

Temperature vs. Resistance Table

YSI 400 Series Probes $R(25^{\circ}C) = 2252\Omega$

| Tempe | rature | Resistance | | | Resistance Temperature | | Resistance | e Temperature | | Resistance | |
|----------------|------------|--------------------------|----------------|----------|------------------------|----------------|------------|--------------------|----------------|------------|------------------|
| °F | °C | (Ω) | °F | °C | (Ω) | °F | °C | (Ω) | °F | °C | (Ω) |
| -112.0 | -80 | 1,660,000.00 | 37.4 | 3 | 6,319.00 | 186.8 | 86 | 233.400 | 336.2 | 169 | 27.500 |
| -110.2 | -79 | 1,518,000.00 | 39.2 | 4 | 6,011.00 | 188.6 | 87 | 226.200 | 338.0 | 170 | 26.900 |
| -108.4 | -78 | 1,390,000.00 | 41.0 | 5 | 5,719.00 | 190.4 | 88 | 219.300 | 339.8 | 171 | 26.300 |
| -106.6 | -77 | 1,273,000.00 | 42.8 | 6 | 5,444.00 | 192.2 | 89 | 212.600 | 341.6 | 172 | 25.900 |
| -104.8 | -76 | 1,167,000.00 | 44.6 | 7 | 5,183.00 | 194.0 | 90 | 206.100 | 343.4 | 173 | 25.200 |
| -103.0 | -75 | 1,071,000.00 | 46.4 | 8 | 4,937.00 | 195.8 | 91 | 199.900 | 345.2 | 174 | 24.700 |
| -101.2 | -74 -70 | 982,800.00 | 48.2 | 9 | 4,703.00 | 197.6 | 92 | 193.900 | 347.0 | 175 | 24.200 |
| -99.4 07.6 | -73 -72 | 902,700.00 829.700.00 | 50.0 51.8 | 10 11 | 4,482.00 | 199.4 201.2 | 93 94 | 188.100 | 348.8 350.6 | 176 177 | 23.700 23.200 |
| -97.6 -95.8 | -72 -71 | 763,100.00 | 53.6 | 12 | 4,273.00 4,074.00 | 201.2 | 94 95 | 182.500 177.100 | 350.6 352.4 | 177 | 23.200 |
| -94.0 | -71 -70 | 702,300.00 | 55.4 | 13 | 3,886.00 | 204.8 | 96 | 171.900 | 354.2 | 179 | 22.300 |
| -92.2 | -69 | 646,700.00 | 57.2 | 14 | 3,708.00 | 206.6 | 97 | 166.900 | 356.0 | 180 | 21.900 |
| -90.4 | -68 | 595,900.00 | 59.0 | 15 | 3,539.00 | 208.4 | 98 | 162.000 | 357.8 | 181 | 21.400 |
| -88.6 | -67 | 549,400.00 | 60.8 | 16 | 3,378.00 | 210.2 | 99 | 157.300 | 359.6 | 182 | 21.000 |
| -86.8 | -66 | 506,900.00 | 62.6 | 17 | 3,226.00 | 212.0 | 100 | 152.800 | 361.4 | 183 | 20.600 |
| -85.0 | -65 | 467,900.00 | 64.4 | 18 | 3,081.00 | 213.8 | 101 | 148.400 | 363.2 | 184 | 20.200 |
| -83.2 | -64 | 432,200.00 | 66.2 | 19 | 2,944.00 | 215.6 | 102 | 144.200 | 365.0 | 185 | 19.800 |
| -81.4 | -63 | 399,500.00 | 68.0 | 20 | 2,814.00 | 217.4 | 103 | 140.100 | 366.8 | 186 | 19.400 |
| -79.6 | -62 | 369,400.00 | 69.8 | 21 | 2,690.00 | 219.2 | 104 | 136.100 | 368.6 | 187 | 19.000 |
| -77.8 | -61 | 341,800.00 | 71.6 | 22 | 2,572.00 | 221.0 | 105 | 132.300 | 370.4 | 188 | 18.600 |
| -76.0 | -60 | 316,500.00 | 73.4 | 23 | 2,460.00 | 222.8 | 106 | 128.600 | 372.2 | 189 | 18.300 |
| -74.2 | -59 | 293,200.00 | 75.2 | 24 | 2,354.00 | 224.6 | 107 | 125.000 | 374.0 | 190 | 17.900 |
| -72.4 | -58 | 271,700.00 | 77.0 | 25 | 2,252.00 | 226.4 | 108 | 121.600 | 375.8 | 191 | 17.600 |
| -70.6 -68.8 | -57 -56 | 252,000.00 233,800.00 | 78.8 80.6 | 26 27 | 2,156.00 2,064.00 | 228.2 230.0 | 109 | 118.200 | 377.6 379.4 | 192 193 | 17.200 16.900 |
| -66.6 -67.0 | -55 | 217,100.00 | 82.4 | 21 28 | 2,064.00 1,977.00 | 230.0 | 110 111 | 115.000 111.800 | 379.4 381.2 | 193 | 16.600 |
| -65.2 | -55 -54 | 201.700.00 | 84.2 | 29 | 1,894.00 | 233.6 | 112 | 108.800 | 383.0 | 195 | 16.300 |
| -63.4 | -53 | 187,400.00 | 86.0 | 30 | 1,815.00 | 235.4 | 113 | 105.800 | 384.8 | 196 | 16.000 |
| -61.6 | -52 | 174,300.00 | 87.8 | 31 | 1,739.00 | 237.2 | 114 | 103.000 | 386.6 | 197 | 15.700 |
| -59.8 | -51 | 162,200.00 | 89.6 | 32 | 1,667.00 | 239.0 | 115 | 100.200 | 388.4 | 198 | 15.400 |
| -58.0 | -50 | 151,000.00 | 91.4 | 33 | 1,599.00 | 240.8 | 116 | 97.600 | 390.2 | 199 | 15.100 |
| -56.2 | -49 | 140,600.00 | 93.2 | 34 | 1,533.00 | 242.6 | 117 | 95.000 | 392.0 | 200 | 14.900 |
| -54.4 | -48 | 131,000.00 | 95.0 | 35 | 1,471.00 | 244.4 | 118 | 92.500 | 393.8 | 201 | 14.600 |
| -52.6 | -47 | 122,100.00 | 96.8 | 36 | 1,412.00 | 246.2 | 119 | 90.000 | 395.6 | 202 | 14.300 |
| -50.8 | -46 | 113,900.00 | 98.6 | 37 | 1,355.00 | 248.0 | 120 | 87.700 | 397.4 | 203 | 14.000 |
| -49.0 | -45 | 106,300.00 | 100.4 | 38 | 1,301.00 | 249.8 | 121 | 85.400 | 399.2 | 204 | 13.800 |
| -47.2 | -44 | 99,260.00 | 102.2 | 39 | 1,249.00 | 251.6 | 122 | 83.200 | 401.0 | 205 | 13.500 |
| -45.4 43.6 | -43 | 92,720.00 | 104.0 | 40 | 1,200.00 | 253.4 | 123 | 81.100 | 402.8 | 206 | 13.300 |
| -43.6 -41.8 | -42 -41 | 86,650.00 81,020.00 | 105.8 107.6 | 41 42 | 1,152.00 1,107.00 | 255.2 257.0 | 124 125 | 79.000 77.000 | 404.6 406.4 | 207 208 | 13.100 12.800 |
| -41.0 -40.0 | -40 | 75.790.00 | 107.6 | 43 | 1,064.00 | 258.8 | 126 | 75.000 | 408.2 | 209 | 12.600 |
| -38.2 | -39 | 70,930.00 | 111.2 | 44 | 1,023.00 | 260.6 | 127 | 73.100 | 410.0 | 210 | 12.400 |
| -36.4 | -38 | 66,410.00 | 113.0 | 45 | 983.800 | 262.4 | 128 | 71.300 | 411.8 | 211 | 12.200 |
| -34.6 | -37 | 62,210.00 | 114.8 | 46 | 946.200 | 264.2 | 129 | 69.500 | 413.6 | 212 | 11.900 |
| -32.8 | -36 | 58,300.00 | 116.6 | 47 | 910.200 | 266.0 | 130 | 67.800 | 415.4 | 213 | 11.700 |
| -31.0 | -35 | 54,660.00 | 118.4 | 48 | 875.800 | 267.8 | 131 | 66.100 | 417.2 | 214 | 11.500 |
| -29.2 | -34 | 51,270.00 | 120.2 | 49 | 842.800 | 269.6 | 132 | 64.400 | 419.0 | 215 | 11.300 |
| -27.4 | -33 | 48,110.00 | 122.0 | 50 | 811.300 | 271.4 | 133 | 62.900 | 420.8 | 216 | 11.100 |
| -25.6 | -32 | 45,170.00 | 123.8 | 51 | 781.100 | 273.2 | 134 | 61.300 | 422.6 | 217 | 10.900 |
| -23.8 | -31 | 42,420.00 | 125.6 | 52 | 752.200 | 275.0 | 135 | 59.800 | 424.4 | 218 | 10.800 |
| -22.0 | -30 | 39,860.00 | 127.4 | 53 | 724.500 | 276.8 | 136 | 58.400 | 426.2 | 219 | 10.600 |
| -20.2 | -29 | 37,470.00 | 129.2 | 54 | 697.900 | 278.6 | 137 | 57.000 | 428.0 | 220 | 10.400 |
| -18.4 | -28 | 35,240.00 | 131.0 | 55 50 | 672.500 | 280.4 | 138 | 55.600 | 429.8 | 221 | 10.200 |
| -16.6 | -27 26 | 33,150.00 | 132.8 134.6 | 56 57 | 648.100 | 282.2 | 139 | 54.300 53.000 | 431.6 433.4 | 222 223 | 10.100 9.900 |
| -14.8 -13.0 | -26 -25 | 31,200.00 29,380.00 | 134.6 | 57 58 | 624.800 602.400 | 284.0 285.8 | 140 141 | 53.000 | 435.4 435.2 | 223 224 | 9.700 |
| -13.0 -11.2 | -23 -24 | 29,380.00 | 138.2 | 59 | 580.900 | 287.6 | 142 | 50.500 | 435.2 | 225 | 9.600 |
| -9.4 | -23 | 26,070.00 | 140.0 | 60 | 560.300 | 289.4 | 143 | 49.300 | 438.8 | 226 | 9.400 |
| -7.6 | -22 | 24,580.00 | 141.8 | 61 | 540.500 | 291.2 | 144 | 48.200 | 440.6 | 227 | 9.200 |
| -5.8 | -21 | 23,180.00 | 143.6 | 62 | 521.500 | 293.0 | 145 | 47.000 | 442.4 | 228 | 9.100 |
| -4.0 | -20 | 21,870.00 | 145.4 | 63 | 503.300 | 294.8 | 146 | 45.900 | 444.2 | 229 | 8.900 |
| -2.2 | -19 | 20,640.00 | 147.2 | 64 | 485.800 | 296.6 | 147 | 44.900 | 446.0 | 230 | 8.800 |
| -0.4 | -18 | 19,480.00 | 149.0 | 65 | 469.000 | 298.4 | 148 | 43.800 | 447.8 | 231 | 8.700 |
| 1.4 | -17 | 18,400.00 | 150.8 | 66 | 452.900 | 300.2 | 149 | 42.800 | 449.6 | 232 | 8.500 |
| 3.2 | -16 | 17,390.00 | 152.6 | 67 | 437.400 | 302.0 | 150 | 41.800 | 451.4 | 233 | 8.400 |
| 5.0 | -15 | 16,430.00 | 154.4 | 68 | 422.500 | 303.8 | 151 | 40.900 | 453.2 | 234 | 8.200 |
| 6.8 | -14 | 15,540.00 | 156.2 | 69 | 408.200 | 305.6 | 152 | 40.000 | 455.0 | 235 | 8.100 |
| | | | | | | | | | | | |

| 8.6 | -13 | 14.700.00 | 158.0 | 70 | 394.500 | 307.4 | 153 | 39.100 | 456.8 | 236 | 8.000 |
|------|-----|-----------|-------|----|---------|-------|-----|--------|-------|-----|-------|
| 10.4 | -12 | 13,910.00 | 159.8 | 71 | 381.200 | 309.2 | 154 | 38.200 | 458.6 | 237 | 7.900 |
| 12.2 | -11 | 13,160.00 | 161.6 | 72 | 368.500 | 311.0 | 155 | 37.300 | 460.4 | 238 | 7.700 |
| 14.0 | -10 | 12,460.00 | 163.4 | 73 | 356.200 | 312.8 | 156 | 36.500 | 462.2 | 239 | 7.600 |
| 15.8 | -9 | 11,810.00 | 165.2 | 74 | 344.500 | 314.6 | 157 | 35.700 | 464.0 | 240 | 7.500 |
| 17.6 | -8 | 11,190.00 | 167.0 | 75 | 333.100 | 316.4 | 158 | 34.900 | 465.8 | 241 | 7.400 |
| 19.4 | -7 | 10,600.00 | 168.8 | 76 | 322.300 | 318.2 | 159 | 34.100 | 467.6 | 242 | 7.300 |
| 21.2 | -6 | 10,050.00 | 170.6 | 77 | 311.800 | 320.0 | 160 | 33.400 | 469.4 | 243 | 7.100 |
| 23.0 | -5 | 9,534.00 | 172.4 | 78 | 301.700 | 321.8 | 161 | 32.700 | 471.2 | 244 | 7.000 |
| 24.8 | -4 | 9,046.00 | 174.2 | 79 | 292.000 | 323.6 | 162 | 32.000 | 473.0 | 245 | 6.900 |
| 26.6 | -3 | 8,586.00 | 176.0 | 80 | 282.700 | 325.4 | 163 | 31.300 | 474.8 | 246 | 6.800 |
| 28.4 | -2 | 8,151.00 | 177.8 | 81 | 273.700 | 327.2 | 164 | 30.600 | 476.6 | 247 | 6.700 |
| 30.2 | -1 | 7,741.00 | 179.6 | 82 | 265.000 | 329.0 | 165 | 29.900 | 478.4 | 248 | 6.600 |
| 32.0 | 0 | 7,355.00 | 181.4 | 83 | 256.700 | 330.8 | 166 | 29.300 | 480.2 | 249 | 6.500 |
| 33.8 | 1 | 6,989.00 | 183.2 | 84 | 248.600 | 332.6 | 167 | 28.700 | 482.0 | 250 | 6.400 |
| 35.6 | 2 | 6,644.00 | 185.0 | 85 | 240.900 | 334.4 | 168 | 28.100 | | | |

<u>YSI 400 Series Probes</u> <u>Thermistor Thermometers</u> <u>Additional Thermistor Tables</u>