

CLIP-ON TEMPERATURE SENSOR

TSC-Series

FEATURES

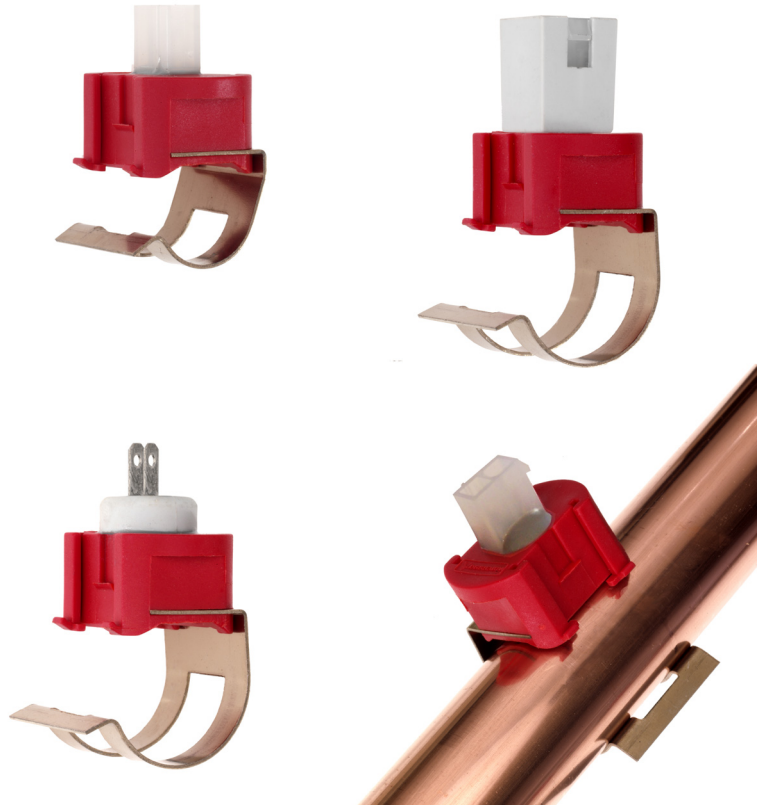
- Easy mounting
- Short response time
- High measuring accuracy
- Bracket for Ø15, 18, 22, 28 mm pipes
- EN 60730-2-9 approved

OPTIONS

- Dual sensor (2 x NTC)
- Lockable bracket

APPLICATIONS

- Boilers
- Central heating systems
- Compressors
- Heat exchangers
- Heat pumps



GENERAL INFORMATION

The Tasserón clip-on sensor is developed for indirect measurement of the medium (water) by clipping it onto a pipe. The clipping system makes a quick and certain fit which offers a cost advantage in installation and servicing. The clipping is simple and there is no chance of breaking thanks to the strong red Polyamide housing.

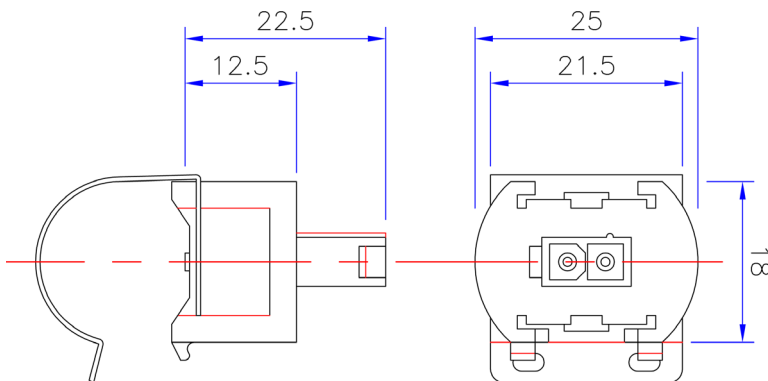
Eventhough the sensor features indirect measurement the responsetime and accuracy is still high as a result of the smart construction and high quality materials.

Tasserón has this sensor EN 60730-2-9 approved, which means it can also be used as a safety device. Even more advantage can be achieved by having two NTC's in one housing. With complementary electronics one NTC can be used for temperature controlling and the other for safety. One product, one assembly, two functions.

GENERAL TECHNICAL INFORMATION

Characteristic	Parameter	Value	Unit
Operating temperature	T_{op}	0...105	°C
Resistance tolerance NTC (@ 60°C)	ΔR_R	± 3	%
Resistance tolerance Pt1000 (Class B)	ΔR_R	$\pm 1,2$	Ω
Temperature coefficient Pt1000	TCR	3850	ppm/K
Thermal time constant (67%)	τ_a	<5	s
Insulation resistance	R_{ins}	>200	M Ω
Test Voltage (t = 1s)	V_{test}	2000	V_{AC}

MEASUREMENTS & MATERIALS



Standard

Housing material : Red Polyamide (DIN: PA6 GF25)
 Bracket material : AISI 304
 Pipe mounting brackets : $\varnothing 15$ mm / $\varnothing 18$ mm / $\varnothing 22$ mm / $\varnothing 28$ mm
 Electrical connection : Molex Mini-Fit Jr.™ 5566-02A
 Faston tabs 2,8 x 0,8 mm
 Faston tabs 2,8 x 0,5 mm

Options

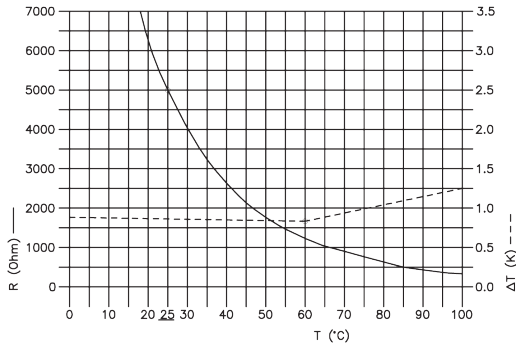
Locking brackets : $\varnothing 15$ mm / $\varnothing 18$ mm / $\varnothing 22$ mm / $\varnothing 28$ mm
 Dual sensor (Duplex) : 2 x NTC with Molex Micro-Fit™ 4P Connector

(Other brackets or connectors on request)

AVAILABLE SENSOR VALUES

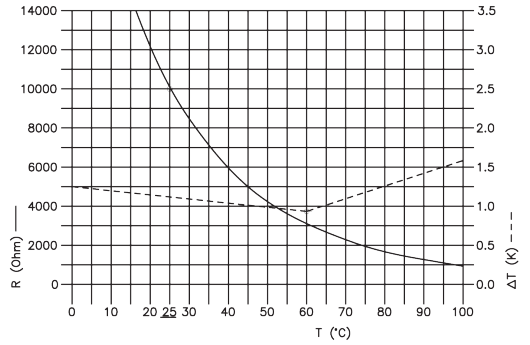
NTC 5K 3%@60°C B3977

T(°C)	R(Ohm)
0	16312
5	12691
10	9948
15	7856
20	6246
25	5000
30	4028
35	3265
40	2662
45	2183
50	1799
55	1491
60	1242
65	1039
70	874
75	738
80	626
85	533
90	456
95	391
100	337



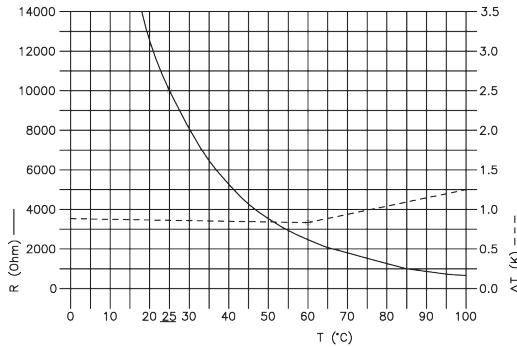
NTC 10K 3%@60°C B3435

T(°C)	Rn(Ohm)
0	27700
5	22290
10	18070
15	14740
20	12110
25	10000
30	8300
35	6924
40	5810
45	4896
50	4147
55	3525
60	3011
65	2582
70	2224
75	1922
80	1668
85	1451
90	1267
95	1110
100	975



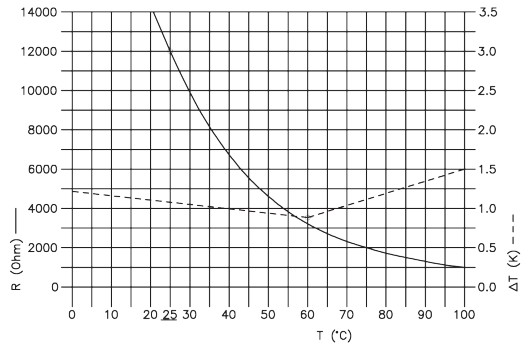
NTC 10K 3%@60°C B3977

T(°C)	Rn(Ohm)
0	32624
5	25381
10	19897
15	15711
20	12493
25	10000
30	8056
35	6530
40	5324
45	4365
50	3599
55	2982
60	2483
65	2079
70	1748
75	1476
80	1252
85	1066
90	912
95	782
100	674



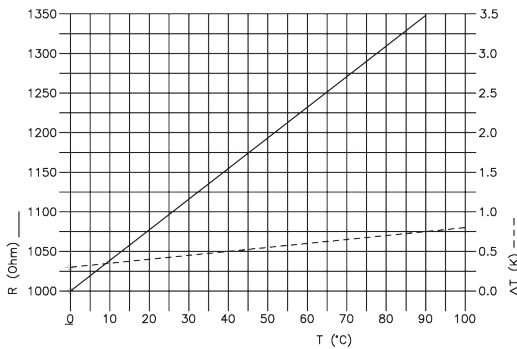
NTC 12K 3%@60°C B3740

T(°C)	R(Ohm)
0	36033
5	28562
10	22799
15	18308
20	14796
25	12000
30	9801
35	8060
40	6663
45	5531
50	4615
55	3862
60	3248
65	2749
70	2336
75	1993
80	1707
85	1466
90	1264
95	1095
100	951



Pt1000 (IEC751, class B)

T(°C)	R(Ohm)
0	1000
5	1020
10	1039
15	1058
20	1078
25	1097
30	1117
35	1136
40	1155
45	1175
50	1194
55	1213
60	1232
65	1252
70	1271
75	1290
80	1309
85	1328
90	1347
95	1366
100	1385



ORDERING INFORMATION

Example : TSC 0A I 0

Clip-on sensor
NTC 10K 3% B3977
18 mm bracket
Molex connector

TSC



Measuring element
05 = NTC 5K 3% B3977
0A = NTC 10K 3% B3977
0D = NTC 10K 3% B3435
0B = NTC 12K 3% B3740
45 = Pt1000 (IEC751, class B)

Bracket size
F = 15 mm
I = 18 mm
M = 22 mm
S = 28 mm

Connection
0 = Molex Minifit 5566-02R(C)
1 = Faston Tabs 2,8 x 0,8 mm
3 = Faston Tabs 2,8 x 0,5 mm

Other measuring elements, cable lengths and connectors on request.

Packing quantity and MOQ: 250 pieces

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