6.5044	6.5230	6.5416	6.5602	6.5789	6.5975
430	6.6162	6.6348	6.6535	6.6722	6.6908	6.7095	6.7282	6.7469	6.7656	6.7844
440	6.8031	6.8218	6.8406	6.8593	6.8781	6.8969	6.9157	6.9345	6.9532	6.9721
450	6.9909	7.0097	7.0285	7.0473	7.0662	7.0850	7.1039	7.1228	7.1416	7.1605
460	7.1794	7.1983	7.2172	7.2361	7.2551	7.2740	7.2929	7.3119	7.3308	7.3498
470	7.3688	7.3877	7.4067	7.4257	7.4447	7.4637	7.4827	7.5017	7.5208	7.5398

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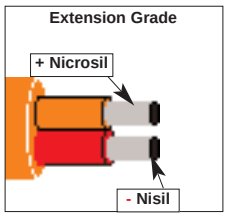
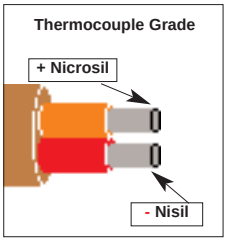


Temperature vs Millivolt Table
Reference Junction 32°F



Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -450 to 2372°F
-270 to 1300°C
Extension Grade: 32 to 392°F
0 to 200°C

Maximum Thermocouple Grade
Temperature Range
-450 to 2372°F
-270 to 1300°C
Accuracy: Standard: 1.7°C or 0.5%
Special: 1.0°C or 0.4%

Recommended Applications:
Alternative to Type K. Thermocouples More Stable at High Temperature

Temp	0	1	2	3	4	5	6	7	8	9
480	7.5589	7.5779	7.5970	7.6160	7.6351	7.6542	7.6733	7.6924	7.7115	7.7306
490	7.7497	7.7688	7.7880	7.8071	7.8262	7.8454	7.8646	7.8837	7.9029	7.9221
500	7.9413	7.9605	7.9797	7.9989	8.0181	8.0374	8.0566	8.0758	8.0951	8.1143
510	8.1336	8.1529	8.1721	8.1914	8.2107	8.2300	8.2493	8.2686	8.2879	8.3073
520	8.3266	8.3459	8.3653	8.3846	8.4040	8.4234	8.4427	8.4621	8.4815	8.5009
530	8.5203	8.5397	8.5591	8.5786	8.5980	8.6174	8.6369	8.6563	8.6758	8.6952
540	8.7147	8.7342	8.7537	8.7731	8.7926	8.8121	8.8317	8.8512	8.8707	8.8902
550	8.9098	8.9293	8.9488	8.9684	8.9880	9.0075	9.0271	9.0467	9.0663	9.0859
560	9.1055	9.1251	9.1447	9.1643	9.1839	9.2036	9.2232	9.2428	9.2625	9.2821
570	9.3018	9.3215	9.3412	9.3608	9.3805	9.4002	9.4199	9.4396	9.4593	9.4791
580	9.4988	9.5185	9.5383	9.5580	9.5778	9.5975	9.6173	9.6370	9.6568	9.6766
590	9.6964	9.7162	9.7360	9.7558	9.7756	9.7954	9.8152	9.8351	9.8549	9.8747
600	9.8946	9.9144	9.9343	9.9542	9.9740	9.9939	10.0138	10.0337	10.0536	10.0735
610	10.0934	10.1133	10.1332	10.1531	10.1730	10.1930	10.2129	10.2329	10.2528	10.2728
620	10.2927	10.3127	10.3327	10.3527	10.3726	10.3926	10.4126	10.4326	10.4526	10.4727
630	10.4927	10.5127	10.5327	10.5528	10.5728	10.5929	10.6129	10.6330	10.6530	10.6731
640	10.6932	10.7133	10.7333	10.7534	10.7735	10.7936	10.8137	10.8338	10.8540	10.8741
650	10.8942	10.9144	10.9345	10.9546	10.9748	10.9949	11.0151	11.0353	11.0554	11.0756
660	11.0958	11.1160	11.1362	11.1564	11.1766	11.1968	11.2170	11.2372	11.2574	11.2777
670	11.2979	11.3181	11.3384	11.3586	11.3789	11.3992	11.4194	11.4397	11.4600	11.4802
680	11.5005	11.5208	11.5411	11.5614	11.5817	11.6020	11.6223	11.6427	11.6630	11.6833
690	11.7037	11.7240	11.7443	11.7647	11.7850	11.8054	11.8258	11.8461	11.8665	11.8869
700	11.9073	11.9277	11.9481	11.9685	11.9889	12.0093	12.0297	12.0501	12.0705	12.0909
710	12.1114	12.1318	12.1523	12.1727	12.1932	12.2136	12.2341	12.2545	12.2750	12.2955
720	12.3160	12.3364	12.3569	12.3774	12.3979	12.4184	12.4389	12.4594	12.4800	12.5005
730	12.5210	12.5415	12.5621	12.5826	12.6031	12.6237	12.6442	12.6648	12.6854	12.7059
740	12.7265	12.7471	12.7677	12.7882	12.8088	12.8294	12.8500	12.8706	12.8912	12.9118
750	12.9324	12.9531	12.9737	12.9943	13.0149	13.0356	13.0562	13.0769	13.0975	13.1182
760	13.1388	13.1595	13.1802	13.2008	13.2215	13.2422	13.2629	13.2835	13.3042	13.3249
770	13.3456	13.3663	13.3870	13.4078	13.4285	13.4492	13.4699	13.4906	13.5114	13.5321
780	13.5529	13.5736	13.5944	13.6151	13.6359	13.6566	13.6774	13.6982	13.7189	13.7397
790	13.7605	13.7813	13.8021	13.8229	13.8437	13.8645	13.8853	13.9061	13.9269	13.9477
800	13.9685	13.9893	14.0102	14.0310	14.0518	14.0727	14.0935	14.1144	14.1352	14.1561
810	14.1769	14.1978	14.2187	14.2395	14.2604	14.2813	14.3022	14.3231	14.3440	14.3649
820	14.3858	14.4067	14.4276	14.4485	14.4694	14.4903	14.5112	14.5321	14.5531	14.5740
830	14.5949	14.6159	14.6368	14.6578	14.6787	14.6997	14.7206	14.7416	14.7625	14.7835
840	14.8045	14.8254	14.8464	14.8674	14.8884	14.9094	14.9304	14.9514	14.9724	14.9934
850	15.0144	15.0354	15.0564	15.0774	15.0984	15.1194	15.1405	15.1615	15.1825	15.2036
860	15.2246	15.2457	15.2667	15.2878	15.3088	15.3299	15.3509	15.3720	15.3931	15.4141
870	15.4352	15.4563	15.4774	15.4984	15.5195	15.5406	15.5617	15.5828	15.6039	15.6250
880	15.6461	15.6672	15.6883	15.7094	15.7306	15.7517	15.7728	15.7939	15.8151	15.8362
890	15.8573	15.8785	15.8996	15.9208	15.9419	15.9631	15.9842	16.0054	16.0266	16.0477
900	16.0689	16.0901	16.1112	16.1324	16.1536	16.1748	16.1960	16.2172	16.2384	16.2595
910	16.2807	16.3019	16.3232	16.3444	16.3656	16.3868	16.4080	16.4292	16.4504	16.4717
920	16.4929	16.5141	16.5354	16.5566	16.5778	16.5991	16.6203	16.6416	16.6628	16.6841
930	16.7053	16.7266	16.7479	16.7691	16.7904	16.8117	16.8329	16.8542	16.8755	16.8968
940	16.9181	16.9393	16.9606	16.9819	17.0032	17.0245	17.0458	17.0671	17.0884	17.1097
950	17.1310	17.1524	17.1737	17.1950	17.2163	17.2376	17.2590	17.2803	17.3016	17.3230

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Technical Information Data Bulletin

Type N Thermocouple
Nicrosil-Nisil

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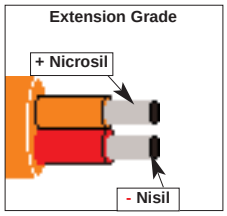
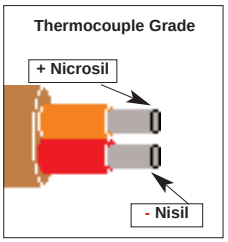


Temperature vs Millivolt Table
Reference Junction 32°F



Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -450 to 2372°F
-270 to 1300°C
Extension Grade: 32 to 392°F
0 to 200°C

Maximum Thermocouple Grade Temperature Range
-450 to 2372°F
-270 to 1300°C
Accuracy: Standard: 1.7°C or 0.5%
Special: 1.0°C or 0.4%

Recommended Applications:
Alternative to Type K. Thermocouples More Stable at High Temperature

Temp	0	1	2	3	4	5	6	7	8	9
960	17.3443	17.3656	17.3870	17.4083	17.4297	17.4510	17.4724	17.4937	17.5151	17.5365
970	17.5578	17.5792	17.6006	17.6219	17.6433	17.6647	17.6861	17.7074	17.7288	17.7502
980	17.7716	17.7930	17.8144	17.8358	17.8572	17.8786	17.9000	17.9214	17.9428	17.9642
990	17.9856	18.0070	18.0284	18.0498	18.0713	18.0927	18.1141	18.1355	18.1570	18.1784
1000	18.1998	18.2213	18.2427	18.2642	18.2856	18.3070	18.3285	18.3499	18.3714	18.3928
1010	18.4143	18.4358	18.4572	18.4787	18.5002	18.5216	18.5431	18.5646	18.5860	18.6075
1020	18.6290	18.6505	18.6720	18.6934	18.7149	18.7364	18.7579	18.7794	18.8009	18.8224
1030	18.8439	18.8654	18.8869	18.9084	18.9299	18.9514	18.9729	18.9944	19.0160	19.0375
1040	19.0590	19.0805	19.1020	19.1236	19.1451	19.1666	19.1881	19.2097	19.2312	19.2528
1050	19.2743	19.2958	19.3174	19.3389	19.3605	19.3820	19.4036	19.4251	19.4467	19.4682
1060	19.4898	19.5113	19.5329	19.5545	19.5760	19.5976	19.6192	19.6407	19.6623	19.6839
1070	19.7055	19.7270	19.7486	19.7702	19.7918	19.8134	19.8349	19.8565	19.8781	19.8997
1080	19.9213	19.9429	19.9645	19.9861	20.0077	20.0293	20.0509	20.0725	20.0941	20.1157
1090	20.1373	20.1589	20.1805	20.2022	20.2238	20.2454	20.2670	20.2886	20.3102	20.3319
1100	20.3535	20.3751	20.3967	20.4184	20.4400	20.4616	20.4833	20.5049	20.5265	20.5482
1110	20.5698	20.5915	20.6131	20.6348	20.6564	20.6780	20.6997	20.7213	20.7430	20.7646
1120	20.7863	20.8080	20.8296	20.8513	20.8729	20.8946	20.9163	20.9379	20.9596	20.9813
1130	21.0029	21.0246	21.0463	21.0679	21.0896	21.1113	21.1330	21.1546	21.1763	21.1980
1140	21.2197	21.2414	21.2630	21.2847	21.3064	21.3281	21.3498	21.3715	21.3932	21.4149
1150	21.4366	21.4583	21.4800	21.5017	21.5234	21.5451	21.5668	21.5885	21.6102	21.6319
1160	21.6536	21.6753	21.6970	21.7187	21.7404	21.7621	21.7838	21.8055	21.8273	21.8490
1170	21.8707	21.8924	21.9141	21.9359	21.9576	21.9793	22.0010	22.0227	22.0445	22.0662
1180	22.0879	22.1097	22.1314	22.1531	22.1748	22.1966	22.2183	22.2400	22.2618	22.2835
1190	22.3053	22.3270	22.3487	22.3705	22.3922	22.4140	22.4357	22.4575	22.4792	22.5009
1200	22.5227	22.5444	22.5662	22.5879	22.6097	22.6314	22.6532	22.6750	22.6967	22.7185
1210	22.7402	22.7620	22.7837	22.8055	22.8273	22.8490	22.8708	22.8925	22.9143	22.9361
1220	22.9578	22.9796	23.0014	23.0231	23.0449	23.0667	23.0884	23.1102	23.1320	23.1537
1230	23.1755	23.1973	23.2191	23.2408	23.2626	23.2844	23.3062	23.3279	23.3497	23.3715
1240	23.3933	23.4151	23.4368	23.4586	23.4804	23.5022	23.5240	23.5458	23.5675	23.5893
1250	23.6111	23.6329	23.6547	23.6765	23.6983	23.7201	23.7418	23.7636	23.7854	23.8072
1260	23.8290	23.8508	23.8726	23.8944	23.9162	23.9380	23.9598	23.9816	24.0034	24.0252
1270	24.0470	24.0688	24.0906	24.1124	24.1342	24.1560	24.1778	24.1996	24.2214	24.2432
1280	24.2650	24.2868	24.3086	24.3304	24.3522	24.3740	24.3958	24.4176	24.4394	24.4612
1290	24.4830	24.5048	24.5267	24.5485	24.5703	24.5921	24.6139	24.6357	24.6575	24.6793
1300	24.7011	24.7229	24.7448	24.7666	24.7884	24.8102	24.8320	24.8538	24.8756	24.8975
1310	24.9193	24.9411	24.9629	24.9847	25.0065	25.0284	25.0502	25.0720	25.0938	25.1156
1320	25.1374	25.1593	25.1811	25.2029	25.2247	25.2465	25.2684	25.2902	25.3120	25.3338
1330	25.3556	25.3775	25.3993	25.4211	25.4429	25.4647	25.4866	25.5084	25.5302	25.5520
1340	25.5739	25.5957	25.6175	25.6393	25.6612	25.6830	25.7048	25.7266	25.7485	25.7703
1350	25.7921	25.8139	25.8358	25.8576	25.8794	25.9012	25.9231	25.9449	25.9667	25.9885
1360	26.0104	26.0322	26.0540	26.0758	26.0977	26.1195	26.1413	26.1631	26.1850	26.2068
1370	26.2286	26.2505	26.2723	26.2941	26.3159	26.3378	26.3596	26.3814	26.4032	26.4251
1380	26.4469	26.4687	26.4905	26.5124	26.5342	26.5560	26.5779	26.5997	26.6215	26.6433
1390	26.6652	26.6870	26.7088	26.7306	26.7525	26.7743	26.7961	26.8180	26.8398	26.8616
1400	26.8834	26.9053	26.9271	26.9489	26.9707	26.9926	27.0144	27.0362	27.0580	27.0799
1410	27.1017	27.1235	27.1453	27.1672	27.1890	27.2108	27.2327	27.2545	27.2763	27.2981
1420	27.3199	27.3418	27.3636	27.3854	27.4072	27.4291	27.4509	27.4727	27.4945	27.5164

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Technical Information Data Bulletin

Type N Thermocouple
Nicrosil-Nisil

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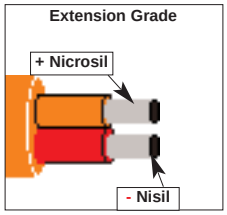
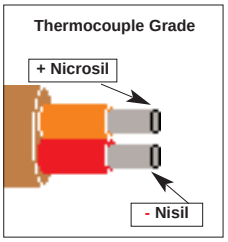


Temperature vs Millivolt Table
Reference Junction 32°F

Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -450 to 2372°F
-270 to 1300°C
Extension Grade: 32 to 392°F
0 to 200°C

Maximum Thermocouple Grade
Temperature Range
-450 to 2372°F
-270 to 1300°C
Accuracy: Standard: 1.7°C or 0.5%
Special: 1.0°C or 0.4%



Recommended Applications:
Alternative to Type K. Thermocouples More Stable at High Temperature

Temp	0	1	2	3	4	5	6	7	8	9
1430	27.5382	27.5600	27.5818	27.6037	27.6255	27.6473	27.6691	27.6909	27.7128	27.7346
1440	27.7564	27.7782	27.8000	27.8219	27.8437	27.8655	27.8873	27.9091	27.9310	27.9528
1450	27.9746	27.9964	28.0182	28.0400	28.0619	28.0837	28.1055	28.1273	28.1491	28.1709
1460	28.1928	28.2146	28.2364	28.2582	28.2800	28.3018	28.3236	28.3455	28.3673	28.3891
1470	28.4109	28.4327	28.4545	28.4763	28.4981	28.5200	28.5418	28.5636	28.5854	28.6072
1480	28.6290	28.6508	28.6726	28.6944	28.7162	28.7380	28.7598	28.7816	28.8035	28.8253
1490	28.8471	28.8689	28.8907	28.9125	28.9343	28.9561	28.9779	28.9997	29.0215	29.0433
1500	29.0651	29.0869	29.1087	29.1305	29.1523	29.1741	29.1959	29.2177	29.2395	29.2613
1510	29.2831	29.3048	29.3266	29.3484	29.3702	29.3920	29.4138	29.4356	29.4574	29.4792
1520	29.5010	29.5228	29.5446	29.5663	29.5881	29.6099	29.6317	29.6535	29.6753	29.6971
1530	29.7189	29.7406	29.7624	29.7842	29.8060	29.8278	29.8495	29.8713	29.8931	29.9149
1540	29.9367	29.9584	29.9802	30.0020	30.0238	30.0456	30.0673	30.0891	30.1109	30.1326
1550	30.1544	30.1762	30.1980	30.2197	30.2415	30.2633	30.2850	30.3068	30.3286	30.3503
1560	30.3721	30.3939	30.4156	30.4374	30.4592	30.4809	30.5027	30.5245	30.5462	30.5680
1570	30.5897	30.6115	30.6333	30.6550	30.6768	30.6985	30.7203	30.7420	30.7638	30.7855
1580	30.8073	30.8290	30.8508	30.8725	30.8943	30.9160	30.9378	30.9595	30.9813	31.0030
1590	31.0248	31.0465	31.0683	31.0900	31.1117	31.1335	31.1552	31.1770	31.1987	31.2204
1600	31.2422	31.2639	31.2856	31.3074	31.3291	31.3508	31.3726	31.3943	31.4160	31.4378
1610	31.4595	31.4812	31.5029	31.5247	31.5464	31.5681	31.5898	31.6116	31.6333	31.6550
1620	31.6767	31.6984	31.7202	31.7419	31.7636	31.7853	31.8070	31.8287	31.8504	31.8722
1630	31.8939	31.9156	31.9373	31.9590	31.9807	32.0024	32.0241	32.0458	32.0675	32.0892
1640	32.1109	32.1326	32.1543	32.1760	32.1977	32.2194	32.2411	32.2628	32.2845	32.3062
1650	32.3279	32.3496	32.3713	32.3929	32.4146	32.4363	32.4580	32.4797	32.5014	32.5231
1660	32.5447	32.5664	32.5881	32.6098	32.6315	32.6531	32.6748	32.6965	32.7181	32.7398
1670	32.7615	32.7832	32.8048	32.8265	32.8482	32.8698	32.8915	32.9132	32.9348	32.9565
1680	32.9781	32.9998	33.0215	33.0431	33.0648	33.0864	33.1081	33.1297	33.1514	33.1730
1690	33.1947	33.2163	33.2380	33.2596	33.2813	33.3029	33.3245	33.3462	33.3678	33.3895
1700	33.4111	33.4327	33.4544	33.4760	33.4976	33.5193	33.5409	33.5625	33.5842	33.6058
1710	33.6274	33.6490	33.6707	33.6923	33.7139	33.7355	33.7571	33.7788	33.8004	33.8220
1720	33.8436	33.8652	33.8868	33.9084	33.9300	33.9516	33.9732	33.9949	34.0165	34.0381
1730	34.0597	34.0813	34.1029	34.1245	34.1460	34.1676	34.1892	34.2108	34.2324	34.2540
1740	34.2756	34.2972	34.3188	34.3403	34.3619	34.3835	34.4051	34.4267	34.4482	34.4698
1750	34.4914	34.5130	34.5345	34.5561	34.5777	34.5992	34.6208	34.6424	34.6639	34.6855
1760	34.7071	34.7286	34.7502	34.7717	34.7933	34.8148	34.8364	34.8579	34.8795	34.9010
1770	34.9226	34.9441	34.9657	34.9872	35.0088	35.0303	35.0518	35.0734	35.0949	35.1164
1780	35.1380	35.1595	35.1810	35.2026	35.2241	35.2456	35.2671	35.2887	35.3102	35.3317
1790	35.3532	35.3747	35.3962	35.4178	35.4393	35.4608	35.4823	35.5038	35.5253	35.5468
1800	35.5683	35.5898	35.6113	35.6328	35.6543	35.6758	35.6973	35.7188	35.7403	35.7618
1810	35.7832	35.8047	35.8262	35.8477	35.8692	35.8906	35.9121	35.9336	35.9551	35.9765
1820	35.9980	36.0195	36.0410	36.0624	36.0839	36.1053	36.1268	36.1483	36.1697	36.1912
1830	36.2126	36.2341	36.2555	36.2770	36.2984	36.3199	36.3413	36.3628	36.3842	36.4057
1840	36.4271	36.4485	36.4700	36.4914	36.5128	36.5343	36.5557	36.5771	36.5985	36.6200
1850	36.6414	36.6628	36.6842	36.7056	36.7270	36.7485	36.7699	36.7913	36.8127	36.8341
1860	36.8555	36.8769	36.8983	36.9197	36.9411	36.9625	36.9839	37.0053	37.0267	37.0480
1870	37.0694	37.0908	37.1122	37.1336	37.1550	37.1763	37.1977	37.2191	37.2405	37.2618
1880	37.2832	37.3046	37.3259	37.3473	37.3686	37.3900	37.4114	37.4327	37.4541	37.4754
1890	37.4968	37.5181	37.5395	37.5608	37.5821	37.6035	37.6248	37.6462	37.6675	37.6888
1910	37.9234	37.9447	37.9660	37.9873	38.0086	38.0299	38.0512	38.0725	38.0938	38.1151

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Technical Information Data Bulletin

Type N Thermocouple
Nicrosil-Nisil

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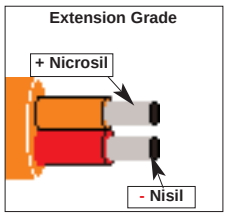
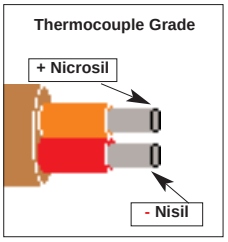


Temperature vs Millivolt Table
Reference Junction 32°F



Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -450 to 2372°F
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-450 to 2372°F
-270 to 1300°C
Accuracy: Standard: 1.7°C or 0.5%
Special: 1.0°C or 0.4%

Recommended Applications:
Alternative to Type K. Thermocouples More Stable at High Temperature

Temp	0	1	2	3	4	5	6	7	8	9
1920	38.1364	38.1577	38.1790	38.2003	38.2215	38.2428	38.2641	38.2854	38.3067	38.3279
1930	38.3492	38.3705	38.3917	38.4130	38.4343	38.4555	38.4768	38.4981	38.5193	38.5406
1940	38.5618	38.5831	38.6043	38.6256	38.6468	38.6681	38.6893	38.7105	38.7318	38.7530
1950	38.7743	38.7955	38.8167	38.8379	38.8592	38.8804	38.9016	38.9228	38.9440	38.9653
1960	38.9865	39.0077	39.0289	39.0501	39.0713	39.0925	39.1137	39.1349	39.1561	39.1773
1970	39.1985	39.2197	39.2409	39.2620	39.2832	39.3044	39.3256	39.3468	39.3679	39.3891
1980	39.4103	39.4315	39.4526	39.4738	39.4949	39.5161	39.5373	39.5584	39.5796	39.6007
1990	39.6219	39.6430	39.6642	39.6853	39.7064	39.7276	39.7487	39.7699	39.7910	39.8121
2000	39.8332	39.8544	39.8755	39.8966	39.9177	39.9389	39.9600	39.9811	40.0022	40.0233
2010	40.0444	40.0655	40.0866	40.1077	40.1288	40.1499	40.1710	40.1921	40.2132	40.2343
2020	40.2553	40.2764	40.2975	40.3186	40.3396	40.3607	40.3818	40.4029	40.4239	40.4450
2030	40.4660	40.4871	40.5082	40.5292	40.5503	40.5713	40.5924	40.6134	40.6345	40.6555
2040	40.6765	40.6976	40.7186	40.7396	40.7607	40.7817	40.8027	40.8237	40.8448	40.8658
2050	40.8868	40.9078	40.9288	40.9498	40.9708	40.9918	41.0128	41.0338	41.0548	41.0758
2060	41.0968	41.1178	41.1388	41.1598	41.1808	41.2017	41.2227	41.2437	41.2647	41.2856
2070	41.3066	41.3276	41.3485	41.3695	41.3905	41.4114	41.4324	41.4533	41.4743	41.4952
2080	41.5162	41.5371	41.5581	41.5790	41.5999	41.6209	41.6418	41.6627	41.6837	41.7046
2090	41.7255	41.7464	41.7673	41.7882	41.8092	41.8301	41.8510	41.8719	41.8928	41.9137
2100	41.9346	41.9555	41.9764	41.9973	42.0181	42.0390	42.0599	42.0808	42.1017	42.1225
2110	42.1434	42.1643	42.1852	42.2060	42.2269	42.2477	42.2686	42.2895	42.3103	42.3312
2120	42.3520	42.3729	42.3937	42.4145	42.4354	42.4562	42.4770	42.4979	42.5187	42.5395
2130	42.5604	42.5812	42.6020	42.6228	42.6436	42.6644	42.6852	42.7060	42.7268	42.7476
2140	42.7684	42.7892	42.8100	42.8308	42.8516	42.8724	42.8932	42.9140	42.9347	42.9555
2150	42.9763	42.9971	43.0178	43.0386	43.0593	43.0801	43.1009	43.1216	43.1424	43.1631
2160	43.1839	43.2046	43.2254	43.2461	43.2668	43.2876	43.3083	43.3290	43.3497	43.3705
2170	43.3912	43.4119	43.4326	43.4533	43.4740	43.4948	43.5155	43.5362	43.5569	43.5776
2180	43.5982	43.6189	43.6396	43.6603	43.6810	43.7017	43.7224	43.7430	43.7637	43.7844
2190	43.8050	43.8257	43.8464	43.8670	43.8877	43.9083	43.9290	43.9496	43.9703	43.9909
2200	44.0116	44.0322	44.0528	44.0735	44.0941	44.1147	44.1353	44.1559	44.1766	44.1972
2210	44.2178	44.2384	44.2590	44.2796	44.3002	44.3208	44.3414	44.3620	44.3826	44.4032
2220	44.4237	44.4443	44.4649	44.4855	44.5060	44.5266	44.5472	44.5677	44.5883	44.6089
2230	44.6294	44.6500	44.6705	44.6911	44.7116	44.7321	44.7527	44.7732	44.7937	44.8143
2240	44.8348	44.8553	44.8758	44.8963	44.9168	44.9373	44.9579	44.9784	44.9989	45.0194
2250	45.0398	45.0603	45.0808	45.1013	45.1218	45.1423	45.1627	45.1832	45.2037	45.2241
2260	45.2446	45.2651	45.2855	45.3060	45.3264	45.3469	45.3673	45.3877	45.4082	45.4286
2270	45.4490	45.4695	45.4899	45.5103	45.5307	45.5511	45.5715	45.5919	45.6123	45.6327
2280	45.6531	45.6735	45.6939	45.7143	45.7347	45.7551	45.7754	45.7958	45.8162	45.8365
2290	45.8569	45.8772	45.8976	45.9180	45.9383	45.9586	45.9790	45.9993	46.0196	46.0400
2300	46.0603	46.0806	46.1009	46.1212	46.1416	46.1619	46.1822	46.2025	46.2228	46.2430
2310	46.2633	46.2836	46.3039	46.3242	46.3444	46.3647	46.3850	46.4052	46.4255	46.4457
2320	46.4660	46.4862	46.5065	46.5267	46.5469	46.5672	46.5874	46.6076	46.6278	46.6480
2330	46.6682	46.6884	46.7086	46.7288	46.7490	46.7692	46.7894	46.8095	46.8297	46.8499
2340	46.8700	46.8902	46.9104	46.9305	46.9507	46.9708	46.9909	47.0111	47.0312	47.0513
2350	47.0714	47.0915	47.1116	47.1317	47.1518	47.1719	47.1920	47.2121	47.2322	47.2523
2360	47.2723	47.2924	47.3125	47.3325	47.3526	47.3726	47.3926	47.4127	47.4327	47.4527
2370	47.4728	47.4928	47.5128							

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