

# 13 Basic Values for Thermocouples and Resistance Thermometers

## Based on the International Temperature Scale ITS-90

According to EN 60584/IEC 584:  
Thermocouples Types T, E, J, K, N, S, R, B  
According to EN 60751/IEC 751:  
Resistance Thermometers Pt100

## Based on the Temperature Scale IPTS-68

According to DIN 43710 (repealed since 1994. No new editions):  
Thermocouples Types U and L  
According to DIN 43760:  
Resistance Thermometers Ni100

## Resistance thermometers with special measurement resistors Pt50, Pt200, Pt500, Pt1000

The standardized measurement resistor Pt100 according to EN 60751/IEC 751 has a nominal resistance of 100  $\Omega$  at 0 °C (32 °F). Based on these standards, measurement resistors with fractional or whole number multiples of these nominal resistance values are commercially available. Based on the statements from the manufacturer the following conversion factors apply.

| Designation | Nominal Resistance<br>0 °C (32 °F) | Factor | Resistance Value             |
|-------------|------------------------------------|--------|------------------------------|
| Pt50        | 50 $\Omega$                        | 0.5    | 0.5 x Pt100 EN 60751/IEC 751 |
| Pt200       | 200 $\Omega$                       | 2      | 2 x Pt100 EN 60751/IEC 751   |
| Pt500       | 500 $\Omega$                       | 5      | 5 x Pt100 EN 60751/IEC 751   |
| Pt1000      | 1000 $\Omega$                      | 10     | 10 x Pt100 EN 60751/IEC 751  |

For Ni-resistance thermometers, a similar procedure applies.

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| -270 | -6.258        | -9.835          |               | -6.458        | -4.345            |                 |                 |                    |               |               |       |       | -454.0 |
| -269 | -6.256        | -9.833          |               | -6.457        | -4.345            |                 |                 |                    |               |               |       |       | -452.2 |
| -268 | -6.255        | -9.831          |               | -6.456        | -4.344            |                 |                 |                    |               |               |       |       | -450.4 |
| -267 | -6.253        | -9.828          |               | -6.455        | -4.344            |                 |                 |                    |               |               |       |       | -448.6 |
| -266 | -6.251        | -9.825          |               | -6.453        | -4.343            |                 |                 |                    |               |               |       |       | -446.8 |
| -265 | -6.248        | -9.821          |               | -6.452        | -4.342            |                 |                 |                    |               |               |       |       | -445.0 |
| -264 | -6.245        | -9.817          |               | -6.450        | -4.341            |                 |                 |                    |               |               |       |       | -443.2 |
| -263 | -6.242        | -9.813          |               | -6.448        | -4.340            |                 |                 |                    |               |               |       |       | -441.4 |
| -262 | -6.239        | -9.808          |               | -6.446        | -4.339            |                 |                 |                    |               |               |       |       | -439.6 |
| -261 | -6.236        | -9.802          |               | -6.444        | -4.337            |                 |                 |                    |               |               |       |       | -437.8 |
| -260 | -6.232        | -9.797          |               | -6.441        | -4.336            |                 |                 |                    |               |               |       |       | -436.0 |
| -259 | -6.228        | -9.790          |               | -6.438        | -4.334            |                 |                 |                    |               |               |       |       | -434.2 |
| -258 | -6.223        | -9.784          |               | -6.435        | -4.332            |                 |                 |                    |               |               |       |       | -432.4 |
| -257 | -6.219        | -9.777          |               | -6.432        | -4.330            |                 |                 |                    |               |               |       |       | -430.6 |
| -256 | -6.214        | -9.770          |               | -6.429        | -4.328            |                 |                 |                    |               |               |       |       | -428.8 |
| -255 | -6.209        | -9.762          |               | -6.425        | -4.326            |                 |                 |                    |               |               |       |       | -427.0 |
| -254 | -6.204        | -9.754          |               | -6.421        | -4.324            |                 |                 |                    |               |               |       |       | -425.2 |
| -253 | -6.198        | -9.746          |               | -6.417        | -4.321            |                 |                 |                    |               |               |       |       | -423.4 |
| -252 | -6.193        | -9.737          |               | -6.413        | -4.319            |                 |                 |                    |               |               |       |       | -421.6 |
| -251 | -6.187        | -9.728          |               | -6.408        | -4.316            |                 |                 |                    |               |               |       |       | -419.8 |
| -250 | -6.180        | -9.718          |               | -6.404        | -4.313            |                 |                 |                    |               |               |       |       | -418.0 |
| -249 | -6.174        | -9.709          |               | -6.399        | -4.310            |                 |                 |                    |               |               |       |       | -416.2 |
| -248 | -6.167        | -9.698          |               | -6.393        | -4.307            |                 |                 |                    |               |               |       |       | -414.4 |
| -247 | -6.160        | -9.688          |               | -6.388        | -4.304            |                 |                 |                    |               |               |       |       | -412.6 |
| -246 | -6.153        | -9.677          |               | -6.382        | -4.300            |                 |                 |                    |               |               |       |       | -410.8 |
| -245 | -6.146        | -9.666          |               | -6.377        | -4.297            |                 |                 |                    |               |               |       |       | -409.0 |
| -244 | -6.138        | -9.654          |               | -6.370        | -4.293            |                 |                 |                    |               |               |       |       | -407.2 |
| -243 | -6.130        | -9.642          |               | -6.364        | -4.289            |                 |                 |                    |               |               |       |       | -405.4 |
| -242 | -6.122        | -9.630          |               | -6.358        | -4.285            |                 |                 |                    |               |               |       |       | -403.6 |
| -241 | -6.114        | -9.617          |               | -6.351        | -4.281            |                 |                 |                    |               |               |       |       | -401.8 |
| -240 | -6.105        | -9.604          |               | -6.344        | -4.277            |                 |                 |                    |               |               |       |       | -400.0 |
| -239 | -6.096        | -9.591          |               | -6.337        | -4.273            |                 |                 |                    |               |               |       |       | -398.2 |
| -238 | -6.087        | -9.577          |               | -6.329        | -4.268            |                 |                 |                    |               |               |       |       | -396.4 |
| -237 | -6.078        | -9.563          |               | -6.322        | -4.263            |                 |                 |                    |               |               |       |       | -394.6 |
| -236 | -6.068        | -9.548          |               | -6.314        | -4.258            |                 |                 |                    |               |               |       |       | -392.8 |
| -235 | -6.059        | -9.534          |               | -6.306        | -4.254            |                 |                 |                    |               |               |       |       | -391.0 |
| -234 | -6.049        | -9.519          |               | -6.297        | -4.248            |                 |                 |                    |               |               |       |       | -389.2 |
| -233 | -6.038        | -9.503          |               | -6.289        | -4.243            |                 |                 |                    |               |               |       |       | -387.4 |
| -232 | -6.028        | -9.487          |               | -6.280        | -4.238            |                 |                 |                    |               |               |       |       | -385.6 |
| -231 | -6.017        | -9.471          |               | -6.271        | -4.232            |                 |                 |                    |               |               |       |       | -383.8 |
| -230 | -6.007        | -9.455          |               | -6.262        | -4.226            |                 |                 |                    |               |               |       |       | -382.0 |
| -229 | -5.996        | -9.438          |               | -6.252        | -4.221            |                 |                 |                    |               |               |       |       | -380.2 |
| -228 | -5.985        | -9.421          |               | -6.243        | -4.215            |                 |                 |                    |               |               |       |       | -378.4 |
| -227 | -5.973        | -9.404          |               | -6.233        | -4.209            |                 |                 |                    |               |               |       |       | -376.6 |
| -226 | -5.962        | -9.386          |               | -6.223        | -4.202            |                 |                 |                    |               |               |       |       | -374.8 |
| -225 | -5.950        | -9.368          |               | -6.213        | -4.196            |                 |                 |                    |               |               |       |       | -373.0 |
| -224 | -5.938        | -9.350          |               | -6.202        | -4.189            |                 |                 |                    |               |               |       |       | -371.2 |
| -223 | -5.926        | -9.331          |               | -6.192        | -4.183            |                 |                 |                    |               |               |       |       | -369.4 |
| -222 | -5.914        | -9.313          |               | -6.181        | -4.176            |                 |                 |                    |               |               |       |       | -367.6 |
| -221 | -5.901        | -9.293          |               | -6.170        | -4.169            |                 |                 |                    |               |               |       |       | -365.8 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| -220 | -5.888        | -9.274          |               | -6.158        | -4.162            |                 |                 |                    |               |               |       |       | -364.0 |
| -219 | -5.876        | -9.254          |               | -6.147        | -4.154            |                 |                 |                    |               |               |       |       | -362.2 |
| -218 | -5.863        | -9.234          |               | -6.135        | -4.147            |                 |                 |                    |               |               |       |       | -360.4 |
| -217 | -5.850        | -9.214          |               | -6.123        | -4.140            |                 |                 |                    |               |               |       |       | -358.6 |
| -216 | -5.836        | -9.193          |               | -6.111        | -4.132            |                 |                 |                    |               |               |       |       | -356.8 |
| -215 | -5.823        | -9.172          |               | -6.099        | -4.124            |                 |                 |                    |               |               |       |       | -355.0 |
| -214 | -5.809        | -9.151          |               | -6.087        | -4.116            |                 |                 |                    |               |               |       |       | -353.2 |
| -213 | -5.795        | -9.129          |               | -6.074        | -4.108            |                 |                 |                    |               |               |       |       | -351.4 |
| -212 | -5.782        | -9.107          |               | -6.061        | -4.100            |                 |                 |                    |               |               |       |       | -349.6 |
| -211 | -5.767        | -9.085          |               | -6.048        | -4.091            |                 |                 |                    |               |               |       |       | -347.8 |
| -210 | -5.753        | -9.063          | -8.095        | -6.035        | -4.083            |                 |                 |                    |               |               |       |       | -346.0 |
| -209 | -5.739        | -9.040          | -8.076        | -6.021        | -4.074            |                 |                 |                    |               |               |       |       | -344.2 |
| -208 | -5.724        | -9.017          | -8.057        | -6.007        | -4.066            |                 |                 |                    |               |               |       |       | -342.4 |
| -207 | -5.710        | -8.994          | -8.037        | -5.994        | -4.057            |                 |                 |                    |               |               |       |       | -340.6 |
| -206 | -5.695        | -8.971          | -8.017        | -5.980        | -4.048            |                 |                 |                    |               |               |       |       | -338.8 |
| -205 | -5.680        | -8.947          | -7.996        | -5.965        | -4.038            |                 |                 |                    |               |               |       |       | -337.0 |
| -204 | -5.665        | -8.923          | -7.976        | -5.951        | -4.029            |                 |                 |                    |               |               |       |       | -335.2 |
| -203 | -5.650        | -8.899          | -7.955        | -5.936        | -4.020            |                 |                 |                    |               |               |       |       | -333.4 |
| -202 | -5.634        | -8.874          | -7.934        | -5.922        | -4.010            |                 |                 |                    |               |               |       |       | -331.6 |
| -201 | -5.619        | -8.850          | -7.912        | -5.907        | -4.000            |                 |                 |                    |               |               |       |       | -329.8 |
| -200 | -5.603        | -8.825          | -7.890        | -5.891        | -3.990            |                 |                 |                    | -5.70         | -8.15         | 18.52 |       | -328.0 |
| -199 | -5.587        | -8.799          | -7.868        | -5.876        | -3.980            |                 |                 |                    | -5.68         | -8.12         | 18.95 |       | -326.2 |
| -198 | -5.571        | -8.774          | -7.846        | -5.861        | -3.970            |                 |                 |                    | -5.66         | -8.09         | 19.38 |       | -324.4 |
| -197 | -5.555        | -8.748          | -7.824        | -5.845        | -3.960            |                 |                 |                    | -5.64         | -8.06         | 19.82 |       | -322.6 |
| -196 | -5.539        | -8.722          | -7.801        | -5.829        | -3.950            |                 |                 |                    | -5.62         | -8.03         | 20.25 |       | -320.8 |
| -195 | -5.523        | -8.696          | -7.778        | -5.813        | -3.939            |                 |                 |                    | -5.60         | -8.00         | 20.68 |       | -319.0 |
| -194 | -5.506        | -8.669          | -7.755        | -5.797        | -3.928            |                 |                 |                    | -5.59         | -7.98         | 21.11 |       | -317.2 |
| -193 | -5.489        | -8.643          | -7.731        | -5.780        | -3.918            |                 |                 |                    | -5.57         | -7.95         | 21.54 |       | -315.4 |
| -192 | -5.473        | -8.616          | -7.707        | -5.763        | -3.907            |                 |                 |                    | -5.55         | -7.92         | 21.97 |       | -313.6 |
| -191 | -5.456        | -8.588          | -7.683        | -5.747        | -3.896            |                 |                 |                    | -5.53         | -7.89         | 22.40 |       | -311.8 |
| -190 | -5.439        | -8.561          | -7.659        | -5.730        | -3.884            |                 |                 |                    | -5.51         | -7.86         | 22.83 |       | -310.0 |
| -189 | -5.421        | -8.533          | -7.634        | -5.713        | -3.873            |                 |                 |                    | -5.49         | -7.83         | 23.25 |       | -308.2 |
| -188 | -5.404        | -8.505          | -7.610        | -5.695        | -3.862            |                 |                 |                    | -5.47         | -7.80         | 23.68 |       | -306.4 |
| -187 | -5.387        | -8.477          | -7.585        | -5.678        | -3.850            |                 |                 |                    | -5.45         | -7.77         | 24.11 |       | -304.6 |
| -186 | -5.369        | -8.449          | -7.559        | -5.660        | -3.838            |                 |                 |                    | -5.43         | -7.74         | 24.54 |       | -302.8 |
| -185 | -5.351        | -8.420          | -7.534        | -5.642        | -3.827            |                 |                 |                    | -5.41         | -7.71         | 24.97 |       | -301.0 |
| -184 | -5.334        | -8.391          | -7.508        | -5.624        | -3.815            |                 |                 |                    | -5.40         | -7.68         | 25.39 |       | -299.2 |
| -183 | -5.316        | -8.362          | -7.482        | -5.606        | -3.803            |                 |                 |                    | -5.38         | -7.65         | 25.82 |       | -297.4 |
| -182 | -5.297        | -8.333          | -7.456        | -5.588        | -3.790            |                 |                 |                    | -5.36         | -7.62         | 26.25 |       | -295.6 |
| -181 | -5.279        | -8.303          | -7.429        | -5.569        | -3.778            |                 |                 |                    | -5.34         | -7.59         | 26.67 |       | -293.8 |
| -180 | -5.261        | -8.273          | -7.403        | -5.550        | -3.766            |                 |                 |                    | -5.32         | -7.56         | 27.10 |       | -292.0 |
| -179 | -5.242        | -8.243          | -7.376        | -5.531        | -3.753            |                 |                 |                    | -5.30         | -7.53         | 27.52 |       | -290.2 |
| -178 | -5.224        | -8.213          | -7.348        | -5.512        | -3.740            |                 |                 |                    | -5.28         | -7.50         | 27.95 |       | -288.4 |
| -177 | -5.205        | -8.183          | -7.321        | -5.493        | -3.728            |                 |                 |                    | -5.26         | -7.47         | 28.37 |       | -286.6 |
| -176 | -5.186        | -8.152          | -7.293        | -5.474        | -3.715            |                 |                 |                    | -5.24         | -7.44         | 28.80 |       | -284.8 |
| -175 | -5.167        | -8.121          | -7.265        | -5.454        | -3.702            |                 |                 |                    | -5.22         | -7.40         | 29.22 |       | -283.0 |
| -174 | -5.148        | -8.090          | -7.237        | -5.435        | -3.688            |                 |                 |                    | -5.20         | -7.37         | 29.64 |       | -281.2 |
| -173 | -5.128        | -8.059          | -7.209        | -5.415        | -3.675            |                 |                 |                    | -5.18         | -7.34         | 30.07 |       | -279.4 |
| -172 | -5.109        | -8.027          | -7.181        | -5.395        | -3.662            |                 |                 |                    | -5.16         | -7.31         | 30.49 |       | -277.6 |
| -171 | -5.089        | -7.995          | -7.152        | -5.374        | -3.648            |                 |                 |                    | -5.14         | -7.28         | 30.91 |       | -275.8 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| -170 | -5.070        | -7.963          | -7.123        | -5.354        | -3.634            |                 |                 |                    | -5.12         | -7.25         | 31.34 |       | -274.0 |
| -169 | -5.050        | -7.931          | -7.094        | -5.333        | -3.621            |                 |                 |                    | -5.10         | -7.22         | 31.76 |       | -272.2 |
| -168 | -5.030        | -7.899          | -7.064        | -5.313        | -3.607            |                 |                 |                    | -5.08         | -7.19         | 32.18 |       | -270.4 |
| -167 | -5.010        | -7.866          | -7.035        | -5.292        | -3.593            |                 |                 |                    | -5.06         | -7.15         | 32.60 |       | -268.6 |
| -166 | -4.989        | -7.833          | -7.005        | -5.271        | -3.578            |                 |                 |                    | -5.04         | -7.12         | 33.02 |       | -266.8 |
| -165 | -4.969        | -7.800          | -6.975        | -5.250        | -3.564            |                 |                 |                    | -5.02         | -7.09         | 33.44 |       | -265.0 |
| -164 | -4.949        | -7.767          | -6.944        | -5.228        | -3.550            |                 |                 |                    | -4.99         | -7.06         | 33.86 |       | -263.2 |
| -163 | -4.928        | -7.733          | -6.914        | -5.207        | -3.535            |                 |                 |                    | -4.97         | -7.03         | 34.28 |       | -261.4 |
| -162 | -4.907        | -7.700          | -6.883        | -5.185        | -3.521            |                 |                 |                    | -4.95         | -6.99         | 34.70 |       | -259.6 |
| -161 | -4.886        | -7.666          | -6.853        | -5.163        | -3.506            |                 |                 |                    | -4.93         | -6.96         | 35.12 |       | -257.8 |
| -160 | -4.865        | -7.632          | -6.821        | -5.141        | -3.491            |                 |                 |                    | -4.91         | -6.93         | 35.54 |       | -256.0 |
| -159 | -4.844        | -7.597          | -6.790        | -5.119        | -3.476            |                 |                 |                    | -4.89         | -6.90         | 35.96 |       | -254.2 |
| -158 | -4.823        | -7.563          | -6.759        | -5.097        | -3.461            |                 |                 |                    | -4.87         | -6.86         | 36.38 |       | -252.4 |
| -157 | -4.802        | -7.528          | -6.727        | -5.074        | -3.446            |                 |                 |                    | -4.84         | -6.83         | 36.80 |       | -250.6 |
| -156 | -4.780        | -7.493          | -6.695        | -5.052        | -3.431            |                 |                 |                    | -4.82         | -6.80         | 37.22 |       | -248.8 |
| -155 | -4.759        | -7.458          | -6.663        | -5.029        | -3.415            |                 |                 |                    | -4.80         | -6.76         | 37.64 |       | -247.0 |
| -154 | -4.737        | -7.423          | -6.631        | -5.006        | -3.400            |                 |                 |                    | -4.78         | -6.73         | 38.06 |       | -245.2 |
| -153 | -4.715        | -7.387          | -6.598        | -4.983        | -3.384            |                 |                 |                    | -4.76         | -6.70         | 38.47 |       | -243.4 |
| -152 | -4.693        | -7.351          | -6.566        | -4.960        | -3.368            |                 |                 |                    | -4.73         | -6.66         | 38.89 |       | -241.6 |
| -151 | -4.671        | -7.315          | -6.533        | -4.936        | -3.352            |                 |                 |                    | -4.71         | -6.63         | 39.31 |       | -239.8 |
| -150 | -4.648        | -7.279          | -6.500        | -4.913        | -3.336            |                 |                 |                    | -4.69         | -6.60         | 39.72 |       | -238.0 |
| -149 | -4.626        | -7.243          | -6.467        | -4.889        | -3.320            |                 |                 |                    | -4.67         | -6.56         | 40.14 |       | -236.2 |
| -148 | -4.604        | -7.206          | -6.433        | -4.865        | -3.304            |                 |                 |                    | -4.64         | -6.53         | 40.56 |       | -234.4 |
| -147 | -4.581        | -7.170          | -6.400        | -4.841        | -3.288            |                 |                 |                    | -4.62         | -6.50         | 40.97 |       | -232.6 |
| -146 | -4.558        | -7.133          | -6.366        | -4.817        | -3.271            |                 |                 |                    | -4.60         | -6.46         | 41.39 |       | -230.8 |
| -145 | -4.535        | -7.096          | -6.332        | -4.793        | -3.255            |                 |                 |                    | -4.58         | -6.43         | 41.80 |       | -229.0 |
| -144 | -4.512        | -7.058          | -6.298        | -4.768        | -3.238            |                 |                 |                    | -4.55         | -6.39         | 42.22 |       | -227.2 |
| -143 | -4.489        | -7.021          | -6.263        | -4.744        | -3.221            |                 |                 |                    | -4.53         | -6.36         | 42.63 |       | -225.4 |
| -142 | -4.466        | -6.983          | -6.229        | -4.719        | -3.205            |                 |                 |                    | -4.51         | -6.33         | 43.05 |       | -223.6 |
| -141 | -4.443        | -6.945          | -6.194        | -4.694        | -3.188            |                 |                 |                    | -4.48         | -6.29         | 43.46 |       | -221.8 |
| -140 | -4.419        | -6.907          | -6.159        | -4.669        | -3.171            |                 |                 |                    | -4.46         | -6.26         | 43.88 |       | -220.0 |
| -139 | -4.395        | -6.869          | -6.124        | -4.644        | -3.153            |                 |                 |                    | -4.43         | -6.22         | 44.29 |       | -218.2 |
| -138 | -4.372        | -6.831          | -6.089        | -4.618        | -3.136            |                 |                 |                    | -4.41         | -6.19         | 44.70 |       | -216.4 |
| -137 | -4.348        | -6.792          | -6.054        | -4.593        | -3.119            |                 |                 |                    | -4.38         | -6.15         | 45.12 |       | -214.6 |
| -136 | -4.324        | -6.753          | -6.018        | -4.567        | -3.101            |                 |                 |                    | -4.36         | -6.11         | 45.53 |       | -212.8 |
| -135 | -4.300        | -6.714          | -5.982        | -4.542        | -3.084            |                 |                 |                    | -4.33         | -6.08         | 45.94 |       | -211.0 |
| -134 | -4.275        | -6.675          | -5.946        | -4.516        | -3.066            |                 |                 |                    | -4.31         | -6.04         | 46.36 |       | -209.2 |
| -133 | -4.251        | -6.636          | -5.910        | -4.490        | -3.048            |                 |                 |                    | -4.28         | -6.01         | 46.77 |       | -207.4 |
| -132 | -4.226        | -6.596          | -5.874        | -4.463        | -3.030            |                 |                 |                    | -4.26         | -5.97         | 47.18 |       | -205.6 |
| -131 | -4.202        | -6.556          | -5.838        | -4.437        | -3.012            |                 |                 |                    | -4.23         | -5.93         | 47.59 |       | -203.8 |
| -130 | -4.177        | -6.516          | -5.801        | -4.411        | -2.994            |                 |                 |                    | -4.21         | -5.90         | 48.01 |       | -202.0 |
| -129 | -4.152        | -6.476          | -5.764        | -4.384        | -2.976            |                 |                 |                    | -4.18         | -5.86         | 48.42 |       | -200.2 |
| -128 | -4.127        | -6.436          | -5.727        | -4.357        | -2.958            |                 |                 |                    | -4.16         | -5.82         | 48.83 |       | -198.4 |
| -127 | -4.102        | -6.396          | -5.690        | -4.330        | -2.939            |                 |                 |                    | -4.13         | -5.79         | 49.24 |       | -196.6 |
| -126 | -4.077        | -6.355          | -5.653        | -4.303        | -2.921            |                 |                 |                    | -4.11         | -5.75         | 49.65 |       | -194.8 |
| -125 | -4.052        | -6.314          | -5.616        | -4.276        | -2.902            |                 |                 |                    | -4.08         | -5.71         | 50.06 |       | -193.0 |
| -124 | -4.026        | -6.273          | -5.578        | -4.249        | -2.883            |                 |                 |                    | -4.05         | -5.68         | 50.47 |       | -191.2 |
| -123 | -4.000        | -6.232          | -5.541        | -4.221        | -2.865            |                 |                 |                    | -4.03         | -5.64         | 50.88 |       | -189.4 |
| -122 | -3.975        | -6.191          | -5.503        | -4.194        | -2.846            |                 |                 |                    | -4.00         | -5.60         | 51.29 |       | -187.6 |
| -121 | -3.949        | -6.149          | -5.465        | -4.166        | -2.827            |                 |                 |                    | -3.98         | -5.57         | 51.70 |       | -185.8 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| -120 | -3.923        | -6.107          | -5.426        | -4.138        | -2.808            |                 |                 |                    | -3.95         | -5.53         | 52.11 |       | -184.0 |
| -119 | -3.897        | -6.065          | -5.388        | -4.110        | -2.789            |                 |                 |                    | -3.92         | -5.49         | 52.52 |       | -182.2 |
| -118 | -3.871        | -6.023          | -5.350        | -4.082        | -2.769            |                 |                 |                    | -3.90         | -5.45         | 52.93 |       | -180.4 |
| -117 | -3.844        | -5.981          | -5.311        | -4.054        | -2.750            |                 |                 |                    | -3.87         | -5.41         | 53.34 |       | -178.6 |
| -116 | -3.818        | -5.939          | -5.272        | -4.025        | -2.730            |                 |                 |                    | -3.84         | -5.38         | 53.75 |       | -176.8 |
| -115 | -3.791        | -5.896          | -5.233        | -3.997        | -2.711            |                 |                 |                    | -3.81         | -5.34         | 54.15 |       | -175.0 |
| -114 | -3.765        | -5.853          | -5.194        | -3.968        | -2.691            |                 |                 |                    | -3.79         | -5.30         | 54.56 |       | -173.2 |
| -113 | -3.738        | -5.810          | -5.155        | -3.939        | -2.672            |                 |                 |                    | -3.76         | -5.26         | 54.97 |       | -171.4 |
| -112 | -3.711        | -5.767          | -5.116        | -3.911        | -2.652            |                 |                 |                    | -3.73         | -5.22         | 55.38 |       | -169.6 |
| -111 | -3.684        | -5.724          | -5.076        | -3.882        | -2.632            |                 |                 |                    | -3.71         | -5.19         | 55.79 |       | -167.8 |
| -110 | -3.657        | -5.681          | -5.037        | -3.852        | -2.612            |                 |                 |                    | -3.68         | -5.15         | 56.19 |       | -166.0 |
| -109 | -3.629        | -5.637          | -4.997        | -3.823        | -2.592            |                 |                 |                    | -3.65         | -5.11         | 56.60 |       | -164.2 |
| -108 | -3.602        | -5.593          | -4.957        | -3.794        | -2.571            |                 |                 |                    | -3.62         | -5.07         | 57.01 |       | -162.4 |
| -107 | -3.574        | -5.549          | -4.917        | -3.764        | -2.551            |                 |                 |                    | -3.60         | -5.03         | 57.41 |       | -160.6 |
| -106 | -3.547        | -5.505          | -4.877        | -3.734        | -2.531            |                 |                 |                    | -3.57         | -4.99         | 57.82 |       | -158.8 |
| -105 | -3.519        | -5.461          | -4.836        | -3.705        | -2.510            |                 |                 |                    | -3.54         | -4.95         | 58.23 |       | -157.0 |
| -104 | -3.491        | -5.417          | -4.796        | -3.675        | -2.490            |                 |                 |                    | -3.51         | -4.91         | 58.63 |       | -155.2 |
| -103 | -3.463        | -5.372          | -4.755        | -3.645        | -2.469            |                 |                 |                    | -3.48         | -4.87         | 59.04 |       | -153.4 |
| -102 | -3.435        | -5.327          | -4.714        | -3.614        | -2.448            |                 |                 |                    | -3.46         | -4.83         | 59.44 |       | -151.6 |
| -101 | -3.407        | -5.282          | -4.674        | -3.584        | -2.428            |                 |                 |                    | -3.43         | -4.79         | 59.85 |       | -149.8 |
| -100 | -3.379        | -5.237          | -4.633        | -3.554        | -2.407            |                 |                 |                    | -3.40         | -4.75         | 60.26 |       | -148.0 |
| -99  | -3.350        | -5.192          | -4.591        | -3.523        | -2.386            |                 |                 |                    | -3.37         | -4.71         | 60.66 |       | -146.2 |
| -98  | -3.322        | -5.147          | -4.550        | -3.492        | -2.365            |                 |                 |                    | -3.34         | -4.66         | 61.07 |       | -144.4 |
| -97  | -3.293        | -5.101          | -4.509        | -3.462        | -2.344            |                 |                 |                    | -3.31         | -4.62         | 61.47 |       | -142.6 |
| -96  | -3.264        | -5.055          | -4.467        | -3.431        | -2.322            |                 |                 |                    | -3.28         | -4.58         | 61.88 |       | -140.8 |
| -95  | -3.235        | -5.009          | -4.425        | -3.400        | -2.301            |                 |                 |                    | -3.25         | -4.54         | 62.28 |       | -139.0 |
| -94  | -3.206        | -4.963          | -4.384        | -3.368        | -2.280            |                 |                 |                    | -3.23         | -4.50         | 62.68 |       | -137.2 |
| -93  | -3.177        | -4.917          | -4.342        | -3.337        | -2.258            |                 |                 |                    | -3.20         | -4.45         | 63.09 |       | -135.4 |
| -92  | -3.148        | -4.871          | -4.300        | -3.306        | -2.237            |                 |                 |                    | -3.17         | -4.41         | 63.49 |       | -133.6 |
| -91  | -3.118        | -4.824          | -4.257        | -3.274        | -2.215            |                 |                 |                    | -3.14         | -4.37         | 63.90 |       | -131.8 |
| -90  | -3.089        | -4.777          | -4.215        | -3.243        | -2.193            |                 |                 |                    | -3.11         | -4.33         | 64.30 |       | -130.0 |
| -89  | -3.059        | -4.731          | -4.173        | -3.211        | -2.172            |                 |                 |                    | -3.08         | -4.28         | 64.70 |       | -128.2 |
| -88  | -3.030        | -4.684          | -4.130        | -3.179        | -2.150            |                 |                 |                    | -3.05         | -4.24         | 65.11 |       | -126.4 |
| -87  | -3.000        | -4.636          | -4.088        | -3.147        | -2.128            |                 |                 |                    | -3.02         | -4.20         | 65.51 |       | -124.6 |
| -86  | -2.970        | -4.589          | -4.045        | -3.115        | -2.106            |                 |                 |                    | -2.99         | -4.15         | 65.91 |       | -122.8 |
| -85  | -2.940        | -4.542          | -4.002        | -3.083        | -2.084            |                 |                 |                    | -2.96         | -4.11         | 66.31 |       | -121.0 |
| -84  | -2.910        | -4.494          | -3.959        | -3.050        | -2.062            |                 |                 |                    | -2.93         | -4.06         | 66.72 |       | -119.2 |
| -83  | -2.879        | -4.446          | -3.916        | -3.018        | -2.039            |                 |                 |                    | -2.90         | -4.02         | 67.12 |       | -117.4 |
| -82  | -2.849        | -4.398          | -3.872        | -2.986        | -2.017            |                 |                 |                    | -2.87         | -3.98         | 67.52 |       | -115.6 |
| -81  | -2.818        | -4.350          | -3.829        | -2.953        | -1.995            |                 |                 |                    | -2.84         | -3.93         | 67.92 |       | -113.8 |
| -80  | -2.788        | -4.302          | -3.786        | -2.920        | -1.972            |                 |                 |                    | -2.81         | -3.89         | 68.33 |       | -112.0 |
| -79  | -2.757        | -4.254          | -3.742        | -2.887        | -1.950            |                 |                 |                    | -2.78         | -3.84         | 68.73 |       | -110.2 |
| -78  | -2.726        | -4.205          | -3.698        | -2.854        | -1.927            |                 |                 |                    | -2.75         | -3.80         | 69.13 |       | -108.4 |
| -77  | -2.695        | -4.156          | -3.654        | -2.821        | -1.905            |                 |                 |                    | -2.72         | -3.75         | 69.53 |       | -106.6 |
| -76  | -2.664        | -4.107          | -3.610        | -2.788        | -1.882            |                 |                 |                    | -2.69         | -3.71         | 69.93 |       | -104.8 |
| -75  | -2.633        | -4.058          | -3.566        | -2.755        | -1.859            |                 |                 |                    | -2.66         | -3.66         | 70.33 |       | -103.0 |
| -74  | -2.602        | -4.009          | -3.522        | -2.721        | -1.836            |                 |                 |                    | -2.62         | -3.62         | 70.73 |       | -101.2 |
| -73  | -2.571        | -3.960          | -3.478        | -2.688        | -1.813            |                 |                 |                    | -2.59         | -3.57         | 71.13 |       | -99.4  |
| -72  | -2.539        | -3.911          | -3.434        | -2.654        | -1.790            |                 |                 |                    | -2.56         | -3.53         | 71.53 |       | -97.6  |
| -71  | -2.507        | -3.861          | -3.389        | -2.620        | -1.767            |                 |                 |                    | -2.53         | -3.48         | 71.93 |       | -95.8  |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90   |
| -70 | -2.476        | -3.811          | -3.344        | -2.587        | -1.744            |                 |                 |                    | -2.50         | -3.44         | 72.33 |       | -94.0 |
| -69 | -2.444        | -3.761          | -3.300        | -2.553        | -1.721            |                 |                 |                    | -2.47         | -3.39         | 72.73 |       | -92.2 |
| -68 | -2.412        | -3.711          | -3.255        | -2.519        | -1.698            |                 |                 |                    | -2.44         | -3.35         | 73.13 |       | -90.4 |
| -67 | -2.380        | -3.661          | -3.210        | -2.485        | -1.674            |                 |                 |                    | -2.40         | -3.30         | 73.53 |       | -88.6 |
| -66 | -2.348        | -3.611          | -3.165        | -2.450        | -1.651            |                 |                 |                    | -2.37         | -3.25         | 73.93 |       | -86.8 |
| -65 | -2.316        | -3.561          | -3.120        | -2.416        | -1.627            |                 |                 |                    | -2.34         | -3.21         | 74.33 |       | -85.0 |
| -64 | -2.283        | -3.510          | -3.075        | -2.382        | -1.604            |                 |                 |                    | -2.31         | -3.16         | 74.73 |       | -83.2 |
| -63 | -2.251        | -3.459          | -3.029        | -2.347        | -1.580            |                 |                 |                    | -2.28         | -3.12         | 75.13 |       | -81.4 |
| -62 | -2.218        | -3.408          | -2.984        | -2.312        | -1.557            |                 |                 |                    | -2.24         | -3.07         | 75.53 |       | -79.6 |
| -61 | -2.186        | -3.357          | -2.938        | -2.278        | -1.533            |                 |                 |                    | -2.21         | -3.02         | 75.93 |       | -77.8 |
| -60 | -2.153        | -3.306          | -2.893        | -2.243        | -1.509            |                 |                 |                    | -2.18         | -2.98         | 76.33 | 69.5  | -76.0 |
| -59 | -2.120        | -3.255          | -2.847        | -2.208        | -1.485            |                 |                 |                    | -2.15         | -2.93         | 76.73 | 70.0  | -74.2 |
| -58 | -2.087        | -3.204          | -2.801        | -2.173        | -1.462            |                 |                 |                    | -2.11         | -2.88         | 77.12 | 70.5  | -72.4 |
| -57 | -2.054        | -3.152          | -2.755        | -2.138        | -1.438            |                 |                 |                    | -2.08         | -2.84         | 77.52 | 70.9  | -70.6 |
| -56 | -2.021        | -3.100          | -2.709        | -2.103        | -1.414            |                 |                 |                    | -2.05         | -2.79         | 77.92 | 71.4  | -68.8 |
| -55 | -1.987        | -3.048          | -2.663        | -2.067        | -1.390            |                 |                 |                    | -2.02         | -2.74         | 78.32 | 71.9  | -67.0 |
| -54 | -1.954        | -2.996          | -2.617        | -2.032        | -1.366            |                 |                 |                    | -1.98         | -2.70         | 78.72 | 72.3  | -65.2 |
| -53 | -1.920        | -2.944          | -2.571        | -1.996        | -1.341            |                 |                 |                    | -1.95         | -2.65         | 79.11 | 72.8  | -63.4 |
| -52 | -1.887        | -2.892          | -2.524        | -1.961        | -1.317            |                 |                 |                    | -1.92         | -2.60         | 79.51 | 73.3  | -61.6 |
| -51 | -1.853        | -2.840          | -2.478        | -1.925        | -1.293            |                 |                 |                    | -1.88         | -2.56         | 79.91 | 73.8  | -59.8 |
| -50 | -1.819        | -2.787          | -2.431        | -1.889        | -1.269            | -0.236          | -0.226          |                    | -1.85         | -2.51         | 80.31 | 74.3  | -58.0 |
| -49 | -1.785        | -2.735          | -2.385        | -1.854        | -1.244            | -0.232          | -0.223          |                    | -1.81         | -2.46         | 80.70 | 74.7  | -56.2 |
| -48 | -1.751        | -2.682          | -2.338        | -1.818        | -1.220            | -0.228          | -0.219          |                    | -1.78         | -2.41         | 81.10 | 75.2  | -54.4 |
| -47 | -1.717        | -2.629          | -2.291        | -1.782        | -1.195            | -0.224          | -0.215          |                    | -1.74         | -2.36         | 81.50 | 75.7  | -52.6 |
| -46 | -1.683        | -2.576          | -2.244        | -1.745        | -1.171            | -0.219          | -0.211          |                    | -1.71         | -2.32         | 81.89 | 76.2  | -50.8 |
| -45 | -1.648        | -2.523          | -2.197        | -1.709        | -1.146            | -0.215          | -0.208          |                    | -1.67         | -2.27         | 82.29 | 76.7  | -49.0 |
| -44 | -1.614        | -2.469          | -2.150        | -1.673        | -1.122            | -0.211          | -0.204          |                    | -1.64         | -2.22         | 82.69 | 77.2  | -47.2 |
| -43 | -1.579        | -2.416          | -2.103        | -1.637        | -1.097            | -0.207          | -0.200          |                    | -1.60         | -2.17         | 83.08 | 77.7  | -45.4 |
| -42 | -1.545        | -2.362          | -2.055        | -1.600        | -1.072            | -0.203          | -0.196          |                    | -1.57         | -2.12         | 83.48 | 78.1  | -43.6 |
| -41 | -1.510        | -2.309          | -2.008        | -1.564        | -1.048            | -0.199          | -0.192          |                    | -1.53         | -2.08         | 83.87 | 78.6  | -41.8 |
| -40 | -1.475        | -2.255          | -1.961        | -1.527        | -1.023            | -0.194          | -0.188          |                    | -1.50         | -2.03         | 84.27 | 79.1  | -40.0 |
| -39 | -1.440        | -2.201          | -1.913        | -1.490        | -0.998            | -0.190          | -0.184          |                    | -1.46         | -1.98         | 84.67 | 79.6  | -38.2 |
| -38 | -1.405        | -2.147          | -1.865        | -1.453        | -0.973            | -0.186          | -0.180          |                    | -1.43         | -1.93         | 85.06 | 80.1  | -36.4 |
| -37 | -1.370        | -2.093          | -1.818        | -1.417        | -0.948            | -0.181          | -0.175          |                    | -1.39         | -1.88         | 85.46 | 80.6  | -34.6 |
| -36 | -1.335        | -2.038          | -1.770        | -1.380        | -0.923            | -0.177          | -0.171          |                    | -1.36         | -1.83         | 85.85 | 81.1  | -32.8 |
| -35 | -1.299        | -1.984          | -1.722        | -1.343        | -0.898            | -0.173          | -0.167          |                    | -1.32         | -1.78         | 86.25 | 81.6  | -31.0 |
| -34 | -1.264        | -1.929          | -1.674        | -1.305        | -0.873            | -0.168          | -0.163          |                    | -1.28         | -1.73         | 86.64 | 82.1  | -29.2 |
| -33 | -1.228        | -1.874          | -1.626        | -1.268        | -0.848            | -0.164          | -0.158          |                    | -1.25         | -1.68         | 87.04 | 82.6  | -27.4 |
| -32 | -1.192        | -1.820          | -1.578        | -1.231        | -0.823            | -0.159          | -0.154          |                    | -1.21         | -1.63         | 87.43 | 83.1  | -25.6 |
| -31 | -1.157        | -1.765          | -1.530        | -1.194        | -0.798            | -0.155          | -0.150          |                    | -1.18         | -1.58         | 87.83 | 83.6  | -23.8 |
| -30 | -1.121        | -1.709          | -1.482        | -1.156        | -0.772            | -0.150          | -0.145          |                    | -1.14         | -1.53         | 88.22 | 84.1  | -22.0 |
| -29 | -1.085        | -1.654          | -1.433        | -1.119        | -0.747            | -0.146          | -0.141          |                    | -1.10         | -1.48         | 88.62 | 84.7  | -20.2 |
| -28 | -1.049        | -1.599          | -1.385        | -1.081        | -0.722            | -0.141          | -0.137          |                    | -1.07         | -1.43         | 89.01 | 85.2  | -18.4 |
| -27 | -1.013        | -1.543          | -1.336        | -1.043        | -0.696            | -0.136          | -0.132          |                    | -1.03         | -1.38         | 89.40 | 85.7  | -16.6 |
| -26 | -0.976        | -1.488          | -1.288        | -1.006        | -0.671            | -0.132          | -0.128          |                    | -0.99         | -1.32         | 89.80 | 86.2  | -14.8 |
| -25 | -0.940        | -1.432          | -1.239        | -0.968        | -0.646            | -0.127          | -0.123          |                    | -0.95         | -1.27         | 90.19 | 86.7  | -13.0 |
| -24 | -0.904        | -1.376          | -1.190        | -0.930        | -0.620            | -0.122          | -0.119          |                    | -0.92         | -1.22         | 90.59 | 87.2  | -11.2 |
| -23 | -0.867        | -1.320          | -1.142        | -0.892        | -0.595            | -0.117          | -0.114          |                    | -0.88         | -1.17         | 90.98 | 87.7  | -9.4  |
| -22 | -0.830        | -1.264          | -1.093        | -0.854        | -0.569            | -0.113          | -0.109          |                    | -0.84         | -1.12         | 91.37 | 88.3  | -7.6  |
| -21 | -0.794        | -1.208          | -1.044        | -0.816        | -0.544            | -0.108          | -0.105          |                    | -0.81         | -1.07         | 91.77 | 88.8  | -5.8  |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F   |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90  |
| -20 | -0.757        | -1.152          | -0.995        | -0.778        | -0.518            | -0.103          | -0.100          |                    | -0.77         | -1.02         | 92.16  | 89.3  | -4.0 |
| -19 | -0.720        | -1.095          | -0.946        | -0.739        | -0.492            | -0.098          | -0.095          |                    | -0.73         | -0.97         | 92.55  | 89.8  | -2.2 |
| -18 | -0.683        | -1.039          | -0.896        | -0.701        | -0.467            | -0.093          | -0.091          |                    | -0.69         | -0.92         | 92.95  | 90.3  | -0.4 |
| -17 | -0.646        | -0.982          | -0.847        | -0.663        | -0.441            | -0.088          | -0.086          |                    | -0.66         | -0.87         | 93.34  | 90.9  | 1.4  |
| -16 | -0.608        | -0.925          | -0.798        | -0.624        | -0.415            | -0.083          | -0.081          |                    | -0.62         | -0.81         | 93.73  | 91.4  | 3.2  |
| -15 | -0.571        | -0.868          | -0.749        | -0.586        | -0.390            | -0.078          | -0.076          |                    | -0.58         | -0.76         | 94.12  | 91.9  | 5.0  |
| -14 | -0.534        | -0.811          | -0.699        | -0.547        | -0.364            | -0.073          | -0.071          |                    | -0.54         | -0.71         | 94.52  | 92.5  | 6.8  |
| -13 | -0.496        | -0.754          | -0.650        | -0.508        | -0.338            | -0.068          | -0.066          |                    | -0.50         | -0.66         | 94.91  | 93.0  | 8.6  |
| -12 | -0.459        | -0.697          | -0.600        | -0.470        | -0.312            | -0.063          | -0.061          |                    | -0.47         | -0.61         | 95.30  | 93.5  | 10.4 |
| -11 | -0.421        | -0.639          | -0.550        | -0.431        | -0.286            | -0.058          | -0.056          |                    | -0.43         | -0.56         | 95.69  | 94.0  | 12.2 |
| -10 | -0.383        | -0.582          | -0.501        | -0.392        | -0.260            | -0.053          | -0.051          |                    | -0.39         | -0.51         | 96.09  | 94.6  | 14.0 |
| -9  | -0.345        | -0.524          | -0.451        | -0.353        | -0.234            | -0.048          | -0.046          |                    | -0.35         | -0.46         | 96.48  | 95.1  | 15.8 |
| -8  | -0.307        | -0.466          | -0.401        | -0.314        | -0.209            | -0.042          | -0.041          |                    | -0.31         | -0.41         | 96.87  | 95.7  | 17.6 |
| -7  | -0.269        | -0.408          | -0.351        | -0.275        | -0.183            | -0.037          | -0.036          |                    | -0.27         | -0.36         | 97.26  | 96.2  | 19.4 |
| -6  | -0.231        | -0.350          | -0.301        | -0.236        | -0.157            | -0.032          | -0.031          |                    | -0.23         | -0.31         | 97.65  | 96.7  | 21.2 |
| -5  | -0.193        | -0.292          | -0.251        | -0.197        | -0.131            | -0.027          | -0.026          |                    | -0.19         | -0.25         | 98.04  | 97.3  | 23.0 |
| -4  | -0.154        | -0.234          | -0.201        | -0.157        | -0.104            | -0.021          | -0.021          |                    | -0.16         | -0.20         | 98.44  | 97.8  | 24.8 |
| -3  | -0.116        | -0.176          | -0.151        | -0.118        | -0.078            | -0.016          | -0.016          |                    | -0.12         | -0.15         | 98.83  | 98.4  | 26.6 |
| -2  | -0.077        | -0.117          | -0.101        | -0.079        | -0.052            | -0.011          | -0.011          |                    | -0.08         | -0.10         | 99.22  | 98.9  | 28.4 |
| -1  | -0.039        | -0.059          | -0.050        | -0.039        | -0.026            | -0.005          | -0.005          |                    | -0.04         | -0.05         | 99.61  | 99.5  | 30.2 |
| 0   | 0.000         | 0.000           | 0.000         | 0.000         | 0.000             | 0.000           | 0.000           | 0.000              | 0.00          | 0.00          | 100.00 | 100.0 | 32.0 |
| 1   | 0.039         | 0.059           | 0.050         | 0.039         | 0.026             | 0.005           | 0.005           | 0.000              | 0.04          | 0.05          | 100.39 | 100.5 | 33.8 |
| 2   | 0.078         | 0.118           | 0.101         | 0.079         | 0.052             | 0.011           | 0.011           | 0.000              | 0.08          | 0.10          | 100.78 | 101.1 | 35.6 |
| 3   | 0.117         | 0.176           | 0.151         | 0.119         | 0.078             | 0.016           | 0.016           | -0.001             | 0.12          | 0.16          | 101.17 | 101.7 | 37.4 |
| 4   | 0.156         | 0.235           | 0.202         | 0.158         | 0.104             | 0.022           | 0.021           | -0.001             | 0.16          | 0.21          | 101.56 | 102.2 | 39.2 |
| 5   | 0.195         | 0.294           | 0.253         | 0.198         | 0.130             | 0.027           | 0.027           | -0.001             | 0.20          | 0.26          | 101.95 | 102.8 | 41.0 |
| 6   | 0.234         | 0.354           | 0.303         | 0.238         | 0.156             | 0.033           | 0.032           | -0.001             | 0.24          | 0.31          | 102.34 | 103.3 | 42.8 |
| 7   | 0.273         | 0.413           | 0.354         | 0.277         | 0.182             | 0.038           | 0.038           | -0.001             | 0.28          | 0.36          | 102.73 | 103.9 | 44.6 |
| 8   | 0.312         | 0.472           | 0.405         | 0.317         | 0.208             | 0.044           | 0.043           | -0.002             | 0.32          | 0.42          | 103.12 | 104.4 | 46.4 |
| 9   | 0.352         | 0.532           | 0.456         | 0.357         | 0.235             | 0.050           | 0.049           | -0.002             | 0.36          | 0.47          | 103.51 | 105.0 | 48.2 |
| 10  | 0.391         | 0.591           | 0.507         | 0.397         | 0.261             | 0.055           | 0.054           | -0.002             | 0.40          | 0.52          | 103.90 | 105.6 | 50.0 |
| 11  | 0.431         | 0.651           | 0.558         | 0.437         | 0.287             | 0.061           | 0.060           | -0.002             | 0.44          | 0.57          | 104.29 | 106.1 | 51.8 |
| 12  | 0.470         | 0.711           | 0.609         | 0.477         | 0.313             | 0.067           | 0.065           | -0.002             | 0.48          | 0.63          | 104.68 | 106.7 | 53.6 |
| 13  | 0.510         | 0.770           | 0.660         | 0.517         | 0.340             | 0.072           | 0.071           | -0.002             | 0.52          | 0.68          | 105.07 | 107.2 | 55.4 |
| 14  | 0.549         | 0.830           | 0.711         | 0.557         | 0.366             | 0.078           | 0.077           | -0.002             | 0.56          | 0.73          | 105.46 | 107.8 | 57.2 |
| 15  | 0.589         | 0.890           | 0.762         | 0.597         | 0.393             | 0.084           | 0.082           | -0.002             | 0.60          | 0.78          | 105.85 | 108.4 | 59.0 |
| 16  | 0.629         | 0.950           | 0.814         | 0.637         | 0.419             | 0.090           | 0.088           | -0.002             | 0.64          | 0.84          | 106.24 | 109.0 | 60.8 |
| 17  | 0.669         | 1.010           | 0.865         | 0.677         | 0.446             | 0.095           | 0.094           | -0.002             | 0.68          | 0.89          | 106.63 | 109.5 | 62.6 |
| 18  | 0.709         | 1.071           | 0.916         | 0.718         | 0.472             | 0.101           | 0.100           | -0.003             | 0.72          | 0.94          | 107.02 | 110.1 | 64.4 |
| 19  | 0.749         | 1.131           | 0.968         | 0.758         | 0.499             | 0.107           | 0.105           | -0.003             | 0.76          | 1.00          | 107.41 | 110.7 | 66.2 |
| 20  | 0.790         | 1.192           | 1.019         | 0.798         | 0.525             | 0.113           | 0.111           | -0.003             | 0.80          | 1.05          | 107.79 | 111.2 | 68.0 |
| 21  | 0.830         | 1.252           | 1.071         | 0.838         | 0.552             | 0.119           | 0.117           | -0.003             | 0.84          | 1.10          | 108.18 | 111.8 | 69.8 |
| 22  | 0.870         | 1.313           | 1.122         | 0.879         | 0.578             | 0.125           | 0.123           | -0.003             | 0.88          | 1.16          | 108.57 | 112.4 | 71.6 |
| 23  | 0.911         | 1.373           | 1.174         | 0.919         | 0.605             | 0.131           | 0.129           | -0.003             | 0.92          | 1.21          | 108.96 | 113.0 | 73.4 |
| 24  | 0.951         | 1.434           | 1.226         | 0.960         | 0.632             | 0.137           | 0.135           | -0.003             | 0.96          | 1.26          | 109.35 | 113.5 | 75.2 |
| 25  | 0.992         | 1.495           | 1.277         | 1.000         | 0.659             | 0.143           | 0.141           | -0.002             | 1.00          | 1.31          | 109.73 | 114.1 | 77.0 |
| 26  | 1.033         | 1.556           | 1.329         | 1.041         | 0.685             | 0.149           | 0.147           | -0.002             | 1.05          | 1.37          | 110.12 | 114.7 | 78.8 |
| 27  | 1.074         | 1.617           | 1.381         | 1.081         | 0.712             | 0.155           | 0.153           | -0.002             | 1.09          | 1.42          | 110.51 | 115.3 | 80.6 |
| 28  | 1.114         | 1.678           | 1.433         | 1.122         | 0.739             | 0.161           | 0.159           | -0.002             | 1.13          | 1.47          | 110.90 | 115.9 | 82.4 |
| 29  | 1.155         | 1.740           | 1.485         | 1.163         | 0.766             | 0.167           | 0.165           | -0.002             | 1.17          | 1.53          | 111.29 | 116.5 | 84.2 |
| 30  | 1.196         | 1.801           | 1.537         | 1.203         | 0.793             | 0.173           | 0.171           | -0.002             | 1.21          | 1.58          | 111.67 | 117.1 | 86.0 |

| °C        | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F           |
|-----------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------------|
| t90       | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90          |
| <b>31</b> | 1.238         | 1.862           | 1.589         | 1.244         | 0.820             | 0.179           | 0.177           | -0.002             | 1.25          | 1.63          | 112.06 | 117.6 | <b>87.8</b>  |
| <b>32</b> | 1.279         | 1.924           | 1.641         | 1.285         | 0.847             | 0.185           | 0.183           | -0.002             | 1.29          | 1.69          | 112.45 | 118.2 | <b>89.6</b>  |
| <b>33</b> | 1.320         | 1.986           | 1.693         | 1.326         | 0.874             | 0.191           | 0.189           | -0.002             | 1.34          | 1.74          | 112.83 | 118.8 | <b>91.4</b>  |
| <b>34</b> | 1.362         | 2.047           | 1.745         | 1.366         | 0.901             | 0.197           | 0.195           | -0.002             | 1.38          | 1.79          | 113.22 | 119.4 | <b>93.2</b>  |
| <b>35</b> | 1.403         | 2.109           | 1.797         | 1.407         | 0.928             | 0.204           | 0.201           | -0.001             | 1.42          | 1.84          | 113.61 | 120.0 | <b>95.0</b>  |
| <b>36</b> | 1.445         | 2.171           | 1.849         | 1.448         | 0.955             | 0.210           | 0.207           | -0.001             | 1.46          | 1.90          | 114.00 | 120.6 | <b>96.8</b>  |
| <b>37</b> | 1.486         | 2.233           | 1.902         | 1.489         | 0.983             | 0.216           | 0.214           | -0.001             | 1.50          | 1.95          | 114.38 | 121.2 | <b>98.6</b>  |
| <b>38</b> | 1.528         | 2.295           | 1.954         | 1.530         | 1.010             | 0.222           | 0.220           | -0.001             | 1.55          | 2.00          | 114.77 | 121.8 | <b>100.4</b> |
| <b>39</b> | 1.570         | 2.357           | 2.006         | 1.571         | 1.037             | 0.229           | 0.226           | -0.001             | 1.59          | 2.06          | 115.15 | 122.4 | <b>102.2</b> |
| <b>40</b> | 1.612         | 2.420           | 2.059         | 1.612         | 1.065             | 0.235           | 0.232           | 0.000              | 1.63          | 2.11          | 115.54 | 123.0 | <b>104.0</b> |
| <b>41</b> | 1.654         | 2.482           | 2.111         | 1.653         | 1.092             | 0.241           | 0.239           | 0.000              | 1.67          | 2.16          | 115.93 | 123.6 | <b>105.8</b> |
| <b>42</b> | 1.696         | 2.545           | 2.164         | 1.694         | 1.119             | 0.248           | 0.245           | 0.000              | 1.71          | 2.22          | 116.31 | 124.2 | <b>107.6</b> |
| <b>43</b> | 1.738         | 2.607           | 2.216         | 1.735         | 1.147             | 0.254           | 0.251           | 0.000              | 1.76          | 2.27          | 116.70 | 124.8 | <b>109.4</b> |
| <b>44</b> | 1.780         | 2.670           | 2.269         | 1.776         | 1.174             | 0.260           | 0.258           | 0.000              | 1.80          | 2.33          | 117.08 | 125.4 | <b>111.2</b> |
| <b>45</b> | 1.823         | 2.733           | 2.322         | 1.817         | 1.202             | 0.267           | 0.264           | 0.001              | 1.84          | 2.38          | 117.47 | 126.0 | <b>113.0</b> |
| <b>46</b> | 1.865         | 2.795           | 2.374         | 1.858         | 1.229             | 0.273           | 0.271           | 0.001              | 1.88          | 2.43          | 117.86 | 126.7 | <b>114.8</b> |
| <b>47</b> | 1.908         | 2.858           | 2.427         | 1.899         | 1.257             | 0.280           | 0.277           | 0.001              | 1.92          | 2.49          | 118.24 | 127.3 | <b>116.6</b> |
| <b>48</b> | 1.950         | 2.921           | 2.480         | 1.941         | 1.284             | 0.286           | 0.284           | 0.002              | 1.97          | 2.54          | 118.63 | 127.9 | <b>118.4</b> |
| <b>49</b> | 1.993         | 2.984           | 2.532         | 1.982         | 1.312             | 0.292           | 0.290           | 0.002              | 2.01          | 2.60          | 119.01 | 128.5 | <b>120.2</b> |
| <b>50</b> | 2.036         | 3.048           | 2.585         | 2.023         | 1.340             | 0.299           | 0.296           | 0.002              | 2.05          | 2.65          | 119.40 | 129.1 | <b>122.0</b> |
| <b>51</b> | 2.079         | 3.111           | 2.638         | 2.064         | 1.368             | 0.305           | 0.303           | 0.003              | 2.09          | 2.70          | 119.78 | 129.7 | <b>123.8</b> |
| <b>52</b> | 2.122         | 3.174           | 2.691         | 2.106         | 1.395             | 0.312           | 0.310           | 0.003              | 2.14          | 2.76          | 120.17 | 130.3 | <b>125.6</b> |
| <b>53</b> | 2.165         | 3.238           | 2.744         | 2.147         | 1.423             | 0.319           | 0.316           | 0.003              | 2.18          | 2.81          | 120.55 | 131.0 | <b>127.4</b> |
| <b>54</b> | 2.208         | 3.301           | 2.797         | 2.188         | 1.451             | 0.325           | 0.323           | 0.004              | 2.22          | 2.87          | 120.94 | 131.6 | <b>129.2</b> |
| <b>55</b> | 2.251         | 3.365           | 2.850         | 2.230         | 1.479             | 0.332           | 0.329           | 0.004              | 2.26          | 2.92          | 121.32 | 132.2 | <b>131.0</b> |
| <b>56</b> | 2.294         | 3.429           | 2.903         | 2.271         | 1.507             | 0.338           | 0.336           | 0.004              | 2.31          | 2.97          | 121.71 | 132.8 | <b>132.8</b> |
| <b>57</b> | 2.338         | 3.492           | 2.956         | 2.312         | 1.535             | 0.345           | 0.343           | 0.005              | 2.35          | 3.03          | 122.09 | 133.5 | <b>134.6</b> |
| <b>58</b> | 2.381         | 3.556           | 3.009         | 2.354         | 1.563             | 0.352           | 0.349           | 0.005              | 2.39          | 3.08          | 122.47 | 134.1 | <b>136.4</b> |
| <b>59</b> | 2.425         | 3.620           | 3.062         | 2.395         | 1.591             | 0.358           | 0.356           | 0.006              | 2.44          | 3.14          | 122.86 | 134.7 | <b>138.2</b> |
| <b>60</b> | 2.468         | 3.685           | 3.116         | 2.436         | 1.619             | 0.365           | 0.363           | 0.006              | 2.48          | 3.19          | 123.24 | 135.3 | <b>140.0</b> |
| <b>61</b> | 2.512         | 3.749           | 3.169         | 2.478         | 1.647             | 0.372           | 0.369           | 0.007              | 2.52          | 3.24          | 123.63 | 136.0 | <b>141.8</b> |
| <b>62</b> | 2.556         | 3.813           | 3.222         | 2.519         | 1.675             | 0.378           | 0.376           | 0.007              | 2.57          | 3.30          | 124.01 | 136.6 | <b>143.6</b> |
| <b>63</b> | 2.600         | 3.877           | 3.275         | 2.561         | 1.703             | 0.385           | 0.383           | 0.008              | 2.61          | 3.35          | 124.39 | 137.2 | <b>145.4</b> |
| <b>64</b> | 2.643         | 3.942           | 3.329         | 2.602         | 1.732             | 0.392           | 0.390           | 0.008              | 2.65          | 3.41          | 124.78 | 137.9 | <b>147.2</b> |
| <b>65</b> | 2.687         | 4.006           | 3.382         | 2.644         | 1.760             | 0.399           | 0.397           | 0.009              | 2.69          | 3.46          | 125.16 | 138.5 | <b>149.0</b> |
| <b>66</b> | 2.732         | 4.071           | 3.436         | 2.685         | 1.788             | 0.405           | 0.403           | 0.009              | 2.74          | 3.51          | 125.54 | 139.2 | <b>150.8</b> |
| <b>67</b> | 2.776         | 4.136           | 3.489         | 2.727         | 1.817             | 0.412           | 0.410           | 0.010              | 2.78          | 3.57          | 125.93 | 139.8 | <b>152.6</b> |
| <b>68</b> | 2.820         | 4.200           | 3.543         | 2.768         | 1.845             | 0.419           | 0.417           | 0.010              | 2.82          | 3.62          | 126.31 | 140.4 | <b>154.4</b> |
| <b>69</b> | 2.864         | 4.265           | 3.596         | 2.810         | 1.873             | 0.426           | 0.424           | 0.011              | 2.87          | 3.68          | 126.69 | 141.1 | <b>156.2</b> |
| <b>70</b> | 2.909         | 4.330           | 3.650         | 2.851         | 1.902             | 0.433           | 0.431           | 0.011              | 2.91          | 3.73          | 127.08 | 141.7 | <b>158.0</b> |
| <b>71</b> | 2.953         | 4.395           | 3.703         | 2.893         | 1.930             | 0.440           | 0.438           | 0.012              | 2.95          | 3.78          | 127.46 | 142.4 | <b>159.8</b> |
| <b>72</b> | 2.998         | 4.460           | 3.757         | 2.934         | 1.959             | 0.446           | 0.445           | 0.012              | 3.00          | 3.84          | 127.84 | 143.0 | <b>161.6</b> |
| <b>73</b> | 3.043         | 4.526           | 3.810         | 2.976         | 1.988             | 0.453           | 0.452           | 0.013              | 3.04          | 3.89          | 128.22 | 143.7 | <b>163.4</b> |
| <b>74</b> | 3.087         | 4.591           | 3.864         | 3.017         | 2.016             | 0.460           | 0.459           | 0.014              | 3.09          | 3.95          | 128.61 | 144.3 | <b>165.2</b> |
| <b>75</b> | 3.132         | 4.656           | 3.918         | 3.059         | 2.045             | 0.467           | 0.466           | 0.014              | 3.13          | 4.00          | 128.99 | 145.0 | <b>167.0</b> |
| <b>76</b> | 3.177         | 4.722           | 3.971         | 3.100         | 2.074             | 0.474           | 0.473           | 0.015              | 3.17          | 4.05          | 129.37 | 145.6 | <b>168.8</b> |
| <b>77</b> | 3.222         | 4.788           | 4.025         | 3.142         | 2.102             | 0.481           | 0.480           | 0.015              | 3.22          | 4.11          | 129.75 | 146.3 | <b>170.6</b> |
| <b>78</b> | 3.267         | 4.853           | 4.079         | 3.184         | 2.131             | 0.488           | 0.487           | 0.016              | 3.26          | 4.16          | 130.13 | 146.9 | <b>172.4</b> |
| <b>79</b> | 3.312         | 4.919           | 4.133         | 3.225         | 2.160             | 0.495           | 0.494           | 0.017              | 3.31          | 4.22          | 130.52 | 147.6 | <b>174.2</b> |
| <b>80</b> | 3.358         | 4.985           | 4.187         | 3.267         | 2.189             | 0.502           | 0.501           | 0.017              | 3.35          | 4.27          | 130.90 | 148.3 | <b>176.0</b> |

| °C         | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F           |
|------------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------------|
| t90        | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90          |
| <b>81</b>  | 3.403         | 5.051           | 4.240         | 3.308         | 2.218             | 0.509           | 0.508           | 0.018              | 3.39          | 4.32          | 131.28 | 148.9 | <b>177.8</b> |
| <b>82</b>  | 3.448         | 5.117           | 4.294         | 3.350         | 2.247             | 0.516           | 0.516           | 0.019              | 3.44          | 4.38          | 131.66 | 149.6 | <b>179.6</b> |
| <b>83</b>  | 3.494         | 5.183           | 4.348         | 3.391         | 2.276             | 0.523           | 0.523           | 0.020              | 3.48          | 4.43          | 132.04 | 150.2 | <b>181.4</b> |
| <b>84</b>  | 3.539         | 5.249           | 4.402         | 3.433         | 2.305             | 0.530           | 0.530           | 0.020              | 3.53          | 4.49          | 132.42 | 150.9 | <b>183.2</b> |
| <b>85</b>  | 3.585         | 5.315           | 4.456         | 3.474         | 2.334             | 0.538           | 0.537           | 0.021              | 3.57          | 4.54          | 132.80 | 151.6 | <b>185.0</b> |
| <b>86</b>  | 3.631         | 5.382           | 4.510         | 3.516         | 2.363             | 0.545           | 0.544           | 0.022              | 3.62          | 4.60          | 133.18 | 152.2 | <b>186.8</b> |
| <b>87</b>  | 3.677         | 5.448           | 4.564         | 3.557         | 2.392             | 0.552           | 0.552           | 0.022              | 3.66          | 4.65          | 133.57 | 152.9 | <b>188.6</b> |
| <b>88</b>  | 3.722         | 5.514           | 4.618         | 3.599         | 2.421             | 0.559           | 0.559           | 0.023              | 3.71          | 4.71          | 133.95 | 153.6 | <b>190.4</b> |
| <b>89</b>  | 3.768         | 5.581           | 4.672         | 3.640         | 2.450             | 0.566           | 0.566           | 0.024              | 3.75          | 4.77          | 134.33 | 154.3 | <b>192.2</b> |
| <b>90</b>  | 3.814         | 5.648           | 4.726         | 3.682         | 2.480             | 0.573           | 0.573           | 0.025              | 3.80          | 4.82          | 134.71 | 154.9 | <b>194.0</b> |
| <b>91</b>  | 3.860         | 5.714           | 4.781         | 3.723         | 2.509             | 0.580           | 0.581           | 0.026              | 3.84          | 4.87          | 135.09 | 155.6 | <b>195.8</b> |
| <b>92</b>  | 3.907         | 5.781           | 4.835         | 3.765         | 2.538             | 0.588           | 0.588           | 0.026              | 3.89          | 4.93          | 135.47 | 156.3 | <b>197.6</b> |
| <b>93</b>  | 3.953         | 5.848           | 4.889         | 3.806         | 2.568             | 0.595           | 0.595           | 0.027              | 3.93          | 4.98          | 135.85 | 157.0 | <b>199.4</b> |
| <b>94</b>  | 3.999         | 5.915           | 4.943         | 3.848         | 2.597             | 0.602           | 0.603           | 0.028              | 3.98          | 5.04          | 136.23 | 157.7 | <b>201.2</b> |
| <b>95</b>  | 4.046         | 5.982           | 4.997         | 3.889         | 2.626             | 0.609           | 0.610           | 0.029              | 4.02          | 5.09          | 136.61 | 158.3 | <b>203.0</b> |
| <b>96</b>  | 4.092         | 6.049           | 5.052         | 3.931         | 2.656             | 0.617           | 0.618           | 0.030              | 4.07          | 5.15          | 136.99 | 159.0 | <b>204.8</b> |
| <b>97</b>  | 4.138         | 6.117           | 5.106         | 3.972         | 2.685             | 0.624           | 0.625           | 0.031              | 4.11          | 5.20          | 137.37 | 159.7 | <b>206.6</b> |
| <b>98</b>  | 4.185         | 6.184           | 5.160         | 4.013         | 2.715             | 0.631           | 0.632           | 0.031              | 4.16          | 5.26          | 137.75 | 160.4 | <b>208.4</b> |
| <b>99</b>  | 4.232         | 6.251           | 5.215         | 4.055         | 2.744             | 0.639           | 0.640           | 0.032              | 4.20          | 5.32          | 138.13 | 161.1 | <b>210.2</b> |
| <b>100</b> | 4.279         | 6.319           | 5.269         | 4.096         | 2.774             | 0.646           | 0.647           | 0.033              | 4.25          | 5.37          | 138.51 | 161.8 | <b>212.0</b> |
| <b>101</b> | 4.325         | 6.386           | 5.323         | 4.138         | 2.804             | 0.653           | 0.655           | 0.034              | 4.30          | 5.42          | 138.88 | 162.5 | <b>213.8</b> |
| <b>102</b> | 4.372         | 6.454           | 5.378         | 4.179         | 2.833             | 0.661           | 0.662           | 0.035              | 4.34          | 5.48          | 139.26 | 163.2 | <b>215.6</b> |
| <b>103</b> | 4.419         | 6.522           | 5.432         | 4.220         | 2.863             | 0.668           | 0.670           | 0.036              | 4.39          | 5.53          | 139.64 | 163.9 | <b>217.4</b> |
| <b>104</b> | 4.466         | 6.590           | 5.487         | 4.262         | 2.893             | 0.675           | 0.677           | 0.037              | 4.43          | 5.59          | 140.02 | 164.6 | <b>219.2</b> |
| <b>105</b> | 4.513         | 6.658           | 5.541         | 4.303         | 2.923             | 0.683           | 0.685           | 0.038              | 4.48          | 5.64          | 140.40 | 165.3 | <b>221.0</b> |
| <b>106</b> | 4.561         | 6.725           | 5.595         | 4.344         | 2.953             | 0.690           | 0.693           | 0.039              | 4.53          | 5.70          | 140.78 | 166.0 | <b>222.8</b> |
| <b>107</b> | 4.608         | 6.794           | 5.650         | 4.385         | 2.983             | 0.698           | 0.700           | 0.040              | 4.57          | 5.75          | 141.16 | 166.7 | <b>224.6</b> |
| <b>108</b> | 4.655         | 6.862           | 5.705         | 4.427         | 3.012             | 0.705           | 0.708           | 0.041              | 4.62          | 5.81          | 141.54 | 167.4 | <b>226.4</b> |
| <b>109</b> | 4.702         | 6.930           | 5.759         | 4.468         | 3.042             | 0.713           | 0.715           | 0.042              | 4.66          | 5.87          | 141.91 | 168.1 | <b>228.2</b> |
| <b>110</b> | 4.750         | 6.998           | 5.814         | 4.509         | 3.072             | 0.720           | 0.723           | 0.043              | 4.71          | 5.92          | 142.29 | 168.8 | <b>230.0</b> |
| <b>111</b> | 4.798         | 7.066           | 5.868         | 4.550         | 3.102             | 0.727           | 0.731           | 0.044              | 4.76          | 5.97          | 142.67 | 169.5 | <b>231.8</b> |
| <b>112</b> | 4.845         | 7.135           | 5.923         | 4.591         | 3.133             | 0.735           | 0.738           | 0.045              | 4.80          | 6.03          | 143.05 | 170.2 | <b>233.6</b> |
| <b>113</b> | 4.893         | 7.203           | 5.977         | 4.633         | 3.163             | 0.743           | 0.746           | 0.046              | 4.85          | 6.08          | 143.43 | 170.9 | <b>235.4</b> |
| <b>114</b> | 4.941         | 7.272           | 6.032         | 4.674         | 3.193             | 0.750           | 0.754           | 0.047              | 4.90          | 6.14          | 143.80 | 171.6 | <b>237.2</b> |
| <b>115</b> | 4.988         | 7.341           | 6.087         | 4.715         | 3.223             | 0.758           | 0.761           | 0.048              | 4.94          | 6.19          | 144.18 | 172.4 | <b>239.0</b> |
| <b>116</b> | 5.036         | 7.409           | 6.141         | 4.756         | 3.253             | 0.765           | 0.769           | 0.049              | 4.99          | 6.25          | 144.56 | 173.1 | <b>240.8</b> |
| <b>117</b> | 5.084         | 7.478           | 6.196         | 4.797         | 3.283             | 0.773           | 0.777           | 0.050              | 5.04          | 6.30          | 144.94 | 173.8 | <b>242.6</b> |
| <b>118</b> | 5.132         | 7.547           | 6.251         | 4.838         | 3.314             | 0.780           | 0.785           | 0.051              | 5.09          | 6.36          | 145.31 | 174.5 | <b>244.4</b> |
| <b>119</b> | 5.180         | 7.616           | 6.306         | 4.879         | 3.344             | 0.788           | 0.792           | 0.052              | 5.13          | 6.42          | 145.69 | 175.2 | <b>246.2</b> |
| <b>120</b> | 5.228         | 7.685           | 6.360         | 4.920         | 3.374             | 0.795           | 0.800           | 0.053              | 5.18          | 6.47          | 146.07 | 176.0 | <b>248.0</b> |
| <b>121</b> | 5.277         | 7.754           | 6.415         | 4.961         | 3.405             | 0.803           | 0.808           | 0.055              | 5.23          | 6.53          | 146.44 | 176.7 | <b>249.8</b> |
| <b>122</b> | 5.325         | 7.823           | 6.470         | 5.002         | 3.435             | 0.811           | 0.816           | 0.056              | 5.27          | 6.58          | 146.82 | 177.4 | <b>251.6</b> |
| <b>123</b> | 5.373         | 7.892           | 6.525         | 5.043         | 3.466             | 0.818           | 0.824           | 0.057              | 5.32          | 6.64          | 147.20 | 178.2 | <b>253.4</b> |
| <b>124</b> | 5.422         | 7.962           | 6.579         | 5.084         | 3.496             | 0.826           | 0.832           | 0.058              | 5.37          | 6.69          | 147.57 | 178.9 | <b>255.2</b> |
| <b>125</b> | 5.470         | 8.031           | 6.634         | 5.124         | 3.527             | 0.834           | 0.839           | 0.059              | 5.41          | 6.75          | 147.95 | 179.6 | <b>257.0</b> |
| <b>126</b> | 5.519         | 8.101           | 6.689         | 5.165         | 3.557             | 0.841           | 0.847           | 0.060              | 5.46          | 6.81          | 148.33 | 180.4 | <b>258.8</b> |
| <b>127</b> | 5.567         | 8.170           | 6.744         | 5.206         | 3.588             | 0.849           | 0.855           | 0.062              | 5.51          | 6.86          | 148.70 | 181.1 | <b>260.6</b> |
| <b>128</b> | 5.616         | 8.240           | 6.799         | 5.247         | 3.619             | 0.857           | 0.863           | 0.063              | 5.56          | 6.92          | 149.08 | 181.8 | <b>262.4</b> |
| <b>129</b> | 5.665         | 8.309           | 6.854         | 5.288         | 3.649             | 0.865           | 0.871           | 0.064              | 5.60          | 6.97          | 149.46 | 182.6 | <b>264.2</b> |
| <b>130</b> | 5.714         | 8.379           | 6.909         | 5.328         | 3.680             | 0.872           | 0.879           | 0.065              | 5.65          | 7.03          | 149.83 | 183.3 | <b>266.0</b> |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90   |
| 131 | 5.763         | 8.449           | 6.964         | 5.369         | 3.711             | 0.880           | 0.887           | 0.066              | 5.70          | 7.09          | 150.21 | 184.1 | 267.8 |
| 132 | 5.812         | 8.519           | 7.019         | 5.410         | 3.742             | 0.888           | 0.895           | 0.068              | 5.75          | 7.14          | 150.58 | 184.8 | 269.6 |
| 133 | 5.861         | 8.589           | 7.074         | 5.450         | 3.772             | 0.896           | 0.903           | 0.069              | 5.79          | 7.20          | 150.96 | 185.6 | 271.4 |
| 134 | 5.910         | 8.659           | 7.129         | 5.491         | 3.803             | 0.903           | 0.911           | 0.070              | 5.84          | 7.25          | 151.33 | 186.3 | 273.2 |
| 135 | 5.959         | 8.729           | 7.184         | 5.532         | 3.834             | 0.911           | 0.919           | 0.072              | 5.89          | 7.31          | 151.71 | 187.1 | 275.0 |
| 136 | 6.008         | 8.799           | 7.239         | 5.572         | 3.865             | 0.919           | 0.927           | 0.073              | 5.94          | 7.37          | 152.08 | 187.8 | 276.8 |
| 137 | 6.057         | 8.869           | 7.294         | 5.613         | 3.896             | 0.927           | 0.935           | 0.074              | 5.99          | 7.42          | 152.46 | 188.6 | 278.6 |
| 138 | 6.107         | 8.940           | 7.349         | 5.653         | 3.927             | 0.935           | 0.943           | 0.075              | 6.03          | 7.48          | 152.83 | 189.4 | 280.4 |
| 139 | 6.156         | 9.010           | 7.404         | 5.694         | 3.958             | 0.942           | 0.951           | 0.077              | 6.08          | 7.53          | 153.21 | 190.1 | 282.2 |
| 140 | 6.206         | 9.081           | 7.459         | 5.735         | 3.989             | 0.950           | 0.959           | 0.078              | 6.13          | 7.59          | 153.58 | 190.9 | 284.0 |
| 141 | 6.255         | 9.151           | 7.514         | 5.775         | 4.020             | 0.958           | 0.967           | 0.079              | 6.18          | 7.65          | 153.96 | 191.7 | 285.8 |
| 142 | 6.305         | 9.222           | 7.569         | 5.815         | 4.051             | 0.966           | 0.976           | 0.081              | 6.23          | 7.70          | 154.33 | 192.4 | 287.6 |
| 143 | 6.355         | 9.292           | 7.624         | 5.856         | 4.083             | 0.974           | 0.984           | 0.082              | 6.28          | 7.76          | 154.71 | 193.2 | 289.4 |
| 144 | 6.404         | 9.363           | 7.679         | 5.896         | 4.114             | 0.982           | 0.992           | 0.084              | 6.33          | 7.81          | 155.08 | 194.0 | 291.2 |
| 145 | 6.454         | 9.434           | 7.734         | 5.937         | 4.145             | 0.990           | 1.000           | 0.085              | 6.37          | 7.87          | 155.46 | 194.7 | 293.0 |
| 146 | 6.504         | 9.505           | 7.789         | 5.977         | 4.176             | 0.998           | 1.008           | 0.086              | 6.42          | 7.93          | 155.83 | 195.5 | 294.8 |
| 147 | 6.554         | 9.576           | 7.844         | 6.017         | 4.208             | 1.006           | 1.016           | 0.088              | 6.47          | 7.98          | 156.20 | 196.3 | 296.6 |
| 148 | 6.604         | 9.647           | 7.900         | 6.058         | 4.239             | 1.013           | 1.025           | 0.089              | 6.52          | 8.04          | 156.58 | 197.1 | 298.4 |
| 149 | 6.654         | 9.718           | 7.955         | 6.098         | 4.270             | 1.021           | 1.033           | 0.091              | 6.57          | 8.09          | 156.95 | 197.9 | 300.2 |
| 150 | 6.704         | 9.789           | 8.010         | 6.138         | 4.302             | 1.029           | 1.041           | 0.092              | 6.62          | 8.15          | 157.33 | 198.6 | 302.0 |
| 151 | 6.754         | 9.860           | 8.065         | 6.179         | 4.333             | 1.037           | 1.049           | 0.094              | 6.67          | 8.21          | 157.70 | 199.4 | 303.8 |
| 152 | 6.805         | 9.931           | 8.120         | 6.219         | 4.365             | 1.045           | 1.058           | 0.095              | 6.72          | 8.26          | 158.07 | 200.2 | 305.6 |
| 153 | 6.855         | 10.003          | 8.175         | 6.259         | 4.396             | 1.053           | 1.066           | 0.096              | 6.77          | 8.32          | 158.45 | 201.0 | 307.4 |
| 154 | 6.905         | 10.074          | 8.231         | 6.299         | 4.428             | 1.061           | 1.074           | 0.098              | 6.82          | 8.37          | 158.82 | 201.8 | 309.2 |
| 155 | 6.956         | 10.145          | 8.286         | 6.339         | 4.459             | 1.069           | 1.082           | 0.099              | 6.87          | 8.43          | 159.19 | 202.6 | 311.0 |
| 156 | 7.006         | 10.217          | 8.341         | 6.380         | 4.491             | 1.077           | 1.091           | 0.101              | 6.92          | 8.49          | 159.56 | 203.4 | 312.8 |
| 157 | 7.057         | 10.288          | 8.396         | 6.420         | 4.523             | 1.085           | 1.099           | 0.102              | 6.97          | 8.54          | 159.94 | 204.2 | 314.6 |
| 158 | 7.107         | 10.360          | 8.452         | 6.460         | 4.554             | 1.094           | 1.107           | 0.104              | 7.02          | 8.60          | 160.31 | 205.0 | 316.4 |
| 159 | 7.158         | 10.432          | 8.507         | 6.500         | 4.586             | 1.102           | 1.116           | 0.106              | 7.07          | 8.65          | 160.68 | 205.8 | 318.2 |
| 160 | 7.209         | 10.503          | 8.562         | 6.540         | 4.618             | 1.110           | 1.124           | 0.107              | 7.12          | 8.71          | 161.05 | 206.6 | 320.0 |
| 161 | 7.260         | 10.575          | 8.618         | 6.580         | 4.650             | 1.118           | 1.132           | 0.109              | 7.17          | 8.77          | 161.43 | 207.4 | 321.8 |
| 162 | 7.310         | 10.647          | 8.673         | 6.620         | 4.681             | 1.126           | 1.141           | 0.110              | 7.22          | 8.82          | 161.80 | 208.2 | 323.6 |
| 163 | 7.361         | 10.719          | 8.728         | 6.660         | 4.713             | 1.134           | 1.149           | 0.112              | 7.27          | 8.88          | 162.17 | 209.0 | 325.4 |
| 164 | 7.412         | 10.791          | 8.783         | 6.701         | 4.745             | 1.142           | 1.158           | 0.113              | 7.33          | 8.93          | 162.54 | 209.8 | 327.2 |
| 165 | 7.463         | 10.863          | 8.839         | 6.741         | 4.777             | 1.150           | 1.166           | 0.115              | 7.37          | 8.99          | 162.91 | 210.6 | 329.0 |
| 166 | 7.515         | 10.935          | 8.894         | 6.781         | 4.809             | 1.158           | 1.175           | 0.117              | 7.43          | 9.05          | 163.29 | 211.5 | 330.8 |
| 167 | 7.566         | 11.007          | 8.949         | 6.821         | 4.841             | 1.167           | 1.183           | 0.118              | 7.48          | 9.10          | 163.66 | 212.3 | 332.6 |
| 168 | 7.617         | 11.080          | 9.005         | 6.861         | 4.873             | 1.175           | 1.191           | 0.120              | 7.53          | 9.16          | 164.03 | 213.1 | 334.4 |
| 169 | 7.668         | 11.152          | 9.060         | 6.901         | 4.905             | 1.183           | 1.200           | 0.122              | 7.58          | 9.21          | 164.40 | 213.9 | 336.2 |
| 170 | 7.720         | 11.224          | 9.115         | 6.941         | 4.937             | 1.191           | 1.208           | 0.123              | 7.63          | 9.27          | 164.77 | 214.8 | 338.0 |
| 171 | 7.771         | 11.297          | 9.171         | 6.981         | 4.969             | 1.199           | 1.217           | 0.125              | 7.68          | 9.33          | 165.14 | 215.6 | 339.8 |
| 172 | 7.823         | 11.369          | 9.226         | 7.021         | 5.001             | 1.207           | 1.225           | 0.127              | 7.73          | 9.38          | 165.51 | 216.4 | 341.6 |
| 173 | 7.874         | 11.442          | 9.282         | 7.060         | 5.033             | 1.216           | 1.234           | 0.128              | 7.79          | 9.44          | 165.89 | 217.3 | 343.4 |
| 174 | 7.926         | 11.514          | 9.337         | 7.100         | 5.066             | 1.224           | 1.242           | 0.130              | 7.84          | 9.49          | 166.26 | 218.1 | 345.2 |
| 175 | 7.977         | 11.587          | 9.392         | 7.140         | 5.098             | 1.232           | 1.251           | 0.132              | 7.89          | 9.55          | 166.63 | 218.9 | 347.0 |
| 176 | 8.029         | 11.660          | 9.448         | 7.180         | 5.130             | 1.240           | 1.260           | 0.134              | 7.94          | 9.61          | 167.00 | 219.8 | 348.8 |
| 177 | 8.081         | 11.733          | 9.503         | 7.220         | 5.162             | 1.249           | 1.268           | 0.135              | 7.99          | 9.66          | 167.37 | 220.6 | 350.6 |
| 178 | 8.133         | 11.805          | 9.559         | 7.260         | 5.195             | 1.257           | 1.277           | 0.137              | 8.05          | 9.72          | 167.74 | 221.5 | 352.4 |
| 179 | 8.185         | 11.878          | 9.614         | 7.300         | 5.227             | 1.265           | 1.285           | 0.139              | 8.10          | 9.77          | 168.11 | 222.3 | 354.2 |
| 180 | 8.237         | 11.951          | 9.669         | 7.340         | 5.259             | 1.273           | 1.294           | 0.141              | 8.15          | 9.83          | 168.48 | 223.2 | 356.0 |

| °C         | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F           |
|------------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------------|
| t90        | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90          |
| <b>181</b> | 8.289         | 12.024          | 9.725         | 7.380         | 5.292             | 1.282           | 1.303           | 0.142              | 8.20          | 9.89          | 168.85 | 224.0 | <b>357.8</b> |
| <b>182</b> | 8.341         | 12.097          | 9.780         | 7.420         | 5.324             | 1.290           | 1.311           | 0.144              | 8.25          | 9.94          | 169.22 | 224.9 | <b>359.6</b> |
| <b>183</b> | 8.393         | 12.170          | 9.836         | 7.460         | 5.357             | 1.298           | 1.320           | 0.146              | 8.31          | 10.00         | 169.59 | 225.7 | <b>361.4</b> |
| <b>184</b> | 8.445         | 12.243          | 9.891         | 7.500         | 5.389             | 1.307           | 1.329           | 0.148              | 8.36          | 10.05         | 169.96 | 226.6 | <b>363.2</b> |
| <b>185</b> | 8.497         | 12.317          | 9.947         | 7.540         | 5.422             | 1.315           | 1.337           | 0.150              | 8.41          | 10.11         | 170.33 | 227.4 | <b>365.0</b> |
| <b>186</b> | 8.550         | 12.390          | 10.002        | 7.579         | 5.454             | 1.323           | 1.346           | 0.151              | 8.46          | 10.17         | 170.70 | 228.3 | <b>366.8</b> |
| <b>187</b> | 8.602         | 12.463          | 10.057        | 7.619         | 5.487             | 1.332           | 1.355           | 0.153              | 8.51          | 10.22         | 171.07 | 229.2 | <b>368.6</b> |
| <b>188</b> | 8.654         | 12.537          | 10.113        | 7.659         | 5.520             | 1.340           | 1.363           | 0.155              | 8.57          | 10.28         | 171.43 | 230.0 | <b>370.4</b> |
| <b>189</b> | 8.707         | 12.610          | 10.168        | 7.699         | 5.552             | 1.348           | 1.372           | 0.157              | 8.62          | 10.33         | 171.80 | 230.9 | <b>372.2</b> |
| <b>190</b> | 8.759         | 12.684          | 10.224        | 7.739         | 5.585             | 1.357           | 1.381           | 0.159              | 8.67          | 10.39         | 172.17 | 231.8 | <b>374.0</b> |
| <b>191</b> | 8.812         | 12.757          | 10.279        | 7.779         | 5.618             | 1.365           | 1.389           | 0.161              | 8.72          | 10.45         | 172.54 | 232.7 | <b>375.8</b> |
| <b>192</b> | 8.865         | 12.831          | 10.335        | 7.819         | 5.650             | 1.373           | 1.398           | 0.163              | 8.78          | 10.50         | 172.91 | 233.5 | <b>377.6</b> |
| <b>193</b> | 8.917         | 12.904          | 10.390        | 7.859         | 5.683             | 1.382           | 1.407           | 0.165              | 8.83          | 10.56         | 173.28 | 234.4 | <b>379.4</b> |
| <b>194</b> | 8.970         | 12.978          | 10.446        | 7.899         | 5.716             | 1.390           | 1.416           | 0.166              | 8.88          | 10.61         | 173.65 | 235.3 | <b>381.2</b> |
| <b>195</b> | 9.023         | 13.052          | 10.501        | 7.939         | 5.749             | 1.399           | 1.425           | 0.168              | 8.93          | 10.67         | 174.02 | 236.2 | <b>383.0</b> |
| <b>196</b> | 9.076         | 13.126          | 10.557        | 7.979         | 5.782             | 1.407           | 1.433           | 0.170              | 8.99          | 10.73         | 174.38 | 237.1 | <b>384.8</b> |
| <b>197</b> | 9.129         | 13.199          | 10.612        | 8.019         | 5.815             | 1.415           | 1.442           | 0.172              | 9.04          | 10.78         | 174.75 | 238.0 | <b>386.6</b> |
| <b>198</b> | 9.182         | 13.273          | 10.668        | 8.059         | 5.847             | 1.424           | 1.451           | 0.174              | 9.09          | 10.84         | 175.12 | 238.9 | <b>388.4</b> |
| <b>199</b> | 9.235         | 13.347          | 10.723        | 8.099         | 5.880             | 1.432           | 1.460           | 0.176              | 9.15          | 10.89         | 175.49 | 239.8 | <b>390.2</b> |
| <b>200</b> | 9.288         | 13.421          | 10.779        | 8.138         | 5.913             | 1.441           | 1.469           | 0.178              | 9.20          | 10.95         | 175.86 | 240.7 | <b>392.0</b> |
| <b>201</b> | 9.341         | 13.495          | 10.834        | 8.178         | 5.946             | 1.449           | 1.477           | 0.180              | 9.25          | 11.01         | 176.22 | 241.6 | <b>393.8</b> |
| <b>202</b> | 9.395         | 13.569          | 10.890        | 8.218         | 5.979             | 1.458           | 1.486           | 0.182              | 9.31          | 11.06         | 176.59 | 242.5 | <b>395.6</b> |
| <b>203</b> | 9.448         | 13.644          | 10.945        | 8.258         | 6.013             | 1.466           | 1.495           | 0.184              | 9.36          | 11.12         | 176.96 | 243.4 | <b>397.4</b> |
| <b>204</b> | 9.501         | 13.718          | 11.001        | 8.298         | 6.046             | 1.475           | 1.504           | 0.186              | 9.42          | 11.17         | 177.33 | 244.3 | <b>399.2</b> |
| <b>205</b> | 9.555         | 13.792          | 11.056        | 8.338         | 6.079             | 1.483           | 1.513           | 0.188              | 9.47          | 11.23         | 177.69 | 245.2 | <b>401.0</b> |
| <b>206</b> | 9.608         | 13.866          | 11.112        | 8.378         | 6.112             | 1.492           | 1.522           | 0.190              | 9.52          | 11.29         | 178.06 | 246.1 | <b>402.8</b> |
| <b>207</b> | 9.662         | 13.941          | 11.167        | 8.418         | 6.145             | 1.500           | 1.531           | 0.192              | 9.58          | 11.34         | 178.43 | 247.0 | <b>404.6</b> |
| <b>208</b> | 9.715         | 14.015          | 11.223        | 8.458         | 6.178             | 1.509           | 1.540           | 0.195              | 9.63          | 11.40         | 178.79 | 247.9 | <b>406.4</b> |
| <b>209</b> | 9.769         | 14.090          | 11.278        | 8.499         | 6.211             | 1.517           | 1.549           | 0.197              | 9.69          | 11.45         | 179.16 | 248.9 | <b>408.2</b> |
| <b>210</b> | 9.822         | 14.164          | 11.334        | 8.539         | 6.245             | 1.526           | 1.558           | 0.199              | 9.74          | 11.51         | 179.53 | 249.8 | <b>410.0</b> |
| <b>211</b> | 9.876         | 14.239          | 11.389        | 8.579         | 6.278             | 1.534           | 1.567           | 0.201              | 9.79          | 11.57         | 179.89 | 250.7 | <b>411.8</b> |
| <b>212</b> | 9.930         | 14.313          | 11.445        | 8.619         | 6.311             | 1.543           | 1.575           | 0.203              | 9.85          | 11.62         | 180.26 | 251.7 | <b>413.6</b> |
| <b>213</b> | 9.984         | 14.388          | 11.501        | 8.659         | 6.345             | 1.551           | 1.584           | 0.205              | 9.90          | 11.68         | 180.63 | 252.6 | <b>415.4</b> |
| <b>214</b> | 10.038        | 14.463          | 11.556        | 8.699         | 6.378             | 1.560           | 1.593           | 0.207              | 9.96          | 11.73         | 180.99 | 253.5 | <b>417.2</b> |
| <b>215</b> | 10.092        | 14.537          | 11.612        | 8.739         | 6.411             | 1.569           | 1.602           | 0.209              | 10.01         | 11.79         | 181.36 | 254.5 | <b>419.0</b> |
| <b>216</b> | 10.146        | 14.612          | 11.667        | 8.779         | 6.445             | 1.577           | 1.611           | 0.212              | 10.07         | 11.85         | 181.72 | 255.4 | <b>420.8</b> |
| <b>217</b> | 10.200        | 14.687          | 11.723        | 8.819         | 6.478             | 1.586           | 1.620           | 0.214              | 10.12         | 11.90         | 182.09 | 256.3 | <b>422.6</b> |
| <b>218</b> | 10.254        | 14.762          | 11.778        | 8.860         | 6.512             | 1.594           | 1.629           | 0.216              | 10.18         | 11.96         | 182.46 | 257.3 | <b>424.4</b> |
| <b>219</b> | 10.308        | 14.837          | 11.834        | 8.900         | 6.545             | 1.603           | 1.639           | 0.218              | 10.23         | 12.01         | 182.82 | 258.2 | <b>426.2</b> |
| <b>220</b> | 10.362        | 14.912          | 11.889        | 8.940         | 6.579             | 1.612           | 1.648           | 0.220              | 10.29         | 12.07         | 183.19 | 259.2 | <b>428.0</b> |
| <b>221</b> | 10.417        | 14.987          | 11.945        | 8.980         | 6.612             | 1.620           | 1.657           | 0.222              | 10.35         | 12.13         | 183.55 | 260.2 | <b>429.8</b> |
| <b>222</b> | 10.471        | 15.062          | 12.000        | 9.020         | 6.646             | 1.629           | 1.666           | 0.225              | 10.40         | 12.18         | 183.92 | 261.1 | <b>431.6</b> |
| <b>223</b> | 10.525        | 15.137          | 12.056        | 9.061         | 6.680             | 1.638           | 1.675           | 0.227              | 10.46         | 12.24         | 184.28 | 262.1 | <b>433.4</b> |
| <b>224</b> | 10.580        | 15.212          | 12.111        | 9.101         | 6.713             | 1.646           | 1.684           | 0.229              | 10.51         | 12.29         | 184.65 | 263.0 | <b>435.2</b> |
| <b>225</b> | 10.634        | 15.287          | 12.167        | 9.141         | 6.747             | 1.655           | 1.693           | 0.231              | 10.57         | 12.35         | 185.01 | 264.0 | <b>437.0</b> |
| <b>226</b> | 10.689        | 15.362          | 12.222        | 9.181         | 6.781             | 1.663           | 1.702           | 0.234              | 10.62         | 12.41         | 185.38 | 265.0 | <b>438.8</b> |
| <b>227</b> | 10.743        | 15.438          | 12.278        | 9.222         | 6.814             | 1.672           | 1.711           | 0.236              | 10.68         | 12.46         | 185.74 | 266.0 | <b>440.6</b> |
| <b>228</b> | 10.798        | 15.513          | 12.334        | 9.262         | 6.848             | 1.681           | 1.720           | 0.238              | 10.74         | 12.52         | 186.11 | 266.9 | <b>442.4</b> |
| <b>229</b> | 10.853        | 15.588          | 12.389        | 9.302         | 6.882             | 1.690           | 1.729           | 0.241              | 10.79         | 12.57         | 186.47 | 267.9 | <b>444.2</b> |
| <b>230</b> | 10.907        | 15.664          | 12.445        | 9.343         | 6.916             | 1.698           | 1.739           | 0.243              | 10.85         | 12.63         | 186.84 | 268.9 | <b>446.0</b> |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90   |
| 231 | 10.962        | 15.739          | 12.500        | 9.383         | 6.949             | 1.707           | 1.748           | 0.245              | 10.91         | 12.69         | 187.20 | 269.9 | 447.8 |
| 232 | 11.017        | 15.815          | 12.556        | 9.423         | 6.983             | 1.716           | 1.757           | 0.248              | 10.96         | 12.74         | 187.56 | 270.9 | 449.6 |
| 233 | 11.072        | 15.890          | 12.611        | 9.464         | 7.017             | 1.724           | 1.766           | 0.250              | 11.02         | 12.80         | 187.93 | 271.8 | 451.4 |
| 234 | 11.127        | 15.966          | 12.667        | 9.504         | 7.051             | 1.733           | 1.775           | 0.252              | 11.07         | 12.85         | 188.29 | 272.8 | 453.2 |
| 235 | 11.182        | 16.041          | 12.722        | 9.545         | 7.085             | 1.742           | 1.784           | 0.255              | 11.13         | 12.91         | 188.66 | 273.8 | 455.0 |
| 236 | 11.237        | 16.117          | 12.778        | 9.585         | 7.119             | 1.751           | 1.794           | 0.257              | 11.19         | 12.97         | 189.02 | 274.8 | 456.8 |
| 237 | 11.292        | 16.193          | 12.833        | 9.626         | 7.153             | 1.759           | 1.803           | 0.259              | 11.24         | 13.02         | 189.38 | 275.8 | 458.6 |
| 238 | 11.347        | 16.269          | 12.889        | 9.666         | 7.187             | 1.768           | 1.812           | 0.262              | 11.30         | 13.08         | 189.75 | 276.8 | 460.4 |
| 239 | 11.403        | 16.344          | 12.944        | 9.707         | 7.221             | 1.777           | 1.821           | 0.264              | 11.35         | 13.13         | 190.11 | 277.9 | 462.2 |
| 240 | 11.458        | 16.420          | 13.000        | 9.747         | 7.255             | 1.786           | 1.831           | 0.267              | 11.41         | 13.19         | 190.47 | 278.9 | 464.0 |
| 241 | 11.513        | 16.496          | 13.056        | 9.788         | 7.289             | 1.794           | 1.840           | 0.269              | 11.47         | 13.25         | 190.84 | 279.9 | 465.8 |
| 242 | 11.569        | 16.572          | 13.111        | 9.828         | 7.323             | 1.803           | 1.849           | 0.271              | 11.52         | 13.30         | 191.20 | 280.9 | 467.6 |
| 243 | 11.624        | 16.648          | 13.167        | 9.869         | 7.357             | 1.812           | 1.858           | 0.274              | 11.58         | 13.36         | 191.56 | 281.9 | 469.4 |
| 244 | 11.680        | 16.724          | 13.222        | 9.909         | 7.392             | 1.821           | 1.868           | 0.276              | 11.64         | 13.41         | 191.92 | 282.9 | 471.2 |
| 245 | 11.735        | 16.800          | 13.278        | 9.950         | 7.426             | 1.829           | 1.877           | 0.279              | 11.69         | 13.47         | 192.29 | 284.0 | 473.0 |
| 246 | 11.791        | 16.876          | 13.333        | 9.991         | 7.460             | 1.838           | 1.886           | 0.281              | 11.75         | 13.53         | 192.65 | 285.0 | 474.8 |
| 247 | 11.846        | 16.952          | 13.389        | 10.031        | 7.494             | 1.847           | 1.895           | 0.284              | 11.81         | 13.58         | 193.01 | 286.0 | 476.6 |
| 248 | 11.902        | 17.028          | 13.444        | 10.072        | 7.528             | 1.856           | 1.905           | 0.286              | 11.87         | 13.64         | 193.37 | 287.1 | 478.4 |
| 249 | 11.958        | 17.104          | 13.500        | 10.113        | 7.563             | 1.865           | 1.914           | 0.289              | 11.92         | 13.69         | 193.74 | 288.1 | 480.2 |
| 250 | 12.013        | 17.181          | 13.555        | 10.153        | 7.597             | 1.874           | 1.923           | 0.291              | 11.98         | 13.75         | 194.10 | 289.2 | 482.0 |
| 251 | 12.069        | 17.257          | 13.611        | 10.194        | 7.631             | 1.882           | 1.933           | 0.294              | 12.04         | 13.81         | 194.46 |       | 483.8 |
| 252 | 12.125        | 17.333          | 13.666        | 10.235        | 7.666             | 1.891           | 1.942           | 0.296              | 12.09         | 13.86         | 194.82 |       | 485.6 |
| 253 | 12.181        | 17.409          | 13.722        | 10.276        | 7.700             | 1.900           | 1.951           | 0.299              | 12.15         | 13.92         | 195.18 |       | 487.4 |
| 254 | 12.237        | 17.486          | 13.777        | 10.316        | 7.734             | 1.909           | 1.961           | 0.301              | 12.21         | 13.97         | 195.55 |       | 489.2 |
| 255 | 12.293        | 17.562          | 13.833        | 10.357        | 7.769             | 1.918           | 1.970           | 0.304              | 12.26         | 14.03         | 195.91 |       | 491.0 |
| 256 | 12.349        | 17.639          | 13.888        | 10.398        | 7.803             | 1.927           | 1.980           | 0.307              | 12.32         | 14.09         | 196.27 |       | 492.8 |
| 257 | 12.405        | 17.715          | 13.944        | 10.439        | 7.838             | 1.936           | 1.989           | 0.309              | 12.38         | 14.14         | 196.63 |       | 494.6 |
| 258 | 12.461        | 17.792          | 13.999        | 10.480        | 7.872             | 1.944           | 1.998           | 0.312              | 12.44         | 14.20         | 196.99 |       | 496.4 |
| 259 | 12.518        | 17.868          | 14.055        | 10.520        | 7.907             | 1.953           | 2.008           | 0.314              | 12.49         | 14.25         | 197.35 |       | 498.2 |
| 260 | 12.574        | 17.945          | 14.110        | 10.561        | 7.941             | 1.962           | 2.017           | 0.317              | 12.55         | 14.31         | 197.71 |       | 500.0 |
| 261 | 12.630        | 18.021          | 14.166        | 10.602        | 7.976             | 1.971           | 2.027           | 0.320              | 12.61         | 14.37         | 198.07 |       | 501.8 |
| 262 | 12.687        | 18.098          | 14.221        | 10.643        | 8.010             | 1.980           | 2.036           | 0.322              | 12.67         | 14.42         | 198.43 |       | 503.6 |
| 263 | 12.743        | 18.175          | 14.277        | 10.684        | 8.045             | 1.989           | 2.046           | 0.325              | 12.72         | 14.48         | 198.79 |       | 505.4 |
| 364 | 12.799        | 18.252          | 14.332        | 10.725        | 8.080             | 1.998           | 2.055           | 0.328              | 12.78         | 14.54         | 199.15 |       | 507.2 |
| 265 | 12.856        | 18.328          | 14.388        | 10.766        | 8.114             | 2.007           | 2.064           | 0.330              | 12.84         | 14.59         | 199.51 |       | 509.0 |
| 266 | 12.912        | 18.405          | 14.443        | 10.807        | 8.149             | 2.016           | 2.074           | 0.333              | 12.90         | 14.65         | 199.87 |       | 510.8 |
| 267 | 12.969        | 18.482          | 14.499        | 10.848        | 8.184             | 2.025           | 2.083           | 0.336              | 12.96         | 14.71         | 200.23 |       | 512.6 |
| 268 | 13.026        | 18.559          | 14.554        | 10.889        | 8.218             | 2.034           | 2.093           | 0.338              | 13.01         | 14.76         | 200.59 |       | 514.4 |
| 269 | 13.082        | 18.636          | 14.609        | 10.930        | 8.253             | 2.043           | 2.102           | 0.341              | 13.07         | 14.82         | 200.95 |       | 516.2 |
| 270 | 13.139        | 18.713          | 14.665        | 10.971        | 8.288             | 2.052           | 2.112           | 0.344              | 13.13         | 14.88         | 201.31 |       | 518.0 |
| 271 | 13.196        | 18.790          | 14.720        | 11.012        | 8.323             | 2.061           | 2.121           | 0.347              | 13.19         | 14.94         | 201.67 |       | 519.8 |
| 272 | 13.253        | 18.867          | 14.776        | 11.053        | 8.358             | 2.070           | 2.131           | 0.349              | 13.25         | 14.99         | 202.03 |       | 521.6 |
| 273 | 13.310        | 18.944          | 14.831        | 11.094        | 8.392             | 2.078           | 2.140           | 0.352              | 13.30         | 15.05         | 202.39 |       | 523.4 |
| 274 | 13.366        | 19.021          | 14.887        | 11.135        | 8.427             | 2.087           | 2.150           | 0.355              | 13.36         | 15.10         | 202.75 |       | 525.2 |
| 275 | 13.423        | 19.098          | 14.942        | 11.176        | 8.462             | 2.096           | 2.159           | 0.358              | 13.42         | 15.16         | 203.11 |       | 527.0 |
| 276 | 13.480        | 19.175          | 14.998        | 11.217        | 8.497             | 2.105           | 2.169           | 0.360              | 13.48         | 15.22         | 203.47 |       | 528.8 |
| 277 | 13.537        | 19.252          | 15.053        | 11.259        | 8.532             | 2.114           | 2.179           | 0.363              | 13.54         | 15.27         | 203.83 |       | 530.6 |
| 278 | 13.595        | 19.330          | 15.109        | 11.300        | 8.567             | 2.123           | 2.188           | 0.366              | 13.59         | 15.33         | 204.19 |       | 532.4 |
| 279 | 13.652        | 19.407          | 15.164        | 11.341        | 8.602             | 2.132           | 2.198           | 0.369              | 13.65         | 15.38         | 204.55 |       | 534.2 |
| 280 | 13.709        | 19.484          | 15.219        | 11.382        | 8.637             | 2.141           | 2.207           | 0.372              | 13.71         | 15.44         | 204.90 |       | 536.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90   |
| 281 | 13.766        | 19.561          | 15.275        | 11.423        | 8.672             | 2.151           | 2.217           | 0.375              | 13.77         | 15.50         | 205.26 |       | 537.8 |
| 282 | 13.823        | 19.639          | 15.330        | 11.465        | 8.707             | 2.160           | 2.226           | 0.377              | 13.83         | 15.55         | 205.62 |       | 539.6 |
| 283 | 13.881        | 19.716          | 15.386        | 11.506        | 8.742             | 2.169           | 2.236           | 0.380              | 13.89         | 15.61         | 205.98 |       | 541.4 |
| 284 | 13.938        | 19.794          | 15.441        | 11.547        | 8.777             | 2.178           | 2.246           | 0.383              | 13.95         | 15.66         | 206.34 |       | 543.2 |
| 285 | 13.995        | 19.871          | 15.496        | 11.588        | 8.812             | 2.187           | 2.255           | 0.386              | 14.00         | 15.72         | 206.70 |       | 545.0 |
| 286 | 14.053        | 19.948          | 15.552        | 11.630        | 8.847             | 2.196           | 2.265           | 0.389              | 14.06         | 15.78         | 207.05 |       | 546.8 |
| 287 | 14.110        | 20.026          | 15.607        | 11.671        | 8.882             | 2.205           | 2.275           | 0.392              | 14.12         | 15.83         | 207.41 |       | 548.6 |
| 288 | 14.168        | 20.103          | 15.663        | 11.712        | 8.918             | 2.214           | 2.284           | 0.395              | 14.18         | 15.89         | 207.77 |       | 550.4 |
| 289 | 14.226        | 20.181          | 15.718        | 11.753        | 8.953             | 2.223           | 2.294           | 0.398              | 14.24         | 15.94         | 208.13 |       | 552.2 |
| 290 | 14.283        | 20.259          | 15.773        | 11.795        | 8.988             | 2.232           | 2.304           | 0.401              | 14.30         | 16.00         | 208.48 |       | 554.0 |
| 291 | 14.341        | 20.336          | 15.829        | 11.836        | 9.023             | 2.241           | 2.313           | 0.404              | 14.36         | 16.06         | 208.84 |       | 555.8 |
| 292 | 14.399        | 20.414          | 15.884        | 11.877        | 9.058             | 2.250           | 2.323           | 0.407              | 14.42         | 16.11         | 209.20 |       | 557.6 |
| 293 | 14.456        | 20.492          | 15.940        | 11.919        | 9.094             | 2.259           | 2.333           | 0.410              | 14.48         | 16.17         | 209.56 |       | 559.4 |
| 294 | 14.514        | 20.569          | 15.995        | 11.960        | 9.129             | 2.268           | 2.342           | 0.413              | 14.54         | 16.22         | 209.91 |       | 561.2 |
| 295 | 14.572        | 20.647          | 16.050        | 12.001        | 9.164             | 2.277           | 2.352           | 0.416              | 14.60         | 16.28         | 210.27 |       | 563.0 |
| 296 | 14.630        | 20.725          | 16.106        | 12.043        | 9.200             | 2.287           | 2.362           | 0.419              | 14.66         | 16.34         | 210.63 |       | 564.8 |
| 297 | 14.688        | 20.803          | 16.161        | 12.084        | 9.235             | 2.296           | 2.371           | 0.422              | 14.72         | 16.39         | 210.98 |       | 566.6 |
| 298 | 14.746        | 20.880          | 16.216        | 12.126        | 9.270             | 2.305           | 2.381           | 0.425              | 14.78         | 16.45         | 211.34 |       | 568.4 |
| 299 | 14.804        | 20.958          | 16.272        | 12.167        | 9.306             | 2.314           | 2.391           | 0.428              | 14.84         | 16.50         | 211.70 |       | 570.2 |
| 300 | 14.862        | 21.036          | 16.327        | 12.209        | 9.341             | 2.323           | 2.401           | 0.431              | 14.90         | 16.56         | 212.05 |       | 572.0 |
| 301 | 14.920        | 21.114          | 16.383        | 12.250        | 9.377             | 2.332           | 2.410           | 0.434              | 14.96         | 16.62         | 212.41 |       | 573.8 |
| 302 | 14.978        | 21.192          | 16.438        | 12.291        | 9.412             | 2.341           | 2.420           | 0.437              | 15.02         | 16.67         | 212.76 |       | 575.6 |
| 303 | 15.036        | 21.270          | 16.493        | 12.333        | 9.448             | 2.350           | 2.430           | 0.440              | 15.08         | 16.73         | 213.12 |       | 577.4 |
| 304 | 15.095        | 21.348          | 16.549        | 12.374        | 9.483             | 2.360           | 2.440           | 0.443              | 15.14         | 16.78         | 213.48 |       | 579.2 |
| 305 | 15.153        | 21.426          | 16.604        | 12.416        | 9.519             | 2.369           | 2.449           | 0.446              | 15.20         | 16.84         | 213.83 |       | 581.0 |
| 306 | 15.211        | 21.504          | 16.659        | 12.457        | 9.554             | 2.378           | 2.459           | 0.449              | 15.26         | 16.90         | 214.19 |       | 582.8 |
| 307 | 15.270        | 21.582          | 16.715        | 12.499        | 9.590             | 2.387           | 2.469           | 0.452              | 15.32         | 16.95         | 214.54 |       | 584.6 |
| 308 | 15.328        | 21.660          | 16.770        | 12.540        | 9.625             | 2.396           | 2.479           | 0.455              | 15.38         | 17.01         | 214.90 |       | 586.4 |
| 309 | 15.386        | 21.739          | 16.825        | 12.582        | 9.661             | 2.405           | 2.488           | 0.458              | 15.44         | 17.06         | 215.25 |       | 588.2 |
| 310 | 15.445        | 21.817          | 16.881        | 12.624        | 9.696             | 2.415           | 2.498           | 0.462              | 15.50         | 17.12         | 215.61 |       | 590.0 |
| 311 | 15.503        | 21.895          | 16.936        | 12.665        | 9.732             | 2.424           | 2.508           | 0.465              | 15.56         | 17.18         | 215.96 |       | 591.8 |
| 312 | 15.562        | 21.973          | 16.991        | 12.707        | 9.768             | 2.433           | 2.518           | 0.468              | 15.62         | 17.23         | 216.32 |       | 593.6 |
| 313 | 15.621        | 22.051          | 17.046        | 12.748        | 9.803             | 2.442           | 2.528           | 0.471              | 15.68         | 17.29         | 216.67 |       | 595.4 |
| 314 | 15.679        | 22.130          | 17.102        | 12.790        | 9.839             | 2.451           | 2.538           | 0.474              | 15.74         | 17.34         | 217.03 |       | 597.2 |
| 315 | 15.738        | 22.208          | 17.157        | 12.831        | 9.875             | 2.461           | 2.547           | 0.478              | 15.80         | 17.40         | 217.38 |       | 599.0 |
| 316 | 15.797        | 22.286          | 17.212        | 12.873        | 9.910             | 2.470           | 2.557           | 0.481              | 15.86         | 17.46         | 217.74 |       | 600.8 |
| 317 | 15.856        | 22.365          | 17.268        | 12.915        | 9.946             | 2.479           | 2.567           | 0.484              | 15.92         | 17.51         | 218.09 |       | 602.6 |
| 318 | 15.914        | 22.443          | 17.323        | 12.956        | 9.982             | 2.488           | 2.577           | 0.487              | 15.98         | 17.57         | 218.44 |       | 604.4 |
| 319 | 15.973        | 22.522          | 17.378        | 12.998        | 10.018            | 2.497           | 2.587           | 0.490              | 16.04         | 17.62         | 218.80 |       | 606.2 |
| 320 | 16.032        | 22.600          | 17.434        | 13.040        | 10.054            | 2.507           | 2.597           | 0.494              | 16.10         | 17.68         | 219.15 |       | 608.0 |
| 321 | 16.091        | 22.678          | 17.489        | 13.081        | 10.089            | 2.516           | 2.607           | 0.497              | 16.16         | 17.74         | 219.51 |       | 609.8 |
| 322 | 16.150        | 22.757          | 17.544        | 13.123        | 10.125            | 2.525           | 2.617           | 0.500              | 16.22         | 17.79         | 219.86 |       | 611.6 |
| 323 | 16.209        | 22.835          | 17.599        | 13.165        | 10.161            | 2.534           | 2.626           | 0.503              | 16.28         | 17.85         | 220.21 |       | 613.4 |
| 324 | 16.268        | 22.914          | 17.655        | 13.206        | 10.197            | 2.544           | 2.636           | 0.507              | 16.34         | 17.90         | 220.57 |       | 615.2 |
| 325 | 16.327        | 22.993          | 17.710        | 13.248        | 10.233            | 2.553           | 2.646           | 0.510              | 16.40         | 17.96         | 220.92 |       | 617.0 |
| 326 | 16.387        | 23.071          | 17.765        | 13.290        | 10.269            | 2.562           | 2.656           | 0.513              | 16.46         | 18.02         | 221.27 |       | 618.8 |
| 327 | 16.446        | 23.150          | 17.820        | 13.331        | 10.305            | 2.571           | 2.666           | 0.517              | 16.52         | 18.07         | 221.63 |       | 620.6 |
| 328 | 16.505        | 23.228          | 17.876        | 13.373        | 10.341            | 2.581           | 2.676           | 0.520              | 16.58         | 18.13         | 221.98 |       | 622.4 |
| 329 | 16.564        | 23.307          | 17.931        | 13.415        | 10.377            | 2.590           | 2.686           | 0.523              | 16.64         | 18.18         | 222.33 |       | 624.2 |
| 330 | 16.624        | 23.386          | 17.986        | 13.457        | 10.413            | 2.599           | 2.696           | 0.527              | 16.70         | 18.24         | 222.68 |       | 626.0 |

| °C         | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F           |
|------------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------------|
| t90        | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90          |
| <b>331</b> | 16.683        | 23.464          | 18.041        | 13.498        | 10.449            | 2.609           | 2.706           | 0.530              | 16.76         | 18.30         | 223.04 |       | <b>627.8</b> |
| <b>332</b> | 16.742        | 23.543          | 18.097        | 13.540        | 10.485            | 2.618           | 2.716           | 0.533              | 16.82         | 18.35         | 223.39 |       | <b>629.6</b> |
| <b>333</b> | 16.802        | 23.622          | 18.152        | 13.582        | 10.521            | 2.627           | 2.726           | 0.537              | 16.88         | 18.41         | 223.74 |       | <b>631.4</b> |
| <b>334</b> | 16.861        | 23.701          | 18.207        | 13.624        | 10.557            | 2.636           | 2.736           | 0.540              | 16.94         | 18.46         | 224.09 |       | <b>633.2</b> |
| <b>335</b> | 16.921        | 23.780          | 18.262        | 13.665        | 10.593            | 2.646           | 2.746           | 0.544              | 17.00         | 18.52         | 224.45 |       | <b>635.0</b> |
| <b>336</b> | 16.980        | 23.858          | 18.318        | 13.707        | 10.629            | 2.655           | 2.756           | 0.547              | 17.07         | 18.58         | 224.80 |       | <b>636.8</b> |
| <b>337</b> | 17.040        | 23.937          | 18.373        | 13.749        | 10.665            | 2.664           | 2.766           | 0.550              | 17.13         | 18.63         | 225.15 |       | <b>638.6</b> |
| <b>338</b> | 17.100        | 24.016          | 18.428        | 13.791        | 10.701            | 2.674           | 2.776           | 0.554              | 17.19         | 18.69         | 225.50 |       | <b>640.4</b> |
| <b>339</b> | 17.159        | 24.095          | 18.483        | 13.833        | 10.737            | 2.683           | 2.786           | 0.557              | 17.24         | 18.74         | 225.85 |       | <b>642.2</b> |
| <b>340</b> | 17.219        | 24.174          | 18.538        | 13.874        | 10.774            | 2.692           | 2.796           | 0.561              | 17.31         | 18.80         | 226.21 |       | <b>644.0</b> |
| <b>341</b> | 17.279        | 24.253          | 18.594        | 13.916        | 10.810            | 2.702           | 2.806           | 0.564              | 17.37         | 18.86         | 226.56 |       | <b>645.8</b> |
| <b>342</b> | 17.339        | 24.332          | 18.649        | 13.958        | 10.846            | 2.711           | 2.816           | 0.568              | 17.43         | 18.91         | 226.91 |       | <b>647.6</b> |
| <b>343</b> | 17.399        | 24.411          | 18.704        | 14.000        | 10.882            | 2.720           | 2.826           | 0.571              | 17.49         | 18.97         | 227.26 |       | <b>649.4</b> |
| <b>344</b> | 17.458        | 24.490          | 18.759        | 14.042        | 10.918            | 2.730           | 2.836           | 0.575              | 17.55         | 19.02         | 227.61 |       | <b>651.2</b> |
| <b>345</b> | 17.518        | 24.569          | 18.814        | 14.084        | 10.955            | 2.739           | 2.846           | 0.578              | 17.61         | 19.08         | 227.96 |       | <b>653.0</b> |
| <b>346</b> | 17.578        | 24.648          | 18.870        | 14.126        | 10.991            | 2.748           | 2.856           | 0.582              | 17.68         | 19.14         | 228.31 |       | <b>654.8</b> |
| <b>347</b> | 17.638        | 24.727          | 18.925        | 14.167        | 11.027            | 2.758           | 2.866           | 0.585              | 17.74         | 19.19         | 228.66 |       | <b>656.6</b> |
| <b>348</b> | 17.698        | 24.806          | 18.980        | 14.209        | 11.064            | 2.767           | 2.876           | 0.589              | 17.80         | 19.25         | 229.02 |       | <b>658.4</b> |
| <b>349</b> | 17.759        | 24.885          | 19.035        | 14.251        | 11.100            | 2.776           | 2.886           | 0.592              | 17.86         | 19.30         | 229.37 |       | <b>660.2</b> |
| <b>350</b> | 17.819        | 24.964          | 19.090        | 14.293        | 11.136            | 2.786           | 2.896           | 0.596              | 17.92         | 19.36         | 229.72 |       | <b>662.0</b> |
| <b>351</b> | 17.879        | 25.044          | 19.146        | 14.335        | 11.173            | 2.795           | 2.906           | 0.599              | 17.98         | 19.42         | 230.07 |       | <b>663.8</b> |
| <b>352</b> | 17.939        | 25.123          | 19.201        | 14.377        | 11.209            | 2.805           | 2.916           | 0.603              | 18.04         | 19.47         | 230.42 |       | <b>665.6</b> |
| <b>353</b> | 17.999        | 25.202          | 19.256        | 14.419        | 11.245            | 2.814           | 2.926           | 0.607              | 18.10         | 19.53         | 230.77 |       | <b>667.4</b> |
| <b>354</b> | 18.060        | 25.281          | 19.311        | 14.461        | 11.282            | 2.823           | 2.937           | 0.610              | 18.16         | 19.58         | 231.12 |       | <b>669.2</b> |
| <b>355</b> | 18.120        | 25.360          | 19.366        | 14.503        | 11.318            | 2.833           | 2.947           | 0.614              | 18.22         | 19.64         | 231.47 |       | <b>671.0</b> |
| <b>356</b> | 18.180        | 25.440          | 19.422        | 14.545        | 11.355            | 2.842           | 2.957           | 0.617              | 18.29         | 19.70         | 231.82 |       | <b>672.8</b> |
| <b>357</b> | 18.241        | 25.519          | 19.477        | 14.587        | 11.391            | 2.851           | 2.967           | 0.621              | 18.35         | 19.75         | 232.17 |       | <b>674.6</b> |
| <b>358</b> | 18.301        | 25.598          | 19.532        | 14.629        | 11.428            | 2.861           | 2.977           | 0.625              | 18.41         | 19.81         | 232.52 |       | <b>676.4</b> |
| <b>359</b> | 18.362        | 25.678          | 19.587        | 14.671        | 11.464            | 2.870           | 2.987           | 0.628              | 18.47         | 19.86         | 232.87 |       | <b>678.2</b> |
| <b>360</b> | 18.422        | 25.757          | 19.642        | 14.713        | 11.501            | 2.880           | 2.997           | 0.632              | 18.53         | 19.92         | 233.21 |       | <b>680.0</b> |
| <b>361</b> | 18.483        | 25.836          | 19.697        | 14.755        | 11.537            | 2.889           | 3.007           | 0.636              | 18.59         | 19.98         | 233.56 |       | <b>681.8</b> |
| <b>362</b> | 18.543        | 25.916          | 19.753        | 14.797        | 11.574            | 2.899           | 3.018           | 0.639              | 18.65         | 20.03         | 233.91 |       | <b>683.6</b> |
| <b>363</b> | 18.604        | 25.995          | 19.808        | 14.839        | 11.610            | 2.908           | 3.028           | 0.643              | 18.71         | 20.09         | 234.26 |       | <b>685.4</b> |
| <b>364</b> | 18.665        | 26.075          | 19.863        | 14.881        | 11.647            | 2.917           | 3.038           | 0.647              | 18.77         | 20.14         | 234.61 |       | <b>687.2</b> |
| <b>365</b> | 18.725        | 26.154          | 19.918        | 14.923        | 11.683            | 2.927           | 3.048           | 0.650              | 18.83         | 20.20         | 234.96 |       | <b>689.0</b> |
| <b>366</b> | 18.786        | 26.233          | 19.973        | 14.965        | 11.720            | 2.936           | 3.058           | 0.654              | 18.89         | 20.26         | 235.31 |       | <b>690.8</b> |
| <b>367</b> | 18.847        | 26.313          | 20.028        | 15.007        | 11.757            | 2.946           | 3.068           | 0.658              | 18.96         | 20.31         | 235.66 |       | <b>692.6</b> |
| <b>368</b> | 18.908        | 26.392          | 20.083        | 15.049        | 11.793            | 2.955           | 3.079           | 0.662              | 19.02         | 20.37         | 236.00 |       | <b>694.4</b> |
| <b>369</b> | 18.969        | 26.472          | 20.139        | 15.091        | 11.830            | 2.965           | 3.089           | 0.665              | 19.08         | 20.42         | 236.35 |       | <b>696.2</b> |
| <b>370</b> | 19.030        | 26.552          | 20.194        | 15.133        | 11.867            | 2.974           | 3.099           | 0.669              | 19.14         | 20.48         | 236.70 |       | <b>698.0</b> |
| <b>371</b> | 19.091        | 26.631          | 20.249        | 15.175        | 11.903            | 2.983           | 3.109           | 0.673              | 19.20         | 20.54         | 237.05 |       | <b>699.8</b> |
| <b>372</b> | 19.152        | 26.711          | 20.304        | 15.217        | 11.940            | 2.993           | 3.119           | 0.677              | 19.26         | 20.59         | 237.40 |       | <b>701.6</b> |
| <b>373</b> | 19.213        | 26.790          | 20.359        | 15.259        | 11.977            | 3.002           | 3.130           | 0.680              | 19.33         | 20.65         | 237.74 |       | <b>703.4</b> |
| <b>374</b> | 19.274        | 26.870          | 20.414        | 15.301        | 12.013            | 3.012           | 3.140           | 0.684              | 19.39         | 20.70         | 238.09 |       | <b>705.2</b> |
| <b>375</b> | 19.335        | 26.950          | 20.469        | 15.343        | 12.050            | 3.021           | 3.150           | 0.688              | 19.45         | 20.76         | 238.44 |       | <b>707.0</b> |
| <b>376</b> | 19.396        | 27.029          | 20.525        | 15.385        | 12.087            | 3.031           | 3.160           | 0.692              | 19.51         | 20.82         | 238.79 |       | <b>708.8</b> |
| <b>377</b> | 19.457        | 27.109          | 20.580        | 15.427        | 12.124            | 3.040           | 3.171           | 0.696              | 19.57         | 20.87         | 239.13 |       | <b>710.6</b> |
| <b>378</b> | 19.518        | 27.189          | 20.635        | 15.469        | 12.160            | 3.050           | 3.181           | 0.700              | 19.64         | 20.93         | 239.48 |       | <b>712.4</b> |
| <b>379</b> | 19.579        | 27.268          | 20.690        | 15.511        | 12.197            | 3.059           | 3.191           | 0.703              | 19.70         | 20.98         | 239.83 |       | <b>714.2</b> |
| <b>380</b> | 19.641        | 27.348          | 20.745        | 15.554        | 12.234            | 3.069           | 3.201           | 0.707              | 19.76         | 21.04         | 240.18 |       | <b>716.0</b> |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90   |
| 381 | 19.702        | 27.428          | 20.800        | 15.596        | 12.271            | 3.078           | 3.212           | 0.711              | 19.82         | 21.10         | 240.52 |       | 717.8 |
| 382 | 19.763        | 27.507          | 20.855        | 15.638        | 12.308            | 3.088           | 3.222           | 0.715              | 19.89         | 21.15         | 240.87 |       | 719.6 |
| 383 | 19.825        | 27.587          | 20.911        | 15.680        | 12.345            | 3.097           | 3.232           | 0.719              | 19.95         | 21.21         | 241.22 |       | 721.4 |
| 384 | 19.886        | 27.667          | 20.966        | 15.722        | 12.382            | 3.107           | 3.242           | 0.723              | 20.01         | 21.26         | 241.56 |       | 723.2 |
| 385 | 19.947        | 27.747          | 21.021        | 15.764        | 12.418            | 3.116           | 3.253           | 0.727              | 20.07         | 21.32         | 241.91 |       | 725.0 |
| 386 | 20.009        | 27.827          | 21.076        | 15.806        | 12.455            | 3.126           | 3.263           | 0.731              | 20.13         | 21.38         | 242.26 |       | 726.8 |
| 387 | 20.070        | 27.907          | 21.131        | 15.849        | 12.492            | 3.135           | 3.273           | 0.735              | 20.19         | 21.43         | 242.60 |       | 728.6 |
| 388 | 20.132        | 27.986          | 21.186        | 15.891        | 12.529            | 3.145           | 3.284           | 0.738              | 20.26         | 21.49         | 242.95 |       | 730.4 |
| 389 | 20.193        | 28.066          | 21.241        | 15.933        | 12.566            | 3.154           | 3.294           | 0.742              | 20.32         | 21.54         | 243.29 |       | 732.2 |
| 390 | 20.255        | 28.146          | 21.297        | 15.975        | 12.603            | 3.164           | 3.304           | 0.746              | 20.38         | 21.60         | 243.64 |       | 734.0 |
| 391 | 20.317        | 28.226          | 21.352        | 16.017        | 12.640            | 3.173           | 3.315           | 0.750              | 20.44         | 21.66         | 243.99 |       | 735.8 |
| 392 | 20.378        | 28.306          | 21.407        | 16.059        | 12.677            | 3.183           | 3.325           | 0.754              | 20.50         | 21.71         | 244.33 |       | 737.6 |
| 393 | 20.440        | 28.386          | 21.462        | 16.102        | 12.714            | 3.192           | 3.335           | 0.758              | 20.57         | 21.77         | 244.68 |       | 739.4 |
| 394 | 20.502        | 28.466          | 21.517        | 16.144        | 12.751            | 3.202           | 3.346           | 0.762              | 20.63         | 21.82         | 245.02 |       | 741.2 |
| 395 | 20.563        | 28.546          | 21.572        | 16.186        | 12.788            | 3.212           | 3.356           | 0.766              | 20.69         | 21.88         | 245.37 |       | 743.0 |
| 396 | 20.625        | 28.626          | 21.627        | 16.228        | 12.825            | 3.221           | 3.366           | 0.770              | 20.75         | 21.94         | 245.71 |       | 744.8 |
| 397 | 20.687        | 28.706          | 21.683        | 16.270        | 12.862            | 3.231           | 3.377           | 0.774              | 20.81         | 21.99         | 246.06 |       | 746.6 |
| 398 | 20.748        | 28.786          | 21.738        | 16.313        | 12.899            | 3.240           | 3.387           | 0.778              | 20.88         | 22.05         | 246.40 |       | 748.4 |
| 399 | 20.810        | 28.866          | 21.793        | 16.355        | 12.937            | 3.250           | 3.397           | 0.782              | 20.94         | 22.10         | 246.75 |       | 750.2 |
| 400 | 20.872        | 28.946          | 21.848        | 16.397        | 12.974            | 3.259           | 3.408           | 0.787              | 21.00         | 22.16         | 247.09 |       | 752.0 |
| 401 |               | 29.026          | 21.903        | 16.439        | 13.011            | 3.269           | 3.418           | 0.791              | 21.06         | 22.22         | 247.44 |       | 753.8 |
| 402 |               | 29.106          | 21.958        | 16.482        | 13.048            | 3.278           | 3.428           | 0.795              | 21.12         | 22.27         | 247.78 |       | 755.6 |
| 403 |               | 29.186          | 22.014        | 16.524        | 13.085            | 3.288           | 3.439           | 0.799              | 21.19         | 22.33         | 248.13 |       | 757.4 |
| 404 |               | 29.266          | 22.069        | 16.566        | 13.122            | 3.298           | 3.449           | 0.803              | 21.25         | 22.38         | 248.47 |       | 759.2 |
| 405 |               | 29.346          | 22.124        | 16.608        | 13.159            | 3.307           | 3.460           | 0.807              | 21.31         | 22.44         | 248.81 |       | 761.0 |
| 406 |               | 29.427          | 22.179        | 16.651        | 13.197            | 3.317           | 3.470           | 0.811              | 21.37         | 22.50         | 249.16 |       | 762.8 |
| 407 |               | 29.507          | 22.234        | 16.693        | 13.234            | 3.326           | 3.480           | 0.815              | 21.43         | 22.55         | 249.50 |       | 764.6 |
| 408 |               | 29.587          | 22.289        | 16.735        | 13.271            | 3.336           | 3.491           | 0.819              | 21.50         | 22.61         | 249.85 |       | 766.4 |
| 409 |               | 29.667          | 22.345        | 16.778        | 13.308            | 3.346           | 3.501           | 0.824              | 21.56         | 22.66         | 250.19 |       | 768.2 |
| 410 |               | 29.747          | 22.400        | 16.820        | 13.346            | 3.355           | 3.512           | 0.828              | 21.62         | 22.72         | 250.53 |       | 770.0 |
| 411 |               | 29.827          | 22.455        | 16.862        | 13.383            | 3.365           | 3.522           | 0.832              | 21.68         | 22.78         | 250.88 |       | 771.8 |
| 412 |               | 29.908          | 22.510        | 16.904        | 13.420            | 3.374           | 3.533           | 0.836              | 21.75         | 22.83         | 251.22 |       | 773.6 |
| 413 |               | 29.988          | 22.565        | 16.947        | 13.457            | 3.384           | 3.543           | 0.840              | 21.81         | 22.89         | 251.56 |       | 775.4 |
| 414 |               | 30.068          | 22.620        | 16.989        | 13.495            | 3.394           | 3.553           | 0.844              | 21.87         | 22.95         | 251.91 |       | 777.2 |
| 415 |               | 30.148          | 22.676        | 17.031        | 13.532            | 3.403           | 3.564           | 0.849              | 21.93         | 23.00         | 252.25 |       | 779.0 |
| 416 |               | 30.229          | 22.731        | 17.074        | 13.569            | 3.413           | 3.574           | 0.853              | 22.00         | 23.06         | 252.59 |       | 780.8 |
| 417 |               | 30.309          | 22.786        | 17.116        | 13.607            | 3.423           | 3.585           | 0.857              | 22.06         | 23.12         | 252.93 |       | 782.6 |
| 418 |               | 30.389          | 22.841        | 17.158        | 13.644            | 3.432           | 3.595           | 0.861              | 22.12         | 23.18         | 253.28 |       | 784.4 |
| 419 |               | 30.470          | 22.896        | 17.201        | 13.682            | 3.442           | 3.606           | 0.866              | 22.19         | 23.23         | 253.62 |       | 786.2 |
| 420 |               | 30.550          | 22.952        | 17.243        | 13.719            | 3.451           | 3.616           | 0.870              | 22.25         | 23.29         | 253.96 |       | 788.0 |
| 421 |               | 30.630          | 23.007        | 17.285        | 13.756            | 3.461           | 3.627           | 0.874              | 22.31         | 23.35         | 254.30 |       | 789.8 |
| 422 |               | 30.711          | 23.062        | 17.328        | 13.794            | 3.471           | 3.637           | 0.878              | 22.38         | 23.40         | 254.65 |       | 791.6 |
| 423 |               | 30.791          | 23.117        | 17.370        | 13.831            | 3.480           | 3.648           | 0.883              | 22.44         | 23.46         | 254.99 |       | 793.4 |
| 424 |               | 30.871          | 23.172        | 17.413        | 13.869            | 3.490           | 3.658           | 0.887              | 22.50         | 23.52         | 255.33 |       | 795.2 |
| 425 |               | 30.952          | 23.228        | 17.455        | 13.906            | 3.500           | 3.669           | 0.891              | 22.56         | 23.57         | 255.67 |       | 797.0 |
| 426 |               | 31.032          | 23.283        | 17.497        | 13.944            | 3.509           | 3.679           | 0.896              | 22.63         | 23.63         | 256.01 |       | 798.8 |
| 427 |               | 31.112          | 23.338        | 17.540        | 13.981            | 3.519           | 3.690           | 0.900              | 22.69         | 23.69         | 256.35 |       | 800.6 |
| 428 |               | 31.193          | 23.393        | 17.582        | 14.019            | 3.529           | 3.700           | 0.904              | 22.75         | 23.74         | 256.70 |       | 802.4 |
| 429 |               | 31.273          | 23.449        | 17.624        | 14.056            | 3.538           | 3.711           | 0.909              | 22.82         | 23.80         | 257.04 |       | 804.2 |
| 430 |               | 31.354          | 23.504        | 17.667        | 14.094            | 3.548           | 3.721           | 0.913              | 22.88         | 23.86         | 257.38 |       | 806.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90   |
| 431 |               | 31.434          | 23.559        | 17.709        | 14.131            | 3.558           | 3.732           | 0.917              | 22.94         | 23.92         | 257.72 |       | 807.8 |
| 432 |               | 31.515          | 23.614        | 17.752        | 14.169            | 3.567           | 3.742           | 0.922              | 23.01         | 23.97         | 258.06 |       | 809.6 |
| 433 |               | 31.595          | 23.670        | 17.794        | 14.206            | 3.577           | 3.753           | 0.926              | 23.07         | 24.03         | 258.40 |       | 811.4 |
| 434 |               | 31.676          | 23.725        | 17.837        | 14.244            | 3.587           | 3.764           | 0.930              | 23.13         | 24.09         | 258.74 |       | 813.2 |
| 435 |               | 31.756          | 23.780        | 17.879        | 14.281            | 3.596           | 3.774           | 0.935              | 23.19         | 24.14         | 259.08 |       | 815.0 |
| 436 |               | 31.837          | 23.835        | 17.921        | 14.319            | 3.606           | 3.785           | 0.939              | 23.26         | 24.20         | 259.42 |       | 816.8 |
| 437 |               | 31.917          | 23.891        | 17.964        | 14.356            | 3.616           | 3.795           | 0.944              | 23.32         | 24.26         | 259.76 |       | 818.6 |
| 438 |               | 31.998          | 23.946        | 18.006        | 14.394            | 3.626           | 3.806           | 0.948              | 23.38         | 24.32         | 260.10 |       | 820.4 |
| 439 |               | 32.078          | 24.001        | 18.049        | 14.432            | 3.635           | 3.816           | 0.953              | 23.45         | 24.37         | 260.44 |       | 822.2 |
| 440 |               | 32.159          | 24.057        | 18.091        | 14.469            | 3.645           | 3.827           | 0.957              | 23.51         | 24.43         | 260.78 |       | 824.0 |
| 441 |               | 32.239          | 24.112        | 18.134        | 14.507            | 3.655           | 3.838           | 0.961              | 23.57         | 24.49         | 261.12 |       | 825.8 |
| 442 |               | 32.320          | 24.167        | 18.176        | 14.545            | 3.664           | 3.848           | 0.966              | 23.64         | 24.54         | 261.46 |       | 827.6 |
| 443 |               | 32.400          | 24.223        | 18.218        | 14.582            | 3.674           | 3.859           | 0.970              | 23.70         | 24.60         | 261.80 |       | 829.4 |
| 444 |               | 32.481          | 24.278        | 18.261        | 14.620            | 3.684           | 3.869           | 0.975              | 23.77         | 24.66         | 262.14 |       | 831.2 |
| 445 |               | 32.562          | 24.333        | 18.303        | 14.658            | 3.694           | 3.880           | 0.979              | 23.83         | 24.71         | 262.48 |       | 833.0 |
| 446 |               | 32.642          | 24.389        | 18.346        | 14.695            | 3.703           | 3.891           | 0.984              | 23.89         | 24.77         | 262.82 |       | 834.8 |
| 447 |               | 32.723          | 24.444        | 18.388        | 14.733            | 3.713           | 3.901           | 0.988              | 23.96         | 24.83         | 263.16 |       | 836.6 |
| 448 |               | 32.803          | 24.499        | 18.431        | 14.771            | 3.723           | 3.912           | 0.993              | 24.02         | 24.89         | 263.50 |       | 838.4 |
| 449 |               | 32.884          | 24.555        | 18.473        | 14.809            | 3.732           | 3.922           | 0.997              | 24.09         | 24.94         | 263.84 |       | 840.2 |
| 450 |               | 32.965          | 24.610        | 18.516        | 14.846            | 3.742           | 3.933           | 1.002              | 24.15         | 25.00         | 264.18 |       | 842.0 |
| 451 |               | 33.045          | 24.665        | 18.558        | 14.884            | 3.752           | 3.944           | 1.007              | 24.21         | 25.06         | 264.52 |       | 843.8 |
| 452 |               | 33.126          | 24.721        | 18.601        | 14.922            | 3.762           | 3.954           | 1.011              | 24.28         | 25.11         | 264.86 |       | 845.6 |
| 453 |               | 33.207          | 24.776        | 18.643        | 14.960            | 3.771           | 3.965           | 1.016              | 24.34         | 25.17         | 265.20 |       | 847.4 |
| 454 |               | 33.287          | 24.832        | 18.686        | 14.998            | 3.781           | 3.976           | 1.020              | 24.41         | 25.23         | 265.53 |       | 849.2 |
| 455 |               | 33.368          | 24.887        | 18.728        | 15.035            | 3.791           | 3.986           | 1.025              | 24.47         | 25.28         | 265.87 |       | 851.0 |
| 456 |               | 33.449          | 24.943        | 18.771        | 15.073            | 3.801           | 3.997           | 1.030              | 24.53         | 25.34         | 266.21 |       | 852.8 |
| 457 |               | 33.529          | 24.998        | 18.813        | 15.111            | 3.810           | 4.008           | 1.034              | 24.60         | 25.40         | 266.55 |       | 854.6 |
| 458 |               | 33.610          | 25.053        | 18.856        | 15.149            | 3.820           | 4.018           | 1.039              | 24.66         | 25.46         | 266.89 |       | 856.4 |
| 459 |               | 33.691          | 25.109        | 18.898        | 15.187            | 3.830           | 4.029           | 1.043              | 24.73         | 25.51         | 267.22 |       | 858.2 |
| 460 |               | 33.772          | 25.164        | 18.941        | 15.225            | 3.840           | 4.040           | 1.048              | 24.79         | 25.57         | 267.56 |       | 860.0 |
| 461 |               | 33.852          | 25.220        | 18.983        | 15.262            | 3.850           | 4.050           | 1.053              | 24.85         | 25.63         | 267.90 |       | 861.8 |
| 462 |               | 33.933          | 25.275        | 19.026        | 15.300            | 3.859           | 4.061           | 1.057              | 24.92         | 25.68         | 268.24 |       | 863.6 |
| 463 |               | 34.014          | 25.331        | 19.068        | 15.338            | 3.869           | 4.072           | 1.062              | 24.98         | 25.74         | 268.57 |       | 865.4 |
| 464 |               | 34.095          | 25.386        | 19.111        | 15.376            | 3.879           | 4.083           | 1.067              | 25.05         | 25.80         | 268.91 |       | 867.2 |
| 465 |               | 34.175          | 25.442        | 19.154        | 15.414            | 3.889           | 4.093           | 1.071              | 25.11         | 25.85         | 269.25 |       | 869.0 |
| 466 |               | 34.256          | 25.497        | 19.196        | 15.452            | 3.898           | 4.104           | 1.076              | 25.18         | 25.91         | 269.59 |       | 870.8 |
| 467 |               | 34.337          | 25.553        | 19.239        | 15.490            | 3.908           | 4.115           | 1.081              | 25.24         | 25.97         | 269.92 |       | 872.6 |
| 468 |               | 34.418          | 25.608        | 19.281        | 15.528            | 3.918           | 4.125           | 1.086              | 25.31         | 26.03         | 270.26 |       | 874.4 |
| 469 |               | 34.498          | 25.664        | 19.324        | 15.566            | 3.928           | 4.136           | 1.090              | 25.37         | 26.08         | 270.60 |       | 876.2 |
| 470 |               | 34.579          | 25.720        | 19.366        | 15.604            | 3.938           | 4.147           | 1.095              | 25.44         | 26.14         | 270.93 |       | 878.0 |
| 471 |               | 34.660          | 25.775        | 19.409        | 15.642            | 3.947           | 4.158           | 1.100              | 25.50         | 26.20         | 271.27 |       | 879.8 |
| 472 |               | 34.741          | 25.831        | 19.451        | 15.680            | 3.957           | 4.168           | 1.105              | 25.57         | 26.25         | 271.61 |       | 881.6 |
| 473 |               | 34.822          | 25.886        | 19.494        | 15.718            | 3.967           | 4.179           | 1.109              | 25.63         | 26.31         | 271.94 |       | 883.4 |
| 474 |               | 34.902          | 25.942        | 19.537        | 15.756            | 3.977           | 4.190           | 1.114              | 25.70         | 26.37         | 272.28 |       | 885.2 |
| 475 |               | 34.983          | 25.998        | 19.579        | 15.794            | 3.987           | 4.201           | 1.119              | 25.76         | 26.42         | 272.61 |       | 887.0 |
| 476 |               | 35.064          | 26.053        | 19.622        | 15.832            | 3.997           | 4.211           | 1.124              | 25.83         | 26.48         | 272.95 |       | 888.8 |
| 477 |               | 35.145          | 26.109        | 19.664        | 15.870            | 4.006           | 4.222           | 1.129              | 25.89         | 26.54         | 273.29 |       | 890.6 |
| 478 |               | 35.226          | 26.165        | 19.707        | 15.908            | 4.016           | 4.233           | 1.133              | 25.95         | 26.60         | 273.62 |       | 892.4 |
| 479 |               | 35.307          | 26.220        | 19.750        | 15.946            | 4.026           | 4.244           | 1.138              | 26.02         | 26.65         | 273.96 |       | 894.2 |
| 480 |               | 35.387          | 26.276        | 19.792        | 15.984            | 4.036           | 4.255           | 1.143              | 26.09         | 26.71         | 274.29 |       | 896.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F    |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|-------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90   |
| 481 |               | 35.468          | 26.332        | 19.835        | 16.022            | 4.046           | 4.265           | 1.148              | 26.16         | 26.77         | 274.63 |       | 897.8 |
| 482 |               | 35.549          | 26.387        | 19.877        | 16.060            | 4.056           | 4.276           | 1.153              | 26.22         | 26.82         | 274.96 |       | 899.6 |
| 483 |               | 35.630          | 26.443        | 19.920        | 16.099            | 4.065           | 4.287           | 1.158              | 26.29         | 26.88         | 275.30 |       | 901.4 |
| 484 |               | 35.711          | 26.499        | 19.962        | 16.137            | 4.075           | 4.298           | 1.163              | 26.35         | 26.94         | 275.63 |       | 903.2 |
| 485 |               | 35.792          | 26.555        | 20.005        | 16.175            | 4.085           | 4.309           | 1.167              | 26.42         | 26.99         | 275.97 |       | 905.0 |
| 486 |               | 35.873          | 26.610        | 20.048        | 16.213            | 4.095           | 4.319           | 1.172              | 26.49         | 27.05         | 276.30 |       | 906.8 |
| 487 |               | 35.954          | 26.666        | 20.090        | 16.251            | 4.105           | 4.330           | 1.177              | 26.55         | 27.11         | 276.64 |       | 908.6 |
| 488 |               | 36.034          | 26.722        | 20.133        | 16.289            | 4.115           | 4.341           | 1.182              | 26.62         | 27.17         | 276.97 |       | 910.4 |
| 489 |               | 36.115          | 26.778        | 20.175        | 16.327            | 4.125           | 4.352           | 1.187              | 26.68         | 27.22         | 277.31 |       | 912.2 |
| 490 |               | 36.196          | 26.834        | 20.218        | 16.366            | 4.134           | 4.363           | 1.192              | 26.75         | 27.28         | 277.64 |       | 914.0 |
| 491 |               | 36.277          | 26.889        | 20.261        | 16.404            | 4.144           | 4.373           | 1.197              | 26.82         | 27.34         | 277.98 |       | 915.8 |
| 492 |               | 36.358          | 26.945        | 20.303        | 16.442            | 4.154           | 4.384           | 1.202              | 26.88         | 27.39         | 278.31 |       | 917.6 |
| 493 |               | 36.439          | 27.001        | 20.346        | 16.480            | 4.164           | 4.395           | 1.207              | 26.95         | 27.45         | 278.64 |       | 919.4 |
| 494 |               | 36.520          | 27.057        | 20.389        | 16.518            | 4.174           | 4.406           | 1.212              | 27.01         | 27.51         | 278.98 |       | 921.2 |
| 495 |               | 36.601          | 27.113        | 20.431        | 16.557            | 4.184           | 4.417           | 1.217              | 27.08         | 27.56         | 279.31 |       | 923.0 |
| 496 |               | 36.682          | 27.169        | 20.474        | 16.595            | 4.194           | 4.428           | 1.222              | 27.15         | 27.62         | 279.64 |       | 924.8 |
| 497 |               | 36.763          | 27.225        | 20.516        | 16.633            | 4.204           | 4.439           | 1.227              | 27.21         | 27.68         | 279.98 |       | 926.6 |
| 498 |               | 36.843          | 27.281        | 20.559        | 16.671            | 4.213           | 4.449           | 1.232              | 27.28         | 27.74         | 280.31 |       | 928.4 |
| 499 |               | 36.924          | 27.337        | 20.602        | 16.710            | 4.223           | 4.460           | 1.237              | 27.34         | 27.79         | 280.64 |       | 930.2 |
| 500 |               | 37.005          | 27.393        | 20.644        | 16.748            | 4.233           | 4.471           | 1.242              | 27.41         | 27.85         | 280.98 |       | 932.0 |
| 501 |               | 37.086          | 27.449        | 20.687        | 16.786            | 4.243           | 4.482           | 1.247              | 27.48         | 27.91         | 281.31 |       | 933.8 |
| 502 |               | 37.167          | 27.505        | 20.730        | 16.824            | 4.253           | 4.493           | 1.252              | 27.54         | 27.97         | 281.64 |       | 935.6 |
| 503 |               | 37.248          | 27.561        | 20.772        | 16.863            | 4.263           | 4.504           | 1.257              | 27.61         | 28.02         | 281.98 |       | 937.4 |
| 504 |               | 37.329          | 27.617        | 20.815        | 16.901            | 4.273           | 4.515           | 1.262              | 27.68         | 28.08         | 282.31 |       | 939.2 |
| 505 |               | 37.410          | 27.673        | 20.857        | 16.939            | 4.283           | 4.526           | 1.267              | 27.74         | 28.14         | 282.64 |       | 941.0 |
| 506 |               | 37.491          | 27.729        | 20.900        | 16.978            | 4.293           | 4.537           | 1.272              | 27.81         | 28.20         | 282.97 |       | 942.8 |
| 507 |               | 37.572          | 27.785        | 20.943        | 17.016            | 4.303           | 4.548           | 1.277              | 27.88         | 28.26         | 283.31 |       | 944.6 |
| 508 |               | 37.653          | 27.841        | 20.985        | 17.054            | 4.313           | 4.558           | 1.282              | 27.95         | 28.31         | 283.64 |       | 946.4 |
| 509 |               | 37.734          | 27.897        | 21.028        | 17.093            | 4.323           | 4.569           | 1.288              | 28.01         | 28.37         | 283.97 |       | 948.2 |
| 510 |               | 37.815          | 27.953        | 21.071        | 17.131            | 4.332           | 4.580           | 1.293              | 28.08         | 28.43         | 284.30 |       | 950.0 |
| 511 |               | 37.896          | 28.010        | 21.113        | 17.169            | 4.342           | 4.591           | 1.298              | 28.15         | 28.49         | 284.63 |       | 951.8 |
| 512 |               | 37.977          | 28.066        | 21.156        | 17.208            | 4.352           | 4.602           | 1.303              | 28.21         | 28.55         | 284.97 |       | 953.6 |
| 513 |               | 38.058          | 28.122        | 21.199        | 17.246            | 4.362           | 4.613           | 1.308              | 28.28         | 28.60         | 285.30 |       | 955.4 |
| 514 |               | 38.139          | 28.178        | 21.241        | 17.285            | 4.372           | 4.624           | 1.313              | 28.35         | 28.66         | 285.63 |       | 957.2 |
| 515 |               | 38.220          | 28.234        | 21.284        | 17.323            | 4.382           | 4.635           | 1.318              | 28.41         | 28.72         | 285.96 |       | 959.0 |
| 516 |               | 38.300          | 28.291        | 21.326        | 17.361            | 4.392           | 4.646           | 1.324              | 28.48         | 28.78         | 286.29 |       | 960.8 |
| 517 |               | 38.381          | 28.347        | 21.369        | 17.400            | 4.402           | 4.657           | 1.329              | 28.55         | 28.84         | 286.62 |       | 962.6 |
| 518 |               | 38.462          | 28.403        | 21.412        | 17.438            | 4.412           | 4.668           | 1.334              | 28.62         | 28.89         | 286.95 |       | 964.4 |
| 519 |               | 38.543          | 28.460        | 21.454        | 17.477            | 4.422           | 4.679           | 1.339              | 28.68         | 28.95         | 287.29 |       | 966.2 |
| 520 |               | 38.624          | 28.516        | 21.497        | 17.515            | 4.432           | 4.690           | 1.344              | 28.75         | 29.01         | 287.62 |       | 968.0 |
| 521 |               | 38.705          | 28.572        | 21.540        | 17.554            | 4.442           | 4.701           | 1.350              | 28.82         | 29.07         | 287.95 |       | 969.8 |
| 522 |               | 38.786          | 28.629        | 21.582        | 17.592            | 4.452           | 4.712           | 1.355              | 28.89         | 29.13         | 288.28 |       | 971.6 |
| 523 |               | 38.867          | 28.685        | 21.625        | 17.630            | 4.462           | 4.723           | 1.360              | 28.95         | 29.18         | 288.61 |       | 973.4 |
| 524 |               | 38.948          | 28.741        | 21.668        | 17.669            | 4.472           | 4.734           | 1.365              | 29.02         | 29.24         | 288.94 |       | 975.2 |
| 525 |               | 39.029          | 28.798        | 21.710        | 17.707            | 4.482           | 4.745           | 1.371              | 29.09         | 29.30         | 289.27 |       | 977.0 |
| 526 |               | 39.110          | 28.854        | 21.753        | 17.746            | 4.492           | 4.756           | 1.376              | 29.16         | 29.36         | 289.60 |       | 978.8 |
| 527 |               | 39.191          | 28.911        | 21.796        | 17.784            | 4.502           | 4.767           | 1.381              | 29.23         | 29.42         | 289.93 |       | 980.6 |
| 528 |               | 39.272          | 28.967        | 21.838        | 17.823            | 4.512           | 4.778           | 1.387              | 29.29         | 29.47         | 290.26 |       | 982.4 |
| 529 |               | 39.353          | 29.024        | 21.881        | 17.861            | 4.522           | 4.789           | 1.392              | 29.36         | 29.53         | 290.59 |       | 984.2 |
| 530 |               | 39.434          | 29.080        | 21.924        | 17.900            | 4.532           | 4.800           | 1.397              | 29.43         | 29.59         | 290.92 |       | 986.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 531 |               | 39.515          | 29.137        | 21.966        | 17.938            | 4.542           | 4.811           | 1.402              | 29.50         | 29.65         | 291.25 |       | 987.8  |
| 532 |               | 39.596          | 29.194        | 22.009        | 17.977            | 4.552           | 4.822           | 1.408              | 29.57         | 29.71         | 291.58 |       | 989.6  |
| 533 |               | 39.677          | 29.250        | 22.052        | 18.016            | 4.562           | 4.833           | 1.413              | 29.63         | 29.76         | 291.91 |       | 991.4  |
| 534 |               | 39.758          | 29.307        | 22.094        | 18.054            | 4.572           | 4.844           | 1.418              | 29.70         | 29.82         | 292.24 |       | 993.2  |
| 535 |               | 39.839          | 29.363        | 22.137        | 18.093            | 4.582           | 4.855           | 1.424              | 29.77         | 29.88         | 292.56 |       | 995.0  |
| 536 |               | 39.920          | 29.420        | 22.179        | 18.131            | 4.592           | 4.866           | 1.429              | 29.84         | 29.94         | 292.89 |       | 996.8  |
| 537 |               | 40.001          | 29.477        | 22.222        | 18.170            | 4.602           | 4.877           | 1.435              | 29.91         | 30.00         | 293.22 |       | 998.6  |
| 538 |               | 40.082          | 29.534        | 22.265        | 18.208            | 4.612           | 4.888           | 1.440              | 29.97         | 30.05         | 293.55 |       | 1000.4 |
| 539 |               | 40.163          | 29.590        | 22.307        | 18.247            | 4.622           | 4.899           | 1.445              | 30.04         | 30.11         | 293.88 |       | 1002.2 |
| 540 |               | 40.243          | 29.647        | 22.350        | 18.286            | 4.632           | 4.910           | 1.451              | 30.11         | 30.17         | 294.21 |       | 1004.0 |
| 541 |               | 40.324          | 29.704        | 22.393        | 18.324            | 4.642           | 4.922           | 1.456              | 30.18         | 30.23         | 294.54 |       | 1005.8 |
| 542 |               | 40.405          | 29.761        | 22.435        | 18.363            | 4.652           | 4.933           | 1.462              | 30.25         | 30.29         | 294.86 |       | 1007.6 |
| 543 |               | 40.486          | 29.818        | 22.478        | 18.401            | 4.662           | 4.944           | 1.467              | 30.32         | 30.34         | 295.19 |       | 1009.4 |
| 544 |               | 40.567          | 29.874        | 22.521        | 18.440            | 4.672           | 4.955           | 1.472              | 30.39         | 30.40         | 295.52 |       | 1011.2 |
| 545 |               | 40.648          | 29.931        | 22.563        | 18.479            | 4.682           | 4.966           | 1.478              | 30.45         | 30.46         | 295.85 |       | 1013.0 |
| 546 |               | 40.729          | 29.988        | 22.606        | 18.517            | 4.692           | 4.977           | 1.483              | 30.52         | 30.52         | 296.18 |       | 1014.8 |
| 547 |               | 40.810          | 30.045        | 22.649        | 18.556            | 4.702           | 4.988           | 1.489              | 30.59         | 30.58         | 296.50 |       | 1016.6 |
| 548 |               | 40.891          | 30.102        | 22.691        | 18.595            | 4.712           | 4.999           | 1.494              | 30.66         | 30.63         | 296.83 |       | 1018.4 |
| 549 |               | 40.972          | 30.159        | 22.734        | 18.633            | 4.722           | 5.010           | 1.500              | 30.73         | 30.69         | 297.16 |       | 1020.2 |
| 550 |               | 41.053          | 30.216        | 22.776        | 18.672            | 4.732           | 5.021           | 1.505              | 30.80         | 30.75         | 297.49 |       | 1022.0 |
| 551 |               | 41.134          | 30.273        | 22.819        | 18.711            | 4.742           | 5.033           | 1.511              | 30.87         | 30.81         | 297.81 |       | 1023.8 |
| 552 |               | 41.215          | 30.330        | 22.862        | 18.749            | 4.752           | 5.044           | 1.516              | 30.94         | 30.87         | 298.14 |       | 1025.6 |
| 553 |               | 41.296          | 30.387        | 22.904        | 18.788            | 4.762           | 5.055           | 1.522              | 31.01         | 30.92         | 298.47 |       | 1027.4 |
| 554 |               | 41.377          | 30.444        | 22.947        | 18.827            | 4.772           | 5.066           | 1.527              | 31.08         | 30.98         | 298.80 |       | 1029.2 |
| 555 |               | 41.457          | 30.502        | 22.990        | 18.865            | 4.782           | 5.077           | 1.533              | 31.14         | 31.04         | 299.12 |       | 1031.0 |
| 556 |               | 41.538          | 30.559        | 23.032        | 18.904            | 4.793           | 5.088           | 1.539              | 31.21         | 31.10         | 299.45 |       | 1032.8 |
| 557 |               | 41.619          | 30.616        | 23.075        | 18.943            | 4.803           | 5.099           | 1.544              | 31.28         | 31.16         | 299.78 |       | 1034.6 |
| 558 |               | 41.700          | 30.673        | 23.117        | 18.982            | 4.813           | 5.111           | 1.550              | 31.35         | 31.21         | 300.10 |       | 1036.4 |
| 559 |               | 41.781          | 30.730        | 23.160        | 19.020            | 4.823           | 5.122           | 1.555              | 31.42         | 31.27         | 300.43 |       | 1038.2 |
| 560 |               | 41.862          | 30.788        | 23.203        | 19.059            | 4.833           | 5.133           | 1.561              | 31.49         | 31.33         | 300.75 |       | 1040.0 |
| 561 |               | 41.943          | 30.845        | 23.245        | 19.098            | 4.843           | 5.144           | 1.566              | 31.56         | 31.39         | 301.08 |       | 1041.8 |
| 562 |               | 42.024          | 30.902        | 23.288        | 19.136            | 4.853           | 5.155           | 1.572              | 31.63         | 31.45         | 301.41 |       | 1043.6 |
| 563 |               | 42.105          | 30.960        | 23.331        | 19.175            | 4.863           | 5.166           | 1.578              | 31.70         | 31.50         | 301.73 |       | 1045.4 |
| 564 |               | 42.185          | 31.017        | 23.373        | 19.214            | 4.873           | 5.178           | 1.583              | 31.77         | 31.56         | 302.06 |       | 1047.2 |
| 565 |               | 42.266          | 31.074        | 23.416        | 19.253            | 4.883           | 5.189           | 1.589              | 31.84         | 31.62         | 302.38 |       | 1049.0 |
| 566 |               | 42.347          | 31.132        | 23.458        | 19.292            | 4.893           | 5.200           | 1.595              | 31.91         | 31.68         | 302.71 |       | 1050.8 |
| 567 |               | 42.428          | 31.189        | 23.501        | 19.330            | 4.904           | 5.211           | 1.600              | 31.98         | 31.74         | 303.03 |       | 1052.6 |
| 568 |               | 42.509          | 31.247        | 23.544        | 19.369            | 4.914           | 5.222           | 1.606              | 32.05         | 31.79         | 303.36 |       | 1054.4 |
| 569 |               | 42.590          | 31.304        | 23.586        | 19.408            | 4.924           | 5.234           | 1.612              | 32.12         | 31.85         | 303.69 |       | 1056.2 |
| 570 |               | 42.671          | 31.362        | 23.629        | 19.447            | 4.934           | 5.245           | 1.617              | 32.19         | 31.91         | 304.01 |       | 1058.0 |
| 571 |               | 42.751          | 31.419        | 23.671        | 19.485            | 4.944           | 5.256           | 1.623              | 32.26         | 31.97         | 304.34 |       | 1059.8 |
| 572 |               | 42.832          | 31.477        | 23.714        | 19.524            | 4.954           | 5.267           | 1.629              | 32.33         | 32.03         | 304.66 |       | 1061.6 |
| 573 |               | 42.913          | 31.535        | 23.757        | 19.563            | 4.964           | 5.279           | 1.634              | 32.40         | 32.08         | 304.98 |       | 1063.4 |
| 574 |               | 42.994          | 31.592        | 23.799        | 19.602            | 4.974           | 5.290           | 1.640              | 32.47         | 32.14         | 305.31 |       | 1065.2 |
| 575 |               | 43.075          | 31.650        | 23.842        | 19.641            | 4.984           | 5.301           | 1.646              | 32.54         | 32.20         | 305.63 |       | 1067.0 |
| 576 |               | 43.156          | 31.708        | 23.884        | 19.680            | 4.995           | 5.312           | 1.652              | 32.61         | 32.26         | 305.96 |       | 1068.8 |
| 577 |               | 43.236          | 31.766        | 23.927        | 19.718            | 5.005           | 5.323           | 1.657              | 32.68         | 32.32         | 306.28 |       | 1070.6 |
| 578 |               | 43.317          | 31.823        | 23.970        | 19.757            | 5.015           | 5.335           | 1.663              | 32.75         | 32.37         | 306.61 |       | 1072.4 |
| 579 |               | 43.398          | 31.881        | 24.012        | 19.796            | 5.025           | 5.346           | 1.669              | 32.82         | 32.43         | 306.93 |       | 1074.2 |
| 580 |               | 43.479          | 31.939        | 24.055        | 19.835            | 5.035           | 5.357           | 1.675              | 32.89         | 32.49         | 307.25 |       | 1076.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 581 |               | 43.560          | 31.997        | 24.097        | 19.874            | 5.045           | 5.369           | 1.680              | 32.96         | 32.55         | 307.58 |       | 1077.8 |
| 582 |               | 43.640          | 32.055        | 24.140        | 19.913            | 5.055           | 5.380           | 1.686              | 33.03         | 32.61         | 307.90 |       | 1079.6 |
| 583 |               | 43.721          | 32.113        | 24.182        | 19.952            | 5.066           | 5.391           | 1.692              | 33.10         | 32.66         | 308.23 |       | 1081.4 |
| 584 |               | 43.802          | 32.171        | 24.225        | 19.990            | 5.076           | 5.402           | 1.698              | 33.17         | 32.72         | 308.55 |       | 1083.2 |
| 585 |               | 43.883          | 32.229        | 24.267        | 20.029            | 5.086           | 5.414           | 1.704              | 33.24         | 32.78         | 308.87 |       | 1085.0 |
| 586 |               | 43.963          | 32.287        | 24.310        | 20.068            | 5.096           | 5.425           | 1.709              | 33.32         | 32.84         | 309.20 |       | 1086.8 |
| 587 |               | 44.044          | 32.345        | 24.353        | 20.107            | 5.106           | 5.436           | 1.715              | 33.39         | 32.90         | 309.52 |       | 1088.6 |
| 588 |               | 44.125          | 32.403        | 24.395        | 20.146            | 5.116           | 5.448           | 1.721              | 33.46         | 32.96         | 309.84 |       | 1090.4 |
| 589 |               | 44.206          | 32.461        | 24.438        | 20.185            | 5.127           | 5.459           | 1.727              | 33.53         | 33.02         | 310.16 |       | 1092.2 |
| 590 |               | 44.286          | 32.519        | 24.480        | 20.224            | 5.137           | 5.470           | 1.733              | 33.60         | 33.08         | 310.49 |       | 1094.0 |
| 591 |               | 44.367          | 32.577        | 24.523        | 20.263            | 5.147           | 5.481           | 1.739              | 33.67         | 33.14         | 310.81 |       | 1095.8 |
| 592 |               | 44.448          | 32.636        | 24.565        | 20.302            | 5.157           | 5.493           | 1.745              | 33.74         | 33.20         | 311.13 |       | 1097.6 |
| 593 |               | 44.529          | 32.694        | 24.608        | 20.341            | 5.167           | 5.504           | 1.750              | 33.81         | 33.26         | 311.45 |       | 1099.4 |
| 594 |               | 44.609          | 32.752        | 24.650        | 20.379            | 5.177           | 5.515           | 1.756              | 33.88         | 33.32         | 311.78 |       | 1101.2 |
| 595 |               | 44.690          | 32.810        | 24.693        | 20.418            | 5.188           | 5.527           | 1.762              | 33.95         | 33.38         | 312.10 |       | 1103.0 |
| 596 |               | 44.771          | 32.869        | 24.735        | 20.457            | 5.198           | 5.538           | 1.768              | 34.03         | 33.43         | 312.42 |       | 1104.8 |
| 597 |               | 44.851          | 32.927        | 24.778        | 20.496            | 5.208           | 5.549           | 1.774              | 34.10         | 33.49         | 312.74 |       | 1106.6 |
| 598 |               | 44.932          | 32.985        | 24.820        | 20.535            | 5.218           | 5.561           | 1.780              | 34.17         | 33.55         | 313.06 |       | 1108.4 |
| 599 |               | 45.013          | 33.044        | 24.863        | 20.574            | 5.228           | 5.572           | 1.786              | 34.24         | 33.61         | 313.39 |       | 1110.2 |
| 600 |               | 45.093          | 33.102        | 24.905        | 20.613            | 5.239           | 5.583           | 1.792              | 34.31         | 33.67         | 313.71 |       | 1112.0 |
| 601 |               | 45.174          | 33.161        | 24.948        | 20.652            | 5.249           | 5.595           | 1.798              |               | 33.73         | 314.03 |       | 1113.8 |
| 602 |               | 45.255          | 33.219        | 24.990        | 20.691            | 5.259           | 5.606           | 1.804              |               | 33.79         | 314.35 |       | 1115.6 |
| 603 |               | 45.335          | 33.278        | 25.033        | 20.730            | 5.269           | 5.618           | 1.810              |               | 33.85         | 314.67 |       | 1117.4 |
| 604 |               | 45.416          | 33.337        | 25.075        | 20.769            | 5.280           | 5.629           | 1.816              |               | 33.91         | 314.99 |       | 1119.2 |
| 605 |               | 45.497          | 33.395        | 25.118        | 20.808            | 5.290           | 5.640           | 1.822              |               | 33.97         | 315.31 |       | 1121.0 |
| 606 |               | 45.577          | 33.454        | 25.160        | 20.847            | 5.300           | 5.652           | 1.828              |               | 34.02         | 315.64 |       | 1122.8 |
| 607 |               | 45.658          | 33.513        | 25.203        | 20.886            | 5.310           | 5.663           | 1.834              |               | 34.08         | 315.96 |       | 1124.6 |
| 608 |               | 45.738          | 33.571        | 25.245        | 20.925            | 5.320           | 5.674           | 1.840              |               | 34.14         | 316.28 |       | 1126.4 |
| 609 |               | 45.819          | 33.630        | 25.288        | 20.964            | 5.331           | 5.686           | 1.846              |               | 34.20         | 316.60 |       | 1128.2 |
| 610 |               | 45.900          | 33.689        | 25.330        | 21.003            | 5.341           | 5.697           | 1.852              |               | 34.26         | 316.92 |       | 1130.0 |
| 611 |               | 45.980          | 33.748        | 25.373        | 21.042            | 5.351           | 5.709           | 1.858              |               | 34.32         | 317.24 |       | 1131.8 |
| 612 |               | 46.061          | 33.807        | 25.415        | 21.081            | 5.361           | 5.720           | 1.864              |               | 34.38         | 317.56 |       | 1133.6 |
| 613 |               | 46.141          | 33.866        | 25.458        | 21.120            | 5.372           | 5.731           | 1.870              |               | 34.44         | 317.88 |       | 1135.4 |
| 614 |               | 46.222          | 33.925        | 25.500        | 21.159            | 5.382           | 5.743           | 1.876              |               | 34.50         | 318.20 |       | 1137.2 |
| 615 |               | 46.302          | 33.984        | 25.543        | 21.198            | 5.392           | 5.754           | 1.882              |               | 34.56         | 318.52 |       | 1139.0 |
| 616 |               | 46.383          | 34.043        | 25.585        | 21.237            | 5.402           | 5.766           | 1.888              |               | 34.61         | 318.84 |       | 1140.8 |
| 617 |               | 46.463          | 34.102        | 25.627        | 21.276            | 5.413           | 5.777           | 1.894              |               | 34.67         | 319.16 |       | 1142.6 |
| 618 |               | 46.544          | 34.161        | 25.670        | 21.315            | 5.423           | 5.789           | 1.901              |               | 34.73         | 319.48 |       | 1144.4 |
| 619 |               | 46.624          | 34.220        | 25.712        | 21.354            | 5.433           | 5.800           | 1.907              |               | 34.79         | 319.80 |       | 1146.2 |
| 620 |               | 46.705          | 34.279        | 25.755        | 21.393            | 5.443           | 5.812           | 1.913              |               | 34.85         | 320.12 |       | 1148.0 |
| 621 |               | 46.785          | 34.338        | 25.797        | 21.432            | 5.454           | 5.823           | 1.919              |               | 34.91         | 320.43 |       | 1149.8 |
| 622 |               | 46.866          | 34.397        | 25.840        | 21.471            | 5.464           | 5.834           | 1.925              |               | 34.97         | 320.75 |       | 1151.6 |
| 623 |               | 46.946          | 34.457        | 25.882        | 21.510            | 5.474           | 5.846           | 1.931              |               | 35.03         | 321.07 |       | 1153.4 |
| 624 |               | 47.027          | 34.516        | 25.924        | 21.549            | 5.485           | 5.857           | 1.937              |               | 35.09         | 321.39 |       | 1155.2 |
| 625 |               | 47.107          | 34.575        | 25.967        | 21.588            | 5.495           | 5.869           | 1.944              |               | 35.15         | 321.71 |       | 1157.0 |
| 626 |               | 47.188          | 34.635        | 26.009        | 21.628            | 5.505           | 5.880           | 1.950              |               | 35.20         | 322.03 |       | 1158.8 |
| 627 |               | 47.268          | 34.694        | 26.052        | 21.667            | 5.515           | 5.892           | 1.956              |               | 35.26         | 322.35 |       | 1160.6 |
| 628 |               | 47.349          | 34.754        | 26.094        | 21.706            | 5.526           | 5.903           | 1.962              |               | 35.32         | 322.67 |       | 1162.4 |
| 629 |               | 47.429          | 34.813        | 26.136        | 21.745            | 5.536           | 5.915           | 1.968              |               | 35.38         | 322.98 |       | 1164.2 |
| 630 |               | 47.509          | 34.873        | 26.179        | 21.784            | 5.546           | 5.926           | 1.975              |               | 35.44         | 323.30 |       | 1166.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 631 |               | 47.590          | 34.932        | 26.221        | 21.823            | 5.557           | 5.938           | 1.981              |               | 35.50         | 323.62 |       | 1167.8 |
| 632 |               | 47.670          | 34.992        | 26.263        | 21.862            | 5.567           | 5.949           | 1.987              |               | 35.56         | 323.94 |       | 1169.6 |
| 633 |               | 47.751          | 35.051        | 26.306        | 21.901            | 5.577           | 5.961           | 1.993              |               | 35.62         | 324.26 |       | 1171.4 |
| 634 |               | 47.831          | 35.111        | 26.348        | 21.940            | 5.588           | 5.972           | 1.999              |               | 35.68         | 324.57 |       | 1173.2 |
| 635 |               | 47.911          | 35.171        | 26.390        | 21.979            | 5.598           | 5.984           | 2.006              |               | 35.74         | 324.89 |       | 1175.0 |
| 636 |               | 47.992          | 35.230        | 26.433        | 22.018            | 5.608           | 5.995           | 2.012              |               | 35.80         | 325.21 |       | 1176.8 |
| 637 |               | 48.072          | 35.290        | 26.475        | 22.058            | 5.618           | 6.007           | 2.018              |               | 35.86         | 325.53 |       | 1178.6 |
| 638 |               | 48.152          | 35.350        | 26.517        | 22.097            | 5.629           | 6.018           | 2.025              |               | 35.92         | 325.84 |       | 1180.4 |
| 639 |               | 48.233          | 35.410        | 26.560        | 22.136            | 5.639           | 6.030           | 2.031              |               | 35.98         | 326.16 |       | 1182.2 |
| 640 |               | 48.313          | 35.470        | 26.602        | 22.175            | 5.649           | 6.041           | 2.037              |               | 36.04         | 326.48 |       | 1184.0 |
| 641 |               | 48.393          | 35.530        | 26.644        | 22.214            | 5.660           | 6.053           | 2.043              |               | 36.10         | 326.79 |       | 1185.8 |
| 642 |               | 48.474          | 35.590        | 26.687        | 22.253            | 5.670           | 6.065           | 2.050              |               | 36.16         | 327.11 |       | 1187.6 |
| 643 |               | 48.554          | 35.650        | 26.729        | 22.292            | 5.680           | 6.076           | 2.056              |               | 36.22         | 327.43 |       | 1189.4 |
| 644 |               | 48.634          | 35.710        | 26.771        | 22.331            | 5.691           | 6.088           | 2.062              |               | 36.28         | 327.74 |       | 1191.2 |
| 645 |               | 48.715          | 35.770        | 26.814        | 22.370            | 5.701           | 6.099           | 2.069              |               | 36.34         | 328.06 |       | 1193.0 |
| 646 |               | 48.795          | 35.830        | 26.856        | 22.410            | 5.712           | 6.111           | 2.075              |               | 36.40         | 328.38 |       | 1194.8 |
| 647 |               | 48.875          | 35.890        | 26.898        | 22.449            | 5.722           | 6.122           | 2.082              |               | 36.46         | 328.69 |       | 1196.6 |
| 648 |               | 48.955          | 35.950        | 26.940        | 22.488            | 5.732           | 6.134           | 2.088              |               | 36.52         | 329.01 |       | 1198.4 |
| 649 |               | 49.035          | 36.010        | 26.983        | 22.527            | 5.743           | 6.146           | 2.094              |               | 36.58         | 329.32 |       | 1200.2 |
| 650 |               | 49.116          | 36.071        | 27.025        | 22.566            | 5.753           | 6.157           | 2.101              |               | 36.64         | 329.64 |       | 1202.0 |
| 651 |               | 49.196          | 36.131        | 27.067        | 22.605            | 5.763           | 6.169           | 2.107              |               | 36.70         | 329.96 |       | 1203.8 |
| 652 |               | 49.276          | 36.191        | 27.109        | 22.644            | 5.774           | 6.180           | 2.113              |               | 36.76         | 330.27 |       | 1205.6 |
| 653 |               | 49.356          | 36.252        | 27.152        | 22.684            | 5.784           | 6.192           | 2.120              |               | 36.82         | 330.59 |       | 1207.4 |
| 654 |               | 49.436          | 36.312        | 27.194        | 22.723            | 5.794           | 6.204           | 2.126              |               | 36.88         | 330.90 |       | 1209.2 |
| 655 |               | 49.517          | 36.373        | 27.236        | 22.762            | 5.805           | 6.215           | 2.133              |               | 36.95         | 331.22 |       | 1211.0 |
| 656 |               | 49.597          | 36.433        | 27.278        | 22.801            | 5.815           | 6.227           | 2.139              |               | 37.01         | 331.53 |       | 1212.8 |
| 657 |               | 49.677          | 36.494        | 27.320        | 22.840            | 5.826           | 6.238           | 2.146              |               | 37.07         | 331.85 |       | 1214.6 |
| 658 |               | 49.757          | 36.554        | 27.363        | 22.879            | 5.836           | 6.250           | 2.152              |               | 37.13         | 332.16 |       | 1216.4 |
| 659 |               | 49.837          | 36.615        | 27.405        | 22.919            | 5.846           | 6.262           | 2.158              |               | 37.19         | 332.48 |       | 1218.2 |
| 660 |               | 49.917          | 36.675        | 27.447        | 22.958            | 5.857           | 6.273           | 2.165              |               | 37.25         | 332.79 |       | 1220.0 |
| 661 |               | 49.997          | 36.736        | 27.489        | 22.997            | 5.867           | 6.285           | 2.171              |               | 37.30         | 333.11 |       | 1221.8 |
| 662 |               | 50.077          | 36.797        | 27.531        | 23.036            | 5.878           | 6.297           | 2.178              |               | 37.36         | 333.42 |       | 1223.6 |
| 663 |               | 50.157          | 36.858        | 27.574        | 23.075            | 5.888           | 6.308           | 2.184              |               | 37.42         | 333.74 |       | 1225.4 |
| 664 |               | 50.238          | 36.918        | 27.616        | 23.115            | 5.898           | 6.320           | 2.191              |               | 37.48         | 334.05 |       | 1227.2 |
| 665 |               | 50.318          | 36.979        | 27.658        | 23.154            | 5.909           | 6.332           | 2.197              |               | 37.55         | 334.36 |       | 1229.0 |
| 666 |               | 50.398          | 37.040        | 27.700        | 23.193            | 5.919           | 6.343           | 2.204              |               | 37.61         | 334.68 |       | 1230.8 |
| 667 |               | 50.478          | 37.101        | 27.742        | 23.232            | 5.930           | 6.355           | 2.210              |               | 37.67         | 334.99 |       | 1232.6 |
| 668 |               | 50.558          | 37.162        | 27.784        | 23.271            | 5.940           | 6.367           | 2.217              |               | 37.73         | 335.31 |       | 1234.4 |
| 669 |               | 50.638          | 37.223        | 27.826        | 23.311            | 5.950           | 6.378           | 2.224              |               | 37.79         | 335.62 |       | 1236.2 |
| 670 |               | 50.718          | 37.284        | 27.869        | 23.350            | 5.961           | 6.390           | 2.230              |               | 37.85         | 335.93 |       | 1238.0 |
| 671 |               | 50.798          | 37.345        | 27.911        | 23.389            | 5.971           | 6.402           | 2.237              |               | 37.91         | 336.25 |       | 1239.8 |
| 672 |               | 50.878          | 37.406        | 27.953        | 23.428            | 5.982           | 6.413           | 2.243              |               | 37.97         | 336.56 |       | 1241.6 |
| 673 |               | 50.958          | 37.467        | 27.995        | 23.467            | 5.992           | 6.425           | 2.250              |               | 38.04         | 336.87 |       | 1243.4 |
| 674 |               | 51.038          | 37.528        | 28.037        | 23.507            | 6.003           | 6.437           | 2.256              |               | 38.10         | 337.18 |       | 1245.2 |
| 675 |               | 51.118          | 37.590        | 28.079        | 23.546            | 6.013           | 6.448           | 2.263              |               | 38.16         | 337.50 |       | 1247.0 |
| 676 |               | 51.197          | 37.651        | 28.121        | 23.585            | 6.024           | 6.460           | 2.270              |               | 38.22         | 337.81 |       | 1248.8 |
| 677 |               | 51.277          | 37.712        | 28.163        | 23.624            | 6.034           | 6.472           | 2.276              |               | 38.28         | 338.12 |       | 1250.6 |
| 678 |               | 51.357          | 37.773        | 28.205        | 23.663            | 6.044           | 6.484           | 2.283              |               | 38.35         | 338.44 |       | 1252.4 |
| 679 |               | 51.437          | 37.835        | 28.247        | 23.703            | 6.055           | 6.495           | 2.289              |               | 38.41         | 338.75 |       | 1254.2 |
| 680 |               | 51.517          | 37.896        | 28.289        | 23.742            | 6.065           | 6.507           | 2.296              |               | 38.47         | 339.06 |       | 1256.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 681 |               | 51.597          | 37.958        | 28.332        | 23.781            | 6.076           | 6.519           | 2.303              |               | 38.53         | 339.37 |       | 1257.8 |
| 682 |               | 51.677          | 38.019        | 28.374        | 23.820            | 6.086           | 6.531           | 2.309              |               | 38.59         | 339.69 |       | 1259.6 |
| 683 |               | 51.757          | 38.081        | 28.416        | 23.860            | 6.097           | 6.542           | 2.316              |               | 38.66         | 340.00 |       | 1261.4 |
| 684 |               | 51.837          | 38.142        | 28.458        | 23.899            | 6.107           | 6.554           | 2.323              |               | 38.72         | 340.31 |       | 1263.2 |
| 685 |               | 51.916          | 38.204        | 28.500        | 23.938            | 6.118           | 6.566           | 2.329              |               | 38.78         | 340.62 |       | 1265.0 |
| 686 |               | 51.996          | 38.265        | 28.542        | 23.977            | 6.128           | 6.578           | 2.336              |               | 38.84         | 340.93 |       | 1266.8 |
| 687 |               | 52.076          | 38.327        | 28.584        | 24.016            | 6.139           | 6.589           | 2.343              |               | 38.90         | 341.24 |       | 1268.6 |
| 688 |               | 52.156          | 38.389        | 28.626        | 24.056            | 6.149           | 6.601           | 2.350              |               | 38.97         | 341.56 |       | 1270.4 |
| 689 |               | 52.236          | 38.450        | 28.668        | 24.095            | 6.160           | 6.613           | 2.356              |               | 39.03         | 341.87 |       | 1272.2 |
| 690 |               | 52.315          | 38.512        | 28.710        | 24.134            | 6.170           | 6.625           | 2.363              |               | 39.09         | 342.18 |       | 1274.0 |
| 691 |               | 52.395          | 38.574        | 28.752        | 24.173            | 6.181           | 6.636           | 2.370              |               | 39.15         | 342.49 |       | 1275.8 |
| 692 |               | 52.475          | 38.636        | 28.794        | 24.213            | 6.191           | 6.648           | 2.376              |               | 39.22         | 342.80 |       | 1277.6 |
| 693 |               | 52.555          | 38.698        | 28.835        | 24.252            | 6.202           | 6.660           | 2.383              |               | 39.28         | 343.11 |       | 1279.4 |
| 694 |               | 52.634          | 38.760        | 28.877        | 24.291            | 6.212           | 6.672           | 2.390              |               | 39.34         | 343.42 |       | 1281.2 |
| 695 |               | 52.714          | 38.822        | 28.919        | 24.330            | 6.223           | 6.684           | 2.397              |               | 39.41         | 343.73 |       | 1283.0 |
| 696 |               | 52.794          | 38.884        | 28.961        | 24.370            | 6.233           | 6.695           | 2.403              |               | 39.47         | 344.04 |       | 1284.8 |
| 697 |               | 52.873          | 38.946        | 29.003        | 24.409            | 6.244           | 6.707           | 2.410              |               | 39.53         | 344.35 |       | 1286.6 |
| 698 |               | 52.953          | 39.008        | 29.045        | 24.448            | 6.254           | 6.719           | 2.417              |               | 39.59         | 344.66 |       | 1288.4 |
| 699 |               | 53.033          | 39.070        | 29.087        | 24.487            | 6.265           | 6.731           | 2.424              |               | 39.66         | 344.97 |       | 1290.2 |
| 700 |               | 53.112          | 39.132        | 29.129        | 24.527            | 6.275           | 6.743           | 2.431              |               | 39.72         | 345.28 |       | 1292.0 |
| 701 |               | 53.192          | 39.194        | 29.171        | 24.566            | 6.286           | 6.755           | 2.437              |               | 39.78         | 345.59 |       | 1293.8 |
| 702 |               | 53.272          | 39.256        | 29.213        | 24.605            | 6.296           | 6.766           | 2.444              |               | 39.85         | 345.90 |       | 1295.6 |
| 703 |               | 53.351          | 39.318        | 29.255        | 24.644            | 6.307           | 6.778           | 2.451              |               | 39.91         | 346.21 |       | 1297.4 |
| 704 |               | 53.431          | 39.381        | 29.297        | 24.684            | 6.317           | 6.790           | 2.458              |               | 39.97         | 346.52 |       | 1299.2 |
| 705 |               | 53.510          | 39.443        | 29.338        | 24.723            | 6.328           | 6.802           | 2.465              |               | 40.04         | 346.83 |       | 1301.0 |
| 706 |               | 53.590          | 39.505        | 29.380        | 24.762            | 6.338           | 6.814           | 2.472              |               | 40.10         | 347.14 |       | 1302.8 |
| 707 |               | 53.670          | 39.568        | 29.422        | 24.801            | 6.349           | 6.826           | 2.479              |               | 40.16         | 347.45 |       | 1304.6 |
| 708 |               | 53.749          | 39.630        | 29.464        | 24.841            | 6.360           | 6.838           | 2.485              |               | 40.22         | 347.76 |       | 1306.4 |
| 709 |               | 53.829          | 39.693        | 29.506        | 24.880            | 6.370           | 6.849           | 2.492              |               | 40.29         | 348.07 |       | 1308.2 |
| 710 |               | 53.908          | 39.755        | 29.548        | 24.919            | 6.381           | 6.861           | 2.499              |               | 40.35         | 348.38 |       | 1310.0 |
| 711 |               | 53.988          | 39.818        | 29.589        | 24.959            | 6.391           | 6.873           | 2.506              |               | 40.41         | 348.69 |       | 1311.8 |
| 712 |               | 54.067          | 39.880        | 29.631        | 24.998            | 6.402           | 6.885           | 2.513              |               | 40.48         | 348.99 |       | 1313.6 |
| 713 |               | 54.147          | 39.943        | 29.673        | 25.037            | 6.412           | 6.897           | 2.520              |               | 40.54         | 349.30 |       | 1315.4 |
| 714 |               | 54.226          | 40.005        | 29.715        | 25.076            | 6.423           | 6.909           | 2.527              |               | 40.60         | 349.61 |       | 1317.2 |
| 715 |               | 54.306          | 40.068        | 29.757        | 25.116            | 6.434           | 6.921           | 2.534              |               | 40.67         | 349.92 |       | 1319.0 |
| 716 |               | 54.385          | 40.131        | 29.798        | 25.155            | 6.444           | 6.933           | 2.541              |               | 40.73         | 350.23 |       | 1320.8 |
| 717 |               | 54.465          | 40.193        | 29.840        | 25.194            | 6.455           | 6.945           | 2.548              |               | 40.80         | 350.54 |       | 1322.6 |
| 718 |               | 54.544          | 40.256        | 29.882        | 25.233            | 6.465           | 6.956           | 2.555              |               | 40.86         | 350.84 |       | 1324.4 |
| 719 |               | 54.624          | 40.319        | 29.924        | 25.273            | 6.476           | 6.968           | 2.562              |               | 40.93         | 351.15 |       | 1326.2 |
| 720 |               | 54.703          | 40.382        | 29.965        | 25.312            | 6.486           | 6.980           | 2.569              |               | 40.98         | 351.46 |       | 1328.0 |
| 721 |               | 54.782          | 40.445        | 30.007        | 25.351            | 6.497           | 6.992           | 2.576              |               | 41.04         | 351.77 |       | 1329.8 |
| 722 |               | 54.862          | 40.508        | 30.049        | 25.391            | 6.508           | 7.004           | 2.583              |               | 41.11         | 352.08 |       | 1331.6 |
| 723 |               | 54.941          | 40.570        | 30.090        | 25.430            | 6.518           | 7.016           | 2.590              |               | 41.17         | 352.38 |       | 1333.4 |
| 724 |               | 55.021          | 40.633        | 30.132        | 25.469            | 6.529           | 7.028           | 2.597              |               | 41.23         | 352.69 |       | 1335.2 |
| 725 |               | 55.100          | 40.696        | 30.174        | 25.508            | 6.539           | 7.040           | 2.604              |               | 41.30         | 353.00 |       | 1337.0 |
| 726 |               | 55.179          | 40.759        | 30.216        | 25.548            | 6.550           | 7.052           | 2.611              |               | 41.36         | 353.30 |       | 1338.8 |
| 727 |               | 55.259          | 40.822        | 30.257        | 25.587            | 6.561           | 7.064           | 2.618              |               | 41.43         | 353.61 |       | 1340.6 |
| 728 |               | 55.338          | 40.886        | 30.299        | 25.626            | 6.571           | 7.076           | 2.625              |               | 41.49         | 353.92 |       | 1342.4 |
| 729 |               | 55.417          | 40.949        | 30.341        | 25.666            | 6.582           | 7.088           | 2.632              |               | 41.56         | 354.22 |       | 1344.2 |
| 730 |               | 55.497          | 41.012        | 30.382        | 25.705            | 6.593           | 7.100           | 2.639              |               | 41.62         | 354.53 |       | 1346.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 731 |               | 55.576          | 41.075        | 30.424        | 25.744            | 6.603           | 7.112           | 2.646              |               | 41.69         | 354.84 |       | 1347.8 |
| 732 |               | 55.655          | 41.138        | 30.466        | 25.783            | 6.614           | 7.124           | 2.653              |               | 41.75         | 355.14 |       | 1349.6 |
| 733 |               | 55.734          | 41.201        | 30.507        | 25.823            | 6.624           | 7.136           | 2.660              |               | 41.82         | 355.45 |       | 1351.4 |
| 734 |               | 55.814          | 41.265        | 30.549        | 25.862            | 6.635           | 7.148           | 2.667              |               | 41.88         | 355.76 |       | 1353.2 |
| 735 |               | 55.893          | 41.328        | 30.590        | 25.901            | 6.646           | 7.160           | 2.674              |               | 41.95         | 356.06 |       | 1355.0 |
| 736 |               | 55.972          | 41.391        | 30.632        | 25.941            | 6.656           | 7.172           | 2.681              |               | 42.01         | 356.37 |       | 1356.8 |
| 737 |               | 56.051          | 41.455        | 30.674        | 25.980            | 6.667           | 7.184           | 2.688              |               | 42.08         | 356.67 |       | 1358.6 |
| 738 |               | 56.131          | 41.518        | 30.715        | 26.019            | 6.678           | 7.196           | 2.696              |               | 42.14         | 356.98 |       | 1360.4 |
| 739 |               | 56.210          | 41.581        | 30.757        | 26.058            | 6.688           | 7.208           | 2.703              |               | 42.21         | 357.28 |       | 1362.2 |
| 740 |               | 56.289          | 41.645        | 30.798        | 26.098            | 6.699           | 7.220           | 2.710              |               | 42.27         | 357.59 |       | 1364.0 |
| 741 |               | 56.368          | 41.708        | 30.840        | 26.137            | 6.710           | 7.232           | 2.717              |               | 42.34         | 357.90 |       | 1365.8 |
| 742 |               | 56.447          | 41.772        | 30.881        | 26.176            | 6.720           | 7.244           | 2.724              |               | 42.40         | 358.20 |       | 1367.6 |
| 743 |               | 56.526          | 41.835        | 30.923        | 26.216            | 6.731           | 7.256           | 2.731              |               | 42.47         | 358.51 |       | 1369.4 |
| 744 |               | 56.606          | 41.899        | 30.964        | 26.255            | 6.742           | 7.268           | 2.738              |               | 42.53         | 358.81 |       | 1371.2 |
| 745 |               | 56.685          | 41.962        | 31.006        | 26.294            | 6.752           | 7.280           | 2.746              |               | 42.60         | 359.12 |       | 1373.0 |
| 746 |               | 56.764          | 42.026        | 31.047        | 26.333            | 6.763           | 7.292           | 2.753              |               | 42.66         | 359.42 |       | 1374.8 |
| 747 |               | 56.843          | 42.090        | 31.089        | 26.373            | 6.774           | 7.304           | 2.760              |               | 42.73         | 359.72 |       | 1376.6 |
| 748 |               | 56.922          | 42.153        | 31.130        | 26.412            | 6.784           | 7.316           | 2.767              |               | 42.79         | 360.03 |       | 1378.4 |
| 749 |               | 57.001          | 42.217        | 31.172        | 26.451            | 6.795           | 7.328           | 2.775              |               | 42.86         | 360.33 |       | 1380.2 |
| 750 |               | 57.080          | 42.281        | 31.213        | 26.491            | 6.806           | 7.340           | 2.782              |               | 42.92         | 360.64 |       | 1382.0 |
| 751 |               | 57.159          | 42.344        | 31.255        | 26.530            | 6.817           | 7.352           | 2.789              |               | 42.99         | 360.94 |       | 1383.8 |
| 752 |               | 57.238          | 42.408        | 31.296        | 26.569            | 6.827           | 7.364           | 2.796              |               | 43.05         | 361.25 |       | 1385.6 |
| 753 |               | 57.317          | 42.472        | 31.338        | 26.608            | 6.838           | 7.376           | 2.803              |               | 43.12         | 361.55 |       | 1387.4 |
| 754 |               | 57.396          | 42.536        | 31.379        | 26.648            | 6.849           | 7.389           | 2.811              |               | 43.18         | 361.85 |       | 1389.2 |
| 755 |               | 57.475          | 42.599        | 31.421        | 26.687            | 6.859           | 7.401           | 2.818              |               | 43.25         | 362.16 |       | 1391.0 |
| 756 |               | 57.554          | 42.663        | 31.462        | 26.726            | 6.870           | 7.413           | 2.825              |               | 43.31         | 362.46 |       | 1392.8 |
| 757 |               | 57.633          | 42.727        | 31.504        | 26.766            | 6.881           | 7.425           | 2.833              |               | 43.38         | 362.76 |       | 1394.6 |
| 758 |               | 57.712          | 42.791        | 31.545        | 26.805            | 6.892           | 7.437           | 2.840              |               | 43.44         | 363.07 |       | 1396.4 |
| 759 |               | 57.791          | 42.855        | 31.586        | 26.844            | 6.902           | 7.449           | 2.847              |               | 43.51         | 363.37 |       | 1398.2 |
| 760 |               | 57.870          | 42.919        | 31.628        | 26.883            | 6.913           | 7.461           | 2.854              |               | 43.57         | 363.67 |       | 1400.0 |
| 761 |               | 57.949          | 42.983        | 31.669        | 26.923            | 6.924           | 7.473           | 2.862              |               | 43.64         | 363.98 |       | 1401.8 |
| 762 |               | 58.028          | 43.047        | 31.710        | 26.962            | 6.934           | 7.485           | 2.869              |               | 43.70         | 364.28 |       | 1403.6 |
| 763 |               | 58.107          | 43.111        | 31.752        | 27.001            | 6.945           | 7.498           | 2.876              |               | 43.77         | 364.58 |       | 1405.4 |
| 764 |               | 58.186          | 43.175        | 31.793        | 27.041            | 6.956           | 7.510           | 2.884              |               | 43.83         | 364.89 |       | 1407.2 |
| 765 |               | 58.265          | 43.239        | 31.834        | 27.080            | 6.967           | 7.522           | 2.891              |               | 43.90         | 365.19 |       | 1409.0 |
| 766 |               | 58.343          | 43.303        | 31.876        | 27.119            | 6.977           | 7.534           | 2.898              |               | 43.97         | 365.49 |       | 1410.8 |
| 767 |               | 58.422          | 43.367        | 31.917        | 27.158            | 6.988           | 7.546           | 2.906              |               | 44.03         | 365.79 |       | 1412.6 |
| 768 |               | 58.501          | 43.431        | 31.958        | 27.198            | 6.999           | 7.558           | 2.913              |               | 44.10         | 366.10 |       | 1414.4 |
| 769 |               | 58.580          | 43.495        | 32.000        | 27.237            | 7.010           | 7.570           | 2.921              |               | 44.16         | 366.40 |       | 1416.2 |
| 770 |               | 58.659          | 43.559        | 32.041        | 27.276            | 7.020           | 7.583           | 2.928              |               | 44.23         | 366.70 |       | 1418.0 |
| 771 |               | 58.738          | 43.624        | 32.082        | 27.316            | 7.031           | 7.595           | 2.935              |               | 44.30         | 367.00 |       | 1419.8 |
| 772 |               | 58.816          | 43.688        | 32.124        | 27.355            | 7.042           | 7.607           | 2.943              |               | 44.36         | 367.30 |       | 1421.6 |
| 773 |               | 58.895          | 43.752        | 32.165        | 27.394            | 7.053           | 7.619           | 2.950              |               | 44.43         | 367.60 |       | 1423.4 |
| 774 |               | 58.974          | 43.817        | 32.206        | 27.433            | 7.064           | 7.631           | 2.958              |               | 44.49         | 367.91 |       | 1425.2 |
| 775 |               | 59.053          | 43.881        | 32.247        | 27.473            | 7.074           | 7.644           | 2.965              |               | 44.56         | 368.21 |       | 1427.0 |
| 776 |               | 59.131          | 43.945        | 32.289        | 27.512            | 7.085           | 7.656           | 2.973              |               | 44.63         | 368.51 |       | 1428.8 |
| 777 |               | 59.210          | 44.010        | 32.330        | 27.551            | 7.096           | 7.668           | 2.980              |               | 44.69         | 368.81 |       | 1430.6 |
| 778 |               | 59.289          | 44.074        | 32.371        | 27.591            | 7.107           | 7.680           | 2.987              |               | 44.76         | 369.11 |       | 1432.4 |
| 779 |               | 59.367          | 44.139        | 32.412        | 27.630            | 7.117           | 7.692           | 2.995              |               | 44.82         | 369.41 |       | 1434.2 |
| 780 |               | 59.446          | 44.203        | 32.453        | 27.669            | 7.128           | 7.705           | 3.002              |               | 44.89         | 369.71 |       | 1436.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 781 |               | 59.525          | 44.267        | 32.495        | 27.708            | 7.139           | 7.717           | 3.010              |               | 44.96         | 370.01 |       | 1437.8 |
| 782 |               | 59.604          | 44.332        | 32.536        | 27.748            | 7.150           | 7.729           | 3.017              |               | 45.02         | 370.31 |       | 1439.6 |
| 783 |               | 59.682          | 44.396        | 32.577        | 27.787            | 7.161           | 7.741           | 3.025              |               | 45.09         | 370.61 |       | 1441.4 |
| 784 |               | 59.761          | 44.461        | 32.618        | 27.826            | 7.171           | 7.753           | 3.032              |               | 45.15         | 370.91 |       | 1443.2 |
| 785 |               | 59.839          | 44.525        | 32.659        | 27.866            | 7.182           | 7.766           | 3.040              |               | 45.22         | 371.21 |       | 1445.0 |
| 786 |               | 59.918          | 44.590        | 32.700        | 27.905            | 7.193           | 7.778           | 3.047              |               | 45.29         | 371.51 |       | 1446.8 |
| 787 |               | 59.997          | 44.655        | 32.742        | 27.944            | 7.204           | 7.790           | 3.055              |               | 45.35         | 371.81 |       | 1448.6 |
| 788 |               | 60.075          | 44.719        | 32.783        | 27.983            | 7.215           | 7.802           | 3.062              |               | 45.42         | 372.11 |       | 1450.4 |
| 789 |               | 60.154          | 44.784        | 32.824        | 28.023            | 7.226           | 7.815           | 3.070              |               | 45.48         | 372.41 |       | 1452.2 |
| 790 |               | 60.232          | 44.848        | 32.865        | 28.062            | 7.236           | 7.827           | 3.078              |               | 45.55         | 372.71 |       | 1454.0 |
| 791 |               | 60.311          | 44.913        | 32.906        | 28.101            | 7.247           | 7.839           | 3.085              |               | 45.62         | 373.01 |       | 1455.8 |
| 792 |               | 60.390          | 44.977        | 32.947        | 28.140            | 7.258           | 7.852           | 3.093              |               | 45.68         | 373.31 |       | 1457.6 |
| 793 |               | 60.468          | 45.042        | 32.988        | 28.180            | 7.269           | 7.864           | 3.100              |               | 45.75         | 373.61 |       | 1459.4 |
| 794 |               | 60.547          | 45.107        | 33.029        | 28.219            | 7.280           | 7.876           | 3.108              |               | 45.82         | 373.91 |       | 1461.2 |
| 795 |               | 60.625          | 45.171        | 33.070        | 28.258            | 7.291           | 7.888           | 3.116              |               | 45.89         | 374.21 |       | 1463.0 |
| 796 |               | 60.704          | 45.236        | 33.111        | 28.297            | 7.302           | 7.901           | 3.123              |               | 45.95         | 374.51 |       | 1464.8 |
| 797 |               | 60.782          | 45.301        | 33.152        | 28.337            | 7.312           | 7.913           | 3.131              |               | 46.02         | 374.81 |       | 1466.6 |
| 798 |               | 60.860          | 45.365        | 33.193        | 28.376            | 7.323           | 7.925           | 3.138              |               | 46.09         | 375.11 |       | 1468.4 |
| 799 |               | 60.939          | 45.430        | 33.234        | 28.415            | 7.334           | 7.938           | 3.146              |               | 46.15         | 375.41 |       | 1470.2 |
| 800 |               | 61.017          | 45.494        | 33.275        | 28.455            | 7.345           | 7.950           | 3.154              |               | 46.22         | 375.70 |       | 1472.0 |
| 801 |               | 61.096          | 45.559        | 33.316        | 28.494            | 7.356           | 7.962           | 3.161              |               | 46.29         | 376.00 |       | 1473.8 |
| 802 |               | 61.174          | 45.624        | 33.357        | 28.533            | 7.367           | 7.974           | 3.169              |               | 46.35         | 376.30 |       | 1475.6 |
| 803 |               | 61.253          | 45.688        | 33.398        | 28.572            | 7.378           | 7.987           | 3.177              |               | 46.42         | 376.60 |       | 1477.4 |
| 804 |               | 61.331          | 45.753        | 33.439        | 28.612            | 7.388           | 7.999           | 3.184              |               | 46.49         | 376.90 |       | 1479.2 |
| 805 |               | 61.409          | 45.818        | 33.480        | 28.651            | 7.399           | 8.011           | 3.192              |               | 46.56         | 377.19 |       | 1481.0 |
| 806 |               | 61.488          | 45.882        | 33.521        | 28.690            | 7.410           | 8.024           | 3.200              |               | 46.62         | 377.49 |       | 1482.8 |
| 807 |               | 61.566          | 45.947        | 33.562        | 28.729            | 7.421           | 8.036           | 3.207              |               | 46.69         | 377.79 |       | 1484.6 |
| 808 |               | 61.644          | 46.011        | 33.603        | 28.769            | 7.432           | 8.048           | 3.215              |               | 46.76         | 378.09 |       | 1486.4 |
| 809 |               | 61.723          | 46.076        | 33.644        | 28.808            | 7.443           | 8.061           | 3.223              |               | 46.82         | 378.39 |       | 1488.2 |
| 810 |               | 61.801          | 46.141        | 33.685        | 28.847            | 7.454           | 8.073           | 3.230              |               | 46.89         | 378.68 |       | 1490.0 |
| 811 |               | 61.879          | 46.205        | 33.726        | 28.886            | 7.465           | 8.086           | 3.238              |               | 46.96         | 378.98 |       | 1491.8 |
| 812 |               | 61.958          | 46.270        | 33.767        | 28.926            | 7.476           | 8.098           | 3.246              |               | 47.03         | 379.28 |       | 1493.6 |
| 813 |               | 62.036          | 46.334        | 33.808        | 28.965            | 7.487           | 8.110           | 3.254              |               | 47.09         | 379.57 |       | 1495.4 |
| 814 |               | 62.114          | 46.399        | 33.848        | 29.004            | 7.497           | 8.123           | 3.261              |               | 47.16         | 379.87 |       | 1497.2 |
| 815 |               | 62.192          | 46.464        | 33.889        | 29.043            | 7.508           | 8.135           | 3.269              |               | 47.23         | 380.17 |       | 1499.0 |
| 816 |               | 62.271          | 46.528        | 33.930        | 29.083            | 7.519           | 8.147           | 3.277              |               | 47.30         | 380.46 |       | 1500.8 |
| 817 |               | 62.349          | 46.593        | 33.971        | 29.122            | 7.530           | 8.160           | 3.285              |               | 47.37         | 380.76 |       | 1502.6 |
| 818 |               | 62.427          | 46.657        | 34.012        | 29.161            | 7.541           | 8.172           | 3.292              |               | 47.43         | 381.06 |       | 1504.4 |
| 819 |               | 62.505          | 46.722        | 34.053        | 29.200            | 7.552           | 8.185           | 3.300              |               | 47.50         | 381.35 |       | 1506.2 |
| 820 |               | 62.583          | 46.786        | 34.093        | 29.239            | 7.563           | 8.197           | 3.308              |               | 47.57         | 381.65 |       | 1508.0 |
| 821 |               | 62.662          | 46.851        | 34.134        | 29.279            | 7.574           | 8.209           | 3.316              |               | 47.64         | 381.95 |       | 1509.8 |
| 822 |               | 62.740          | 46.915        | 34.175        | 29.318            | 7.585           | 8.222           | 3.324              |               | 47.71         | 382.24 |       | 1511.6 |
| 823 |               | 62.818          | 46.980        | 34.216        | 29.357            | 7.596           | 8.234           | 3.331              |               | 47.77         | 382.54 |       | 1513.4 |
| 824 |               | 62.896          | 47.044        | 34.257        | 29.396            | 7.607           | 8.247           | 3.339              |               | 47.84         | 382.83 |       | 1515.2 |
| 825 |               | 62.974          | 47.109        | 34.297        | 29.436            | 7.618           | 8.259           | 3.347              |               | 47.91         | 383.13 |       | 1517.0 |
| 826 |               | 63.052          | 47.173        | 34.338        | 29.475            | 7.629           | 8.272           | 3.355              |               | 47.98         | 383.42 |       | 1518.8 |
| 827 |               | 63.130          | 47.238        | 34.379        | 29.514            | 7.640           | 8.284           | 3.363              |               | 48.05         | 383.72 |       | 1520.6 |
| 828 |               | 63.208          | 47.302        | 34.420        | 29.553            | 7.651           | 8.296           | 3.371              |               | 48.11         | 384.01 |       | 1522.4 |
| 829 |               | 63.286          | 47.367        | 34.460        | 29.592            | 7.662           | 8.309           | 3.379              |               | 48.18         | 384.31 |       | 1524.2 |
| 830 |               | 63.364          | 47.431        | 34.501        | 29.632            | 7.673           | 8.321           | 3.386              |               | 48.25         | 384.60 |       | 1526.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100  | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|--------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω      | Ω     | t90    |
| 831 |               | 63.442          | 47.495        | 34.542        | 29.671            | 7.684           | 8.334           | 3.394              |               | 48.32         | 384.90 |       | 1527.8 |
| 832 |               | 63.520          | 47.560        | 34.582        | 29.710            | 7.695           | 8.346           | 3.402              |               | 48.39         | 385.19 |       | 1529.6 |
| 833 |               | 63.598          | 47.624        | 34.623        | 29.749            | 7.706           | 8.359           | 3.410              |               | 48.46         | 385.49 |       | 1531.4 |
| 834 |               | 63.676          | 47.688        | 34.664        | 29.789            | 7.717           | 8.371           | 3.418              |               | 48.53         | 385.78 |       | 1533.2 |
| 835 |               | 63.754          | 47.753        | 34.704        | 29.828            | 7.728           | 8.384           | 3.426              |               | 48.60         | 386.08 |       | 1535.0 |
| 836 |               | 63.832          | 47.817        | 34.745        | 29.867            | 7.739           | 8.396           | 3.434              |               | 48.66         | 386.37 |       | 1536.8 |
| 837 |               | 63.910          | 47.881        | 34.786        | 29.906            | 7.750           | 8.409           | 3.442              |               | 48.73         | 386.67 |       | 1538.6 |
| 838 |               | 63.988          | 47.946        | 34.826        | 29.945            | 7.761           | 8.421           | 3.450              |               | 48.80         | 386.96 |       | 1540.4 |
| 839 |               | 64.066          | 48.010        | 34.867        | 29.985            | 7.772           | 8.434           | 3.458              |               | 48.87         | 387.25 |       | 1542.2 |
| 840 |               | 64.144          | 48.074        | 34.908        | 30.024            | 7.783           | 8.446           | 3.466              |               | 48.94         | 387.55 |       | 1544.0 |
| 841 |               | 64.222          | 48.138        | 34.948        | 30.063            | 7.794           | 8.459           | 3.474              |               | 49.01         | 387.84 |       | 1545.8 |
| 842 |               | 64.300          | 48.202        | 34.989        | 30.102            | 7.805           | 8.471           | 3.482              |               | 49.08         | 388.14 |       | 1547.6 |
| 843 |               | 64.377          | 48.267        | 35.029        | 30.141            | 7.816           | 8.484           | 3.490              |               | 49.15         | 388.43 |       | 1549.4 |
| 844 |               | 64.455          | 48.331        | 35.070        | 30.181            | 7.827           | 8.496           | 3.498              |               | 49.22         | 388.72 |       | 1551.2 |
| 845 |               | 64.533          | 48.395        | 35.110        | 30.220            | 7.838           | 8.509           | 3.506              |               | 49.29         | 389.02 |       | 1553.0 |
| 846 |               | 64.611          | 48.459        | 35.151        | 30.259            | 7.849           | 8.521           | 3.514              |               | 49.35         | 389.31 |       | 1554.8 |
| 847 |               | 64.689          | 48.523        | 35.192        | 30.298            | 7.860           | 8.534           | 3.522              |               | 49.42         | 389.60 |       | 1556.6 |
| 848 |               | 64.766          | 48.587        | 35.232        | 30.337            | 7.871           | 8.546           | 3.530              |               | 49.49         | 389.90 |       | 1558.4 |
| 849 |               | 64.844          | 48.651        | 35.273        | 30.376            | 7.882           | 8.559           | 3.538              |               | 49.56         | 390.19 |       | 1560.2 |
| 850 |               | 64.922          | 48.715        | 35.313        | 30.416            | 7.893           | 8.571           | 3.546              |               | 49.63         | 390.48 |       | 1562.0 |
| 851 |               | 65.000          | 48.779        | 35.354        | 30.455            | 7.904           | 8.584           | 3.554              |               | 49.70         |        |       | 1563.8 |
| 852 |               | 65.077          | 48.843        | 35.394        | 30.494            | 7.915           | 8.597           | 3.562              |               | 49.77         |        |       | 1565.6 |
| 853 |               | 65.155          | 48.907        | 35.435        | 30.533            | 7.926           | 8.609           | 3.570              |               | 49.84         |        |       | 1567.4 |
| 854 |               | 65.233          | 48.971        | 35.475        | 30.572            | 7.937           | 8.622           | 3.578              |               | 49.91         |        |       | 1569.2 |
| 855 |               | 65.310          | 49.034        | 35.516        | 30.611            | 7.948           | 8.634           | 3.586              |               | 49.98         |        |       | 1571.0 |
| 856 |               | 65.388          | 49.098        | 35.556        | 30.651            | 7.959           | 8.647           | 3.594              |               | 50.04         |        |       | 1572.8 |
| 857 |               | 65.465          | 49.162        | 35.596        | 30.690            | 7.970           | 8.659           | 3.602              |               | 50.11         |        |       | 1574.6 |
| 858 |               | 65.543          | 49.226        | 35.637        | 30.729            | 7.981           | 8.672           | 3.610              |               | 50.18         |        |       | 1576.4 |
| 859 |               | 65.621          | 49.290        | 35.677        | 30.768            | 7.992           | 8.685           | 3.618              |               | 50.25         |        |       | 1578.2 |
| 860 |               | 65.698          | 49.353        | 35.718        | 30.807            | 8.003           | 8.697           | 3.626              |               | 50.32         |        |       | 1580.0 |
| 861 |               | 65.776          | 49.417        | 35.758        | 30.846            | 8.014           | 8.710           | 3.634              |               | 50.39         |        |       | 1581.8 |
| 862 |               | 65.853          | 49.481        | 35.798        | 30.886            | 8.026           | 8.722           | 3.643              |               | 50.46         |        |       | 1583.6 |
| 863 |               | 65.931          | 49.544        | 35.839        | 30.925            | 8.037           | 8.735           | 3.651              |               | 50.53         |        |       | 1585.4 |
| 864 |               | 66.008          | 49.608        | 35.879        | 30.964            | 8.048           | 8.748           | 3.659              |               | 50.60         |        |       | 1587.2 |
| 865 |               | 66.086          | 49.672        | 35.920        | 31.003            | 8.059           | 8.760           | 3.667              |               | 50.67         |        |       | 1589.0 |
| 866 |               | 66.163          | 49.735        | 35.960        | 31.042            | 8.070           | 8.773           | 3.675              |               | 50.74         |        |       | 1590.8 |
| 867 |               | 66.241          | 49.799        | 36.000        | 31.081            | 8.081           | 8.785           | 3.683              |               | 50.81         |        |       | 1592.6 |
| 868 |               | 66.318          | 49.862        | 36.041        | 31.120            | 8.092           | 8.798           | 3.692              |               | 50.88         |        |       | 1594.4 |
| 869 |               | 66.396          | 49.926        | 36.081        | 31.160            | 8.103           | 8.811           | 3.700              |               | 50.95         |        |       | 1596.2 |
| 870 |               | 66.473          | 49.989        | 36.121        | 31.199            | 8.114           | 8.823           | 3.708              |               | 51.02         |        |       | 1598.0 |
| 871 |               | 66.550          | 50.052        | 36.162        | 31.238            | 8.125           | 8.836           | 3.716              |               | 51.09         |        |       | 1599.8 |
| 872 |               | 66.628          | 50.116        | 36.202        | 31.277            | 8.137           | 8.849           | 3.724              |               | 51.16         |        |       | 1601.6 |
| 873 |               | 66.705          | 50.179        | 36.242        | 31.316            | 8.148           | 8.861           | 3.732              |               | 51.23         |        |       | 1603.4 |
| 874 |               | 66.782          | 50.243        | 36.282        | 31.355            | 8.159           | 8.874           | 3.741              |               | 51.30         |        |       | 1605.2 |
| 875 |               | 66.860          | 50.306        | 36.323        | 31.394            | 8.170           | 8.887           | 3.749              |               | 51.37         |        |       | 1607.0 |
| 876 |               | 66.937          | 50.369        | 36.363        | 31.433            | 8.181           | 8.899           | 3.757              |               | 51.44         |        |       | 1608.8 |
| 877 |               | 67.014          | 50.432        | 36.403        | 31.473            | 8.192           | 8.912           | 3.765              |               | 51.51         |        |       | 1610.6 |
| 878 |               | 67.092          | 50.495        | 36.443        | 31.512            | 8.203           | 8.925           | 3.774              |               | 51.58         |        |       | 1612.4 |
| 879 |               | 67.169          | 50.559        | 36.484        | 31.551            | 8.214           | 8.937           | 3.782              |               | 51.65         |        |       | 1614.2 |
| 880 |               | 67.246          | 50.622        | 36.524        | 31.590            | 8.226           | 8.950           | 3.790              |               | 51.72         |        |       | 1616.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 881 |               | 67.323          | 50.685        | 36.564        | 31.629            | 8.237           | 8.963           | 3.798              |               | 51.79         |       |       | 1617.8 |
| 882 |               | 67.400          | 50.748        | 36.604        | 31.668            | 8.248           | 8.975           | 3.807              |               | 51.86         |       |       | 1619.6 |
| 883 |               | 67.478          | 50.811        | 36.644        | 31.707            | 8.259           | 8.988           | 3.815              |               | 51.93         |       |       | 1621.4 |
| 884 |               | 67.555          | 50.874        | 36.685        | 31.746            | 8.270           | 9.001           | 3.823              |               | 52.00         |       |       | 1623.2 |
| 885 |               | 67.632          | 50.937        | 36.725        | 31.785            | 8.281           | 9.014           | 3.832              |               | 52.08         |       |       | 1625.0 |
| 886 |               | 67.709          | 51.000        | 36.765        | 31.824            | 8.293           | 9.026           | 3.840              |               | 52.15         |       |       | 1626.8 |
| 887 |               | 67.786          | 51.063        | 36.805        | 31.863            | 8.304           | 9.039           | 3.848              |               | 52.22         |       |       | 1628.6 |
| 888 |               | 67.863          | 51.126        | 36.845        | 31.903            | 8.315           | 9.052           | 3.857              |               | 52.29         |       |       | 1630.4 |
| 889 |               | 67.940          | 51.188        | 36.885        | 31.942            | 8.326           | 9.065           | 3.865              |               | 52.36         |       |       | 1632.2 |
| 890 |               | 68.017          | 51.251        | 36.925        | 31.981            | 8.337           | 9.077           | 3.873              |               | 52.43         |       |       | 1634.0 |
| 891 |               | 68.094          | 51.314        | 36.965        | 32.020            | 8.348           | 9.090           | 3.882              |               | 52.50         |       |       | 1635.8 |
| 892 |               | 68.171          | 51.377        | 37.006        | 32.059            | 8.360           | 9.103           | 3.890              |               | 52.57         |       |       | 1637.6 |
| 893 |               | 68.248          | 51.439        | 37.046        | 32.098            | 8.371           | 9.115           | 3.898              |               | 52.64         |       |       | 1639.4 |
| 894 |               | 68.325          | 51.502        | 37.086        | 32.137            | 8.382           | 9.128           | 3.907              |               | 52.71         |       |       | 1641.2 |
| 895 |               | 68.402          | 51.565        | 37.126        | 32.176            | 8.393           | 9.141           | 3.915              |               | 52.79         |       |       | 1643.0 |
| 896 |               | 68.479          | 51.627        | 37.166        | 32.215            | 8.404           | 9.154           | 3.923              |               | 52.86         |       |       | 1644.8 |
| 897 |               | 68.556          | 51.690        | 37.206        | 32.254            | 8.416           | 9.167           | 3.932              |               | 52.93         |       |       | 1646.6 |
| 898 |               | 68.633          | 51.752        | 37.246        | 32.293            | 8.427           | 9.179           | 3.940              |               | 53.00         |       |       | 1648.4 |
| 899 |               | 68.710          | 51.815        | 37.286        | 32.332            | 8.438           | 9.192           | 3.949              |               | 53.07         |       |       | 1650.2 |
| 900 |               | 68.787          | 51.877        | 37.326        | 32.371            | 8.449           | 9.205           | 3.957              |               | 53.14         |       |       | 1652.0 |
| 901 |               | 68.863          | 51.940        | 37.366        | 32.410            | 8.460           | 9.218           | 3.965              |               |               |       |       | 1653.8 |
| 902 |               | 68.940          | 52.002        | 37.406        | 32.449            | 8.472           | 9.230           | 3.974              |               |               |       |       | 1655.6 |
| 903 |               | 69.017          | 52.064        | 37.446        | 32.488            | 8.483           | 9.243           | 3.982              |               |               |       |       | 1657.4 |
| 904 |               | 69.094          | 52.127        | 37.486        | 32.527            | 8.494           | 9.256           | 3.991              |               |               |       |       | 1659.2 |
| 905 |               | 69.171          | 52.189        | 37.526        | 32.566            | 8.505           | 9.269           | 3.999              |               |               |       |       | 1661.0 |
| 906 |               | 69.247          | 52.251        | 37.566        | 32.605            | 8.517           | 9.282           | 4.008              |               |               |       |       | 1662.8 |
| 907 |               | 69.324          | 52.314        | 37.606        | 32.644            | 8.528           | 9.294           | 4.016              |               |               |       |       | 1664.6 |
| 908 |               | 69.401          | 52.376        | 37.646        | 32.683            | 8.539           | 9.307           | 4.024              |               |               |       |       | 1666.4 |
| 909 |               | 69.477          | 52.438        | 37.686        | 32.722            | 8.550           | 9.320           | 4.033              |               |               |       |       | 1668.2 |
| 910 |               | 69.554          | 52.500        | 37.725        | 32.761            | 8.562           | 9.333           | 4.041              |               |               |       |       | 1670.0 |
| 911 |               | 69.631          | 52.562        | 37.765        | 32.800            | 8.573           | 9.346           | 4.050              |               |               |       |       | 1671.8 |
| 912 |               | 69.707          | 52.624        | 37.805        | 32.839            | 8.584           | 9.359           | 4.058              |               |               |       |       | 1673.6 |
| 913 |               | 69.784          | 52.686        | 37.845        | 32.878            | 8.595           | 9.371           | 4.067              |               |               |       |       | 1675.4 |
| 914 |               | 69.860          | 52.748        | 37.885        | 32.917            | 8.607           | 9.384           | 4.075              |               |               |       |       | 1677.2 |
| 915 |               | 69.937          | 52.810        | 37.925        | 32.956            | 8.618           | 9.397           | 4.084              |               |               |       |       | 1679.0 |
| 916 |               | 70.013          | 52.872        | 37.965        | 32.995            | 8.629           | 9.410           | 4.093              |               |               |       |       | 1680.8 |
| 917 |               | 70.090          | 52.934        | 38.005        | 33.034            | 8.640           | 9.423           | 4.101              |               |               |       |       | 1682.6 |
| 918 |               | 70.166          | 52.996        | 38.044        | 33.073            | 8.652           | 9.436           | 4.110              |               |               |       |       | 1684.4 |
| 919 |               | 70.243          | 53.057        | 38.084        | 33.112            | 8.663           | 9.449           | 4.118              |               |               |       |       | 1686.2 |
| 920 |               | 70.319          | 53.119        | 38.124        | 33.151            | 8.674           | 9.462           | 4.127              |               |               |       |       | 1688.0 |
| 921 |               | 70.396          | 53.181        | 38.164        | 33.190            | 8.685           | 9.474           | 4.135              |               |               |       |       | 1689.8 |
| 922 |               | 70.472          | 53.243        | 38.204        | 33.229            | 8.697           | 9.487           | 4.144              |               |               |       |       | 1691.6 |
| 923 |               | 70.548          | 53.304        | 38.243        | 33.268            | 8.708           | 9.500           | 4.152              |               |               |       |       | 1693.4 |
| 924 |               | 70.625          | 53.366        | 38.283        | 33.307            | 8.719           | 9.513           | 4.161              |               |               |       |       | 1695.2 |
| 925 |               | 70.701          | 53.427        | 38.323        | 33.346            | 8.731           | 9.526           | 4.170              |               |               |       |       | 1697.0 |
| 926 |               | 70.777          | 53.489        | 38.363        | 33.385            | 8.742           | 9.539           | 4.178              |               |               |       |       | 1698.8 |
| 927 |               | 70.854          | 53.550        | 38.402        | 33.424            | 8.753           | 9.552           | 4.187              |               |               |       |       | 1700.6 |
| 928 |               | 70.930          | 53.612        | 38.442        | 33.463            | 8.765           | 9.565           | 4.195              |               |               |       |       | 1702.4 |
| 929 |               | 71.006          | 53.673        | 38.482        | 33.502            | 8.776           | 9.578           | 4.204              |               |               |       |       | 1704.2 |
| 930 |               | 71.082          | 53.735        | 38.522        | 33.541            | 8.787           | 9.591           | 4.213              |               |               |       |       | 1706.0 |

| °C  | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|-----|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90 | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 931 |               | 71.159          | 53.796        | 38.561        | 33.580            | 8.798           | 9.603           | 4.221              |               |               |       |       | 1707.8 |
| 932 |               | 71.235          | 53.857        | 38.601        | 33.619            | 8.810           | 9.616           | 4.230              |               |               |       |       | 1709.6 |
| 933 |               | 71.311          | 53.919        | 38.641        | 33.658            | 8.821           | 9.629           | 4.239              |               |               |       |       | 1711.4 |
| 934 |               | 71.387          | 53.980        | 38.680        | 33.697            | 8.832           | 9.642           | 4.247              |               |               |       |       | 1713.2 |
| 935 |               | 71.463          | 54.041        | 38.720        | 33.736            | 8.844           | 9.655           | 4.256              |               |               |       |       | 1715.0 |
| 936 |               | 71.539          | 54.102        | 38.760        | 33.774            | 8.855           | 9.668           | 4.265              |               |               |       |       | 1716.8 |
| 937 |               | 71.615          | 54.164        | 38.799        | 33.813            | 8.866           | 9.681           | 4.273              |               |               |       |       | 1718.6 |
| 938 |               | 71.692          | 54.225        | 38.839        | 33.852            | 8.878           | 9.694           | 4.282              |               |               |       |       | 1720.4 |
| 939 |               | 71.768          | 54.286        | 38.878        | 33.891            | 8.889           | 9.707           | 4.291              |               |               |       |       | 1722.2 |
| 940 |               | 71.844          | 54.347        | 38.918        | 33.930            | 8.900           | 9.720           | 4.299              |               |               |       |       | 1724.0 |
| 941 |               | 71.920          | 54.408        | 38.958        | 33.969            | 8.912           | 9.733           | 4.308              |               |               |       |       | 1725.8 |
| 942 |               | 71.996          | 54.469        | 38.997        | 34.008            | 8.923           | 9.746           | 4.317              |               |               |       |       | 1727.6 |
| 943 |               | 72.072          | 54.530        | 39.037        | 34.047            | 8.935           | 9.759           | 4.326              |               |               |       |       | 1729.4 |
| 944 |               | 72.147          | 54.591        | 39.076        | 34.086            | 8.946           | 9.772           | 4.334              |               |               |       |       | 1731.2 |
| 945 |               | 72.223          | 54.652        | 39.116        | 34.124            | 8.957           | 9.785           | 4.343              |               |               |       |       | 1733.0 |
| 946 |               | 72.299          | 54.713        | 39.155        | 34.163            | 8.969           | 9.798           | 4.352              |               |               |       |       | 1734.8 |
| 947 |               | 72.375          | 54.773        | 39.195        | 34.202            | 8.980           | 9.811           | 4.360              |               |               |       |       | 1736.6 |
| 948 |               | 72.451          | 54.834        | 39.235        | 34.241            | 8.991           | 9.824           | 4.369              |               |               |       |       | 1738.4 |
| 949 |               | 72.527          | 54.895        | 39.274        | 34.280            | 9.003           | 9.837           | 4.378              |               |               |       |       | 1740.2 |
| 950 |               | 72.603          | 54.956        | 39.314        | 34.319            | 9.014           | 9.850           | 4.387              |               |               |       |       | 1742.0 |
| 951 |               | 72.678          | 55.016        | 39.353        | 34.358            | 9.025           | 9.863           | 4.396              |               |               |       |       | 1743.8 |
| 952 |               | 72.754          | 55.077        | 39.393        | 34.396            | 9.037           | 9.876           | 4.404              |               |               |       |       | 1745.6 |
| 953 |               | 72.830          | 55.138        | 39.432        | 34.435            | 9.048           | 9.889           | 4.413              |               |               |       |       | 1747.4 |
| 954 |               | 72.906          | 55.198        | 39.471        | 34.474            | 9.060           | 9.902           | 4.422              |               |               |       |       | 1749.2 |
| 955 |               | 72.981          | 55.259        | 39.511        | 34.513            | 9.071           | 9.915           | 4.431              |               |               |       |       | 1751.0 |
| 956 |               | 73.057          | 55.319        | 39.550        | 34.552            | 9.082           | 9.928           | 4.440              |               |               |       |       | 1752.8 |
| 957 |               | 73.133          | 55.380        | 39.590        | 34.591            | 9.094           | 9.941           | 4.448              |               |               |       |       | 1754.6 |
| 958 |               | 73.208          | 55.440        | 39.629        | 34.629            | 9.105           | 9.954           | 4.457              |               |               |       |       | 1756.4 |
| 959 |               | 73.284          | 55.501        | 39.669        | 34.668            | 9.117           | 9.967           | 4.466              |               |               |       |       | 1758.2 |
| 960 |               | 73.360          | 55.561        | 39.708        | 34.707            | 9.128           | 9.980           | 4.475              |               |               |       |       | 1760.0 |
| 961 |               | 73.435          | 55.622        | 39.747        | 34.746            | 9.139           | 9.993           | 4.484              |               |               |       |       | 1761.8 |
| 962 |               | 73.511          | 55.682        | 39.787        | 34.785            | 9.151           | 10.006          | 4.493              |               |               |       |       | 1763.6 |
| 963 |               | 73.586          | 55.742        | 39.826        | 34.823            | 9.162           | 10.019          | 4.501              |               |               |       |       | 1765.4 |
| 964 |               | 73.662          | 55.803        | 39.866        | 34.862            | 9.174           | 10.032          | 4.510              |               |               |       |       | 1767.2 |
| 965 |               | 73.738          | 55.863        | 39.905        | 34.901            | 9.185           | 10.046          | 4.519              |               |               |       |       | 1769.0 |
| 966 |               | 73.813          | 55.923        | 39.944        | 34.940            | 9.197           | 10.059          | 4.528              |               |               |       |       | 1770.8 |
| 967 |               | 73.889          | 55.983        | 39.984        | 34.979            | 9.208           | 10.072          | 4.537              |               |               |       |       | 1772.6 |
| 968 |               | 73.964          | 56.043        | 40.023        | 35.017            | 9.219           | 10.085          | 4.546              |               |               |       |       | 1774.4 |
| 969 |               | 74.040          | 56.104        | 40.062        | 35.056            | 9.231           | 10.098          | 4.555              |               |               |       |       | 1776.2 |
| 970 |               | 74.115          | 56.164        | 40.101        | 35.095            | 9.242           | 10.111          | 4.564              |               |               |       |       | 1778.0 |
| 971 |               | 74.190          | 56.224        | 40.141        | 35.134            | 9.254           | 10.124          | 4.573              |               |               |       |       | 1779.8 |
| 972 |               | 74.266          | 56.284        | 40.180        | 35.172            | 9.265           | 10.137          | 4.582              |               |               |       |       | 1781.6 |
| 973 |               | 74.341          | 56.344        | 40.219        | 35.211            | 9.277           | 10.150          | 4.591              |               |               |       |       | 1783.4 |
| 974 |               | 74.417          | 56.404        | 40.259        | 35.250            | 9.288           | 10.163          | 4.599              |               |               |       |       | 1785.2 |
| 975 |               | 74.492          | 56.464        | 40.298        | 35.289            | 9.300           | 10.177          | 4.608              |               |               |       |       | 1787.0 |
| 976 |               | 74.567          | 56.524        | 40.337        | 35.327            | 9.311           | 10.190          | 4.617              |               |               |       |       | 1788.8 |
| 977 |               | 74.643          | 56.584        | 40.376        | 35.366            | 9.323           | 10.203          | 4.626              |               |               |       |       | 1790.6 |
| 978 |               | 74.718          | 56.643        | 40.415        | 35.405            | 9.334           | 10.216          | 4.635              |               |               |       |       | 1792.4 |
| 979 |               | 74.793          | 56.703        | 40.455        | 35.444            | 9.345           | 10.229          | 4.644              |               |               |       |       | 1794.2 |
| 980 |               | 74.869          | 56.763        | 40.494        | 35.482            | 9.357           | 10.242          | 4.653              |               |               |       |       | 1796.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 981  |               | 74.944          | 56.823        | 40.533        | 35.521            | 9.368           | 10.255          | 4.662              |               |               |       |       | 1797.8 |
| 982  |               | 75.019          | 56.883        | 40.572        | 35.560            | 9.380           | 10.269          | 4.671              |               |               |       |       | 1799.6 |
| 983  |               | 75.095          | 56.942        | 40.611        | 35.598            | 9.391           | 10.282          | 4.680              |               |               |       |       | 1801.4 |
| 984  |               | 75.170          | 57.002        | 40.651        | 35.637            | 9.403           | 10.295          | 4.689              |               |               |       |       | 1803.2 |
| 985  |               | 75.245          | 57.062        | 40.690        | 35.676            | 9.414           | 10.308          | 4.698              |               |               |       |       | 1805.0 |
| 986  |               | 75.320          | 57.121        | 40.729        | 35.714            | 9.426           | 10.321          | 4.707              |               |               |       |       | 1806.8 |
| 987  |               | 75.395          | 57.181        | 40.768        | 35.753            | 9.437           | 10.334          | 4.716              |               |               |       |       | 1808.6 |
| 988  |               | 75.471          | 57.240        | 40.807        | 35.792            | 9.449           | 10.348          | 4.725              |               |               |       |       | 1810.4 |
| 989  |               | 75.546          | 57.300        | 40.846        | 35.831            | 9.460           | 10.361          | 4.734              |               |               |       |       | 1812.2 |
| 990  |               | 75.621          | 57.360        | 40.885        | 35.869            | 9.472           | 10.374          | 4.743              |               |               |       |       | 1814.0 |
| 991  |               | 75.696          | 57.419        | 40.924        | 35.908            | 9.483           | 10.387          | 4.753              |               |               |       |       | 1815.8 |
| 992  |               | 75.771          | 57.479        | 40.963        | 35.946            | 9.495           | 10.400          | 4.762              |               |               |       |       | 1817.6 |
| 993  |               | 75.847          | 57.538        | 41.002        | 35.985            | 9.506           | 10.413          | 4.771              |               |               |       |       | 1819.4 |
| 994  |               | 75.922          | 57.597        | 41.042        | 36.024            | 9.518           | 10.427          | 4.780              |               |               |       |       | 1821.2 |
| 995  |               | 75.997          | 57.657        | 41.081        | 36.062            | 9.529           | 10.440          | 4.789              |               |               |       |       | 1823.0 |
| 996  |               | 76.072          | 57.716        | 41.120        | 36.101            | 9.541           | 10.453          | 4.798              |               |               |       |       | 1824.8 |
| 997  |               | 76.147          | 57.776        | 41.159        | 36.140            | 9.552           | 10.466          | 4.807              |               |               |       |       | 1826.6 |
| 998  |               | 76.223          | 57.835        | 41.198        | 36.178            | 9.564           | 10.480          | 4.816              |               |               |       |       | 1828.4 |
| 999  |               | 76.298          | 57.894        | 41.237        | 36.217            | 9.576           | 10.493          | 4.825              |               |               |       |       | 1830.2 |
| 1000 |               | 76.373          | 57.953        | 41.276        | 36.256            | 9.587           | 10.506          | 4.834              |               |               |       |       | 1832.0 |
| 1001 |               |                 | 58.013        | 41.315        | 36.294            | 9.599           | 10.519          | 4.843              |               |               |       |       | 1833.8 |
| 1002 |               |                 | 58.072        | 41.354        | 36.333            | 9.610           | 10.532          | 4.853              |               |               |       |       | 1835.6 |
| 1003 |               |                 | 58.131        | 41.393        | 36.371            | 9.622           | 10.546          | 4.862              |               |               |       |       | 1837.4 |
| 1004 |               |                 | 58.190        | 41.431        | 36.410            | 9.633           | 10.559          | 4.871              |               |               |       |       | 1839.2 |
| 1005 |               |                 | 58.249        | 41.470        | 36.449            | 9.645           | 10.572          | 4.880              |               |               |       |       | 1841.0 |
| 1006 |               |                 | 58.309        | 41.509        | 36.487            | 9.656           | 10.585          | 4.889              |               |               |       |       | 1842.8 |
| 1007 |               |                 | 58.368        | 41.548        | 36.526            | 9.668           | 10.599          | 4.898              |               |               |       |       | 1844.6 |
| 1008 |               |                 | 58.427        | 41.587        | 36.564            | 9.679           | 10.612          | 4.908              |               |               |       |       | 1846.4 |
| 1009 |               |                 | 58.486        | 41.626        | 36.603            | 9.691           | 10.625          | 4.917              |               |               |       |       | 1848.2 |
| 1010 |               |                 | 58.545        | 41.665        | 36.641            | 9.703           | 10.639          | 4.926              |               |               |       |       | 1850.0 |
| 1011 |               |                 | 58.604        | 41.704        | 36.680            | 9.714           | 10.652          | 4.935              |               |               |       |       | 1851.8 |
| 1012 |               |                 | 58.663        | 41.743        | 36.718            | 9.726           | 10.665          | 4.944              |               |               |       |       | 1853.6 |
| 1013 |               |                 | 58.722        | 41.781        | 36.757            | 9.737           | 10.678          | 4.954              |               |               |       |       | 1855.4 |
| 1014 |               |                 | 58.781        | 41.820        | 36.796            | 9.749           | 10.692          | 4.963              |               |               |       |       | 1857.2 |
| 1015 |               |                 | 58.840        | 41.859        | 36.834            | 9.761           | 10.705          | 4.972              |               |               |       |       | 1859.0 |
| 1016 |               |                 | 58.899        | 41.898        | 36.873            | 9.772           | 10.718          | 4.981              |               |               |       |       | 1860.8 |
| 1017 |               |                 | 58.957        | 41.937        | 36.911            | 9.784           | 10.732          | 4.990              |               |               |       |       | 1862.6 |
| 1018 |               |                 | 59.016        | 41.976        | 36.950            | 9.795           | 10.745          | 5.000              |               |               |       |       | 1864.4 |
| 1019 |               |                 | 59.075        | 42.014        | 36.988            | 9.807           | 10.758          | 5.009              |               |               |       |       | 1866.2 |
| 1020 |               |                 | 59.134        | 42.053        | 37.027            | 9.818           | 10.771          | 5.018              |               |               |       |       | 1868.0 |
| 1021 |               |                 | 59.193        | 42.092        | 37.065            | 9.830           | 10.785          | 5.027              |               |               |       |       | 1869.8 |
| 1022 |               |                 | 59.252        | 42.131        | 37.104            | 9.842           | 10.798          | 5.037              |               |               |       |       | 1871.6 |
| 1023 |               |                 | 59.310        | 42.169        | 37.142            | 9.853           | 10.811          | 5.046              |               |               |       |       | 1873.4 |
| 1024 |               |                 | 59.369        | 42.208        | 37.181            | 9.865           | 10.825          | 5.055              |               |               |       |       | 1875.2 |
| 1025 |               |                 | 59.428        | 42.247        | 37.219            | 9.877           | 10.838          | 5.065              |               |               |       |       | 1877.0 |
| 1026 |               |                 | 59.487        | 42.286        | 37.258            | 9.888           | 10.851          | 5.074              |               |               |       |       | 1878.8 |
| 1027 |               |                 | 59.545        | 42.324        | 37.296            | 9.900           | 10.865          | 5.083              |               |               |       |       | 1880.6 |
| 1028 |               |                 | 59.604        | 42.363        | 37.334            | 9.911           | 10.878          | 5.092              |               |               |       |       | 1882.4 |
| 1029 |               |                 | 59.663        | 42.402        | 37.373            | 9.923           | 10.891          | 5.102              |               |               |       |       | 1884.2 |
| 1030 |               |                 | 59.721        | 42.440        | 37.411            | 9.935           | 10.905          | 5.111              |               |               |       |       | 1886.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1031 |               |                 | 59.780        | 42.479        | 37.450            | 9.946           | 10.918          | 5.120              |               |               |       |       | 1887.8 |
| 1032 |               |                 | 59.838        | 42.518        | 37.488            | 9.958           | 10.932          | 5.130              |               |               |       |       | 1889.6 |
| 1033 |               |                 | 59.897        | 42.556        | 37.527            | 9.970           | 10.945          | 5.139              |               |               |       |       | 1891.4 |
| 1034 |               |                 | 59.956        | 42.595        | 37.565            | 9.981           | 10.958          | 5.148              |               |               |       |       | 1893.2 |
| 1035 |               |                 | 60.014        | 42.633        | 37.603            | 9.993           | 10.972          | 5.158              |               |               |       |       | 1895.0 |
| 1036 |               |                 | 60.073        | 42.672        | 37.642            | 10.005          | 10.985          | 5.167              |               |               |       |       | 1896.8 |
| 1037 |               |                 | 60.131        | 42.711        | 37.680            | 10.016          | 10.998          | 5.176              |               |               |       |       | 1898.6 |
| 1038 |               |                 | 60.190        | 42.749        | 37.719            | 10.028          | 11.012          | 5.186              |               |               |       |       | 1900.4 |
| 1039 |               |                 | 60.248        | 42.788        | 37.757            | 10.040          | 11.025          | 5.195              |               |               |       |       | 1902.2 |
| 1040 |               |                 | 60.307        | 42.826        | 37.795            | 10.051          | 11.039          | 5.205              |               |               |       |       | 1904.0 |
| 1041 |               |                 | 60.365        | 42.865        | 37.834            | 10.063          | 11.052          | 5.214              |               |               |       |       | 1905.8 |
| 1042 |               |                 | 60.423        | 42.903        | 37.872            | 10.075          | 11.065          | 5.223              |               |               |       |       | 1907.6 |
| 1043 |               |                 | 60.482        | 42.942        | 37.911            | 10.086          | 11.079          | 5.233              |               |               |       |       | 1909.4 |
| 1044 |               |                 | 60.540        | 42.980        | 37.949            | 10.098          | 11.092          | 5.242              |               |               |       |       | 1911.2 |
| 1045 |               |                 | 60.599        | 43.019        | 37.987            | 10.110          | 11.106          | 5.252              |               |               |       |       | 1913.0 |
| 1046 |               |                 | 60.657        | 43.057        | 38.026            | 10.121          | 11.119          | 5.261              |               |               |       |       | 1914.8 |
| 1047 |               |                 | 60.715        | 43.096        | 38.064            | 10.133          | 11.133          | 5.270              |               |               |       |       | 1916.6 |
| 1048 |               |                 | 60.774        | 43.134        | 38.102            | 10.145          | 11.146          | 5.280              |               |               |       |       | 1918.4 |
| 1049 |               |                 | 60.832        | 43.173        | 38.141            | 10.156          | 11.159          | 5.289              |               |               |       |       | 1920.2 |
| 1050 |               |                 | 60.890        | 43.211        | 38.179            | 10.168          | 11.173          | 5.299              |               |               |       |       | 1922.0 |
| 1051 |               |                 | 60.949        | 43.250        | 38.217            | 10.180          | 11.186          | 5.308              |               |               |       |       | 1923.8 |
| 1052 |               |                 | 61.007        | 43.288        | 38.256            | 10.191          | 11.200          | 5.318              |               |               |       |       | 1925.6 |
| 1053 |               |                 | 61.065        | 43.327        | 38.294            | 10.203          | 11.213          | 5.327              |               |               |       |       | 1927.4 |
| 1054 |               |                 | 61.123        | 43.365        | 38.332            | 10.215          | 11.227          | 5.337              |               |               |       |       | 1929.2 |
| 1055 |               |                 | 61.182        | 43.403        | 38.370            | 10.227          | 11.240          | 5.346              |               |               |       |       | 1931.0 |
| 1056 |               |                 | 61.240        | 43.442        | 38.409            | 10.238          | 11.254          | 5.356              |               |               |       |       | 1932.8 |
| 1057 |               |                 | 61.298        | 43.480        | 38.447            | 10.250          | 11.267          | 5.365              |               |               |       |       | 1934.6 |
| 1058 |               |                 | 61.356        | 43.518        | 38.485            | 10.262          | 11.280          | 5.375              |               |               |       |       | 1936.4 |
| 1059 |               |                 | 61.415        | 43.557        | 38.524            | 10.273          | 11.294          | 5.384              |               |               |       |       | 1938.2 |
| 1060 |               |                 | 61.473        | 43.595        | 38.562            | 10.285          | 11.307          | 5.394              |               |               |       |       | 1940.0 |
| 1061 |               |                 | 61.531        | 43.633        | 38.600            | 10.297          | 11.321          | 5.403              |               |               |       |       | 1941.8 |
| 1062 |               |                 | 61.589        | 43.672        | 38.638            | 10.309          | 11.334          | 5.413              |               |               |       |       | 1943.6 |
| 1063 |               |                 | 61.647        | 43.710        | 38.677            | 10.320          | 11.348          | 5.422              |               |               |       |       | 1945.4 |
| 1064 |               |                 | 61.705        | 43.748        | 38.715            | 10.332          | 11.361          | 5.432              |               |               |       |       | 1947.2 |
| 1065 |               |                 | 61.763        | 43.787        | 38.753            | 10.344          | 11.375          | 5.441              |               |               |       |       | 1949.0 |
| 1066 |               |                 | 61.822        | 43.825        | 38.791            | 10.356          | 11.388          | 5.451              |               |               |       |       | 1950.8 |
| 1067 |               |                 | 61.880        | 43.863        | 38.829            | 10.367          | 11.402          | 5.460              |               |               |       |       | 1952.6 |
| 1068 |               |                 | 61.938        | 43.901        | 38.868            | 10.379          | 11.415          | 5.470              |               |               |       |       | 1954.4 |
| 1069 |               |                 | 61.996        | 43.940        | 38.906            | 10.391          | 11.429          | 5.480              |               |               |       |       | 1956.2 |
| 1070 |               |                 | 62.054        | 43.978        | 38.944            | 10.403          | 11.442          | 5.489              |               |               |       |       | 1958.0 |
| 1071 |               |                 | 62.112        | 44.016        | 38.982            | 10.414          | 11.456          | 5.499              |               |               |       |       | 1959.8 |
| 1072 |               |                 | 62.170        | 44.054        | 39.020            | 10.426          | 11.469          | 5.508              |               |               |       |       | 1961.6 |
| 1073 |               |                 | 62.228        | 44.092        | 39.059            | 10.438          | 11.483          | 5.518              |               |               |       |       | 1963.4 |
| 1074 |               |                 | 62.286        | 44.130        | 39.097            | 10.450          | 11.496          | 5.528              |               |               |       |       | 1965.2 |
| 1075 |               |                 | 62.344        | 44.169        | 39.135            | 10.461          | 11.510          | 5.537              |               |               |       |       | 1967.0 |
| 1076 |               |                 | 62.402        | 44.207        | 39.173            | 10.473          | 11.524          | 5.547              |               |               |       |       | 1968.8 |
| 1077 |               |                 | 62.460        | 44.245        | 39.211            | 10.485          | 11.537          | 5.556              |               |               |       |       | 1970.6 |
| 1078 |               |                 | 62.518        | 44.283        | 39.249            | 10.497          | 11.551          | 5.566              |               |               |       |       | 1972.4 |
| 1079 |               |                 | 62.576        | 44.321        | 39.287            | 10.509          | 11.564          | 5.576              |               |               |       |       | 1974.2 |
| 1080 |               |                 | 62.634        | 44.359        | 39.326            | 10.520          | 11.578          | 5.585              |               |               |       |       | 1976.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1081 |               |                 | 62.692        | 44.397        | 39.364            | 10.532          | 11.591          | 5.595              |               |               |       |       | 1977.8 |
| 1082 |               |                 | 62.750        | 44.435        | 39.402            | 10.544          | 11.605          | 5.605              |               |               |       |       | 1979.6 |
| 1083 |               |                 | 62.808        | 44.473        | 39.440            | 10.556          | 11.618          | 5.614              |               |               |       |       | 1981.4 |
| 1084 |               |                 | 62.866        | 44.512        | 39.478            | 10.567          | 11.632          | 5.624              |               |               |       |       | 1983.2 |
| 1085 |               |                 | 62.924        | 44.550        | 39.516            | 10.579          | 11.646          | 5.634              |               |               |       |       | 1985.0 |
| 1086 |               |                 | 62.982        | 44.588        | 39.554            | 10.591          | 11.659          | 5.643              |               |               |       |       | 1986.8 |
| 1087 |               |                 | 63.040        | 44.626        | 39.592            | 10.603          | 11.673          | 5.653              |               |               |       |       | 1988.6 |
| 1088 |               |                 | 63.098        | 44.664        | 39.630            | 10.615          | 11.686          | 5.663              |               |               |       |       | 1990.4 |
| 1089 |               |                 | 63.156        | 44.702        | 39.668            | 10.626          | 11.700          | 5.672              |               |               |       |       | 1992.2 |
| 1090 |               |                 | 63.214        | 44.740        | 39.706            | 10.638          | 11.714          | 5.682              |               |               |       |       | 1994.0 |
| 1091 |               |                 | 63.271        | 44.778        | 39.744            | 10.650          | 11.727          | 5.692              |               |               |       |       | 1995.8 |
| 1092 |               |                 | 63.329        | 44.816        | 39.783            | 10.662          | 11.741          | 5.702              |               |               |       |       | 1997.6 |
| 1093 |               |                 | 63.387        | 44.853        | 39.821            | 10.674          | 11.754          | 5.711              |               |               |       |       | 1999.4 |
| 1094 |               |                 | 63.445        | 44.891        | 39.859            | 10.686          | 11.768          | 5.721              |               |               |       |       | 2001.2 |
| 1095 |               |                 | 63.503        | 44.929        | 39.897            | 10.697          | 11.782          | 5.731              |               |               |       |       | 2003.0 |
| 1096 |               |                 | 63.561        | 44.967        | 39.935            | 10.709          | 11.795          | 5.740              |               |               |       |       | 2004.8 |
| 1097 |               |                 | 63.619        | 45.005        | 39.973            | 10.721          | 11.809          | 5.750              |               |               |       |       | 2006.6 |
| 1098 |               |                 | 63.677        | 45.043        | 40.011            | 10.733          | 11.822          | 5.760              |               |               |       |       | 2008.4 |
| 1099 |               |                 | 63.734        | 45.081        | 40.049            | 10.745          | 11.836          | 5.770              |               |               |       |       | 2010.2 |
| 1100 |               |                 | 63.792        | 45.119        | 40.087            | 10.757          | 11.850          | 5.780              |               |               |       |       | 2012.0 |
| 1101 |               |                 | 63.850        | 45.157        | 40.125            | 10.768          | 11.863          | 5.789              |               |               |       |       | 2013.8 |
| 1102 |               |                 | 63.908        | 45.194        | 40.163            | 10.780          | 11.877          | 5.799              |               |               |       |       | 2015.6 |
| 1103 |               |                 | 63.966        | 45.232        | 40.201            | 10.792          | 11.891          | 5.809              |               |               |       |       | 2017.4 |
| 1104 |               |                 | 64.024        | 45.270        | 40.238            | 10.804          | 11.904          | 5.819              |               |               |       |       | 2019.2 |
| 1105 |               |                 | 64.081        | 45.308        | 40.276            | 10.816          | 11.918          | 5.828              |               |               |       |       | 2021.0 |
| 1106 |               |                 | 64.139        | 45.346        | 40.314            | 10.828          | 11.931          | 5.838              |               |               |       |       | 2022.8 |
| 1107 |               |                 | 64.197        | 45.383        | 40.352            | 10.839          | 11.945          | 5.848              |               |               |       |       | 2024.6 |
| 1108 |               |                 | 64.255        | 45.421        | 40.390            | 10.851          | 11.959          | 5.858              |               |               |       |       | 2026.4 |
| 1109 |               |                 | 64.313        | 45.459        | 40.428            | 10.863          | 11.972          | 5.868              |               |               |       |       | 2028.2 |
| 1110 |               |                 | 64.370        | 45.497        | 40.466            | 10.875          | 11.986          | 5.878              |               |               |       |       | 2030.0 |
| 1111 |               |                 | 64.428        | 45.534        | 40.504            | 10.887          | 12.000          | 5.887              |               |               |       |       | 2031.8 |
| 1112 |               |                 | 64.486        | 45.572        | 40.542            | 10.899          | 12.013          | 5.897              |               |               |       |       | 2033.6 |
| 1113 |               |                 | 64.544        | 45.610        | 40.580            | 10.911          | 12.027          | 5.907              |               |               |       |       | 2035.4 |
| 1114 |               |                 | 64.602        | 45.647        | 40.618            | 10.922          | 12.041          | 5.917              |               |               |       |       | 2037.2 |
| 1115 |               |                 | 64.659        | 45.685        | 40.655            | 10.934          | 12.054          | 5.927              |               |               |       |       | 2039.0 |
| 1116 |               |                 | 64.717        | 45.723        | 40.693            | 10.946          | 12.068          | 5.937              |               |               |       |       | 2040.8 |
| 1117 |               |                 | 64.775        | 45.760        | 40.731            | 10.958          | 12.082          | 5.947              |               |               |       |       | 2042.6 |
| 1118 |               |                 | 64.833        | 45.798        | 40.769            | 10.970          | 12.096          | 5.956              |               |               |       |       | 2044.4 |
| 1119 |               |                 | 64.890        | 45.836        | 40.807            | 10.982          | 12.109          | 5.966              |               |               |       |       | 2046.2 |
| 1120 |               |                 | 64.948        | 45.873        | 40.845            | 10.994          | 12.123          | 5.976              |               |               |       |       | 2048.0 |
| 1121 |               |                 | 65.006        | 45.911        | 40.883            | 11.006          | 12.137          | 5.986              |               |               |       |       | 2049.8 |
| 1122 |               |                 | 65.064        | 45.948        | 40.920            | 11.017          | 12.150          | 5.996              |               |               |       |       | 2051.6 |
| 1123 |               |                 | 65.121        | 45.986        | 40.958            | 11.029          | 12.164          | 6.006              |               |               |       |       | 2053.4 |
| 1124 |               |                 | 65.179        | 46.024        | 40.996            | 11.041          | 12.178          | 6.016              |               |               |       |       | 2055.2 |
| 1125 |               |                 | 65.237        | 46.061        | 41.034            | 11.053          | 12.191          | 6.026              |               |               |       |       | 2057.0 |
| 1126 |               |                 | 65.295        | 46.099        | 41.072            | 11.065          | 12.205          | 6.036              |               |               |       |       | 2058.8 |
| 1127 |               |                 | 65.352        | 46.136        | 41.109            | 11.077          | 12.219          | 6.046              |               |               |       |       | 2060.6 |
| 1128 |               |                 | 65.410        | 46.174        | 41.147            | 11.089          | 12.233          | 6.055              |               |               |       |       | 2062.4 |
| 1129 |               |                 | 65.468        | 46.211        | 41.185            | 11.101          | 12.246          | 6.065              |               |               |       |       | 2064.2 |
| 1130 |               |                 | 65.525        | 46.249        | 41.223            | 11.113          | 12.260          | 6.075              |               |               |       |       | 2066.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1131 |               |                 | 65.583        | 46.286        | 41.260            | 11.125          | 12.274          | 6.085              |               |               |       |       | 2067.8 |
| 1132 |               |                 | 65.641        | 46.324        | 41.298            | 11.136          | 12.288          | 6.095              |               |               |       |       | 2069.6 |
| 1133 |               |                 | 65.699        | 46.361        | 41.336            | 11.148          | 12.301          | 6.105              |               |               |       |       | 2071.4 |
| 1134 |               |                 | 65.756        | 46.398        | 41.374            | 11.160          | 12.315          | 6.115              |               |               |       |       | 2073.2 |
| 1135 |               |                 | 65.814        | 46.436        | 41.411            | 11.172          | 12.329          | 6.125              |               |               |       |       | 2075.0 |
| 1136 |               |                 | 65.872        | 46.473        | 41.449            | 11.184          | 12.342          | 6.135              |               |               |       |       | 2076.8 |
| 1137 |               |                 | 65.929        | 46.511        | 41.487            | 11.196          | 12.356          | 6.145              |               |               |       |       | 2078.6 |
| 1138 |               |                 | 65.987        | 46.548        | 41.525            | 11.208          | 12.370          | 6.155              |               |               |       |       | 2080.4 |
| 1139 |               |                 | 66.045        | 46.585        | 41.562            | 11.220          | 12.384          | 6.165              |               |               |       |       | 2082.2 |
| 1140 |               |                 | 66.102        | 46.623        | 41.600            | 11.232          | 12.397          | 6.175              |               |               |       |       | 2084.0 |
| 1141 |               |                 | 66.160        | 46.660        | 41.638            | 11.244          | 12.411          | 6.185              |               |               |       |       | 2085.8 |
| 1142 |               |                 | 66.218        | 46.697        | 41.675            | 11.256          | 12.425          | 6.195              |               |               |       |       | 2087.6 |
| 1143 |               |                 | 66.275        | 46.735        | 41.713            | 11.268          | 12.439          | 6.205              |               |               |       |       | 2089.4 |
| 1144 |               |                 | 66.333        | 46.772        | 41.751            | 11.280          | 12.453          | 6.215              |               |               |       |       | 2091.2 |
| 1145 |               |                 | 66.391        | 46.809        | 41.788            | 11.291          | 12.466          | 6.225              |               |               |       |       | 2093.0 |
| 1146 |               |                 | 66.448        | 46.847        | 41.826            | 11.303          | 12.480          | 6.235              |               |               |       |       | 2094.8 |
| 1147 |               |                 | 66.506        | 46.884        | 41.864            | 11.315          | 12.494          | 6.245              |               |               |       |       | 2096.6 |
| 1148 |               |                 | 66.564        | 46.921        | 41.901            | 11.327          | 12.508          | 6.256              |               |               |       |       | 2098.4 |
| 1149 |               |                 | 66.621        | 46.958        | 41.939            | 11.339          | 12.521          | 6.266              |               |               |       |       | 2100.2 |
| 1150 |               |                 | 66.679        | 46.995        | 41.976            | 11.351          | 12.535          | 6.276              |               |               |       |       | 2102.0 |
| 1151 |               |                 | 66.737        | 47.033        | 42.014            | 11.363          | 12.549          | 6.286              |               |               |       |       | 2103.8 |
| 1152 |               |                 | 66.794        | 47.070        | 42.052            | 11.375          | 12.563          | 6.296              |               |               |       |       | 2105.6 |
| 1153 |               |                 | 66.852        | 47.107        | 42.089            | 11.387          | 12.577          | 6.306              |               |               |       |       | 2107.4 |
| 1154 |               |                 | 66.910        | 47.144        | 42.127            | 11.399          | 12.590          | 6.316              |               |               |       |       | 2109.2 |
| 1155 |               |                 | 66.967        | 47.181        | 42.164            | 11.411          | 12.604          | 6.326              |               |               |       |       | 2111.0 |
| 1156 |               |                 | 67.025        | 47.218        | 42.202            | 11.423          | 12.618          | 6.336              |               |               |       |       | 2112.8 |
| 1157 |               |                 | 67.082        | 47.256        | 42.239            | 11.435          | 12.632          | 6.346              |               |               |       |       | 2114.6 |
| 1158 |               |                 | 67.140        | 47.293        | 42.277            | 11.447          | 12.646          | 6.356              |               |               |       |       | 2116.4 |
| 1159 |               |                 | 67.198        | 47.330        | 42.314            | 11.459          | 12.659          | 6.367              |               |               |       |       | 2118.2 |
| 1160 |               |                 | 67.255        | 47.367        | 42.352            | 11.471          | 12.673          | 6.377              |               |               |       |       | 2120.0 |
| 1161 |               |                 | 67.313        | 47.404        | 42.390            | 11.483          | 12.687          | 6.387              |               |               |       |       | 2121.8 |
| 1162 |               |                 | 67.370        | 47.441        | 42.427            | 11.495          | 12.701          | 6.397              |               |               |       |       | 2123.6 |
| 1163 |               |                 | 67.428        | 47.478        | 42.465            | 11.507          | 12.715          | 6.407              |               |               |       |       | 2125.4 |
| 1164 |               |                 | 67.486        | 47.515        | 42.502            | 11.519          | 12.729          | 6.417              |               |               |       |       | 2127.2 |
| 1165 |               |                 | 67.543        | 47.552        | 42.540            | 11.531          | 12.742          | 6.427              |               |               |       |       | 2129.0 |
| 1166 |               |                 | 67.601        | 47.589        | 42.577            | 11.542          | 12.756          | 6.438              |               |               |       |       | 2130.8 |
| 1167 |               |                 | 67.658        | 47.626        | 42.614            | 11.554          | 12.770          | 6.448              |               |               |       |       | 2132.6 |
| 1168 |               |                 | 67.716        | 47.663        | 42.652            | 11.566          | 12.784          | 6.458              |               |               |       |       | 2134.4 |
| 1169 |               |                 | 67.773        | 47.700        | 42.689            | 11.578          | 12.798          | 6.468              |               |               |       |       | 2136.2 |
| 1170 |               |                 | 67.831        | 47.737        | 42.727            | 11.590          | 12.812          | 6.478              |               |               |       |       | 2138.0 |
| 1171 |               |                 | 67.888        | 47.774        | 42.764            | 11.602          | 12.825          | 6.488              |               |               |       |       | 2139.8 |
| 1172 |               |                 | 67.946        | 47.811        | 42.802            | 11.614          | 12.839          | 6.499              |               |               |       |       | 2141.6 |
| 1173 |               |                 | 68.003        | 47.848        | 42.839            | 11.626          | 12.853          | 6.509              |               |               |       |       | 2143.4 |
| 1174 |               |                 | 68.061        | 47.884        | 42.877            | 11.638          | 12.867          | 6.519              |               |               |       |       | 2145.2 |
| 1175 |               |                 | 68.119        | 47.921        | 42.914            | 11.650          | 12.881          | 6.529              |               |               |       |       | 2147.0 |
| 1176 |               |                 | 68.176        | 47.958        | 42.951            | 11.662          | 12.895          | 6.539              |               |               |       |       | 2148.8 |
| 1177 |               |                 | 68.234        | 47.995        | 42.989            | 11.674          | 12.909          | 6.550              |               |               |       |       | 2150.6 |
| 1178 |               |                 | 68.291        | 48.032        | 43.026            | 11.686          | 12.922          | 6.560              |               |               |       |       | 2152.4 |
| 1179 |               |                 | 68.348        | 48.069        | 43.064            | 11.698          | 12.936          | 6.570              |               |               |       |       | 2154.2 |
| 1180 |               |                 | 68.406        | 48.105        | 43.101            | 11.710          | 12.950          | 6.580              |               |               |       |       | 2156.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1181 |               |                 | 68.463        | 48.142        | 43.138            | 11.722          | 12.964          | 6.591              |               |               |       |       | 2157.8 |
| 1182 |               |                 | 68.521        | 48.179        | 43.176            | 11.734          | 12.978          | 6.601              |               |               |       |       | 2159.6 |
| 1183 |               |                 | 68.578        | 48.216        | 43.213            | 11.746          | 12.992          | 6.611              |               |               |       |       | 2161.4 |
| 1184 |               |                 | 68.636        | 48.252        | 43.250            | 11.758          | 13.006          | 6.621              |               |               |       |       | 2163.2 |
| 1185 |               |                 | 68.693        | 48.289        | 43.288            | 11.770          | 13.019          | 6.632              |               |               |       |       | 2165.0 |
| 1186 |               |                 | 68.751        | 48.326        | 43.325            | 11.782          | 13.033          | 6.642              |               |               |       |       | 2166.8 |
| 1187 |               |                 | 68.808        | 48.363        | 43.362            | 11.794          | 13.047          | 6.652              |               |               |       |       | 2168.6 |
| 1188 |               |                 | 68.865        | 48.399        | 43.399            | 11.806          | 13.061          | 6.663              |               |               |       |       | 2170.4 |
| 1189 |               |                 | 68.923        | 48.436        | 43.437            | 11.818          | 13.075          | 6.673              |               |               |       |       | 2172.2 |
| 1190 |               |                 | 68.980        | 48.473        | 43.474            | 11.830          | 13.089          | 6.683              |               |               |       |       | 2174.0 |
| 1191 |               |                 | 69.037        | 48.509        | 43.511            | 11.842          | 13.103          | 6.693              |               |               |       |       | 2175.8 |
| 1192 |               |                 | 69.095        | 48.546        | 43.549            | 11.854          | 13.117          | 6.704              |               |               |       |       | 2177.6 |
| 1193 |               |                 | 69.152        | 48.582        | 43.586            | 11.866          | 13.131          | 6.714              |               |               |       |       | 2179.4 |
| 1194 |               |                 | 69.209        | 48.619        | 43.623            | 11.878          | 13.145          | 6.724              |               |               |       |       | 2181.2 |
| 1195 |               |                 | 69.267        | 48.656        | 43.660            | 11.890          | 13.158          | 6.735              |               |               |       |       | 2183.0 |
| 1196 |               |                 | 69.324        | 48.692        | 43.698            | 11.902          | 13.172          | 6.745              |               |               |       |       | 2184.8 |
| 1197 |               |                 | 69.381        | 48.729        | 43.735            | 11.914          | 13.186          | 6.755              |               |               |       |       | 2186.6 |
| 1198 |               |                 | 69.439        | 48.765        | 43.772            | 11.926          | 13.200          | 6.766              |               |               |       |       | 2188.4 |
| 1199 |               |                 | 69.496        | 48.802        | 43.809            | 11.939          | 13.214          | 6.776              |               |               |       |       | 2190.2 |
| 1200 |               |                 | 69.553        | 48.838        | 43.846            | 11.951          | 13.228          | 6.786              |               |               |       |       | 2192.0 |
| 1201 |               |                 |               | 48.875        | 43.884            | 11.963          | 13.242          | 6.797              |               |               |       |       | 2193.8 |
| 1202 |               |                 |               | 48.911        | 43.921            | 11.975          | 13.256          | 6.807              |               |               |       |       | 2195.6 |
| 1203 |               |                 |               | 48.948        | 43.958            | 11.987          | 13.270          | 6.818              |               |               |       |       | 2197.4 |
| 1204 |               |                 |               | 48.984        | 43.995            | 11.999          | 13.284          | 6.828              |               |               |       |       | 2199.2 |
| 1205 |               |                 |               | 49.021        | 44.032            | 12.011          | 13.298          | 6.838              |               |               |       |       | 2201.0 |
| 1206 |               |                 |               | 49.057        | 44.069            | 12.023          | 13.311          | 6.849              |               |               |       |       | 2202.8 |
| 1207 |               |                 |               | 49.093        | 44.106            | 12.035          | 13.325          | 6.859              |               |               |       |       | 2204.6 |
| 1208 |               |                 |               | 49.130        | 44.144            | 12.047          | 13.339          | 6.869              |               |               |       |       | 2206.4 |
| 1209 |               |                 |               | 49.166        | 44.181            | 12.059          | 13.353          | 6.880              |               |               |       |       | 2208.2 |
| 1210 |               |                 |               | 49.202        | 44.218            | 12.071          | 13.367          | 6.890              |               |               |       |       | 2210.0 |
| 1211 |               |                 |               | 49.239        | 44.255            | 12.083          | 13.381          | 6.901              |               |               |       |       | 2211.8 |
| 1212 |               |                 |               | 49.275        | 44.292            | 12.095          | 13.395          | 6.911              |               |               |       |       | 2213.6 |
| 1213 |               |                 |               | 49.311        | 44.329            | 12.107          | 13.409          | 6.922              |               |               |       |       | 2215.4 |
| 1214 |               |                 |               | 49.348        | 44.366            | 12.119          | 13.423          | 6.932              |               |               |       |       | 2217.2 |
| 1215 |               |                 |               | 49.384        | 44.403            | 12.131          | 13.437          | 6.942              |               |               |       |       | 2219.0 |
| 1216 |               |                 |               | 49.420        | 44.440            | 12.143          | 13.451          | 6.953              |               |               |       |       | 2220.8 |
| 1217 |               |                 |               | 49.456        | 44.477            | 12.155          | 13.465          | 6.963              |               |               |       |       | 2222.6 |
| 1218 |               |                 |               | 49.493        | 44.514            | 12.167          | 13.479          | 6.974              |               |               |       |       | 2224.4 |
| 1219 |               |                 |               | 49.529        | 44.551            | 12.179          | 13.493          | 6.984              |               |               |       |       | 2226.2 |
| 1220 |               |                 |               | 49.565        | 44.588            | 12.191          | 13.507          | 6.995              |               |               |       |       | 2228.0 |
| 1221 |               |                 |               | 49.601        | 44.625            | 12.203          | 13.521          | 7.005              |               |               |       |       | 2229.8 |
| 1222 |               |                 |               | 49.637        | 44.662            | 12.216          | 13.535          | 7.016              |               |               |       |       | 2231.6 |
| 1223 |               |                 |               | 49.674        | 44.699            | 12.228          | 13.549          | 7.026              |               |               |       |       | 2233.4 |
| 1224 |               |                 |               | 49.710        | 44.736            | 12.240          | 13.563          | 7.037              |               |               |       |       | 2235.2 |
| 1225 |               |                 |               | 49.746        | 44.773            | 12.252          | 13.577          | 7.047              |               |               |       |       | 2237.0 |
| 1226 |               |                 |               | 49.782        | 44.810            | 12.264          | 13.590          | 7.058              |               |               |       |       | 2238.8 |
| 1227 |               |                 |               | 49.818        | 44.847            | 12.276          | 13.604          | 7.068              |               |               |       |       | 2240.6 |
| 1228 |               |                 |               | 49.854        | 44.884            | 12.288          | 13.618          | 7.079              |               |               |       |       | 2242.4 |
| 1229 |               |                 |               | 49.890        | 44.921            | 12.300          | 13.632          | 7.089              |               |               |       |       | 2244.2 |
| 1230 |               |                 |               | 49.926        | 44.958            | 12.312          | 13.646          | 7.100              |               |               |       |       | 2246.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1231 |               |                 |               | 49.962        | 44.995            | 12.324          | 13.660          | 7.110              |               |               |       |       | 2247.8 |
| 1232 |               |                 |               | 49.998        | 45.032            | 12.336          | 13.674          | 7.121              |               |               |       |       | 2249.6 |
| 1233 |               |                 |               | 50.034        | 45.069            | 12.348          | 13.688          | 7.131              |               |               |       |       | 2251.4 |
| 1234 |               |                 |               | 50.070        | 45.105            | 12.360          | 13.702          | 7.142              |               |               |       |       | 2253.2 |
| 1235 |               |                 |               | 50.106        | 45.142            | 12.372          | 13.716          | 7.152              |               |               |       |       | 2255.0 |
| 1236 |               |                 |               | 50.142        | 45.179            | 12.384          | 13.730          | 7.163              |               |               |       |       | 2256.8 |
| 1237 |               |                 |               | 50.178        | 45.216            | 12.397          | 13.744          | 7.173              |               |               |       |       | 2258.6 |
| 1238 |               |                 |               | 50.214        | 45.253            | 12.409          | 13.758          | 7.184              |               |               |       |       | 2260.4 |
| 1239 |               |                 |               | 50.250        | 45.290            | 12.421          | 13.772          | 7.194              |               |               |       |       | 2262.2 |
| 1240 |               |                 |               | 50.286        | 45.326            | 12.433          | 13.786          | 7.205              |               |               |       |       | 2264.0 |
| 1241 |               |                 |               | 50.322        | 45.363            | 12.445          | 13.800          | 7.216              |               |               |       |       | 2265.8 |
| 1242 |               |                 |               | 50.358        | 45.400            | 12.457          | 13.814          | 7.226              |               |               |       |       | 2267.6 |
| 1243 |               |                 |               | 50.393        | 45.437            | 12.469          | 13.828          | 7.237              |               |               |       |       | 2269.4 |
| 1244 |               |                 |               | 50.429        | 45.474            | 12.481          | 13.842          | 7.247              |               |               |       |       | 2271.2 |
| 1245 |               |                 |               | 50.465        | 45.510            | 12.493          | 13.856          | 7.258              |               |               |       |       | 2273.0 |
| 1246 |               |                 |               | 50.501        | 45.547            | 12.505          | 13.870          | 7.269              |               |               |       |       | 2274.8 |
| 1247 |               |                 |               | 50.537        | 45.584            | 12.517          | 13.884          | 7.279              |               |               |       |       | 2276.6 |
| 1248 |               |                 |               | 50.572        | 45.621            | 12.529          | 13.898          | 7.290              |               |               |       |       | 2278.4 |
| 1249 |               |                 |               | 50.608        | 45.657            | 12.542          | 13.912          | 7.300              |               |               |       |       | 2280.2 |
| 1250 |               |                 |               | 50.644        | 45.694            | 12.554          | 13.926          | 7.311              |               |               |       |       | 2282.0 |
| 1251 |               |                 |               | 50.680        | 45.731            | 12.566          | 13.940          | 7.322              |               |               |       |       | 2283.8 |
| 1252 |               |                 |               | 50.715        | 45.767            | 12.578          | 13.954          | 7.332              |               |               |       |       | 2285.6 |
| 1253 |               |                 |               | 50.751        | 45.804            | 12.590          | 13.968          | 7.343              |               |               |       |       | 2287.4 |
| 1254 |               |                 |               | 50.787        | 45.841            | 12.602          | 13.982          | 7.353              |               |               |       |       | 2289.2 |
| 1255 |               |                 |               | 50.822        | 45.877            | 12.614          | 13.996          | 7.364              |               |               |       |       | 2291.0 |
| 1256 |               |                 |               | 50.858        | 45.914            | 12.626          | 14.010          | 7.375              |               |               |       |       | 2292.8 |
| 1257 |               |                 |               | 50.894        | 45.951            | 12.638          | 14.024          | 7.385              |               |               |       |       | 2294.6 |
| 1258 |               |                 |               | 50.929        | 45.987            | 12.650          | 14.038          | 7.396              |               |               |       |       | 2296.4 |
| 1259 |               |                 |               | 50.965        | 46.024            | 12.662          | 14.052          | 7.407              |               |               |       |       | 2298.2 |
| 1260 |               |                 |               | 51.000        | 46.060            | 12.675          | 14.066          | 7.417              |               |               |       |       | 2300.0 |
| 1261 |               |                 |               | 51.036        | 46.097            | 12.687          | 14.081          | 7.428              |               |               |       |       | 2301.8 |
| 1262 |               |                 |               | 51.071        | 46.133            | 12.699          | 14.095          | 7.439              |               |               |       |       | 2303.6 |
| 1263 |               |                 |               | 51.107        | 46.170            | 12.711          | 14.109          | 7.449              |               |               |       |       | 2305.4 |
| 1264 |               |                 |               | 51.142        | 46.207            | 12.723          | 14.123          | 7.460              |               |               |       |       | 2307.2 |
| 1265 |               |                 |               | 51.178        | 46.243            | 12.735          | 14.137          | 7.471              |               |               |       |       | 2309.0 |
| 1266 |               |                 |               | 51.213        | 46.280            | 12.747          | 14.151          | 7.482              |               |               |       |       | 2310.8 |
| 1267 |               |                 |               | 51.249        | 46.316            | 12.759          | 14.165          | 7.492              |               |               |       |       | 2312.6 |
| 1268 |               |                 |               | 51.284        | 46.353            | 12.771          | 14.179          | 7.503              |               |               |       |       | 2314.4 |
| 1269 |               |                 |               | 51.320        | 46.389            | 12.783          | 14.193          | 7.514              |               |               |       |       | 2316.2 |
| 1270 |               |                 |               | 51.355        | 46.425            | 12.796          | 14.207          | 7.524              |               |               |       |       | 2318.0 |
| 1271 |               |                 |               | 51.391        | 46.462            | 12.808          | 14.221          | 7.535              |               |               |       |       | 2319.8 |
| 1272 |               |                 |               | 51.426        | 46.498            | 12.820          | 14.235          | 7.546              |               |               |       |       | 2321.6 |
| 1273 |               |                 |               | 51.461        | 46.535            | 12.832          | 14.249          | 7.557              |               |               |       |       | 2323.4 |
| 1274 |               |                 |               | 51.497        | 46.571            | 12.844          | 14.263          | 7.567              |               |               |       |       | 2325.2 |
| 1275 |               |                 |               | 51.532        | 46.608            | 12.856          | 14.277          | 7.578              |               |               |       |       | 2327.0 |
| 1276 |               |                 |               | 51.567        | 46.644            | 12.868          | 14.291          | 7.589              |               |               |       |       | 2328.8 |
| 1277 |               |                 |               | 51.603        | 46.680            | 12.880          | 14.305          | 7.600              |               |               |       |       | 2330.6 |
| 1278 |               |                 |               | 51.638        | 46.717            | 12.892          | 14.319          | 7.610              |               |               |       |       | 2332.4 |
| 1279 |               |                 |               | 51.673        | 46.753            | 12.905          | 14.333          | 7.621              |               |               |       |       | 2334.2 |
| 1280 |               |                 |               | 51.708        | 46.789            | 12.917          | 14.347          | 7.632              |               |               |       |       | 2336.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1281 |               |                 |               | 51.744        | 46.826            | 12.929          | 14.361          | 7.643              |               |               |       |       | 2337.8 |
| 1282 |               |                 |               | 51.779        | 46.862            | 12.941          | 14.375          | 7.653              |               |               |       |       | 2339.6 |
| 1283 |               |                 |               | 51.814        | 46.898            | 12.953          | 14.390          | 7.664              |               |               |       |       | 2341.4 |
| 1284 |               |                 |               | 51.849        | 46.935            | 12.965          | 14.404          | 7.675              |               |               |       |       | 2343.2 |
| 1285 |               |                 |               | 51.885        | 46.971            | 12.977          | 14.418          | 7.686              |               |               |       |       | 2345.0 |
| 1286 |               |                 |               | 51.920        | 47.007            | 12.989          | 14.432          | 7.697              |               |               |       |       | 2346.8 |
| 1287 |               |                 |               | 51.955        | 47.043            | 13.001          | 14.446          | 7.707              |               |               |       |       | 2348.6 |
| 1288 |               |                 |               | 51.990        | 47.079            | 13.014          | 14.460          | 7.718              |               |               |       |       | 2350.4 |
| 1289 |               |                 |               | 52.025        | 47.116            | 13.026          | 14.474          | 7.729              |               |               |       |       | 2352.2 |
| 1290 |               |                 |               | 52.060        | 47.152            | 13.038          | 14.488          | 7.740              |               |               |       |       | 2354.0 |
| 1291 |               |                 |               | 52.095        | 47.188            | 13.050          | 14.502          | 7.751              |               |               |       |       | 2355.8 |
| 1292 |               |                 |               | 52.130        | 47.224            | 13.062          | 14.516          | 7.761              |               |               |       |       | 2357.6 |
| 1293 |               |                 |               | 52.165        | 47.260            | 13.074          | 14.530          | 7.772              |               |               |       |       | 2359.4 |
| 1294 |               |                 |               | 52.200        | 47.296            | 13.086          | 14.544          | 7.783              |               |               |       |       | 2361.2 |
| 1295 |               |                 |               | 52.235        | 47.333            | 13.098          | 14.558          | 7.794              |               |               |       |       | 2363.0 |
| 1296 |               |                 |               | 52.270        | 47.369            | 13.111          | 14.572          | 7.805              |               |               |       |       | 2364.8 |
| 1297 |               |                 |               | 52.305        | 47.405            | 13.123          | 14.586          | 7.816              |               |               |       |       | 2366.6 |
| 1298 |               |                 |               | 52.340        | 47.441            | 13.135          | 14.601          | 7.827              |               |               |       |       | 2368.4 |
| 1299 |               |                 |               | 52.375        | 47.477            | 13.147          | 14.615          | 7.837              |               |               |       |       | 2370.2 |
| 1300 |               |                 |               | 52.410        | 47.513            | 13.159          | 14.629          | 7.848              |               |               |       |       | 2372.0 |
| 1301 |               |                 |               | 52.445        |                   | 13.171          | 14.643          | 7.859              |               |               |       |       | 2373.8 |
| 1302 |               |                 |               | 52.480        |                   | 13.183          | 14.657          | 7.870              |               |               |       |       | 2375.6 |
| 1303 |               |                 |               | 52.515        |                   | 13.195          | 14.671          | 7.881              |               |               |       |       | 2377.4 |
| 1304 |               |                 |               | 52.550        |                   | 13.208          | 14.685          | 7.892              |               |               |       |       | 2379.2 |
| 1305 |               |                 |               | 52.585        |                   | 13.220          | 14.699          | 7.903              |               |               |       |       | 2381.0 |
| 1306 |               |                 |               | 52.620        |                   | 13.232          | 14.713          | 7.914              |               |               |       |       | 2382.8 |
| 1307 |               |                 |               | 52.654        |                   | 13.244          | 14.727          | 7.924              |               |               |       |       | 2384.6 |
| 1308 |               |                 |               | 52.689        |                   | 13.256          | 14.741          | 7.935              |               |               |       |       | 2386.4 |
| 1309 |               |                 |               | 52.724        |                   | 13.268          | 14.755          | 7.946              |               |               |       |       | 2388.2 |
| 1310 |               |                 |               | 52.759        |                   | 13.280          | 14.770          | 7.957              |               |               |       |       | 2390.0 |
| 1311 |               |                 |               | 52.794        |                   | 13.292          | 14.784          | 7.968              |               |               |       |       | 2391.8 |
| 1312 |               |                 |               | 52.828        |                   | 13.305          | 14.798          | 7.979              |               |               |       |       | 2393.6 |
| 1313 |               |                 |               | 52.863        |                   | 13.317          | 14.812          | 7.990              |               |               |       |       | 2395.4 |
| 1314 |               |                 |               | 52.898        |                   | 13.329          | 14.826          | 8.001              |               |               |       |       | 2397.2 |
| 1315 |               |                 |               | 52.932        |                   | 13.341          | 14.840          | 8.012              |               |               |       |       | 2399.0 |
| 1316 |               |                 |               | 52.967        |                   | 13.353          | 14.854          | 8.023              |               |               |       |       | 2400.8 |
| 1317 |               |                 |               | 53.002        |                   | 13.365          | 14.868          | 8.034              |               |               |       |       | 2402.6 |
| 1318 |               |                 |               | 53.037        |                   | 13.377          | 14.882          | 8.045              |               |               |       |       | 2404.4 |
| 1319 |               |                 |               | 53.071        |                   | 13.390          | 14.896          | 8.056              |               |               |       |       | 2406.2 |
| 1320 |               |                 |               | 53.106        |                   | 13.402          | 14.911          | 8.066              |               |               |       |       | 2408.0 |
| 1321 |               |                 |               | 53.140        |                   | 13.414          | 14.925          | 8.077              |               |               |       |       | 2409.8 |
| 1322 |               |                 |               | 53.175        |                   | 13.426          | 14.939          | 8.088              |               |               |       |       | 2411.6 |
| 1323 |               |                 |               | 53.210        |                   | 13.438          | 14.953          | 8.099              |               |               |       |       | 2413.4 |
| 1324 |               |                 |               | 53.244        |                   | 13.450          | 14.967          | 8.110              |               |               |       |       | 2415.2 |
| 1325 |               |                 |               | 53.279        |                   | 13.462          | 14.981          | 8.121              |               |               |       |       | 2417.0 |
| 1326 |               |                 |               | 53.313        |                   | 13.474          | 14.995          | 8.132              |               |               |       |       | 2418.8 |
| 1327 |               |                 |               | 53.348        |                   | 13.487          | 15.009          | 8.143              |               |               |       |       | 2420.6 |
| 1328 |               |                 |               | 53.382        |                   | 13.499          | 15.023          | 8.154              |               |               |       |       | 2422.4 |
| 1329 |               |                 |               | 53.417        |                   | 13.511          | 15.037          | 8.165              |               |               |       |       | 2424.2 |
| 1330 |               |                 |               | 53.451        |                   | 13.523          | 15.052          | 8.176              |               |               |       |       | 2426.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1331 |               |                 |               | 53.486        |                   | 13.535          | 15.066          | 8.187              |               |               |       |       | 2427.8 |
| 1332 |               |                 |               | 53.520        |                   | 13.547          | 15.080          | 8.198              |               |               |       |       | 2429.6 |
| 1333 |               |                 |               | 53.555        |                   | 13.559          | 15.094          | 8.209              |               |               |       |       | 2431.4 |
| 1334 |               |                 |               | 53.589        |                   | 13.572          | 15.108          | 8.220              |               |               |       |       | 2433.2 |
| 1335 |               |                 |               | 53.623        |                   | 13.584          | 15.122          | 8.231              |               |               |       |       | 2435.0 |
| 1336 |               |                 |               | 53.658        |                   | 13.596          | 15.136          | 8.242              |               |               |       |       | 2436.8 |
| 1337 |               |                 |               | 53.692        |                   | 13.608          | 15.150          | 8.253              |               |               |       |       | 2438.6 |
| 1338 |               |                 |               | 53.727        |                   | 13.620          | 15.164          | 8.264              |               |               |       |       | 2440.4 |
| 1339 |               |                 |               | 53.761        |                   | 13.632          | 15.179          | 8.275              |               |               |       |       | 2442.2 |
| 1340 |               |                 |               | 53.795        |                   | 13.644          | 15.193          | 8.286              |               |               |       |       | 2444.0 |
| 1341 |               |                 |               | 53.830        |                   | 13.657          | 15.207          | 8.298              |               |               |       |       | 2445.8 |
| 1342 |               |                 |               | 53.864        |                   | 13.669          | 15.221          | 8.309              |               |               |       |       | 2447.6 |
| 1343 |               |                 |               | 53.898        |                   | 13.681          | 15.235          | 8.320              |               |               |       |       | 2449.4 |
| 1344 |               |                 |               | 53.932        |                   | 13.693          | 15.249          | 8.331              |               |               |       |       | 2451.2 |
| 1345 |               |                 |               | 53.967        |                   | 13.705          | 15.263          | 8.342              |               |               |       |       | 2453.0 |
| 1346 |               |                 |               | 54.001        |                   | 13.717          | 15.277          | 8.353              |               |               |       |       | 2454.8 |
| 1347 |               |                 |               | 54.035        |                   | 13.729          | 15.291          | 8.364              |               |               |       |       | 2456.6 |
| 1348 |               |                 |               | 54.069        |                   | 13.742          | 15.306          | 8.375              |               |               |       |       | 2458.4 |
| 1349 |               |                 |               | 54.104        |                   | 13.754          | 15.320          | 8.386              |               |               |       |       | 2460.2 |
| 1350 |               |                 |               | 54.138        |                   | 13.766          | 15.334          | 8.397              |               |               |       |       | 2462.0 |
| 1351 |               |                 |               | 54.172        |                   | 13.778          | 15.348          | 8.408              |               |               |       |       | 2463.8 |
| 1352 |               |                 |               | 54.206        |                   | 13.790          | 15.362          | 8.419              |               |               |       |       | 2465.6 |
| 1353 |               |                 |               | 54.240        |                   | 13.802          | 15.376          | 8.430              |               |               |       |       | 2467.4 |
| 1354 |               |                 |               | 54.274        |                   | 13.814          | 15.390          | 8.441              |               |               |       |       | 2469.2 |
| 1355 |               |                 |               | 54.308        |                   | 13.826          | 15.404          | 8.453              |               |               |       |       | 2471.0 |
| 1356 |               |                 |               | 54.343        |                   | 13.839          | 15.419          | 8.464              |               |               |       |       | 2472.8 |
| 1357 |               |                 |               | 54.377        |                   | 13.851          | 15.433          | 8.475              |               |               |       |       | 2474.6 |
| 1358 |               |                 |               | 54.411        |                   | 13.863          | 15.447          | 8.486              |               |               |       |       | 2476.4 |
| 1359 |               |                 |               | 54.445        |                   | 13.875          | 15.461          | 8.497              |               |               |       |       | 2478.2 |
| 1360 |               |                 |               | 54.479        |                   | 13.887          | 15.475          | 8.508              |               |               |       |       | 2480.0 |
| 1361 |               |                 |               | 54.513        |                   | 13.899          | 15.489          | 8.519              |               |               |       |       | 2481.8 |
| 1362 |               |                 |               | 54.547        |                   | 13.911          | 15.503          | 8.530              |               |               |       |       | 2483.6 |
| 1363 |               |                 |               | 54.581        |                   | 13.924          | 15.517          | 8.542              |               |               |       |       | 2485.4 |
| 1364 |               |                 |               | 54.615        |                   | 13.936          | 15.531          | 8.553              |               |               |       |       | 2487.2 |
| 1365 |               |                 |               | 54.649        |                   | 13.948          | 15.546          | 8.564              |               |               |       |       | 2489.0 |
| 1366 |               |                 |               | 54.683        |                   | 13.960          | 15.560          | 8.575              |               |               |       |       | 2490.8 |
| 1367 |               |                 |               | 54.717        |                   | 13.972          | 15.574          | 8.586              |               |               |       |       | 2492.6 |
| 1368 |               |                 |               | 54.751        |                   | 13.984          | 15.588          | 8.597              |               |               |       |       | 2494.4 |
| 1369 |               |                 |               | 54.785        |                   | 13.996          | 15.602          | 8.608              |               |               |       |       | 2496.2 |
| 1370 |               |                 |               | 54.819        |                   | 14.009          | 15.616          | 8.620              |               |               |       |       | 2498.0 |
| 1371 |               |                 |               | 54.852        |                   | 14.021          | 15.630          | 8.631              |               |               |       |       | 2499.8 |
| 1372 |               |                 |               | 54.886        |                   | 14.033          | 15.645          | 8.642              |               |               |       |       | 2501.6 |
| 1373 |               |                 |               |               |                   | 14.045          | 15.659          | 8.653              |               |               |       |       | 2503.4 |
| 1374 |               |                 |               |               |                   | 14.057          | 15.673          | 8.664              |               |               |       |       | 2505.2 |
| 1375 |               |                 |               |               |                   | 14.069          | 15.687          | 8.675              |               |               |       |       | 2507.0 |
| 1376 |               |                 |               |               |                   | 14.081          | 15.701          | 8.687              |               |               |       |       | 2508.8 |
| 1377 |               |                 |               |               |                   | 14.094          | 15.715          | 8.698              |               |               |       |       | 2510.6 |
| 1378 |               |                 |               |               |                   | 14.106          | 15.729          | 8.709              |               |               |       |       | 2512.4 |
| 1379 |               |                 |               |               |                   | 14.118          | 15.743          | 8.720              |               |               |       |       | 2514.2 |
| 1380 |               |                 |               |               |                   | 14.130          | 15.758          | 8.731              |               |               |       |       | 2516.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1381 |               |                 |               |               |                   | 14.142          | 15.772          | 8.743              |               |               |       |       | 2517.8 |
| 1382 |               |                 |               |               |                   | 14.154          | 15.786          | 8.754              |               |               |       |       | 2519.6 |
| 1383 |               |                 |               |               |                   | 14.166          | 15.800          | 8.765              |               |               |       |       | 2521.4 |
| 1384 |               |                 |               |               |                   | 14.178          | 15.814          | 8.776              |               |               |       |       | 2523.2 |
| 1385 |               |                 |               |               |                   | 14.191          | 15.828          | 8.787              |               |               |       |       | 2525.0 |
| 1386 |               |                 |               |               |                   | 14.203          | 15.842          | 8.799              |               |               |       |       | 2526.8 |
| 1387 |               |                 |               |               |                   | 14.215          | 15.856          | 8.810              |               |               |       |       | 2528.6 |
| 1388 |               |                 |               |               |                   | 14.227          | 15.871          | 8.821              |               |               |       |       | 2530.4 |
| 1389 |               |                 |               |               |                   | 14.239          | 15.885          | 8.832              |               |               |       |       | 2532.2 |
| 1390 |               |                 |               |               |                   | 14.251          | 15.899          | 8.844              |               |               |       |       | 2534.0 |
| 1391 |               |                 |               |               |                   | 14.263          | 15.913          | 8.855              |               |               |       |       | 2535.8 |
| 1392 |               |                 |               |               |                   | 14.276          | 15.927          | 8.866              |               |               |       |       | 2537.6 |
| 1393 |               |                 |               |               |                   | 14.288          | 15.941          | 8.877              |               |               |       |       | 2539.4 |
| 1394 |               |                 |               |               |                   | 14.300          | 15.955          | 8.889              |               |               |       |       | 2541.2 |
| 1395 |               |                 |               |               |                   | 14.312          | 15.969          | 8.900              |               |               |       |       | 2543.0 |
| 1396 |               |                 |               |               |                   | 14.324          | 15.984          | 8.911              |               |               |       |       | 2544.8 |
| 1397 |               |                 |               |               |                   | 14.336          | 15.998          | 8.922              |               |               |       |       | 2546.6 |
| 1398 |               |                 |               |               |                   | 14.348          | 16.012          | 8.934              |               |               |       |       | 2548.4 |
| 1399 |               |                 |               |               |                   | 14.360          | 16.026          | 8.945              |               |               |       |       | 2550.2 |
| 1400 |               |                 |               |               |                   | 14.373          | 16.040          | 8.956              |               |               |       |       | 2552.0 |
| 1401 |               |                 |               |               |                   | 14.385          | 16.054          | 8.967              |               |               |       |       | 2553.8 |
| 1402 |               |                 |               |               |                   | 14.397          | 16.068          | 8.979              |               |               |       |       | 2555.6 |
| 1403 |               |                 |               |               |                   | 14.409          | 16.082          | 8.990              |               |               |       |       | 2557.4 |
| 1404 |               |                 |               |               |                   | 14.421          | 16.097          | 9.001              |               |               |       |       | 2559.2 |
| 1405 |               |                 |               |               |                   | 14.433          | 16.111          | 9.013              |               |               |       |       | 2561.0 |
| 1406 |               |                 |               |               |                   | 14.445          | 16.125          | 9.024              |               |               |       |       | 2562.8 |
| 1407 |               |                 |               |               |                   | 14.457          | 16.139          | 9.035              |               |               |       |       | 2564.6 |
| 1408 |               |                 |               |               |                   | 14.470          | 16.153          | 9.047              |               |               |       |       | 2566.4 |
| 1409 |               |                 |               |               |                   | 14.482          | 16.167          | 9.058              |               |               |       |       | 2568.2 |
| 1410 |               |                 |               |               |                   | 14.494          | 16.181          | 9.069              |               |               |       |       | 2570.0 |
| 1411 |               |                 |               |               |                   | 14.506          | 16.196          | 9.080              |               |               |       |       | 2571.8 |
| 1412 |               |                 |               |               |                   | 14.518          | 16.210          | 9.092              |               |               |       |       | 2573.6 |
| 1413 |               |                 |               |               |                   | 14.530          | 16.224          | 9.103              |               |               |       |       | 2575.4 |
| 1414 |               |                 |               |               |                   | 14.542          | 16.238          | 9.114              |               |               |       |       | 2577.2 |
| 1415 |               |                 |               |               |                   | 14.554          | 16.252          | 9.126              |               |               |       |       | 2579.0 |
| 1416 |               |                 |               |               |                   | 14.567          | 16.266          | 9.137              |               |               |       |       | 2580.8 |
| 1417 |               |                 |               |               |                   | 14.579          | 16.280          | 9.148              |               |               |       |       | 2582.6 |
| 1418 |               |                 |               |               |                   | 14.591          | 16.294          | 9.160              |               |               |       |       | 2584.4 |
| 1419 |               |                 |               |               |                   | 14.603          | 16.309          | 9.171              |               |               |       |       | 2586.2 |
| 1420 |               |                 |               |               |                   | 14.615          | 16.323          | 9.182              |               |               |       |       | 2588.0 |
| 1421 |               |                 |               |               |                   | 14.627          | 16.337          | 9.194              |               |               |       |       | 2589.8 |
| 1422 |               |                 |               |               |                   | 14.639          | 16.351          | 9.205              |               |               |       |       | 2591.6 |
| 1423 |               |                 |               |               |                   | 14.651          | 16.365          | 9.216              |               |               |       |       | 2593.4 |
| 1424 |               |                 |               |               |                   | 14.664          | 16.379          | 9.228              |               |               |       |       | 2595.2 |
| 1425 |               |                 |               |               |                   | 14.676          | 16.393          | 9.239              |               |               |       |       | 2597.0 |
| 1426 |               |                 |               |               |                   | 14.688          | 16.407          | 9.251              |               |               |       |       | 2598.8 |
| 1427 |               |                 |               |               |                   | 14.700          | 16.422          | 9.262              |               |               |       |       | 2600.6 |
| 1428 |               |                 |               |               |                   | 14.712          | 16.436          | 9.273              |               |               |       |       | 2602.4 |
| 1429 |               |                 |               |               |                   | 14.724          | 16.450          | 9.285              |               |               |       |       | 2604.2 |
| 1430 |               |                 |               |               |                   | 14.736          | 16.464          | 9.296              |               |               |       |       | 2606.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1431 |               |                 |               |               |                   | 14.748          | 16.478          | 9.307              |               |               |       |       | 2607.8 |
| 1432 |               |                 |               |               |                   | 14.760          | 16.492          | 9.319              |               |               |       |       | 2609.6 |
| 1433 |               |                 |               |               |                   | 14.773          | 16.506          | 9.330              |               |               |       |       | 2611.4 |
| 1434 |               |                 |               |               |                   | 14.785          | 16.520          | 9.342              |               |               |       |       | 2613.2 |
| 1435 |               |                 |               |               |                   | 14.797          | 16.534          | 9.353              |               |               |       |       | 2615.0 |
| 1436 |               |                 |               |               |                   | 14.809          | 16.549          | 9.364              |               |               |       |       | 2616.8 |
| 1437 |               |                 |               |               |                   | 14.821          | 16.563          | 9.376              |               |               |       |       | 2618.6 |
| 1438 |               |                 |               |               |                   | 14.833          | 16.577          | 9.387              |               |               |       |       | 2620.4 |
| 1439 |               |                 |               |               |                   | 14.845          | 16.591          | 9.398              |               |               |       |       | 2622.2 |
| 1440 |               |                 |               |               |                   | 14.857          | 16.605          | 9.410              |               |               |       |       | 2624.0 |
| 1441 |               |                 |               |               |                   | 14.869          | 16.619          | 9.421              |               |               |       |       | 2625.8 |
| 1442 |               |                 |               |               |                   | 14.881          | 16.633          | 9.433              |               |               |       |       | 2627.6 |
| 1443 |               |                 |               |               |                   | 14.894          | 16.647          | 9.444              |               |               |       |       | 2629.4 |
| 1444 |               |                 |               |               |                   | 14.906          | 16.662          | 9.456              |               |               |       |       | 2631.2 |
| 1445 |               |                 |               |               |                   | 14.918          | 16.676          | 9.467              |               |               |       |       | 2633.0 |
| 1446 |               |                 |               |               |                   | 14.930          | 16.690          | 9.478              |               |               |       |       | 2634.8 |
| 1447 |               |                 |               |               |                   | 14.942          | 16.704          | 9.490              |               |               |       |       | 2636.6 |
| 1448 |               |                 |               |               |                   | 14.954          | 16.718          | 9.501              |               |               |       |       | 2638.4 |
| 1449 |               |                 |               |               |                   | 14.966          | 16.732          | 9.513              |               |               |       |       | 2640.2 |
| 1450 |               |                 |               |               |                   | 14.978          | 16.746          | 9.524              |               |               |       |       | 2642.0 |
| 1451 |               |                 |               |               |                   | 14.990          | 16.760          | 9.536              |               |               |       |       | 2643.8 |
| 1452 |               |                 |               |               |                   | 15.002          | 16.774          | 9.547              |               |               |       |       | 2645.6 |
| 1453 |               |                 |               |               |                   | 15.015          | 16.789          | 9.558              |               |               |       |       | 2647.4 |
| 1454 |               |                 |               |               |                   | 15.027          | 16.803          | 9.570              |               |               |       |       | 2649.2 |
| 1455 |               |                 |               |               |                   | 15.039          | 16.817          | 9.581              |               |               |       |       | 2651.0 |
| 1456 |               |                 |               |               |                   | 15.051          | 16.831          | 9.593              |               |               |       |       | 2652.8 |
| 1457 |               |                 |               |               |                   | 15.063          | 16.845          | 9.604              |               |               |       |       | 2654.6 |
| 1458 |               |                 |               |               |                   | 15.075          | 16.859          | 9.616              |               |               |       |       | 2656.4 |
| 1459 |               |                 |               |               |                   | 15.087          | 16.873          | 9.627              |               |               |       |       | 2658.2 |
| 1460 |               |                 |               |               |                   | 15.099          | 16.887          | 9.639              |               |               |       |       | 2660.0 |
| 1461 |               |                 |               |               |                   | 15.111          | 16.901          | 9.650              |               |               |       |       | 2661.8 |
| 1462 |               |                 |               |               |                   | 15.123          | 16.915          | 9.662              |               |               |       |       | 2663.6 |
| 1463 |               |                 |               |               |                   | 15.135          | 16.930          | 9.673              |               |               |       |       | 2665.4 |
| 1464 |               |                 |               |               |                   | 15.148          | 16.944          | 9.684              |               |               |       |       | 2667.2 |
| 1465 |               |                 |               |               |                   | 15.160          | 16.958          | 9.696              |               |               |       |       | 2669.0 |
| 1466 |               |                 |               |               |                   | 15.172          | 16.972          | 9.707              |               |               |       |       | 2670.8 |
| 1467 |               |                 |               |               |                   | 15.184          | 16.986          | 9.719              |               |               |       |       | 2672.6 |
| 1468 |               |                 |               |               |                   | 15.196          | 17.000          | 9.730              |               |               |       |       | 2674.4 |
| 1469 |               |                 |               |               |                   | 15.208          | 17.014          | 9.742              |               |               |       |       | 2676.2 |
| 1470 |               |                 |               |               |                   | 15.220          | 17.028          | 9.753              |               |               |       |       | 2678.0 |
| 1471 |               |                 |               |               |                   | 15.232          | 17.042          | 9.765              |               |               |       |       | 2679.8 |
| 1472 |               |                 |               |               |                   | 15.244          | 17.056          | 9.776              |               |               |       |       | 2681.6 |
| 1473 |               |                 |               |               |                   | 15.256          | 17.071          | 9.788              |               |               |       |       | 2683.4 |
| 1474 |               |                 |               |               |                   | 15.268          | 17.085          | 9.799              |               |               |       |       | 2685.2 |
| 1475 |               |                 |               |               |                   | 15.280          | 17.099          | 9.811              |               |               |       |       | 2687.0 |
| 1476 |               |                 |               |               |                   | 15.292          | 17.113          | 9.822              |               |               |       |       | 2688.8 |
| 1477 |               |                 |               |               |                   | 15.304          | 17.127          | 9.834              |               |               |       |       | 2690.6 |
| 1478 |               |                 |               |               |                   | 15.317          | 17.141          | 9.845              |               |               |       |       | 2692.4 |
| 1479 |               |                 |               |               |                   | 15.329          | 17.155          | 9.857              |               |               |       |       | 2694.2 |
| 1480 |               |                 |               |               |                   | 15.341          | 17.169          | 9.868              |               |               |       |       | 2696.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1481 |               |                 |               |               |                   | 15.353          | 17.183          | 9.880              |               |               |       |       | 2697.8 |
| 1482 |               |                 |               |               |                   | 15.365          | 17.197          | 9.891              |               |               |       |       | 2699.6 |
| 1483 |               |                 |               |               |                   | 15.377          | 17.211          | 9.903              |               |               |       |       | 2701.4 |
| 1484 |               |                 |               |               |                   | 15.389          | 17.225          | 9.914              |               |               |       |       | 2703.2 |
| 1485 |               |                 |               |               |                   | 15.401          | 17.240          | 9.926              |               |               |       |       | 2705.0 |
| 1486 |               |                 |               |               |                   | 15.413          | 17.254          | 9.937              |               |               |       |       | 2706.8 |
| 1487 |               |                 |               |               |                   | 15.425          | 17.268          | 9.949              |               |               |       |       | 2708.6 |
| 1488 |               |                 |               |               |                   | 15.437          | 17.282          | 9.961              |               |               |       |       | 2710.4 |
| 1489 |               |                 |               |               |                   | 15.449          | 17.296          | 9.972              |               |               |       |       | 2712.2 |
| 1490 |               |                 |               |               |                   | 15.461          | 17.310          | 9.984              |               |               |       |       | 2714.0 |
| 1491 |               |                 |               |               |                   | 15.473          | 17.324          | 9.995              |               |               |       |       | 2715.8 |
| 1492 |               |                 |               |               |                   | 15.485          | 17.338          | 10.007             |               |               |       |       | 2717.6 |
| 1493 |               |                 |               |               |                   | 15.497          | 17.352          | 10.018             |               |               |       |       | 2719.4 |
| 1494 |               |                 |               |               |                   | 15.509          | 17.366          | 10.030             |               |               |       |       | 2721.2 |
| 1495 |               |                 |               |               |                   | 15.521          | 17.380          | 10.041             |               |               |       |       | 2723.0 |
| 1496 |               |                 |               |               |                   | 15.534          | 17.394          | 10.053             |               |               |       |       | 2724.8 |
| 1497 |               |                 |               |               |                   | 15.546          | 17.408          | 10.064             |               |               |       |       | 2726.6 |
| 1498 |               |                 |               |               |                   | 15.558          | 17.423          | 10.076             |               |               |       |       | 2728.4 |
| 1499 |               |                 |               |               |                   | 15.570          | 17.437          | 10.088             |               |               |       |       | 2730.2 |
| 1500 |               |                 |               |               |                   | 15.582          | 17.451          | 10.099             |               |               |       |       | 2732.0 |
| 1501 |               |                 |               |               |                   | 15.594          | 17.465          | 10.111             |               |               |       |       | 2733.8 |
| 1502 |               |                 |               |               |                   | 15.606          | 17.479          | 10.122             |               |               |       |       | 2735.6 |
| 1503 |               |                 |               |               |                   | 15.618          | 17.493          | 10.134             |               |               |       |       | 2737.4 |
| 1504 |               |                 |               |               |                   | 15.630          | 17.507          | 10.145             |               |               |       |       | 2739.2 |
| 1505 |               |                 |               |               |                   | 15.642          | 17.521          | 10.157             |               |               |       |       | 2741.0 |
| 1506 |               |                 |               |               |                   | 15.654          | 17.535          | 10.168             |               |               |       |       | 2742.8 |
| 1507 |               |                 |               |               |                   | 15.666          | 17.549          | 10.180             |               |               |       |       | 2744.6 |
| 1508 |               |                 |               |               |                   | 15.678          | 17.563          | 10.192             |               |               |       |       | 2746.4 |
| 1509 |               |                 |               |               |                   | 15.690          | 17.577          | 10.203             |               |               |       |       | 2748.2 |
| 1510 |               |                 |               |               |                   | 15.702          | 17.591          | 10.215             |               |               |       |       | 2750.0 |
| 1511 |               |                 |               |               |                   | 15.714          | 17.605          | 10.226             |               |               |       |       | 2751.8 |
| 1512 |               |                 |               |               |                   | 15.726          | 17.619          | 10.238             |               |               |       |       | 2753.6 |
| 1513 |               |                 |               |               |                   | 15.738          | 17.633          | 10.249             |               |               |       |       | 2755.4 |
| 1514 |               |                 |               |               |                   | 15.750          | 17.647          | 10.261             |               |               |       |       | 2757.2 |
| 1515 |               |                 |               |               |                   | 15.762          | 17.661          | 10.273             |               |               |       |       | 2759.0 |
| 1516 |               |                 |               |               |                   | 15.774          | 17.676          | 10.284             |               |               |       |       | 2760.8 |
| 1517 |               |                 |               |               |                   | 15.786          | 17.690          | 10.296             |               |               |       |       | 2762.6 |
| 1518 |               |                 |               |               |                   | 15.798          | 17.704          | 10.307             |               |               |       |       | 2764.4 |
| 1519 |               |                 |               |               |                   | 15.810          | 17.718          | 10.319             |               |               |       |       | 2766.2 |
| 1520 |               |                 |               |               |                   | 15.822          | 17.732          | 10.331             |               |               |       |       | 2768.0 |
| 1521 |               |                 |               |               |                   | 15.834          | 17.746          | 10.342             |               |               |       |       | 2769.8 |
| 1522 |               |                 |               |               |                   | 15.846          | 17.760          | 10.354             |               |               |       |       | 2771.6 |
| 1523 |               |                 |               |               |                   | 15.858          | 17.774          | 10.365             |               |               |       |       | 2773.4 |
| 1524 |               |                 |               |               |                   | 15.870          | 17.788          | 10.377             |               |               |       |       | 2775.2 |
| 1525 |               |                 |               |               |                   | 15.882          | 17.802          | 10.389             |               |               |       |       | 2777.0 |
| 1526 |               |                 |               |               |                   | 15.894          | 17.816          | 10.400             |               |               |       |       | 2778.8 |
| 1527 |               |                 |               |               |                   | 15.906          | 17.830          | 10.412             |               |               |       |       | 2780.6 |
| 1528 |               |                 |               |               |                   | 15.918          | 17.844          | 10.423             |               |               |       |       | 2782.4 |
| 1529 |               |                 |               |               |                   | 15.930          | 17.858          | 10.435             |               |               |       |       | 2784.2 |
| 1530 |               |                 |               |               |                   | 15.942          | 17.872          | 10.447             |               |               |       |       | 2786.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1531 |               |                 |               |               |                   | 15.954          | 17.886          | 10.458             |               |               |       |       | 2787.8 |
| 1532 |               |                 |               |               |                   | 15.966          | 17.900          | 10.470             |               |               |       |       | 2789.6 |
| 1533 |               |                 |               |               |                   | 15.978          | 17.914          | 10.482             |               |               |       |       | 2791.4 |
| 1534 |               |                 |               |               |                   | 15.990          | 17.928          | 10.493             |               |               |       |       | 2793.2 |
| 1535 |               |                 |               |               |                   | 16.002          | 17.942          | 10.505             |               |               |       |       | 2795.0 |
| 1536 |               |                 |               |               |                   | 16.014          | 17.956          | 10.516             |               |               |       |       | 2796.8 |
| 1537 |               |                 |               |               |                   | 16.026          | 17.970          | 10.528             |               |               |       |       | 2798.6 |
| 1538 |               |                 |               |               |                   | 16.038          | 17.984          | 10.540             |               |               |       |       | 2800.4 |
| 1539 |               |                 |               |               |                   | 16.050          | 17.998          | 10.551             |               |               |       |       | 2802.2 |
| 1540 |               |                 |               |               |                   | 16.062          | 18.012          | 10.563             |               |               |       |       | 2804.0 |
| 1541 |               |                 |               |               |                   | 16.074          | 18.026          | 10.575             |               |               |       |       | 2805.8 |
| 1542 |               |                 |               |               |                   | 16.086          | 18.040          | 10.586             |               |               |       |       | 2807.6 |
| 1543 |               |                 |               |               |                   | 16.098          | 18.054          | 10.598             |               |               |       |       | 2809.4 |
| 1544 |               |                 |               |               |                   | 16.110          | 18.068          | 10.609             |               |               |       |       | 2811.2 |
| 1545 |               |                 |               |               |                   | 16.122          | 18.082          | 10.621             |               |               |       |       | 2813.0 |
| 1546 |               |                 |               |               |                   | 16.134          | 18.096          | 10.633             |               |               |       |       | 2814.8 |
| 1547 |               |                 |               |               |                   | 16.146          | 18.110          | 10.644             |               |               |       |       | 2816.6 |
| 1548 |               |                 |               |               |                   | 16.158          | 18.124          | 10.656             |               |               |       |       | 2818.4 |
| 1549 |               |                 |               |               |                   | 16.170          | 18.138          | 10.668             |               |               |       |       | 2820.2 |
| 1550 |               |                 |               |               |                   | 16.182          | 18.152          | 10.679             |               |               |       |       | 2822.0 |
| 1551 |               |                 |               |               |                   | 16.194          | 18.166          | 10.691             |               |               |       |       | 2823.8 |
| 1552 |               |                 |               |               |                   | 16.205          | 18.180          | 10.703             |               |               |       |       | 2825.6 |
| 1553 |               |                 |               |               |                   | 16.217          | 18.194          | 10.714             |               |               |       |       | 2827.4 |
| 1554 |               |                 |               |               |                   | 16.229          | 18.208          | 10.726             |               |               |       |       | 2829.2 |
| 1555 |               |                 |               |               |                   | 16.241          | 18.222          | 10.738             |               |               |       |       | 2831.0 |
| 1556 |               |                 |               |               |                   | 16.253          | 18.236          | 10.749             |               |               |       |       | 2832.8 |
| 1557 |               |                 |               |               |                   | 16.265          | 18.250          | 10.761             |               |               |       |       | 2834.6 |
| 1558 |               |                 |               |               |                   | 16.277          | 18.264          | 10.773             |               |               |       |       | 2836.4 |
| 1559 |               |                 |               |               |                   | 16.289          | 18.278          | 10.784             |               |               |       |       | 2838.2 |
| 1560 |               |                 |               |               |                   | 16.301          | 18.292          | 10.796             |               |               |       |       | 2840.0 |
| 1561 |               |                 |               |               |                   | 16.313          | 18.306          | 10.808             |               |               |       |       | 2841.8 |
| 1562 |               |                 |               |               |                   | 16.325          | 18.320          | 10.819             |               |               |       |       | 2843.6 |
| 1563 |               |                 |               |               |                   | 16.337          | 18.334          | 10.831             |               |               |       |       | 2845.4 |
| 1564 |               |                 |               |               |                   | 16.349          | 18.348          | 10.843             |               |               |       |       | 2847.2 |
| 1565 |               |                 |               |               |                   | 16.361          | 18.362          | 10.854             |               |               |       |       | 2849.0 |
| 1566 |               |                 |               |               |                   | 16.373          | 18.376          | 10.866             |               |               |       |       | 2850.8 |
| 1567 |               |                 |               |               |                   | 16.385          | 18.390          | 10.877             |               |               |       |       | 2852.6 |
| 1568 |               |                 |               |               |                   | 16.396          | 18.404          | 10.889             |               |               |       |       | 2854.4 |
| 1569 |               |                 |               |               |                   | 16.408          | 18.417          | 10.901             |               |               |       |       | 2856.2 |
| 1570 |               |                 |               |               |                   | 16.420          | 18.431          | 10.913             |               |               |       |       | 2858.0 |
| 1571 |               |                 |               |               |                   | 16.432          | 18.445          | 10.924             |               |               |       |       | 2859.8 |
| 1572 |               |                 |               |               |                   | 16.444          | 18.459          | 10.936             |               |               |       |       | 2861.6 |
| 1573 |               |                 |               |               |                   | 16.456          | 18.473          | 10.948             |               |               |       |       | 2863.4 |
| 1574 |               |                 |               |               |                   | 16.468          | 18.487          | 10.959             |               |               |       |       | 2865.2 |
| 1575 |               |                 |               |               |                   | 16.480          | 18.501          | 10.971             |               |               |       |       | 2867.0 |
| 1576 |               |                 |               |               |                   | 16.492          | 18.515          | 10.983             |               |               |       |       | 2868.8 |
| 1577 |               |                 |               |               |                   | 16.504          | 18.529          | 10.994             |               |               |       |       | 2870.6 |
| 1578 |               |                 |               |               |                   | 16.516          | 18.543          | 11.006             |               |               |       |       | 2872.4 |
| 1579 |               |                 |               |               |                   | 16.527          | 18.557          | 11.018             |               |               |       |       | 2874.2 |
| 1580 |               |                 |               |               |                   | 16.539          | 18.571          | 11.029             |               |               |       |       | 2876.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1581 |               |                 |               |               |                   | 16.551          | 18.585          | 11.041             |               |               |       |       | 2877.8 |
| 1582 |               |                 |               |               |                   | 16.563          | 18.599          | 11.053             |               |               |       |       | 2879.6 |
| 1583 |               |                 |               |               |                   | 16.575          | 18.613          | 11.064             |               |               |       |       | 2881.4 |
| 1584 |               |                 |               |               |                   | 16.587          | 18.627          | 11.076             |               |               |       |       | 2883.2 |
| 1585 |               |                 |               |               |                   | 16.599          | 18.640          | 11.088             |               |               |       |       | 2885.0 |
| 1586 |               |                 |               |               |                   | 16.611          | 18.654          | 11.099             |               |               |       |       | 2886.8 |
| 1587 |               |                 |               |               |                   | 16.623          | 18.668          | 11.111             |               |               |       |       | 2888.6 |
| 1588 |               |                 |               |               |                   | 16.634          | 18.682          | 11.123             |               |               |       |       | 2890.4 |
| 1589 |               |                 |               |               |                   | 16.646          | 18.696          | 11.134             |               |               |       |       | 2892.2 |
| 1590 |               |                 |               |               |                   | 16.658          | 18.710          | 11.146             |               |               |       |       | 2894.0 |
| 1591 |               |                 |               |               |                   | 16.670          | 18.724          | 11.158             |               |               |       |       | 2895.8 |
| 1592 |               |                 |               |               |                   | 16.682          | 18.738          | 11.169             |               |               |       |       | 2897.6 |
| 1593 |               |                 |               |               |                   | 16.694          | 18.752          | 11.181             |               |               |       |       | 2899.4 |
| 1594 |               |                 |               |               |                   | 16.706          | 18.766          | 11.193             |               |               |       |       | 2901.2 |
| 1595 |               |                 |               |               |                   | 16.718          | 18.779          | 11.205             |               |               |       |       | 2903.0 |
| 1596 |               |                 |               |               |                   | 16.729          | 18.793          | 11.216             |               |               |       |       | 2904.8 |
| 1597 |               |                 |               |               |                   | 16.741          | 18.807          | 11.228             |               |               |       |       | 2906.6 |
| 1598 |               |                 |               |               |                   | 16.753          | 18.821          | 11.240             |               |               |       |       | 2908.4 |
| 1599 |               |                 |               |               |                   | 16.765          | 18.835          | 11.251             |               |               |       |       | 2910.2 |
| 1600 |               |                 |               |               |                   | 16.777          | 18.849          | 11.263             |               |               |       |       | 2912.0 |
| 1601 |               |                 |               |               |                   | 16.789          | 18.863          | 11.275             |               |               |       |       | 2913.8 |
| 1602 |               |                 |               |               |                   | 16.801          | 18.877          | 11.286             |               |               |       |       | 2915.6 |
| 1603 |               |                 |               |               |                   | 16.812          | 18.891          | 11.298             |               |               |       |       | 2917.4 |
| 1604 |               |                 |               |               |                   | 16.824          | 18.904          | 11.310             |               |               |       |       | 2919.2 |
| 1605 |               |                 |               |               |                   | 16.836          | 18.918          | 11.321             |               |               |       |       | 2921.0 |
| 1606 |               |                 |               |               |                   | 16.848          | 18.932          | 11.333             |               |               |       |       | 2922.8 |
| 1607 |               |                 |               |               |                   | 16.860          | 18.946          | 11.345             |               |               |       |       | 2924.6 |
| 1608 |               |                 |               |               |                   | 16.872          | 18.960          | 11.357             |               |               |       |       | 2926.4 |
| 1609 |               |                 |               |               |                   | 16.883          | 18.974          | 11.368             |               |               |       |       | 2928.2 |
| 1610 |               |                 |               |               |                   | 16.895          | 18.988          | 11.380             |               |               |       |       | 2930.0 |
| 1611 |               |                 |               |               |                   | 16.907          | 19.002          | 11.392             |               |               |       |       | 2931.8 |
| 1612 |               |                 |               |               |                   | 16.919          | 19.015          | 11.403             |               |               |       |       | 2933.6 |
| 1613 |               |                 |               |               |                   | 16.931          | 19.029          | 11.415             |               |               |       |       | 2935.4 |
| 1614 |               |                 |               |               |                   | 16.943          | 19.043          | 11.427             |               |               |       |       | 2937.2 |
| 1615 |               |                 |               |               |                   | 16.954          | 19.057          | 11.438             |               |               |       |       | 2939.0 |
| 1616 |               |                 |               |               |                   | 16.966          | 19.071          | 11.450             |               |               |       |       | 2940.8 |
| 1617 |               |                 |               |               |                   | 16.978          | 19.085          | 11.462             |               |               |       |       | 2942.6 |
| 1618 |               |                 |               |               |                   | 16.990          | 19.098          | 11.474             |               |               |       |       | 2944.4 |
| 1619 |               |                 |               |               |                   | 17.002          | 19.112          | 11.485             |               |               |       |       | 2946.2 |
| 1620 |               |                 |               |               |                   | 17.013          | 19.126          | 11.497             |               |               |       |       | 2948.0 |
| 1621 |               |                 |               |               |                   | 17.025          | 19.140          | 11.509             |               |               |       |       | 2949.8 |
| 1622 |               |                 |               |               |                   | 17.037          | 19.154          | 11.520             |               |               |       |       | 2951.6 |
| 1623 |               |                 |               |               |                   | 17.049          | 19.168          | 11.532             |               |               |       |       | 2953.4 |
| 1624 |               |                 |               |               |                   | 17.061          | 19.181          | 11.544             |               |               |       |       | 2955.2 |
| 1625 |               |                 |               |               |                   | 17.072          | 19.195          | 11.555             |               |               |       |       | 2957.0 |
| 1626 |               |                 |               |               |                   | 17.084          | 19.209          | 11.567             |               |               |       |       | 2958.8 |
| 1627 |               |                 |               |               |                   | 17.096          | 19.223          | 11.579             |               |               |       |       | 2960.6 |
| 1628 |               |                 |               |               |                   | 17.108          | 19.237          | 11.591             |               |               |       |       | 2962.4 |
| 1629 |               |                 |               |               |                   | 17.120          | 19.250          | 11.602             |               |               |       |       | 2964.2 |
| 1630 |               |                 |               |               |                   | 17.131          | 19.264          | 11.614             |               |               |       |       | 2966.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1631 |               |                 |               |               |                   | 17.143          | 19.278          | 11.626             |               |               |       |       | 2967.8 |
| 1632 |               |                 |               |               |                   | 17.155          | 19.292          | 11.637             |               |               |       |       | 2969.6 |
| 1633 |               |                 |               |               |                   | 17.167          | 19.306          | 11.649             |               |               |       |       | 2971.4 |
| 1634 |               |                 |               |               |                   | 17.178          | 19.319          | 11.661             |               |               |       |       | 2973.2 |
| 1635 |               |                 |               |               |                   | 17.190          | 19.333          | 11.673             |               |               |       |       | 2975.0 |
| 1636 |               |                 |               |               |                   | 17.202          | 19.347          | 11.684             |               |               |       |       | 2976.8 |
| 1637 |               |                 |               |               |                   | 17.214          | 19.361          | 11.696             |               |               |       |       | 2978.6 |
| 1638 |               |                 |               |               |                   | 17.225          | 19.375          | 11.708             |               |               |       |       | 2980.4 |
| 1639 |               |                 |               |               |                   | 17.237          | 19.388          | 11.719             |               |               |       |       | 2982.2 |
| 1640 |               |                 |               |               |                   | 17.249          | 19.402          | 11.731             |               |               |       |       | 2984.0 |
| 1641 |               |                 |               |               |                   | 17.261          | 19.416          | 11.743             |               |               |       |       | 2985.8 |
| 1642 |               |                 |               |               |                   | 17.272          | 19.430          | 11.754             |               |               |       |       | 2987.6 |
| 1643 |               |                 |               |               |                   | 17.284          | 19.444          | 11.766             |               |               |       |       | 2989.4 |
| 1644 |               |                 |               |               |                   | 17.296          | 19.457          | 11.778             |               |               |       |       | 2991.2 |
| 1645 |               |                 |               |               |                   | 17.308          | 19.471          | 11.790             |               |               |       |       | 2993.0 |
| 1646 |               |                 |               |               |                   | 17.319          | 19.485          | 11.801             |               |               |       |       | 2994.8 |
| 1647 |               |                 |               |               |                   | 17.331          | 19.499          | 11.813             |               |               |       |       | 2996.6 |
| 1648 |               |                 |               |               |                   | 17.343          | 19.512          | 11.825             |               |               |       |       | 2998.4 |
| 1649 |               |                 |               |               |                   | 17.355          | 19.526          | 11.836             |               |               |       |       | 3000.2 |
| 1650 |               |                 |               |               |                   | 17.366          | 19.540          | 11.848             |               |               |       |       | 3002.0 |
| 1651 |               |                 |               |               |                   | 17.378          | 19.554          | 11.860             |               |               |       |       | 3003.8 |
| 1652 |               |                 |               |               |                   | 17.390          | 19.567          | 11.871             |               |               |       |       | 3005.6 |
| 1653 |               |                 |               |               |                   | 17.401          | 19.581          | 11.883             |               |               |       |       | 3007.4 |
| 1654 |               |                 |               |               |                   | 17.413          | 19.595          | 11.895             |               |               |       |       | 3009.2 |
| 1655 |               |                 |               |               |                   | 17.425          | 19.609          | 11.907             |               |               |       |       | 3011.0 |
| 1656 |               |                 |               |               |                   | 17.437          | 19.622          | 11.918             |               |               |       |       | 3012.8 |
| 1657 |               |                 |               |               |                   | 17.448          | 19.636          | 11.930             |               |               |       |       | 3014.6 |
| 1658 |               |                 |               |               |                   | 17.460          | 19.650          | 11.942             |               |               |       |       | 3016.4 |
| 1659 |               |                 |               |               |                   | 17.472          | 19.663          | 11.953             |               |               |       |       | 3018.2 |
| 1660 |               |                 |               |               |                   | 17.483          | 19.677          | 11.965             |               |               |       |       | 3020.0 |
| 1661 |               |                 |               |               |                   | 17.495          | 19.691          | 11.977             |               |               |       |       | 3021.8 |
| 1662 |               |                 |               |               |                   | 17.507          | 19.705          | 11.988             |               |               |       |       | 3023.6 |
| 1663 |               |                 |               |               |                   | 17.518          | 19.718          | 12.000             |               |               |       |       | 3025.4 |
| 1664 |               |                 |               |               |                   | 17.530          | 19.732          | 12.012             |               |               |       |       | 3027.2 |
| 1665 |               |                 |               |               |                   | 17.542          | 19.746          | 12.024             |               |               |       |       | 3029.0 |
| 1666 |               |                 |               |               |                   | 17.553          | 19.759          | 12.035             |               |               |       |       | 3030.8 |
| 1667 |               |                 |               |               |                   | 17.565          | 19.773          | 12.047             |               |               |       |       | 3032.6 |
| 1668 |               |                 |               |               |                   | 17.577          | 19.787          | 12.059             |               |               |       |       | 3034.4 |
| 1669 |               |                 |               |               |                   | 17.588          | 19.800          | 12.070             |               |               |       |       | 3036.2 |
| 1670 |               |                 |               |               |                   | 17.600          | 19.814          | 12.082             |               |               |       |       | 3038.0 |
| 1671 |               |                 |               |               |                   | 17.612          | 19.828          | 12.094             |               |               |       |       | 3039.8 |
| 1672 |               |                 |               |               |                   | 17.623          | 19.841          | 12.105             |               |               |       |       | 3041.6 |
| 1673 |               |                 |               |               |                   | 17.635          | 19.855          | 12.117             |               |               |       |       | 3043.4 |
| 1674 |               |                 |               |               |                   | 17.647          | 19.869          | 12.129             |               |               |       |       | 3045.2 |
| 1675 |               |                 |               |               |                   | 17.658          | 19.882          | 12.141             |               |               |       |       | 3047.0 |
| 1676 |               |                 |               |               |                   | 17.670          | 19.896          | 12.152             |               |               |       |       | 3048.8 |
| 1677 |               |                 |               |               |                   | 17.682          | 19.910          | 12.164             |               |               |       |       | 3050.6 |
| 1678 |               |                 |               |               |                   | 17.693          | 19.923          | 12.176             |               |               |       |       | 3052.4 |
| 1679 |               |                 |               |               |                   | 17.705          | 19.937          | 12.187             |               |               |       |       | 3054.2 |
| 1680 |               |                 |               |               |                   | 17.717          | 19.951          | 12.199             |               |               |       |       | 3056.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1681 |               |                 |               |               |                   | 17.728          | 19.964          | 12.211             |               |               |       |       | 3057.8 |
| 1682 |               |                 |               |               |                   | 17.740          | 19.978          | 12.222             |               |               |       |       | 3059.6 |
| 1683 |               |                 |               |               |                   | 17.751          | 19.992          | 12.234             |               |               |       |       | 3061.4 |
| 1684 |               |                 |               |               |                   | 17.763          | 20.005          | 12.246             |               |               |       |       | 3063.2 |
| 1685 |               |                 |               |               |                   | 17.775          | 20.019          | 12.257             |               |               |       |       | 3065.0 |
| 1686 |               |                 |               |               |                   | 17.786          | 20.032          | 12.269             |               |               |       |       | 3066.8 |
| 1687 |               |                 |               |               |                   | 17.798          | 20.046          | 12.281             |               |               |       |       | 3068.6 |
| 1688 |               |                 |               |               |                   | 17.809          | 20.060          | 12.292             |               |               |       |       | 3070.4 |
| 1689 |               |                 |               |               |                   | 17.821          | 20.073          | 12.304             |               |               |       |       | 3072.2 |
| 1690 |               |                 |               |               |                   | 17.832          | 20.087          | 12.316             |               |               |       |       | 3074.0 |
| 1691 |               |                 |               |               |                   | 17.844          | 20.100          | 12.327             |               |               |       |       | 3075.8 |
| 1692 |               |                 |               |               |                   | 17.855          | 20.114          | 12.339             |               |               |       |       | 3077.6 |
| 1693 |               |                 |               |               |                   | 17.867          | 20.127          | 12.351             |               |               |       |       | 3079.4 |
| 1694 |               |                 |               |               |                   | 17.878          | 20.141          | 12.363             |               |               |       |       | 3081.2 |
| 1695 |               |                 |               |               |                   | 17.890          | 20.154          | 12.374             |               |               |       |       | 3083.0 |
| 1696 |               |                 |               |               |                   | 17.901          | 20.168          | 12.386             |               |               |       |       | 3084.8 |
| 1697 |               |                 |               |               |                   | 17.913          | 20.181          | 12.398             |               |               |       |       | 3086.6 |
| 1698 |               |                 |               |               |                   | 17.924          | 20.195          | 12.409             |               |               |       |       | 3088.4 |
| 1699 |               |                 |               |               |                   | 17.936          | 20.208          | 12.421             |               |               |       |       | 3090.2 |
| 1700 |               |                 |               |               |                   | 17.947          | 20.222          | 12.433             |               |               |       |       | 3092.0 |
| 1701 |               |                 |               |               |                   | 17.959          | 20.235          | 12.444             |               |               |       |       | 3093.8 |
| 1702 |               |                 |               |               |                   | 17.970          | 20.249          | 12.456             |               |               |       |       | 3095.6 |
| 1703 |               |                 |               |               |                   | 17.982          | 20.262          | 12.468             |               |               |       |       | 3097.4 |
| 1704 |               |                 |               |               |                   | 17.993          | 20.275          | 12.479             |               |               |       |       | 3099.2 |
| 1705 |               |                 |               |               |                   | 18.004          | 20.289          | 12.491             |               |               |       |       | 3101.0 |
| 1706 |               |                 |               |               |                   | 18.016          | 20.302          | 12.503             |               |               |       |       | 3102.8 |
| 1707 |               |                 |               |               |                   | 18.027          | 20.316          | 12.514             |               |               |       |       | 3104.6 |
| 1708 |               |                 |               |               |                   | 18.039          | 20.329          | 12.526             |               |               |       |       | 3106.4 |
| 1709 |               |                 |               |               |                   | 18.050          | 20.342          | 12.538             |               |               |       |       | 3108.2 |
| 1710 |               |                 |               |               |                   | 18.061          | 20.356          | 12.549             |               |               |       |       | 3110.0 |
| 1711 |               |                 |               |               |                   | 18.073          | 20.369          | 12.561             |               |               |       |       | 3111.8 |
| 1712 |               |                 |               |               |                   | 18.084          | 20.382          | 12.572             |               |               |       |       | 3113.6 |
| 1713 |               |                 |               |               |                   | 18.095          | 20.396          | 12.584             |               |               |       |       | 3115.4 |
| 1714 |               |                 |               |               |                   | 18.107          | 20.409          | 12.596             |               |               |       |       | 3117.2 |
| 1715 |               |                 |               |               |                   | 18.118          | 20.422          | 12.607             |               |               |       |       | 3119.0 |
| 1716 |               |                 |               |               |                   | 18.129          | 20.436          | 12.619             |               |               |       |       | 3120.8 |
| 1717 |               |                 |               |               |                   | 18.140          | 20.449          | 12.631             |               |               |       |       | 3122.6 |
| 1718 |               |                 |               |               |                   | 18.152          | 20.462          | 12.642             |               |               |       |       | 3124.4 |
| 1719 |               |                 |               |               |                   | 18.163          | 20.475          | 12.654             |               |               |       |       | 3126.2 |
| 1720 |               |                 |               |               |                   | 18.174          | 20.488          | 12.666             |               |               |       |       | 3128.0 |
| 1721 |               |                 |               |               |                   | 18.185          | 20.502          | 12.677             |               |               |       |       | 3129.8 |
| 1722 |               |                 |               |               |                   | 18.196          | 20.515          | 12.689             |               |               |       |       | 3131.6 |
| 1723 |               |                 |               |               |                   | 18.208          | 20.528          | 12.701             |               |               |       |       | 3133.4 |
| 1724 |               |                 |               |               |                   | 18.219          | 20.541          | 12.712             |               |               |       |       | 3135.2 |
| 1725 |               |                 |               |               |                   | 18.230          | 20.554          | 12.724             |               |               |       |       | 3137.0 |
| 1726 |               |                 |               |               |                   | 18.241          | 20.567          | 12.736             |               |               |       |       | 3138.8 |
| 1727 |               |                 |               |               |                   | 18.252          | 20.581          | 12.747             |               |               |       |       | 3140.6 |
| 1728 |               |                 |               |               |                   | 18.263          | 20.594          | 12.759             |               |               |       |       | 3142.4 |
| 1729 |               |                 |               |               |                   | 18.274          | 20.607          | 12.770             |               |               |       |       | 3144.2 |
| 1730 |               |                 |               |               |                   | 18.285          | 20.620          | 12.782             |               |               |       |       | 3146.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1731 |               |                 |               |               |                   | 18.297          | 20.633          | 12.794             |               |               |       |       | 3147.8 |
| 1732 |               |                 |               |               |                   | 18.308          | 20.646          | 12.805             |               |               |       |       | 3149.6 |
| 1733 |               |                 |               |               |                   | 18.319          | 20.659          | 12.817             |               |               |       |       | 3151.4 |
| 1734 |               |                 |               |               |                   | 18.330          | 20.672          | 12.829             |               |               |       |       | 3153.2 |
| 1735 |               |                 |               |               |                   | 18.341          | 20.685          | 12.840             |               |               |       |       | 3155.0 |
| 1736 |               |                 |               |               |                   | 18.352          | 20.698          | 12.852             |               |               |       |       | 3156.8 |
| 1737 |               |                 |               |               |                   | 18.362          | 20.711          | 12.863             |               |               |       |       | 3158.6 |
| 1738 |               |                 |               |               |                   | 18.373          | 20.724          | 12.875             |               |               |       |       | 3160.4 |
| 1739 |               |                 |               |               |                   | 18.384          | 20.736          | 12.887             |               |               |       |       | 3162.2 |
| 1740 |               |                 |               |               |                   | 18.395          | 20.749          | 12.898             |               |               |       |       | 3164.0 |
| 1741 |               |                 |               |               |                   | 18.406          | 20.762          | 12.910             |               |               |       |       | 3165.8 |
| 1742 |               |                 |               |               |                   | 18.417          | 20.775          | 12.921             |               |               |       |       | 3167.6 |
| 1743 |               |                 |               |               |                   | 18.428          | 20.788          | 12.933             |               |               |       |       | 3169.4 |
| 1744 |               |                 |               |               |                   | 18.439          | 20.801          | 12.945             |               |               |       |       | 3171.2 |
| 1745 |               |                 |               |               |                   | 18.449          | 20.813          | 12.956             |               |               |       |       | 3173.0 |
| 1746 |               |                 |               |               |                   | 18.460          | 20.826          | 12.968             |               |               |       |       | 3174.8 |
| 1747 |               |                 |               |               |                   | 18.471          | 20.839          | 12.980             |               |               |       |       | 3176.6 |
| 1748 |               |                 |               |               |                   | 18.482          | 20.852          | 12.991             |               |               |       |       | 3178.4 |
| 1749 |               |                 |               |               |                   | 18.493          | 20.864          | 13.003             |               |               |       |       | 3180.2 |
| 1750 |               |                 |               |               |                   | 18.503          | 20.877          | 13.014             |               |               |       |       | 3182.0 |
| 1751 |               |                 |               |               |                   | 18.514          | 20.890          | 13.026             |               |               |       |       | 3183.8 |
| 1752 |               |                 |               |               |                   | 18.525          | 20.902          | 13.037             |               |               |       |       | 3185.6 |
| 1753 |               |                 |               |               |                   | 18.535          | 20.915          | 13.049             |               |               |       |       | 3187.4 |
| 1754 |               |                 |               |               |                   | 18.546          | 20.928          | 13.061             |               |               |       |       | 3189.2 |
| 1755 |               |                 |               |               |                   | 18.557          | 20.940          | 13.072             |               |               |       |       | 3191.0 |
| 1756 |               |                 |               |               |                   | 18.567          | 20.953          | 13.084             |               |               |       |       | 3192.8 |
| 1757 |               |                 |               |               |                   | 18.578          | 20.965          | 13.095             |               |               |       |       | 3194.6 |
| 1758 |               |                 |               |               |                   | 18.588          | 20.978          | 13.107             |               |               |       |       | 3196.4 |
| 1759 |               |                 |               |               |                   | 18.599          | 20.990          | 13.119             |               |               |       |       | 3198.2 |
| 1760 |               |                 |               |               |                   | 18.609          | 21.003          | 13.130             |               |               |       |       | 3200.0 |
| 1761 |               |                 |               |               |                   | 18.620          | 21.015          | 13.142             |               |               |       |       | 3201.8 |
| 1762 |               |                 |               |               |                   | 18.630          | 21.027          | 13.153             |               |               |       |       | 3203.6 |
| 1763 |               |                 |               |               |                   | 18.641          | 21.040          | 13.165             |               |               |       |       | 3205.4 |
| 1764 |               |                 |               |               |                   | 18.651          | 21.052          | 13.176             |               |               |       |       | 3207.2 |
| 1765 |               |                 |               |               |                   | 18.661          | 21.065          | 13.188             |               |               |       |       | 3209.0 |
| 1766 |               |                 |               |               |                   | 18.672          | 21.077          | 13.200             |               |               |       |       | 3210.8 |
| 1767 |               |                 |               |               |                   | 18.682          | 21.089          | 13.211             |               |               |       |       | 3212.6 |
| 1768 |               |                 |               |               |                   | 18.693          | 21.101          | 13.223             |               |               |       |       | 3214.4 |
| 1769 |               |                 |               |               |                   |                 |                 | 13.234             |               |               |       |       | 3216.2 |
| 1770 |               |                 |               |               |                   |                 |                 | 13.246             |               |               |       |       | 3218.0 |
| 1771 |               |                 |               |               |                   |                 |                 | 13.257             |               |               |       |       | 3219.8 |
| 1772 |               |                 |               |               |                   |                 |                 | 13.269             |               |               |       |       | 3221.6 |
| 1773 |               |                 |               |               |                   |                 |                 | 13.280             |               |               |       |       | 3223.4 |
| 1774 |               |                 |               |               |                   |                 |                 | 13.292             |               |               |       |       | 3225.2 |
| 1775 |               |                 |               |               |                   |                 |                 | 13.304             |               |               |       |       | 3227.0 |
| 1776 |               |                 |               |               |                   |                 |                 | 13.315             |               |               |       |       | 3228.8 |
| 1777 |               |                 |               |               |                   |                 |                 | 13.327             |               |               |       |       | 3230.6 |
| 1778 |               |                 |               |               |                   |                 |                 | 13.338             |               |               |       |       | 3232.4 |
| 1779 |               |                 |               |               |                   |                 |                 | 13.350             |               |               |       |       | 3234.2 |
| 1780 |               |                 |               |               |                   |                 |                 | 13.361             |               |               |       |       | 3236.0 |

| °C   | Type T        | Type E          | Type J        | Type K        | Type N            | Type S          | Type R          | Type B             | Type U        | Type L        | Pt100 | Ni100 | °F     |
|------|---------------|-----------------|---------------|---------------|-------------------|-----------------|-----------------|--------------------|---------------|---------------|-------|-------|--------|
| t90  | Cu-CuNi<br>mV | NiCr-CuNi<br>mV | Fe-CuNi<br>mV | NiCr-Ni<br>mV | NiCrSi-NiSi<br>mV | Pt10Rh-Pt<br>mV | Pt13Rh-Pt<br>mV | Pt30Rh-Pt6Rh<br>mV | Cu-CuNi<br>mV | Fe-CuNi<br>mV | Ω     | Ω     | t90    |
| 1781 |               |                 |               |               |                   |                 |                 | 13.373             |               |               |       |       | 3237.8 |
| 1782 |               |                 |               |               |                   |                 |                 | 13.384             |               |               |       |       | 3239.6 |
| 1783 |               |                 |               |               |                   |                 |                 | 13.396             |               |               |       |       | 3241.4 |
| 1784 |               |                 |               |               |                   |                 |                 | 13.407             |               |               |       |       | 3243.2 |
| 1785 |               |                 |               |               |                   |                 |                 | 13.419             |               |               |       |       | 3245.0 |
| 1786 |               |                 |               |               |                   |                 |                 | 13.430             |               |               |       |       | 3246.8 |
| 1787 |               |                 |               |               |                   |                 |                 | 13.442             |               |               |       |       | 3248.6 |
| 1788 |               |                 |               |               |                   |                 |                 | 13.453             |               |               |       |       | 3250.4 |
| 1789 |               |                 |               |               |                   |                 |                 | 13.465             |               |               |       |       | 3252.2 |
| 1790 |               |                 |               |               |                   |                 |                 | 13.476             |               |               |       |       | 3254.0 |
| 1791 |               |                 |               |               |                   |                 |                 | 13.488             |               |               |       |       | 3255.8 |
| 1792 |               |                 |               |               |                   |                 |                 | 13.499             |               |               |       |       | 3257.6 |
| 1793 |               |                 |               |               |                   |                 |                 | 13.511             |               |               |       |       | 3259.4 |
| 1794 |               |                 |               |               |                   |                 |                 | 13.522             |               |               |       |       | 3261.2 |
| 1795 |               |                 |               |               |                   |                 |                 | 13.534             |               |               |       |       | 3263.0 |
| 1796 |               |                 |               |               |                   |                 |                 | 13.545             |               |               |       |       | 3264.8 |
| 1797 |               |                 |               |               |                   |                 |                 | 13.557             |               |               |       |       | 3266.6 |
| 1798 |               |                 |               |               |                   |                 |                 | 13.568             |               |               |       |       | 3268.4 |
| 1799 |               |                 |               |               |                   |                 |                 | 13.580             |               |               |       |       | 3270.2 |
| 1800 |               |                 |               |               |                   |                 |                 | 13.591             |               |               |       |       | 3272.0 |
| 1801 |               |                 |               |               |                   |                 |                 | 13.603             |               |               |       |       | 3273.8 |
| 1802 |               |                 |               |               |                   |                 |                 | 13.614             |               |               |       |       | 3275.6 |
| 1803 |               |                 |               |               |                   |                 |                 | 13.626             |               |               |       |       | 3277.4 |
| 1804 |               |                 |               |               |                   |                 |                 | 13.637             |               |               |       |       | 3279.2 |
| 1805 |               |                 |               |               |                   |                 |                 | 13.649             |               |               |       |       | 3281.0 |
| 1806 |               |                 |               |               |                   |                 |                 | 13.660             |               |               |       |       | 3282.8 |
| 1807 |               |                 |               |               |                   |                 |                 | 13.672             |               |               |       |       | 3284.6 |
| 1808 |               |                 |               |               |                   |                 |                 | 13.683             |               |               |       |       | 3286.4 |
| 1809 |               |                 |               |               |                   |                 |                 | 13.694             |               |               |       |       | 3288.2 |
| 1810 |               |                 |               |               |                   |                 |                 | 13.706             |               |               |       |       | 3290.0 |
| 1811 |               |                 |               |               |                   |                 |                 | 13.717             |               |               |       |       | 3291.8 |
| 1812 |               |                 |               |               |                   |                 |                 | 13.729             |               |               |       |       | 3293.6 |
| 1813 |               |                 |               |               |                   |                 |                 | 13.740             |               |               |       |       | 3295.4 |
| 1814 |               |                 |               |               |                   |                 |                 | 13.752             |               |               |       |       | 3297.2 |
| 1815 |               |                 |               |               |                   |                 |                 | 13.763             |               |               |       |       | 3299.0 |
| 1816 |               |                 |               |               |                   |                 |                 | 13.775             |               |               |       |       | 3300.8 |
| 1817 |               |                 |               |               |                   |                 |                 | 13.786             |               |               |       |       | 3302.6 |
| 1818 |               |                 |               |               |                   |                 |                 | 13.797             |               |               |       |       | 3304.4 |
| 1819 |               |                 |               |               |                   |                 |                 | 13.809             |               |               |       |       | 3306.2 |
| 1820 |               |                 |               |               |                   |                 |                 | 13.820             |               |               |       |       | 3308.0 |

The most important methods for measuring temperature and their basic principles are described.

Numerous practical details provide the user with valuable information about temperature measurement in industrial applications.