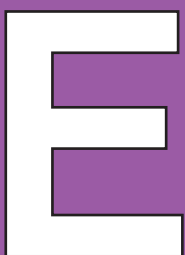


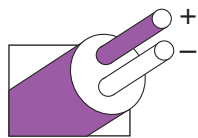
Thermoelement-Referenztabellen

TYP

Referenztabellen
N.I.S.T.
Monograph 175
Nach
ITS-90



Nickel-Chrom und Kupfer-Nickel



IEC-584-3
Farbcodierung:
Thermoelement-
und Ausgleichs-
leitung

MAXIMALER TEMPERATURBEREICH

Thermoelementleitung
-328 bis 1652°F, -200 bis 900°C

Verlängerungsleitung
32 bis 392°F, 0 bis 200°C

FEHLERTOLERANZEN

(je nachdem, welcher Wert größer ist)
Standard: 1,7°C oder 0,5% über 0°C,
1,7°C oder 1,0% unter 0°C

Besonders enge Fehlertoleranz: 1,0°C oder 0,4%

KOMMENTARE, UMGEBUNG FÜR UNISOLIERTE LEITUNGEN:

Oxidierend oder chemisch inaktiv; Nur begrenzt
einsetzbar in Vakuum oder reduzierender Umgebung;
Größte Änderung der EMK pro Grad

TEMPERATUR IN °C

VERGLEICHSSTELLE BEI 0°C

Thermoelektrische Spannung in mV

°C	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	°C	°C	0	1	2	3	4	5	6	7	8	9	10	°C
-260	-9.835	-9.833	-9.831	-9.828	-9.825	-9.821	-9.817	-9.813	-9.808	-9.802	-9.797	-260	350	24.964	25.044	25.123	25.202	25.281	25.360	25.440	25.519	25.598	25.678	25.757	350
-250	-9.797	-9.790	-9.784	-9.777	-9.770	-9.762	-9.754	-9.737	-9.728	-9.718	-250	360	25.757	25.836	25.916	25.995	26.075	26.154	26.233	26.313	26.392	26.472	26.552	26.632	360
-240	-9.718	-9.709	-9.698	-9.688	-9.677	-9.666	-9.654	-9.642	-9.630	-9.617	-240	370	26.652	26.631	26.711	26.790	26.870	26.950	27.029	27.109	27.189	27.268	27.348	27.428	370
-230	-9.604	-9.591	-9.577	-9.563	-9.548	-9.534	-9.519	-9.503	-9.487	-9.471	-230	380	27.348	27.428	27.507	27.587	27.667	27.747	27.827	27.907	27.986	28.066	28.146	28.226	380
-220	-9.455	-9.438	-9.421	-9.404	-9.386	-9.368	-9.350	-9.331	-9.313	-9.293	-220	390	28.146	28.226	28.306	28.386	28.466	28.546	28.626	28.706	28.786	28.866	28.946	390	
-210	-9.274	-9.254	-9.234	-9.214	-9.193	-9.172	-9.151	-9.129	-9.107	-9.085	-210	400	28.946	29.026	29.106	29.186	29.266	29.346	29.427	29.507	29.587	29.667	29.747	400	
-200	-9.063	-9.040	-9.017	-8.994	-8.971	-8.947	-8.923	-8.899	-8.874	-8.850	-200	410	29.747	29.827	29.908	29.988	30.068	30.148	30.229	30.309	30.389	30.470	30.550	410	
-190	-8.825	-8.799	-8.774	-8.748	-8.722	-8.696	-8.669	-8.643	-8.616	-8.588	-190	420	30.550	30.630	30.711	30.791	30.871	30.952	31.032	31.112	31.193	31.273	31.354	420	
-180	-8.561	-8.533	-8.505	-8.477	-8.449	-8.420	-8.391	-8.362	-8.333	-8.303	-180	430	31.354	31.434	31.515	31.595	31.676	31.756	31.837	31.917	31.998	32.078	32.159	430	
-170	-8.273	-8.243	-8.213	-8.183	-8.152	-8.121	-8.090	-8.059	-8.027	-7.995	-170	440	32.159	32.239	32.320	32.400	32.481	32.562	32.642	32.723	32.803	32.884	32.965	440	
-160	-7.963	-7.931	-7.899	-7.866	-7.833	-7.800	-7.767	-7.733	-7.700	-7.666	-160	450	32.965	33.045	33.126	33.207	33.287	33.368	33.449	33.529	33.610	33.691	33.772	450	
-150	-7.632	-7.597	-7.563	-7.528	-7.493	-7.458	-7.423	-7.387	-7.351	-7.315	-150	460	33.772	33.852	33.933	34.014	34.095	34.175	34.256	34.337	34.418	34.498	34.579	460	
-140	-7.279	-7.243	-7.206	-7.170	-7.133	-7.096	-7.058	-7.021	-6.983	-6.945	-140	470	34.579	34.660	34.741	34.822	34.903	34.984	35.065	35.146	35.226	35.307	35.387	470	
-130	-6.907	-6.869	-6.831	-6.792	-6.753	-6.714	-6.675	-6.636	-6.596	-6.556	-130	480	35.387	35.468	35.549	35.630	35.711	35.792	35.873	35.954	36.034	36.115	36.196	480	
-120	-6.516	-6.476	-6.436	-6.396	-6.355	-6.314	-6.273	-6.232	-6.191	-6.149	-120	490	36.196	36.277	36.358	36.439	36.520	36.601	36.682	36.763	36.843	36.924	37.005	490	
-110	-6.107	-6.065	-6.023	-5.981	-5.939	-5.896	-5.853	-5.810	-5.767	-5.724	-110	500	37.005	37.086	37.167	37.248	37.329	37.410	37.491	37.572	37.653	37.734	37.815	500	
-100	-5.681	-5.637	-5.593	-5.549	-5.505	-5.461	-5.417	-5.372	-5.327	-5.282	-100	510	37.815	37.896	37.977	38.058	38.139	38.220	38.301	38.381	38.462	38.543	38.624	510	
-90	-5.237	-5.192	-5.147	-5.101	-5.055	-5.009	-4.963	-4.917	-4.871	-4.824	-90	520	38.624	38.705	38.786	38.867	38.948	39.029	39.110	39.191	39.272	39.353	39.434	520	
-80	-4.777	-4.731	-4.684	-4.636	-4.589	-4.542	-4.494	-4.446	-4.398	-4.350	-80	530	39.434	39.515	39.596	39.677	39.758	39.839	39.920	40.001	40.082	40.163	40.243	530	
-70	-4.302	-4.254	-4.205	-4.156	-4.107	-4.058	-4.009	-3.960	-3.911	-3.861	-70	540	40.243	40.324	40.405	40.486	40.567	40.648	40.729	40.810	40.891	40.972	41.053	540	
-60	-3.811	-3.761	-3.711	-3.661	-3.611	-3.561	-3.510	-3.459	-3.408	-3.357	-60	550	41.053	41.134	41.215	41.296	41.377	41.457	41.538	41.619	41.700	41.781	41.862	550	
-50	-3.306	-3.255	-3.204	-3.152	-3.100	-3.048	-2.996	-2.944	-2.892	-2.840	-50	560	41.862	41.943	42.024	42.105	42.186	42.267	42.348	42.429	42.510	42.591	42.672	560	
-40	-2.787	-2.735	-2.682	-2.629	-2.576	-2.523	-2.469	-2.416	-2.362	-2.309	-40	570	42.672	42.753	42.834	42.915	42.996	43.077	43.158	43.239	43.320	43.401	43.482	570	
-30	-2.255	-2.201	-2.147	-2.093	-2.038	-1.984	-1.929	-1.874	-1.820	-1.765	-30	580	43.482	43.563	43.644	43.725	43.806	43.887	43.968	44.049	44.130	44.211	44.292	580	
-20	-1.709	-1.654	-1.599	-1.543	-1.488	-1.432	-1.376	-1.320	-1.264	-1.208	-20	590	44.292	44.373	44.454	44.535	44.616	44.697	44.778	44.859	44.940	45.021	45.102	590	
-10	-1.152	-1.095	-1.039	-0.982	-0.925	-0.868	-0.811	-0.754	-0.697	-0.639	-10	600	45.102	45.183	45.264	45.345	45.426	45.507	45.588	45.669	45.750	45.831	45.912	600	
0	-0.582	-0.524	-0.466	-0.408	-0.350	-0.292	-0.234	-0.176	-0.117	-0.059	0	610	45.912	46.000	46.088	46.176	46.264	46.352	46.440	46.528	46.616	46.704	46.792	610	
10	0.000	0.059	0.118	0.176	0.235	0.294	0.354	0.413	0.472	0.532	10	620	46.704	46.792	46.880	46.968	47.056	47.144	47.232	47.320	47.408	47.496	47.584	620	
20	1.192	1.252	1.313	1.373	1.434	1.495	1.556	1.617	1.678	1.740	20	630	47.584	47.672	47.760	47.848	47.936	48.024	48.112	48.200	48.288	48.376	48.464	630	
30	1.801	1.862	1.924	1.986	2.047	2.109	2.171	2.233	2.295	2.357	30	640	48.464	48.552	48.640	48.728	48.816	48.904	48.992	49.080	49.168	49.256	49.344	640	
40	2.420	2.482	2.545	2.607	2.670	2.733	2.795	2.858	2.921	2.984	40	650	49.344	49.432	49.520	49.608	49.696	49.784	49.872	49.960	50.048	50.136	50.224	650	
50	3.048	3.111	3.174	3.238	3.301	3.365	3.429	3.492	3.556	3.620	50	660	50.224	50.312	50.400	50.488	50.576	50.664	50.752	50.840	50.928	51.016	51.104	660	
60	3.685	3.749	3.813	3.877	3.942	4.006	4.071	4.136	4.200	4.265	60	670	51.104	51.192	51.280	51.368	51.456	51.544	51.632	51.720	51.808	51.896	51.984	670	
70	4.330	4.395	4.460	4.526	4.591	4.656	4.722	4.788	4.853	4.919	70	680	52.000	52.088	52.176	52.264	52.352	52.440	52.528	52.616	52.704	52.792	52.880	680	
80	4.985	5.051	5.117	5.183	5.249	5.315	5.382	5.448	5.514	5.581	80	690	52.880	52.968	53.056	53.144	53.232	53.320	53.408	53.496	53.584	53.672	53.760	690	
90	5.648	5.714	5.781	5.848	5.915	5.982	6.049	6.117	6.184	6.251	90	700	53.760	53.848	53.936	54.024	54.112	54.200	54.288	54.376	54.464	54.552	54.640	700	
100	6.319	6.386	6.454	6.522	6.590	6.658	6.725	6.794	6.862	6.930	100	710	54.640	54.728	54.816	54.904	54.992	55.080	55.168	55.256	55.344	55.432	55.520	710	
110	6.998	7.066	7.135	7.203	7.272	7.341	7.409	7.478	7.547	7.616	110	720	55.520	55.608	55.696	55.784	55.872	55.960	56.048	56.136	56.224	56.312	56.400	720	
120	7.685	7.754	7.823	7.892	7.962	8.031	8.101	8.170	8.240	8.309	120	730	56.400	56.488	56.576	56.664	56.752	56.840	56.928	57.016	57.104	57.192	57.280	730	
130	8.379																								