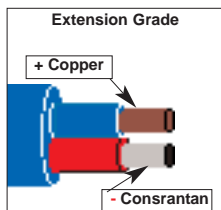




Technical Information Data Bulletin

Type T Thermocouple Copper-Constantan

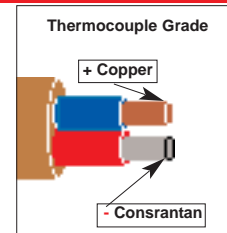
TEMPERATURE & PROCESS INSTRUMENTS - CON-



Temperature vs Millivolt Table Reference Junction 0°C

Temperature Range
Maximum Useful Temperature Range:
Thermocouple Grade: -328 to 662°F
 -200 to 350°C
Extension Grade: -76 to 212°F
 -60 to 100°C

Maximum Thermocouple Grade
Temperature Range
 -454 to 752°F
 -270 to 400°C
Accuracy: Standard: 1.0°C or 0.75%
 Special: 0.5°C or 0.4%



Recommended Applications:

Mild Oxidizing, Reducing Vacuum or Inert Environments. Good Where Moisture Is Present. Low Temperature Applications.

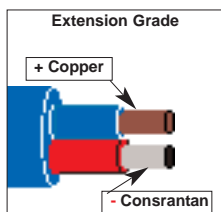
Temp	0	-1	-2	-3	-4	-5	-6	-7	-8	-9
-270	-6.2575									
-260	-6.2318	-6.2356	-6.2391	-6.2424	-6.2454	-6.2482	-6.2507	-6.2529	-6.2548	-6.2563
-250	-6.1804	-6.1867	-6.1926	-6.1984	-6.2039	-6.2091	-6.2141	-6.2189	-6.2234	-6.2277
-240	-6.1050	-6.1136	-6.1220	-6.1301	-6.1380	-6.1457	-6.1531	-6.1603	-6.1673	-6.1740
-230	-6.0067	-6.0175	-6.0281	-6.0384	-6.0486	-6.0585	-6.0683	-6.0778	-6.0871	-6.0961
-220	-5.8885	-5.9011	-5.9136	-5.9259	-5.9380	-5.9499	-5.9616	-5.9732	-5.9845	-5.9957
-210	-5.7532	-5.7675	-5.7815	-5.7955	-5.8092	-5.8228	-5.8363	-5.8496	-5.8627	-5.8757
-200	-5.6030	-5.6186	-5.6342	-5.6496	-5.6648	-5.6799	-5.6949	-5.7097	-5.7243	-5.7389
-190	-5.4386	-5.4557	-5.4726	-5.4894	-5.5060	-5.5225	-5.5389	-5.5551	-5.5712	-5.5872
-180	-5.2608	-5.2792	-5.2974	-5.3155	-5.3335	-5.3514	-5.3691	-5.3867	-5.4041	-5.4215
-170	-5.0696	-5.0893	-5.1089	-5.1283	-5.1476	-5.1668	-5.1859	-5.2048	-5.2236	-5.2422
-160	-4.8654	-4.8864	-4.9073	-4.9280	-4.9486	-4.9691	-4.9895	-5.0097	-5.0298	-5.0497
-150	-4.6485	-4.6707	-4.6929	-4.7149	-4.7368	-4.7585	-4.7801	-4.8017	-4.8230	-4.8443
-140	-4.4190	-4.4425	-4.4659	-4.4891	-4.5123	-4.5353	-4.5582	-4.5809	-4.6036	-4.6261
-130	-4.1771	-4.2019	-4.2265	-4.2510	-4.2754	-4.2996	-4.3237	-4.3477	-4.3716	-4.3954
-120	-3.9230	-3.9489	-3.9748	-4.0005	-4.0261	-4.0516	-4.0769	-4.1022	-4.1273	-4.1523
-110	-3.6567	-3.6839	-3.7109	-3.7378	-3.7646	-3.7913	-3.8179	-3.8443	-3.8707	-3.8969
-100	-3.3786	-3.4069	-3.4351	-3.4632	-3.4912	-3.5191	-3.5469	-3.5745	-3.6020	-3.6294
-90	-3.0889	-3.1184	-3.1477	-3.1770	-3.2061	-3.2352	-3.2641	-3.2929	-3.3216	-3.3501
-80	-2.7879	-2.8185	-2.8490	-2.8794	-2.9096	-2.9398	-2.9698	-2.9998	-3.0296	-3.0593
-70	-2.4758	-2.5075	-2.5391	-2.5706	-2.6019	-2.6332	-2.6644	-2.6954	-2.7263	-2.7572
-60	-2.1527	-2.1855	-2.2182	-2.2508	-2.2832	-2.3156	-2.3478	-2.3800	-2.4120	-2.4439
-50	-1.8190	-1.8529	-1.8866	-1.9202	-1.9538	-1.9872	-2.0205	-2.0537	-2.0868	-2.1198
-40	-1.4750	-1.5099	-1.5446	-1.5793	-1.6138	-1.6483	-1.6826	-1.7169	-1.7511	-1.7851
-30	-1.1209	-1.1567	-1.1925	-1.2282	-1.2637	-1.2992	-1.3345	-1.3698	-1.4050	-1.4400
-20	-0.7568	-0.7937	-0.8304	-0.8671	-0.9036	-0.9401	-0.9764	-1.0127	-1.0489	-1.0849
-10	-0.3831	-0.4209	-0.4586	-0.4962	-0.5337	-0.5711	-0.6085	-0.6457	-0.6829	-0.7199
0	0.0000	-0.0387	-0.0773	-0.1159	-0.1543	-0.1926	-0.2309	-0.2691	-0.3072	-0.3452
Temp	0	1	2	3	4	5	6	7	8	9
0	0.0000	0.0388	0.0776	0.1166	0.1555	0.1946	0.2337	0.2729	0.3122	0.3516
10	0.3910	0.4305	0.4701	0.5098	0.5495	0.5893	0.6292	0.6692	0.7093	0.7494
20	0.7896	0.8299	0.8703	0.9108	0.9513	0.9920	1.0327	1.0735	1.1144	1.1554
30	1.1965	1.2376	1.2788	1.3202	1.3616	1.4031	1.4446	1.4863	1.5280	1.5699
40	1.6118	1.6538	1.6959	1.7381	1.7803	1.8227	1.8651	1.9076	1.9503	1.9929
50	2.0357	2.0786	2.1215	2.1646	2.2077	2.2509	2.2942	2.3375	2.3810	2.4245
60	2.4682	2.5119	2.5556	2.5995	2.6435	2.6875	2.7316	2.7758	2.8201	2.8645
70	2.9089	2.9534	2.9980	3.0427	3.0875	3.1323	3.1772	3.2222	3.2673	3.3125
80	3.3577	3.4030	3.4484	3.4939	3.5395	3.5851	3.6308	3.6766	3.7224	3.7683
90	3.8144	3.8604	3.9066	3.9528	3.9991	4.0455	4.0920	4.1385	4.1851	4.2318
100	4.2785	4.3253	4.3722	4.4192	4.4662	4.5134	4.5605	4.6078	4.6551	4.7025
110	4.7500	4.7975	4.8451	4.8928	4.9405	4.9883	5.0362	5.0842	5.1322	5.1803
120	5.2285	5.2767	5.3250	5.3733	5.4218	5.4703	5.5188	5.5675	5.6162	5.6649
130	5.7138	5.7627	5.8116	5.8607	5.9097	5.9589	6.0081	6.0574	6.1068	6.1562
140	6.2057	6.2552	6.3049	6.3545	6.4043	6.4541	6.5040	6.5539	6.6039	6.6540
150	6.7041	6.7543	6.8045	6.8548	6.9052	6.9557	7.0062	7.0567	7.1074	7.1580



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Type T Thermocouple Copper-Constantan

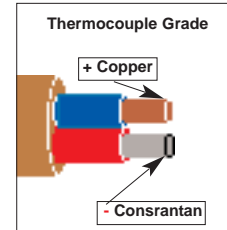
TEMPERATURE & PROCESS INSTRUMENTS - INC.



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Temp	0	1	2	3	4	5	6	7	8	9
160	7.2088	7.2596	7.3105	7.3614	7.4124	7.4635	7.5146	7.5658	7.6170	7.6683
170	7.7197	7.7711	7.8226	7.8741	7.9257	7.9774	8.0291	8.0809	8.1327	8.1847
180	8.2366	8.2886	8.3407	8.3929	8.4450	8.4973	8.5496	8.6020	8.6544	8.7069
190	8.7595	8.8121	8.8647	8.9175	8.9702	9.0231	9.0760	9.1289	9.1819	9.2350
200	9.2881	9.3413	9.3945	9.4478	9.5012	9.5546	9.6080	9.6615	9.7151	9.7687
210	9.8224	9.8762	9.9299	9.9838	10.0377	10.0916	10.1457	10.1997	10.2538	10.3080
220	10.3622	10.4165	10.4709	10.5252	10.5797	10.6342	10.6887	10.7433	10.7980	10.8527
230	10.9075	10.9623	11.0171	11.0720	11.1270	11.1820	11.2371	11.2922	11.3474	11.4026
240	11.4579	11.5132	11.5686	11.6240	11.6795	11.7350	11.7906	11.8462	11.9019	11.9576
250	12.0134	12.0692	12.1251	12.1810	12.2370	12.2930	12.3491	12.4052	12.4614	12.5176
260	12.5738	12.6302	12.6865	12.7429	12.7994	12.8559	12.9124	12.9690	13.0256	13.0823
270	13.1391	13.1958	13.2527	13.3095	13.3664	13.4234	13.4804	13.5375	13.5946	13.6517
280	13.7089	13.7661	13.8234	13.8807	13.9381	13.9955	14.0529	14.1104	14.1680	14.2256
290	14.2832	14.3409	14.3986	14.4564	14.5142	14.5720	14.6299	14.6879	14.7458	14.8039
300	14.8619	14.9200	14.9782	15.0364	15.0946	15.1529	15.2112	15.2696	15.3280	15.3864
310	15.4449	15.5035	15.5620	15.6207	15.6793	15.7380	15.7968	15.8556	15.9144	15.9733
320	16.0322	16.0911	16.1501	16.2092	16.2682	16.3274	16.3865	16.4457	16.5050	16.5642
330	16.6236	16.6829	16.7423	16.8018	16.8613	16.9208	16.9804	17.0400	17.0997	17.1594
340	17.2191	17.2789	17.3387	17.3985	17.4584	17.5184	17.5784	17.6384	17.6984	17.7585
350	17.8187	17.8788	17.9391	17.9993	18.0596	18.1200	18.1803	18.2408	18.3012	18.3617
360	18.4222	18.4828	18.5434	18.6041	18.6648	18.7255	18.7862	18.8470	18.9079	18.9687
370	19.0297	19.0906	19.1516	19.2126	19.2737	19.3347	19.3959	19.4570	19.5182	19.5794
380	19.6407	19.7020	19.7633	19.8247	19.8861	19.9475	20.0089	20.0704	20.1319	20.1934
390	20.2550	20.3166	20.3782	20.4398	20.5015	20.5632	20.6249	20.6866	20.7484	20.8102
400	20.8720									



MicroCal 200/200+ Two Channel High Accuracy Portable or Benchtop Laboratory Multifunction Calibrator

Features

- Compatible with 14 thermocouple types: J, K, T, R, S, B, N, C, E, U, L, F, G, D
- Resistance thermometers 2, 3, and 4 wire connections (Pt100/200/500/1000, Cu 10/100, and Ni100/120)
- High accuracy ($\pm 0.02\%$ / $\pm 0.01\%$ of reading)
- Two insulated and independent channels
- Menu-driven procedures
- Ideal tool for measuring and simulating: Thermocouple, mV, V, mA, and Ohms



MC1000 High Accuracy Multifunction Process Calibrator

Features

- Ten (10) Thermocouple types, eight (8) RTD types, plus YSI 400 Thermistors
- Read and source modes
- Full function 4 to 20 mA read, source, simulate, and read/power modes
- Measure 0 to 250 VDC or VAC
- Direct keyboard entry enables quick output changes
- Store up to nine (9) setpoints for each output function
- RS232 interface