

MAXIMUM TEMPERATURE RANGE

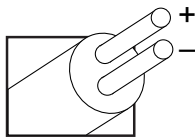
Thermocouple Grade
32 to 2642°F
0 to 1450°C

Extension Grade
32 to 300°F
0 to 150°C

LIMITS OF ERROR
(whichever is greater)
Standard: 1.5°C or 0.25%
Special: 0.6°C or 0.1%

COMMENTS, BARE WIRE ENVIRONMENT:
Oxidizing or Inert; Do Not Insert in Metal Tubes;
Beware of Contamination; High Temperature

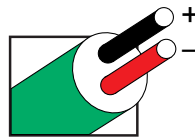
TEMPERATURE IN DEGREES °C
REFERENCE JUNCTION AT 0°C



Thermocouple Grade

NONE ESTABLISHED

Platinum-10% Rhodium vs. Platinum



Extension Grade

Revised Thermocouple Reference Tables

TYPE Reference Tables N.I.S.T. Monograph 175 Revised to ITS-90



Z

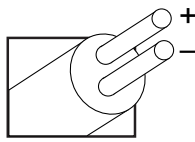
Thermoelectric Voltage in Millivolts

Table with 21 columns and 100 rows of thermoelectric voltage data in millivolts, ranging from -40°C to 1140°C.

Revised Thermocouple Reference Tables

TYPE S

Reference Tables
N.I.S.T.
Monograph 175
Revised to
ITS-90

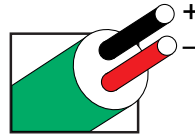


Thermocouple Grade

NONE ESTABLISHED

Platinum-10% Rhodium
VS.
Platinum

Extension Grade



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TEMPERATURE IN DEGREES °C
REFERENCE JUNCTION AT 0°C

Thermoelectric Voltage in Millivolts

| °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 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| 1150 | 11.351 | 11.363 | 11.375 | 11.387 | 11.399 | 11.411 | 11.423 | 11.435 | 11.447 | 11.459 | 11.471 | 1150 | 1500 | 15.582 | 15.594 | 15.606 | 15.618 | 15.630 | 15.642 | 15.654 | 15.666 | 15.678 | 15.690 | 15.702 | 1500 |
| 1160 | 11.471 | 11.483 | 11.495 | 11.507 | 11.519 | 11.531 | 11.542 | 11.554 | 11.566 | 11.578 | 11.590 | 1160 | 1510 | 15.702 | 15.714 | 15.726 | 15.738 | 15.750 | 15.762 | 15.774 | 15.786 | 15.798 | 15.810 | 15.822 | 1510 |
| 1170 | 11.590 | 11.602 | 11.614 | 11.626 | 11.638 | 11.650 | 11.662 | 11.674 | 11.686 | 11.698 | 11.710 | 1170 | 1520 | 15.822 | 15.834 | 15.846 | 15.858 | 15.870 | 15.882 | 15.894 | 15.906 | 15.918 | 15.930 | 15.942 | 1520 |
| 1180 | 11.710 | 11.722 | 11.734 | 11.746 | 11.758 | 11.770 | 11.782 | 11.794 | 11.806 | 11.818 | 11.830 | 1180 | 1530 | 15.942 | 15.954 | 15.966 | 15.978 | 15.990 | 16.002 | 16.014 | 16.026 | 16.038 | 16.050 | 16.062 | 1530 |
| 1190 | 11.830 | 11.842 | 11.854 | 11.866 | 11.878 | 11.890 | 11.902 | 11.914 | 11.926 | 11.939 | 11.951 | 1190 | 1540 | 16.062 | 16.074 | 16.086 | 16.098 | 16.110 | 16.122 | 16.134 | 16.146 | 16.158 | 16.170 | 16.182 | 1540 |
| 1200 | 11.951 | 11.963 | 11.975 | 11.987 | 11.999 | 12.011 | 12.023 | 12.035 | 12.047 | 12.059 | 12.071 | 1200 | 1550 | 16.182 | 16.194 | 16.205 | 16.217 | 16.229 | 16.241 | 16.253 | 16.265 | 16.277 | 16.289 | 16.301 | 1550 |
| 1210 | 12.071 | 12.083 | 12.095 | 12.107 | 12.119 | 12.131 | 12.143 | 12.155 | 12.167 | 12.179 | 12.191 | 1210 | 1560 | 16.301 | 16.313 | 16.325 | 16.337 | 16.349 | 16.361 | 16.373 | 16.385 | 16.396 | 16.408 | 16.420 | 1560 |
| 1220 | 12.191 | 12.203 | 12.216 | 12.228 | 12.240 | 12.252 | 12.264 | 12.276 | 12.288 | 12.300 | 12.312 | 1220 | 1570 | 16.420 | 16.432 | 16.444 | 16.456 | 16.468 | 16.480 | 16.492 | 16.504 | 16.516 | 16.527 | 16.539 | 1570 |
| 1230 | 12.312 | 12.324 | 12.336 | 12.348 | 12.360 | 12.372 | 12.384 | 12.397 | 12.409 | 12.421 | 12.433 | 1230 | 1580 | 16.539 | 16.551 | 16.563 | 16.575 | 16.587 | 16.599 | 16.611 | 16.623 | 16.634 | 16.646 | 16.658 | 1580 |
| 1240 | 12.433 | 12.445 | 12.457 | 12.469 | 12.481 | 12.493 | 12.505 | 12.517 | 12.529 | 12.542 | 12.554 | 1240 | 1590 | 16.658 | 16.670 | 16.682 | 16.694 | 16.706 | 16.718 | 16.729 | 16.741 | 16.753 | 16.765 | 16.777 | 1590 |
| 1250 | 12.554 | 12.566 | 12.578 | 12.590 | 12.602 | 12.614 | 12.626 | 12.638 | 12.650 | 12.662 | 12.675 | 1250 | 1600 | 16.777 | 16.789 | 16.801 | 16.812 | 16.824 | 16.836 | 16.848 | 16.860 | 16.872 | 16.883 | 16.895 | 1600 |
| 1260 | 12.675 | 12.687 | 12.699 | 12.711 | 12.723 | 12.735 | 12.747 | 12.759 | 12.771 | 12.783 | 12.796 | 1260 | 1610 | 16.895 | 16.907 | 16.919 | 16.931 | 16.943 | 16.954 | 16.966 | 16.978 | 16.990 | 17.002 | 17.013 | 1610 |
| 1270 | 12.796 | 12.808 | 12.820 | 12.832 | 12.844 | 12.856 | 12.868 | 12.880 | 12.892 | 12.905 | 12.917 | 1270 | 1620 | 17.013 | 17.025 | 17.037 | 17.049 | 17.061 | 17.072 | 17.084 | 17.096 | 17.108 | 17.120 | 17.131 | 1620 |
| 1280 | 12.917 | 12.929 | 12.941 | 12.953 | 12.965 | 12.977 | 12.989 | 13.001 | 13.014 | 13.026 | 13.038 | 1280 | 1630 | 17.131 | 17.143 | 17.155 | 17.167 | 17.178 | 17.190 | 17.202 | 17.214 | 17.225 | 17.237 | 17.249 | 1630 |
| 1290 | 13.038 | 13.050 | 13.062 | 13.074 | 13.086 | 13.098 | 13.111 | 13.123 | 13.135 | 13.147 | 13.159 | 1290 | 1640 | 17.249 | 17.261 | 17.272 | 17.284 | 17.296 | 17.308 | 17.319 | 17.331 | 17.343 | 17.355 | 17.366 | 1640 |
| 1300 | 13.159 | 13.171 | 13.183 | 13.195 | 13.208 | 13.220 | 13.232 | 13.244 | 13.256 | 13.268 | 13.280 | 1300 | 1650 | 17.366 | 17.378 | 17.390 | 17.401 | 17.413 | 17.425 | 17.437 | 17.448 | 17.460 | 17.472 | 17.483 | 1650 |
| 1310 | 13.280 | 13.292 | 13.305 | 13.317 | 13.329 | 13.341 | 13.353 | 13.365 | 13.377 | 13.390 | 13.402 | 1310 | 1660 | 17.483 | 17.495 | 17.507 | 17.518 | 17.530 | 17.542 | 17.553 | 17.565 | 17.577 | 17.588 | 17.600 | 1660 |
| 1320 | 13.402 | 13.414 | 13.426 | 13.438 | 13.450 | 13.462 | 13.474 | 13.487 | 13.499 | 13.511 | 13.523 | 1320 | 1670 | 17.600 | 17.612 | 17.623 | 17.635 | 17.647 | 17.658 | 17.670 | 17.682 | 17.693 | 17.705 | 17.717 | 1670 |
| 1330 | 13.523 | 13.535 | 13.547 | 13.559 | 13.572 | 13.584 | 13.596 | 13.608 | 13.620 | 13.632 | 13.644 | 1330 | 1680 | 17.717 | 17.728 | 17.740 | 17.751 | 17.763 | 17.775 | 17.786 | 17.798 | 17.809 | 17.821 | 17.832 | 1680 |
| 1340 | 13.644 | 13.657 | 13.669 | 13.681 | 13.693 | 13.705 | 13.717 | 13.729 | 13.742 | 13.754 | 13.766 | 1340 | 1690 | 17.832 | 17.844 | 17.855 | 17.867 | 17.878 | 17.890 | 17.901 | 17.913 | 17.924 | 17.936 | 17.947 | 1690 |
| 1350 | 13.766 | 13.778 | 13.790 | 13.802 | 13.814 | 13.826 | 13.839 | 13.851 | 13.863 | 13.875 | 13.887 | 1350 | 1700 | 17.947 | 17.959 | 17.970 | 17.982 | 17.993 | 18.004 | 18.016 | 18.027 | 18.039 | 18.050 | 18.061 | 1700 |
| 1360 | 13.887 | 13.899 | 13.911 | 13.924 | 13.936 | 13.948 | 13.960 | 13.972 | 13.984 | 13.996 | 14.009 | 1360 | 1710 | 18.061 | 18.073 | 18.084 | 18.095 | 18.107 | 18.118 | 18.129 | 18.140 | 18.152 | 18.163 | 18.174 | 1710 |
| 1370 | 14.009 | 14.021 | 14.033 | 14.045 | 14.057 | 14.069 | 14.081 | 14.094 | 14.106 | 14.118 | 14.130 | 1370 | 1720 | 18.174 | 18.185 | 18.196 | 18.208 | 18.219 | 18.230 | 18.241 | 18.252 | 18.263 | 18.274 | 18.285 | 1720 |
| 1380 | 14.130 | 14.142 | 14.154 | 14.166 | 14.178 | 14.191 | 14.203 | 14.215 | 14.227 | 14.239 | 14.251 | 1380 | 1730 | 18.285 | 18.297 | 18.308 | 18.319 | 18.330 | 18.341 | 18.352 | 18.362 | 18.373 | 18.384 | 18.395 | 1730 |
| 1390 | 14.251 | 14.263 | 14.276 | 14.288 | 14.300 | 14.312 | 14.324 | 14.336 | 14.348 | 14.360 | 14.373 | 1390 | 1740 | 18.395 | 18.406 | 18.417 | 18.428 | 18.439 | 18.449 | 18.460 | 18.471 | 18.482 | 18.493 | 18.503 | 1740 |
| 1400 | 14.373 | 14.385 | 14.397 | 14.409 | 14.421 | 14.433 | 14.445 | 14.457 | 14.470 | 14.482 | 14.494 | 1400 | 1750 | 18.503 | 18.514 | 18.525 | 18.535 | 18.546 | 18.557 | 18.567 | 18.578 | 18.588 | 18.599 | 18.609 | 1750 |
| 1410 | 14.494 | 14.506 | 14.518 | 14.530 | 14.542 | 14.554 | 14.567 | 14.579 | 14.591 | 14.603 | 14.615 | 1410 | 1760 | 18.609 | 18.620 | 18.630 | 18.641 | 18.651 | 18.661 | 18.672 | 18.682 | 18.693 | | | 1760 |
| 1420 | 14.615 | 14.627 | 14.639 | 14.651 | 14.664 | 14.676 | 14.688 | 14.700 | 14.712 | 14.724 | 14.736 | 1420 | | | | | | | | | | | | | |
| 1430 | 14.736 | 14.748 | 14.760 | 14.773 | 14.785 | 14.797 | 14.809 | 14.821 | 14.833 | 14.845 | 14.857 | 1430 | | | | | | | | | | | | | |
| 1440 | 14.857 | 14.869 | 14.881 | 14.894 | 14.906 | 14.918 | 14.930 | 14.942 | 14.954 | 14.966 | 14.978 | 1440 | | | | | | | | | | | | | |
| 1450 | 14.978 | 14.990 | 15.002 | 15.015 | 15.027 | 15.039 | 15.051 | 15.063 | 15.075 | 15.087 | 15.099 | 1450 | | | | | | | | | | | | | |
| 1460 | 15.099 | 15.111 | 15.123 | 15.135 | 15.148 | 15.160 | 15.172 | 15.184 | 15.196 | 15.208 | 15.220 | 1460 | | | | | | | | | | | | | |
| 1470 | 15.220 | 15.232 | 15.244 | 15.256 | 15.268 | 15.280 | 15.292 | 15.304 | 15.317 | 15.329 | 15.341 | 1470 | | | | | | | | | | | | | |
| 1480 | 15.341 | 15.353 | 15.365 | 15.377 | 15.389 | 15.401 | 15.413 | 15.425 | 15.437 | 15.449 | 15.461 | 1480 | | | | | | | | | | | | | |
| 1490 | 15.461 | 15.473 | 15.485 | 15.497 | 15.509 | 15.521 | 15.534 | 15.546 | 15.558 | 15.570 | 15.582 | 1490 | | | | | | | | | | | | | |