

- Hex Bolt Sensor 10K3A1B
- Temperature range -40 to +125°C
- Miniature design with M8 hexagonal bolt
- Custom designs available
- Higher temperature range available
- Versatile temperature probe with screw body
- Vielseitig Temperaturfühler mit Schraubenkörper

Applications

Heating / cooling systems

Laboratory

Industrial process

Energy

HVAC

Drilling

Features

Cost effective - off the shelf model

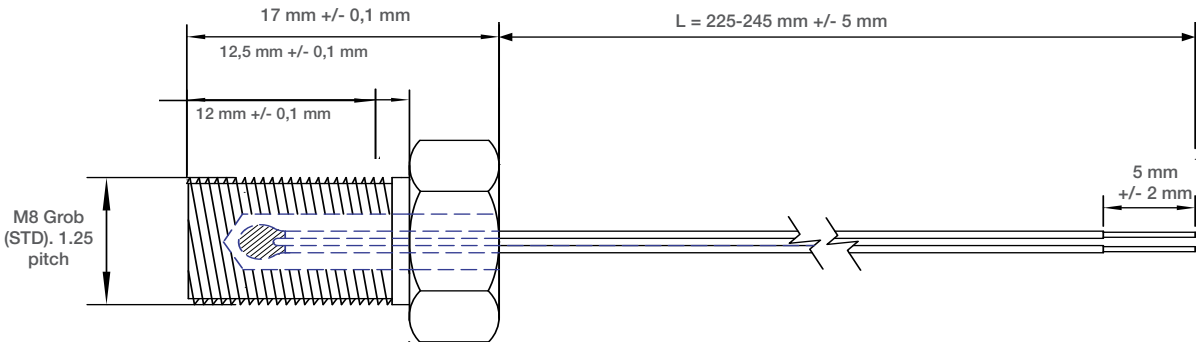
Solid tin plated lead wires

Stock model - reduced lead times

Improved potting epoxy has outstanding thermal conductivity for faster response times

| Technical parameters for stock model |                                                                    |             |
|--------------------------------------|--------------------------------------------------------------------|-------------|
|                                      | Unit                                                               | Value       |
| Nominal resistance at +25°C          | Ohms                                                               | 10,000      |
| Resistance tolerance from 0..70°C    | °C                                                                 | +/- 0.2     |
| Beta value 25/85                     | K                                                                  | 3976        |
| Tolerance on Beta value 25/85        | %                                                                  | +/- 0.5     |
| Dissipation constant in still air    | mW/°C                                                              | 2           |
| Operating temperature                | °C                                                                 | -40 to +125 |
| Epoxy thermal conductivity           | W/(m.K)                                                            | 1.7         |
| Materials                            |                                                                    |             |
| Leads and insulation                 | 28AWG Solid silver plated copper leads with white Kynar insulation |             |
| Probe material                       | Stainless steel                                                    |             |

Dimensions





Ordering information

(Please use the characters in the chart below to construct your product code)

Beispielcode 93068 - ETP - SP - M8x12 - 23 - 10K3A1B

Probe Size

|   |                    |
|---|--------------------|
| 4 | M4                 |
| 5 | M5                 |
| 6 | M6                 |
| 8 | M8                 |
| x | optional stud size |

Probe cable length

|    |               |
|----|---------------|
| 5  | 50            |
| 10 | 100           |
| 15 | 150           |
| 20 | 200           |
| 23 | 230           |
| 25 | 250           |
| 30 | 300           |
| 35 | 350           |
| 40 | 400           |
| 45 | 450           |
| x  | Custon length |

Thermistor Type

All thermistor types available: Insert details are required

Stock model:  
93068-ETP-SP-8-23-10K3A1B  
94846-ETP-SP-8-100-10K3A1B

If you require a customized solution for your program contact our sales team.



Resistance vs. Temperature Table for 10K3A1B Thermistor

| Temp. °C | Ohm     | Temp. °C | Ohm     | Temp. °C | Ohm     | Temp. °C | Ohm   |
|----------|---------|----------|---------|----------|---------|----------|-------|
| -40      | 336.052 | 3        | 28.054  | 46       | 4.200,0 | 89       | 944,7 |
| -39      | 314.512 | 4        | 26.687  | 47       | 4.040,2 | 90       | 916,0 |
| -38      | 294.487 | 5        | 25.395  | 48       | 3.887,4 | 91       | 888,3 |
| -37      | 275.863 | 6        | 24.172  | 49       | 3.741,1 | 92       | 861,5 |
| -36      | 258.533 | 7        | 23.016  | 50       | 3.601,1 | 93       | 835,7 |
| -35      | 242.399 | 8        | 21.921  | 51       | 3.467,1 | 94       | 810,8 |
| -34      | 227.373 | 9        | 20.884  | 52       | 3.338,7 | 95       | 786,8 |
| -33      | 213.371 | 10       | 19.903  | 53       | 3.215,8 | 96       | 763,6 |
| -32      | 200.318 | 11       | 18.973  | 54       | 3.098,0 | 97       | 741,2 |
| -31      | 188.144 | 12       | 18.092  | 55       | 2.985,2 | 98       | 719,5 |
| -30      | 176.786 | 13       | 17.257  | 56       | 2.877,0 | 99       | 698,6 |
| -29      | 166.183 | 14       | 16.465  | 57       | 2.773,3 | 100      | 678,4 |
| -28      | 156.280 | 15       | 15.714  | 58       | 2.673,9 | 101      | 658,9 |
| -27      | 147.029 | 16       | 15.001  | 59       | 2.578,6 | 102      | 640,0 |
| -26      | 138.382 | 17       | 14.324  | 60       | 2.487,1 | 103      | 621,8 |
| -25      | 130.296 | 18       | 13.682  | 61       | 2.399,4 | 104      | 604,1 |
| -24      | 122.732 | 19       | 13.073  | 62       | 2.315,2 | 105      | 587,1 |
| -23      | 115.653 | 20       | 12.493  | 63       | 2.234,4 | 106      | 570,6 |
| -22      | 109.025 | 21       | 11.943  | 64       | 2.156,8 | 107      | 554,6 |
| -21      | 102.817 | 22       | 11.420  | 65       | 2.082,3 | 108      | 539,2 |
| -20      | 97.000  | 23       | 10.923  | 66       | 2.010,8 | 109      | 524,3 |
| -19      | 91.547  | 24       | 10.450  | 67       | 1.942,1 | 110      | 509,8 |
| -18      | 86.433  | 25       | 10.000  | 68       | 1.876,0 | 111      | 495,8 |
| -17      | 81.636  | 26       | 9.572,0 | 69       | 1.812,6 | 112      | 482,3 |
| -16      | 77.134  | 27       | 9.164,7 | 70       | 1.751,6 | 113      | 469,2 |
| -15      | 72.907  | 28       | 8.777,0 | 71       | 1.693,0 | 114      | 456,5 |
| -14      | 68.937  | 29       | 8.407,8 | 72       | 1.636,6 | 115      | 444,2 |
| -13      | 65.206  | 30       | 8.056,1 | 73       | 1.582,4 | 116      | 432,3 |
| -12      | 61.700  | 31       | 7.721,0 | 74       | 1.530,2 | 117      | 420,8 |
| -11      | 58.403  | 32       | 7.401,7 | 75       | 1.480,1 | 118      | 409,6 |
| -10      | 55.301  | 33       | 7.097,3 | 76       | 1.431,8 | 119      | 398,8 |
| -9       | 52.383  | 34       | 6.807,1 | 77       | 1.385,3 | 120      | 388,3 |
| -8       | 49.636  | 35       | 6.530,3 | 78       | 1.340,6 | 121      | 378,2 |
| -7       | 47.049  | 36       | 6.266,3 | 79       | 1.297,5 | 122      | 368,3 |
| -6       | 44.612  | 37       | 6.014,3 | 80       | 1.256,1 | 123      | 358,8 |
| -5       | 42.315  | 38       | 5.773,8 | 81       | 1.216,1 | 124      | 349,5 |
| -4       | 40.150  | 39       | 5.544,3 | 82       | 1.177,7 | 125      | 340,6 |
| -3       | 38.109  | 40       | 5.325,0 | 83       | 1.140,6 |          |       |
| -2       | 36.183  | 41       | 5.115,7 | 84       | 1.104,9 |          |       |
| -1       | 34.366  | 42       | 4.915,6 | 85       | 1.070,4 |          |       |
| 0        | 32.650  | 43       | 4.724,5 | 86       | 1.037,3 |          |       |
| 1        | 31.030  | 44       | 4.541,7 | 87       | 1.005,3 |          |       |
| 2        | 29.500  | 45       | 4.367,1 | 88       | 974,4   |          |       |