

Datasheet: ANDRPF

Indoor pendulum temperature sensor

Application

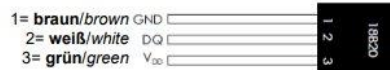
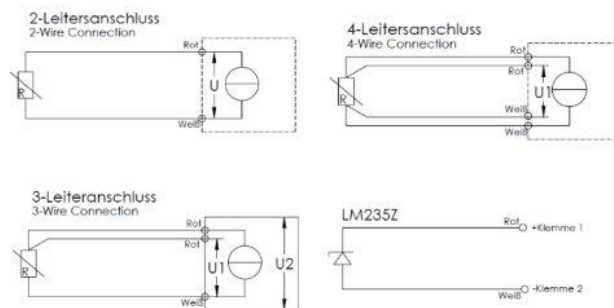
For indoor temperature measuring applications. The sensor is suspended from above, making it especially suitable for temperature Measurements in large rooms and halls with a high ceiling. With the help of the respective sensors (see ta-ble), the device can be connected to all conventional control and display systems.



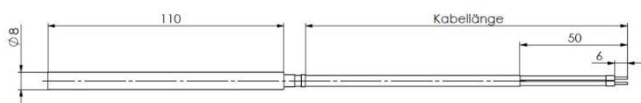
Technical Data

| General information | |
|---------------------|---|
| Temperature sensor | DS18B20, LM235Z NTC 1,8k/ 5k/ 10k / 20k / Precon, Ni1000, Ni1000TK5000, KTY81-110, KTY81-210 Pt100, Pt1000 (Kl. A, B, 1/3DIN) |
| Switching mode | two-wire connection |
| Connection | Core-end sleeves |
| Supply cord | 2m - PVC max 105°C |
| Fitting length | 8x110 mm |
| Material | Stainless steel |
| Protection class | IP54 |

Electrical connection



Draft



Special sensor models available on demand.

Resistance characteristics

| Temp. | PT100 | PT1000 | Ni1000 | Ni1000 TK5000 | NTC 1kOhm | NTC 1,8kOhm | NTC 3kOhm | NTC 5kOhm |
|-------|--------|--------|--------|------------------|-----------|----------------|-----------|-----------|
| °C | Ohm | Ohm | Ohm | Ohm | Ohm | Ohm | Ohm | Ohm |
| -50 | 80,31 | 803,1 | 743 | 790,88 | 32886 | | 200338 | |
| -40 | 84,27 | 842,7 | 791 | 830,83 | 18641 | 35658 | 100701 | 166555 |
| -30 | 88,22 | 882,2 | 842 | 871,69 | 10961 | 21131 | 53005 | 87897 |
| -20 | 92,16 | 921,6 | 893 | 913,48 | 6662 | 12838 | 29092 | 48322 |
| -10 | 96,06 | 960,9 | 946 | 956,24 | 4175 | 7992 | 16589 | 27584 |
| 0 | 100 | 1000 | 1000 | 1000 | 2961 | 5095 | 9795,2 | 16300 |
| 10 | 103,9 | 1039 | 1056 | 1044,79 | 1781 | 3221 | 5971,12 | 9942 |
| 20 | 107,79 | 1077,9 | 1112 | 1090,65 | 1205 | 2212 | 3748,1 | 6244 |
| 25 | 109,74 | 1097,4 | 1141 | 1113,99 | 1000 | 1820 | 3000 | 5000 |
| 30 | 111,67 | 1116,7 | 1171 | 1137,61 | 834,2 | 1504 | 2416,8 | 4029 |
| 40 | 115,54 | 1155,4 | 1230 | 1185,71 | 589,2 | 1042 | 1597,5 | 2664 |
| 50 | 119,4 | 1194 | 1291 | 1234,97 | 424 | 735 | 1080,3 | 1803 |
| 60 | 123,24 | 1232,4 | 1353 | 1285,44 | 310,4 | 528 | 746,12 | 1246 |
| 70 | 127,07 | 1270 | 1417 | 1337,14 | 231 | 384 | 525,49 | 878 |
| 80 | 130,89 | 1308,9 | 1483 | 1390,12 | 174,5 | 284 | 376,85 | 630 |
| 90 | 134,7 | 1347 | 1549 | 1444,39 | 133,6 | 213 | 274,83 | 459 |
| 100 | 138,5 | 1385 | 1618 | 1500 | 103,7 | 162 | 203,59 | 340 |
| 110 | 142,29 | 1422 | 1688 | 1556,98 | 81,4 | 125 | 153,03 | 256 |
| 120 | 146,06 | 1460,6 | 1760 | 1615,36 | 64,7 | 97 | 116,58 | 195 |
| 130 | 149,82 | 1498,2 | 1883 | 1675,18 | 51,9 | | 89,95 | 150 |
| 140 | 153,58 | 1535,8 | 1909 | 1736,47 | 42,1 | | 70,22 | 117 |
| 150 | 157,31 | 1573,1 | 1987 | 1799,26 | 34,4 | | 55,44 | 93 |

| Temp. | NTC 10kOhm | NTC 20kOhm | KTY 81-210 | KTY 11-6 | KTY 81-110 | KTY 81-121 | NTC 10kPRECON | LM235Z |
|-------|---------------|---------------|------------|----------|------------|------------|------------------|--------|
| °C | Ohm | Ohm | Ohm | Ohm | Ohm | Ohm | Ohm | Ohm |
| -50 | | | 1068,65 | 1035,91 | 515 | 510 | 454910 | 2232 |
| -40 | 333282 | 804170 | 1158,95 | 1139,27 | 567 | 562 | 245089 | 2332 |
| -30 | 175846 | 412798 | 1269,25 | 1250,39 | 624 | 617 | 137307 | 2432 |
| -20 | 96659 | 220734 | 1385,15 | 1396,25 | 684 | 677 | 79729 | 2532 |
| -10 | 55171 | 122439 | 1508,65 | 1495,86 | 747 | 740 | 47843 | 2632 |
| 0 | 32600 | 70440 | 1639,6 | 1630,21 | 815 | 807 | 29588 | 2732 |
| 10 | 19885 | 41544 | 1778,1 | 1772,32 | 886 | 877 | 18813 | 2832 |
| 20 | 12489 | 25341 | 1924,15 | 1922,17 | 961 | 951 | 12272 | 2932 |
| 25 | 10000 | 20000 | 2000 | 2000 | 1000 | 990 | 10000 | 2982 |
| 30 | 8058 | 15888 | 2077,8 | 2079,77 | 1040 | 1029 | 8195 | 3032 |
| 40 | 5329 | 10214 | 2238,9 | 2245,17 | 1122 | 1111 | 5593 | 3132 |
| 50 | 3606 | 6718 | 2407,6 | 2418,21 | 1209 | 1196 | 3894 | 3232 |
| 60 | 2492 | 4517 | 2583,8 | 2599,06 | 1299 | 1286 | 2763 | 3332 |
| 70 | 1756 | 3110 | 2767,5 | 2787,65 | 1392 | 1378 | 1994 | 3432 |
| 80 | 1260 | 2167 | 2958,8 | 2983,99 | 1490 | 1475 | 1462 | 3532 |
| 90 | 920 | 1541 | 3152,5 | 3188,08 | 1591 | 1575 | 1088 | 3632 |
| 100 | 682 | 1114 | 3363,9 | 3399,91 | 1696 | 1679 | 821 | 3732 |
| 110 | 513 | 818 | 3577,75 | 3619,5 | 1805 | 1786 | 628 | 3832 |
| 120 | 391 | 608 | 3799,1 | 3846,83 | 1915 | 1896 | 486 | 3932 |
| 130 | | 457 | 4028,05 | 4081,91 | 2023 | 2003 | 380 | 4032 |
| 140 | | 347 | 4188,1 | 4324,74 | 2124 | 2103 | 301 | 4132 |
| 150 | | 266 | 4397,7 | 4575,31 | 2211 | 2189 | 240 | 4232 |

General notifications

The devices are built for safety extra-low voltage operation. The technical data from the data sheet apply when connecting the devices. On versions with Pt 100 sensors in two-wire version, the line resistance of the connecting cable must be considered. This can be corrected in the display or evaluation electronics. The measuring current should not be greater than 1mA (Pt1000 $\leq 0,3\text{mA}$), as it comes due to an excessively high measurement current for self-heating of the sensor and thus can distort the measurement result.

Use heat conductive paste between sensor and sleeve to assure a better heat transfer. This device can be mounted on any tubing by using a strap or flange.

Standards

EU-Richtline 2014/30/EU

DIN EN 61326-2-1:2013

Installation / Guarantee

The installation of the devices should be done only by qualified personnel. - The device may only be connected with the power off. - The safety of the VDE, the states, the TÜV and the local energy supply company must be observed. - The EMC directives must be observed. It must be shielded connecting lines, laying parallel with current-carrying - Lines should be avoided. - Operation in the vicinity of equipment that do not comply with EMC directives may adversely affect the functioning - The buyer has to ensure compliance with the relevant building and safety guidelines - This product should not be used for safety-related tasks, such as the protection of persons as an emergency stop switch on equipment. - Improper use of any defects and damages are excluded from the warranty and liability. - Consequential damages caused by a fault in this device are excluded from warranty or liability. - Solely the technical data and connecting conditions of the mounting and operating instructions supplied with the instrument. Changes are possible at any time in the sense of technical progress and the improvement of products. - Changes of the device by the user, all warranty claims.

Product Web Links:

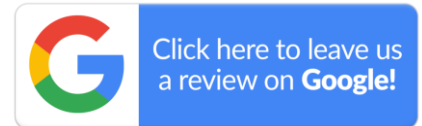
EN <https://www.andivi.com/sensors/temperature-sensors/indoor-pendulum-sensor/>

SI <https://www.andivi.si/senzorji-tipala/temperaturni-senzorji-in-tipala/visece-prostorsko-temperaturno-tipalo/>

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