

FLTSN-N

Temperature probe

The FLTSN-N passive temperature probes feature an outstanding stability of the temperature characteristics due to the platinum sensor element used. The sensor element is resin encapsulated in a stainless steel tube. These temperature sensors have a negative temperature coefficient of resistance: when the temperature rises, the resistance decreases.

Key features

- Resin encapsulated sensor element in a stainless steel tube
- Alloy lead wires for reduced thermal conductivity
- Negative temperature coefficient
- Long-term stability
- Rapid time response: <1 second in liquids

Technical specifications

| | | |
|--|---------------|----------------------------|
| Nominal resistance at 25° C | 10 kΩ | |
| Dissipation Constant in still air at 25° C | 0,75 mW/°C | |
| Alpha Value (temperature coefficient of resistance) at 25° C | 4,39 %/°C | |
| Beta Value 25/85 | 3976 K | |
| Tolerance on Beta Value 25/85 | 0,5 % | |
| Resistance tolerance from 32°C to +44°C | ±0,05 °C | |
| Flying leads | Length | 1 m, can be extended* |
| | Cross section | 0,5 mm ² |
| Ambient conditions | Temperature | -40—125 °C |
| | Rel. humidity | < 95 % rH (non-condensing) |

* Use screened extension wires

Area of use

- Temperature sensing, control and compensation in HVAC applications

Standards

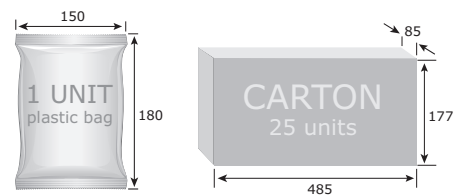
- WEEE Directive 2012/19/EC
- RoHs Directive 2011/65/EC



Dimensions



Packaging



| Article | Packaging | Length [mm] | Width [mm] | Height [mm] | Net weight | Gross weight |
|-------------------|------------------|-------------|------------|-------------|------------|--------------|
| FLTSN-N-1K4A1-010 | Bag (1 pc.) | 150 | ≈20 | 180 | 0,052 kg | 0,056 kg |
| | Carton (25 pcs.) | 485 | 177 | 85 | 1,3 kg | 1,55 kg |
| | Box (150 pcs.) | 590 | 280 | 280 | 7,8 kg | 10,22 kg |

Nominal resistance values

| T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω | T °C | Ω |
|------|--------|------|--------|------|-------|------|-------|------|------|------|------|------|------|------|------|------|-----|------|-----|
| -40 | 336098 | -22 | 109032 | -4 | 40151 | 14 | 16465 | 32 | 7402 | 50 | 3601 | 68 | 1876 | 86 | 1037 | 104 | 604 | 122 | 368 |
| -39 | 314553 | -21 | 102824 | -3 | 38110 | 15 | 15714 | 33 | 7097 | 51 | 3467 | 69 | 1813 | 87 | 1005 | 105 | 587 | 123 | 359 |
| -38 | 294524 | -20 | 97006 | -2 | 36184 | 16 | 15001 | 34 | 6807 | 52 | 3339 | 70 | 1752 | 88 | 974 | 106 | 571 | 124 | 350 |
| -37 | 275897 | -19 | 91553 | -1 | 34366 | 17 | 14324 | 35 | 6530 | 53 | 3216 | 71 | 1693 | 89 | 945 | 107 | 555 | 125 | 341 |
| -36 | 258563 | -18 | 86439 | 0 | 32651 | 18 | 13682 | 36 | 6266 | 54 | 3098 | 72 | 1637 | 90 | 916 | 108 | 539 | | |
| -35 | 242427 | -17 | 81641 | 1 | 31031 | 19 | 13073 | 37 | 6014 | 55 | 2985 | 73 | 1582 | 91 | 888 | 109 | 524 | | |
| -34 | 227398 | -16 | 77138 | 2 | 29500 | 20 | 12493 | 38 | 5774 | 56 | 2877 | 74 | 1530 | 92 | 862 | 110 | 510 | | |
| -33 | 213394 | -15 | 72911 | 3 | 28054 | 21 | 11943 | 39 | 5544 | 57 | 2773 | 75 | 1480 | 93 | 836 | 111 | 496 | | |
| -32 | 200339 | -14 | 68940 | 4 | 26687 | 22 | 11420 | 40 | 5325 | 58 | 2674 | 76 | 1432 | 94 | 811 | 112 | 482 | | |
| -31 | 188163 | -13 | 65209 | 5 | 25395 | 23 | 10923 | 41 | 5116 | 59 | 2579 | 77 | 1385 | 95 | 787 | 113 | 469 | | |
| -30 | 176803 | -12 | 61703 | 6 | 24172 | 24 | 10450 | 42 | 4916 | 60 | 2487 | 78 | 1341 | 96 | 764 | 114 | 457 | | |
| -29 | 166198 | -11 | 58405 | 7 | 23016 | 25 | 10000 | 43 | 4724 | 61 | 2399 | 79 | 1298 | 97 | 741 | 115 | 444 | | |
| -28 | 156294 | -10 | 55304 | 8 | 21921 | 26 | 9572 | 44 | 4542 | 62 | 2315 | 80 | 1256 | 98 | 720 | 116 | 432 | | |
| -27 | 147042 | -9 | 52385 | 9 | 20885 | 27 | 9165 | 45 | 4367 | 63 | 2234 | 81 | 1216 | 99 | 699 | 117 | 421 | | |
| -26 | 138393 | -8 | 49638 | 10 | 19903 | 28 | 8777 | 46 | 4200 | 64 | 2157 | 82 | 1178 | 100 | 678 | 118 | 410 | | |
| -25 | 130306 | -7 | 47050 | 11 | 18973 | 29 | 8408 | 47 | 4040 | 65 | 2082 | 83 | 1141 | 101 | 659 | 119 | 399 | | |
| -24 | 122741 | -8 | 49638 | 12 | 18092 | 30 | 8056 | 48 | 3887 | 66 | 2011 | 84 | 1105 | 100 | 678 | 120 | 388 | | |
| -23 | 115661 | -5 | 42317 | 13 | 17257 | 31 | 7721 | 49 | 3741 | 67 | 1942 | 85 | 1070 | 103 | 622 | 121 | 378 | | |



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Temperature probe

Global trade item numbers (GTIN)

| Packaging | FLTSN-N-1K4A1-010 |
|---------------|-------------------|
| Unit | 05401003007020 |
| Carton | 05401003300824 |
| Box | 05401003501238 |