

Thermistor sensors are designed for sensing of temperature in gases, liquids (TS 18), temperature on surface of solid bodies (TS 19), etc. A miniature thermistor with guaranteed temperature course, which is set inside the silver tip of the probe, acts as sensing element. Outlets of the sensors are performed by oil-resistant cable. The sensor TS 19 has a spring-mounted tip.

Temperature range	: -25 °C up to +125 °C
Rated resistance at +25 °C	: 3000 Ω ±136 Ω
Temperature tolerance (0 °C až +70 °C)	: ±0,5 K
Temperature stability $\Delta R_{25} / R_{25}$ at 70 °C / 10 000 h	: < 2 %
Temperature course	: according to Table 1 and Figure 1
Temperature time constant at external heating-up (informative date)	
– calm air	: 150 s
– calm water	: 8 s
– surface of dry steel	: 50 s
– surface of dry steel with silicon vaseline	: 20 s
Dielectric strength	: 500 V / 50 Hz
Insulation resistance	: > 2 MΩ
Relative humidity	: až 100 %
Cover class	: IP54
Maximum working overpressure of measured medium	: 0,3 MPa
Maximum electrical load of thermistor sensor	: 0,5 mW
Working position	: arbitrary
Weight	: 0,18 až 0,2 kg

**DEPENDENCE OF TOLERANCE OF TEMPERATURE AND THERMISTOR RESISTANCE ON TEMPERATURE**

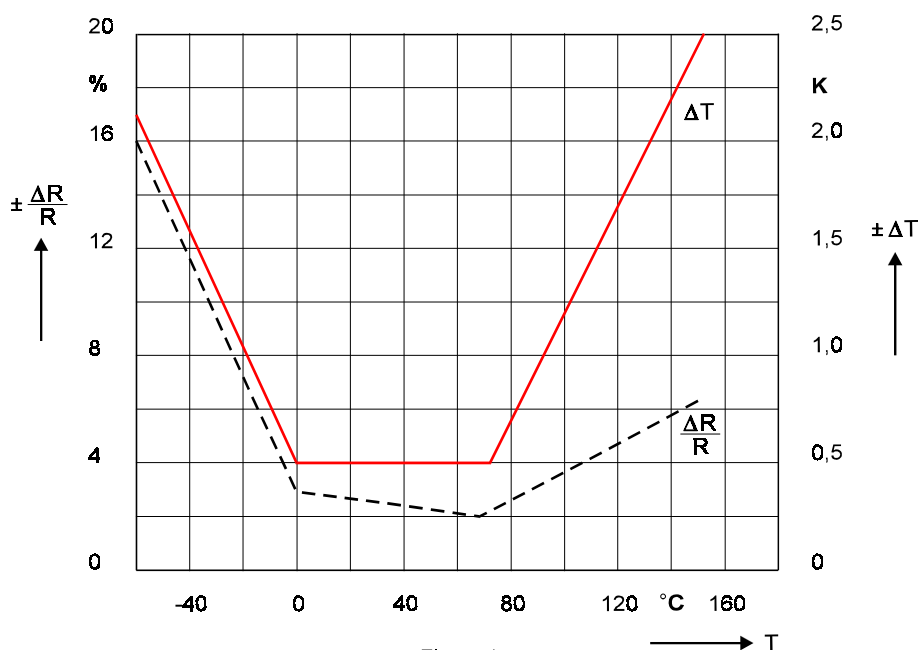
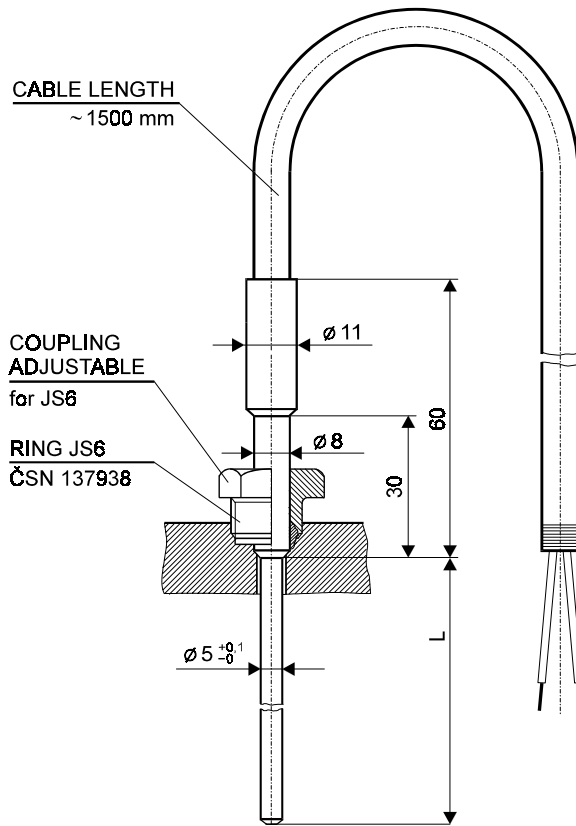


Figure 1

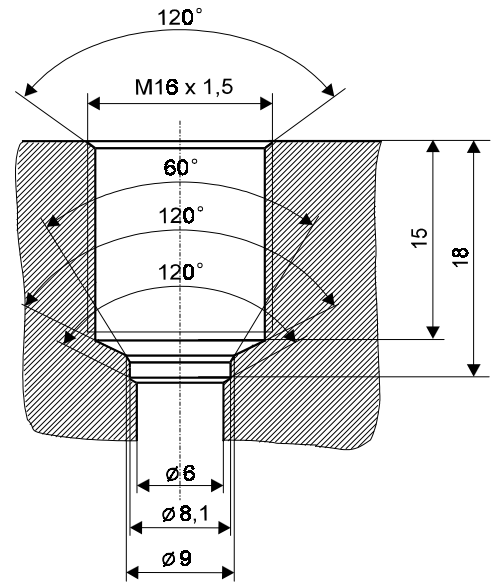
Table 1

Temperature [°C]	Resistance [Ω]	Temperature [°C]	Resistance [Ω]
-30,0	53100		
-25,0	39111	41,0	1535,2
-20,0	29121	42,0	1475,2
-15,0	21879	43,0	1417,8
-10,0	16599	44,0	1363,0
-5,0	12695	45,0	1310,6
0,0	9795,0		
1,0	9308,1	46,0	1260,5
2,0	8848,5	47,0	1212,6
3,0	8414,3	48,0	1166,7
4,0	8004,0	49,0	1122,9
5,0	7616,3	50,0	1080,9
6,0	7249,6	51,0	1040,6
7,0	6902,8	52,0	1002,0
8,0	6574,7	53,0	965,12
9,0	6264,1	54,0	929,75
10,0	5970,0	55,0	895,86
11,0	5690,7	56,0	863,40
12,0	5426,1	57,0	832,28
13,0	5175,4	58,0	802,44
14,0	4937,7	59,0	773,84
15,0	4712,3	60,0	746,40
16,0	4498,6	61,0	720,07
17,0	4295,8	62,0	694,81
18,0	4103,3	63,0	670,56
19,0	3920,6	64,0	647,27
20,0	3747,0	65,0	624,91
21,0	3582,1	66,0	603,43
22,0	3425,3	67,0	582,80
23,0	3276,4	68,0	562,97
24,0	3134,7	69,0	543,92
25,0	3000,0	70,0	525,60
26,0	2871,6	75,0	444,41
27,0	2749,5	80,0	377,40
28,0	2633,2	85,0	321,70
29,0	2522,5	90,0	275,31
30,0	2417,1	95,0	236,56
31,0	2316,5	100,0	204,00
32,0	2220,7	105,0	176,58
33,0	2129,4	110,0	153,36
34,0	2042,4	115,0	133,62
35,0	1959,4	120,0	116,79
36,0	1880,2	125,0	102,51
37,0	1804,7		
38,0	1732,6		
39,0	1663,8		
40,0	1598,1		

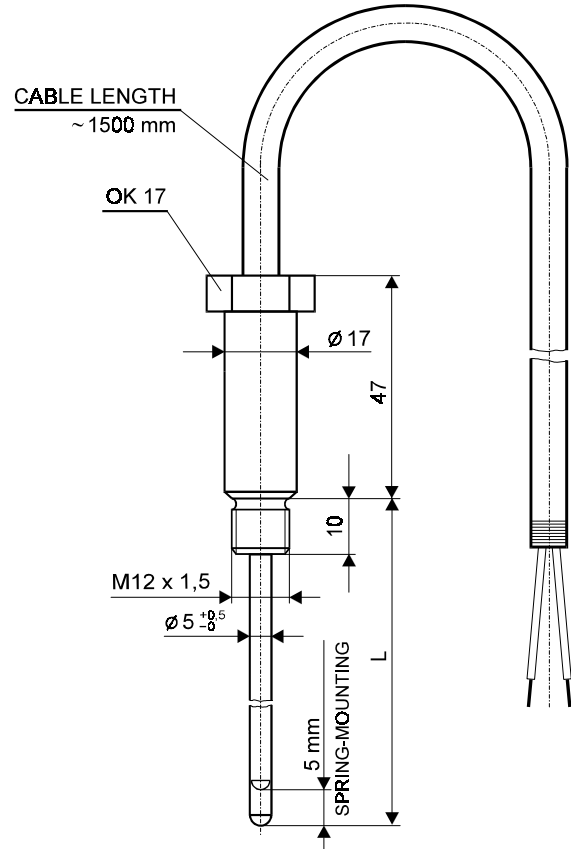
**DIMENSION DRAFT  
OF THERMISTOR SENSOR TS 18**



**BORE FOR COUPLING  
JS8 (M = 2 : 1)**



**DIMENSION DRAFT  
OF THERMISTOR SENSOR TS 18**



**NOTE :**

L = 20 mm, 40 mm, 60 mm, 80 mm,  
100 mm, 120 mm, 150 mm, 200 mm

Other length of the probe could be ordered  
after an agreement with customer.

