

Temperature sensor

# ITS

Replacement  
for  
KTY84

## Applications

- Household appliances
- Electronics
- Engineering
- Automotive

## Benefits

- Temperatures from  $-40^{\circ}\text{C}$  up to  $+170^{\circ}\text{C}$
- Excellent long-term temperature stability
- High precision and reliability
- No reversal polarity (+/-) possible

**MICROTHERM**

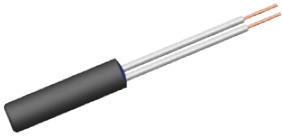
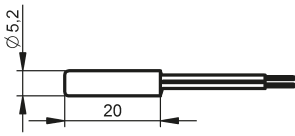
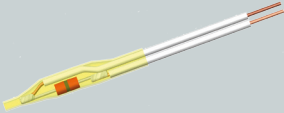
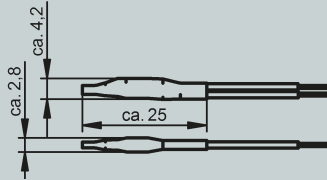


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technical data

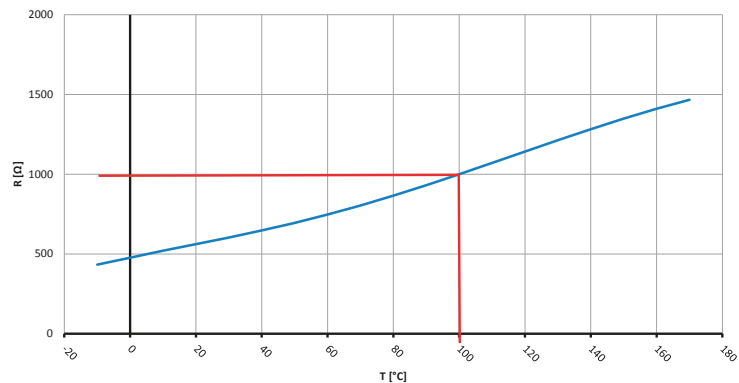
| ratings                              | type | STS1                   |
|--------------------------------------|------|------------------------|
| typ. resistance at 100°C (+-3%)      |      | 1000 Ω                 |
| operating temperature range          |      | -40°C ... +170 (190)°C |
| min. insulation resistance (100 Vdc) |      | 100 MΩ                 |
| operating current                    |      | 1 mA                   |
| max. rated power                     |      | 10 mW                  |

standard types

| type execution | illustration                                                                       | drawing dimensions (mm)                                                             | technical description                            |
|----------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------|
| STS1 G918      |   |   | housing PPS<br>leads ETFE, AWG24, white          |
| STS1 U129      |  |  | shrink sleeve Kynar®<br>leads ETFE, AWG24, white |

temperature vs. resistance

| T°C  | -10 | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100  | 110  | 120  | 130  | 140  | 150  | 160  | 170  |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| min. | 411 | 454 | 495 | 536 | 578 | 620 | 668 | 720 | 776 | 836 | 902 | 970  | 1036 | 1105 | 1171 | 1234 | 1296 | 1354 | 1406 |
| typ. | 433 | 477 | 520 | 561 | 603 | 647 | 695 | 747 | 804 | 866 | 931 | 1000 | 1071 | 1142 | 1213 | 1282 | 1348 | 1410 | 1467 |
| max. | 455 | 500 | 544 | 586 | 628 | 674 | 722 | 774 | 832 | 895 | 961 | 1030 | 1105 | 1180 | 1255 | 1330 | 1400 | 1466 | 1529 |



Remark: Values of electric resistance correspond almost exactly to KTY84.  
Above 170°C the sensor may lose its linearity.

ordering example

STS1 1000 3 L360 500 G918

- Type of sensor
- R at 100°C
- Tolerance (%)
- Leads white, AWG24, ETFE
- Length of leads (+/- 10 mm)
- Housing number



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