### 最大温度范围

**热电偶级** - 328 ~ 2282°F - 200 ~ 1250°C

延展级 32~392°F 0~200°C

误差限 (以较大者为准) 标配: 2.2°C或0.75%, 0°C以上 2.2°C或2.0%, 0°C以下 特殊: 1.1°C或0.4%

说明,裸线环境: 清洁的氧化和惰性环境;在真空 或还原环境中限制使用;温度范围宽; 最常用的分度号

温度单位为度°C 参比端处于0°C





# 修订版热电偶参考表

EC色标

型号 ANSI色标 参考表 N.I.S.T. 专题论文175 **ITS-90** 修订



### 热电电压单位为毫伏

°r	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	·C ·C		°C	0	1	2	3	4	5	6	7	8	9	10	°C
U	-10	-3	-0	-,	-0	-0	7	-0		•	U	Ü			•			10.276					-	-		250
													1					10.684								260
000	C 4E0	C 457	C AEC	C AEE	C 4E0	C 4E0	C 4E0	C 440	C 44C	C 444	C 441	000						11.094 11.506								270 280
-260 -250				-6.455 -6.432								-260 -250						11.919								290
200	0.111	0.100	0.100	0.102	0.120	0.120	0.121	0.117	0.110	0.100	0.101	200	-	.00	11.700	11.000	11.077	11.010	11.000	12.001	12.010	12.001	12.120	12.107	12.200	200
-240				-6.388								-240	1 -					12.333								300
-230				-6.322								-230	1 -					12.748								310
-220 -210				-6.233 -6.123								-220 -210	1 -					13.165 13.582								320 330
-200				-5.994								-200						14.000								340
-190				-5.845								-190	1 -					14.419								350
-180 -170				-5.678 -5.493								-180 -170						14.839 15.259								360 370
-160				-5.292								-160						15.680								380
-150	-5.141	-5.119	-5.097	-5.074	-5.052	-5.029	-5.006	-4.983	-4.960	-4.936	-4.913	-150	3	90	15.975	16.017	16.059	16.102	16.144	16.186	16.228	16.270	16.313	16.355	16.397	390
-140	4.012	4 000	1 005	-4.841	4 017	4 702	1 760	4 744	4 710	4 604	4 660	-140	1	00	16 207	16 /30	16 /82	16.524	16 566	16 608	16 651	16 603	16 725	16 779	16 820	400
-140				-4.593								-140	1					16.947								410
				-4.330								-120	1					17.370								420
				-4.054								-110	4					17.794								430
-100	-3.852	-3.823	-3.794	-3.764	-3.734	-3.705	-3.675	-3.645	-3.614	-3.584	-3.554	-100	4	40	18.091	18.134	18.176	18.218	18.261	18.303	18.346	18.388	18.431	18.473	18.516	440
-90	-3.554	-3.523	-3.492	-3.462	-3.431	-3.400	-3.368	-3.337	-3.306	-3.274	-3.243	-90	4	50	18.516	18.558	18.601	18.643	18.686	18.728	18.771	18.813	18.856	18.898	18.941	450
-80				-3.147								-80	1					19.068								460
-70				-2.821						-2.620		-70	1					19.494								470
-60 -50				-2.485 -2.138								-60 -50	1					19.920 20.346								480 490
-50	-2.243	-2.200	-2.173	-2.130	-2.103	-2.007	-2.032	-1.990	-1.901	-1.923	-1.009	-30	4	90	20.210	20.201	20.303	20.340	20.309	20.431	20.474	20.510	20.559	20.002	20.044	490
-40	-1.889	-1.854	-1.818	-1.782	-1.745	-1.709	-1.673	-1.637	-1.600	-1.564	-1.527	-40	5	00	20.644	20.687	20.730	20.772	20.815	20.857	20.900	20.943	20.985	21.028	21.071	500
				-1.417								-30	1					21.199								510
-20 -10				-1.043 -0.663								-20 -10						21.625 22.052								520 530
0				-0.275							0.000	0						22.478								540
0	0.000		0.079								0.397	0	1 .					22.904								550 560
10 20	0.397 0.798	0.437 0.838	0.477 0.879		0.960			0.677 1.081		0.758 1.163	0.798 1.203	10 20						23.331 23.757								570
30	1.203	1.244	1.285		1.366				1.530	1.571		30	1 .					24.182								580
40	1.612	1.653	1.694	1.735	1.776	1.817	1.858	1.899	1.941	1.982	2.023	40	5	90	24.480	24.523	24.565	24.608	24.650	24.693	24.735	24.778	24.820	24.863	24.905	590
50	2.023	2.064	2.106	0 1 4 7	2.188	2 220	2 271	2.312	2 254	2.395	2.436	50		00	24 005	24 049	24 000	25.033	25 075	25 110	25 160	25 202	25 245	25 200	25 220	600
60	2.436	2.478	2.519	2.147		2.644	2.685		2.768	2.810	2.430	60	1 .					25.458								610
70	2.851	2.893	2.934		3.017			3.142		3.225	3.267	70	6					25.882								620
80	3.267	3.308	3.350					3.557		3.640	3.682	80						26.306								630
90	3.682	3.723	3.765	3.806	3.848	3.889	3.931	3.972	4.013	4.055	4.096	90	6	40	26.602	26.644	26.687	26.729	26.//1	26.814	26.856	26.898	26.940	26.983	27.025	640
100	4.096	4.138	4.179	4.220	4.262	4.303	4.344	4.385	4.427	4.468	4.509	100	6	50	27.025	27.067	27.109	27.152	27.194	27.236	27.278	27.320	27.363	27.405	27.447	650
110	4.509	4.550	4.591	4.633	4.674	4.715	4.756	4.797	4.838	4.879	4.920	110						27.574								660
120	4.920	4.961	5.002		5.084	5.124	5.165		5.247	5.288	5.328	120						27.995								670
130 140	5.328 5.735	5.369 5.775	5.410 5.815		5.491 5.896		5.572 5.977	6.017	5.653 6.058	5.694 6.098	5.735 6.138	130 140	1 .					28.416 28.835								680 690
110	0.700	0.770	0.010	0.000	0.000	0.007	0.011	0.011	0.000	0.000	0.100	140		•	20.7 10	20.702	20.701	20.000	20.011	20.010	20.00	20.000	20.010	20.007	20.120	000
150	6.138	6.179	6.219			6.339		6.420	6.460	6.500		150						29.255								700
160	6.540	6.580	6.620		6.701				6.861			160						29.673 30.090								710
170 180		6.981 7.380		7.460	7.100 7.500					7.300 7.699		170 180													30.798	730
190			7.819				7.979		8.059	8.099	8.138	190													31.213	
										_																
200	8.138	8.178	8.218	8.258	8.298	8.338			8.458	8.499 8.900	8.539	200						31.338								750 760
210 220	8.539 8.940	8.579 8.980	8.619 9.020	8.659 9.061	8.699 9.101	9.141	9.181	8.819 9.222	9.262	9.302		210 220						31.752 32.165								760 770
230	9.343	9.383	9.423	9.464	9.504	9.545	9.585	9.626	9.666	9.707	9.747	230		80	32.453	32.495	32.536	32.577	32.618	32.659	32.700	32.742	32.783	32.824	32.865	780
240	9.747	9.788	9.828	9.869	9.909	9.950	9.991	10.031	10.072	10.113	10.153	240	7	90	32.865	32.906	32.947	32.988	33.029	33.070	33.111	33.152	33.193	33.234	33.275	790
°C	0	1	2	3	4	5	6	7	8	9	10	°C		°C	0	1	2	3	4	5	6	7	8	9	10	°C

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修订







最大温度范围

**热电偶级** - 328 ~ 2282°F - 200 ~ 1250°C

延展级 32~392°F 0~200°C

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说明,裸线环境: 清洁的氧化和惰性环境;在真空 或还原环境中限制使用;温度范围宽;

最常用的分度号

温度单位为度°C 参比端处于0°C

#### 热电电压单位为毫伏

°C	0	1	2	3	4	5	6	7	8	9	10	°C	∣ °C	0	1	2	3	4	5	6	7	8	9	10	°C
800	33.275	33.316	33.357	33.398	33.439	33.480	33.521	33.562	33.603	33.644	33.685	800	1100	45.119	45.157	45.194	45.232	45.270	45.308	45.346	45.383	45.421	45.459	45.497	1100
810	33.685	33.726	33.767	33.808	33.848	33.889	33.930	33.971	34.012	34.053	34.093	810	1110	45.497	45.534	45.572	45.610	45.647	45.685	45.723	45.760	45.798	45.836	45.873	1110
820	34.093	34.134	34.175	34.216	34.257	34.297	34.338	34.379	34.420	34.460	34.501	820	1120	45.873	45.911	45.948	45.986	46.024	46.061	46.099	46.136	46.174	46.211	46.249	1120
830	34.501	34.542	34.582	34.623	34.664	34.704	34.745	34.786	34.826	34.867	34.908	830	1130	46.249	46.286	46.324	46.361	46.398	46.436	46.473	46.511	46.548	46.585	46.623	1130
840	34.908	34.948	34.989	35.029	35.070	35.110	35.151	35.192	35.232	35.273	35.313	840	1140	46.623	46.660	46.697	46.735	46.772	46.809	46.847	46.884	46.921	46.958	46.995	1140
			35.394									850				47.070									
			35.798									860				47.441									
			36.202									870				47.811									
			36.604									880				48.179									
890	36.925	36.965	37.006	37.046	37.086	37.126	37.166	37.206	37.246	37.286	37.326	890	1190	48.473	48.509	48.546	48.582	48.619	48.656	48.692	48.729	48.765	48.802	48.838	1190
		.=	.=		.=								4000	40.000	40.075	10.011	40.040	40.004	40.004	10.057	40.000	40.400	40.400	40.000	1000
			37.406									900	1200			48.911									
			37.805									910	1210			49.275 49.637									
			38.204 38.601									920	1220			49.998									
			38.997									930 940	1230			50.358									
940	30.910	30.930	30.997	39.037	39.076	39.110	39.133	39.193	39.233	39.274	39.314	940	1240	30.200	30.322	30.336	30.393	30.429	30.403	30.301	30.337	30.372	30.000	30.044	1240
950	30 31/	30 353	39.393	30 /32	30 //71	30 511	39 550	30 500	30 620	30 660	30 708	950	1250	50 644	50 680	50.715	50 751	50 787	50 822	50 858	50 894	50 929	50 965	51 000	1250
			39.787									960				51.071									
			40.180									970				51.426									
			40.572									980				51.779									
			40.963									990				52.130									
1000	41.276	41.315	41.354	41.393	41.431	41.470	41.509	41.548	41.587	41.626	41.665	1000	1300	52.410	52.445	52.480	52.515	52.550	52.585	52.620	52.654	52.689	52.724	52.759	1300
1010	41.665	41.704	41.743	41.781	41.820	41.859	41.898	41.937	41.976	42.014	42.053	1010	1310	52.759	52.794	52.828	52.863	52.898	52.932	52.967	53.002	53.037	53.071	53.106	1310
1020	42.053	42.092	42.131	42.169	42.208	42.247	42.286	42.324	42.363	42.402	42.440	1020	1320	53.106	53.140	53.175	53.210	53.244	53.279	53.313	53.348	53.382	53.417	53.451	1320
1030	42.440	42.479	42.518	42.556	42.595	42.633	42.672	42.711	42.749	42.788	42.826	1030	1330	53.451	53.486	53.520	53.555	53.589	53.623	53.658	53.692	53.727	53.761	53.795	1330
1040	42.826	42.865	42.903	42.942	42.980	43.019	43.057	43.096	43.134	43.173	43.211	1040	1340	53.795	53.830	53.864	53.898	53.932	53.967	54.001	54.035	54.069	54.104	54.138	1340
			43.288													54.206									
			43.672													54.547	54.581	54.615	54.649	54.683	54.717	54.751	54.785	54.819	1360
			44.054										1370	54.819	54.852	54.886									1370
			44.435																						
1090	44.740	44.778	44.816	44.853	44.891	44.929	44.967	45.005	45.043	45.081	45.119	1090													
°C	0	1	2	3	4	5	6	7	8	9	10	°C	°c	0	1	2	3	4	5	6	7	8	9	10	°C