

HIGH TEMPERATURE CABLE SENSOR

TSK-Series

FEATURES

- High temperature 260°C
- Universal application
- High measuring accuracy
- Mounting in any direction
- EN 60730-2-9 approved

OPTIONS

- Dual sensor (2 x NTC/Pt)
- Tube fixing strip
- Mounting bracket or flange

APPLICATIONS

- Solar
- Ovens
- Catering equipment
- Fryers
- Pellet burners



GENERAL INFORMATION

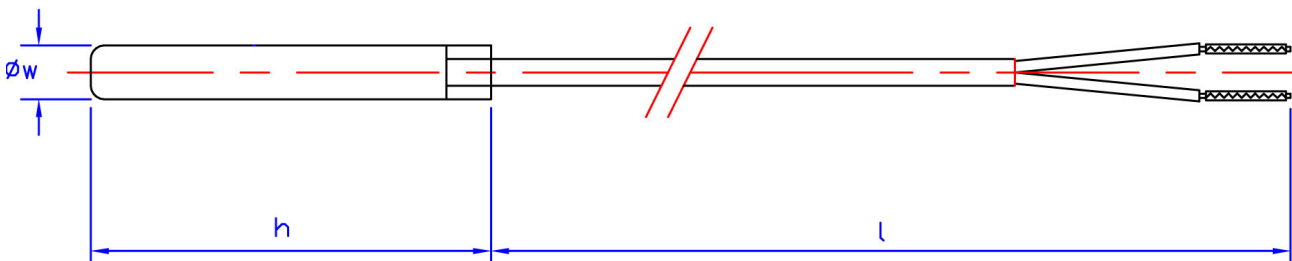
The Tasseron high temperature cable sensor is developed specifically for applications in extreme conditions. The line-welded wire connections and the teflon cable guarantee a long-term functioning in a temperature range of -40...260°C. The stainless steel (AISI 304) tube is available in various dimensions.

The sensor measures indirectly when placed in an immersion well or installed onto a pipe or surface. For direct measurement it can be placed in the medium (water, oil, gas, air etc.), using a flange.

GENERAL TECHNICAL INFORMATION

Characteristic	Parameter	Value	Unit
Operating temperature	T_{op}	-40...260	°C
Resistance tolerance NTC (@25°C)	ΔR_R	± 1	%
Resistance tolerance Pt100 (Class B)	ΔR_R	$\pm 0,12$	Ω
Resistance tolerance Pt1000 (Class B)	ΔR_R	$\pm 1,2$	Ω
Temperature coefficient Pt100/Pt1000	TCR	3850	ppm/K
Insulation resistance	R_{ins}	>200	M Ω
Test Voltage (t = 1s)	V_{test}	2000	V _{AC}

MEASUREMENTS & MATERIALS



Standard

Tube sizes ($\varnothing w \times h$) : 5 x 30 mm / 5 x 45 mm / 6 x 45 mm
 Tube material : AISI 304
 Cable lengths (l) : 1m / 3m / 5m
 Cable type : AWG24 2 x 0.205 mm², PTFE (Teflon)
 Electrical connection : Splice

Options

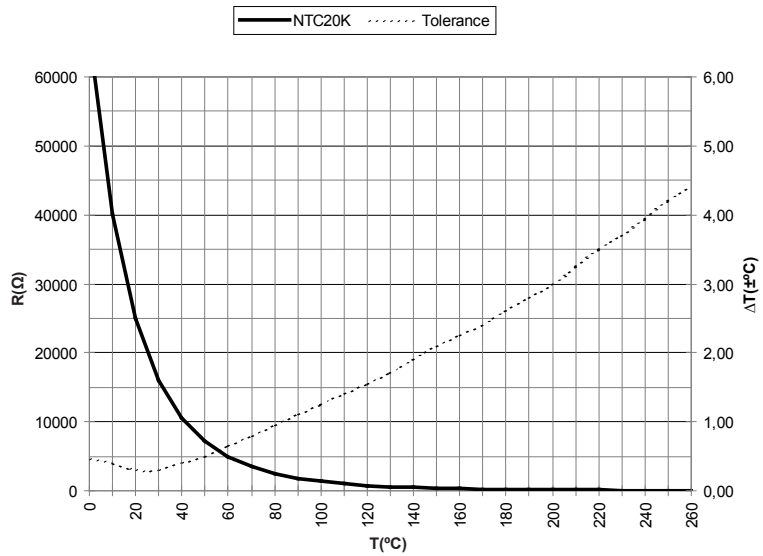
Pipe mounting brackets : $\varnothing 15$ mm / $\varnothing 18$ mm / $\varnothing 22$ mm / $\varnothing 28$ mm
 Tube fixing strip : AISI 304
 Dual sensor (Duplex) : 2 x NTC/Pt
 Connector : Molex Minifit Jr.

(Other dimensions or connectors on request)

AVAILABLE SENSOR VALUES

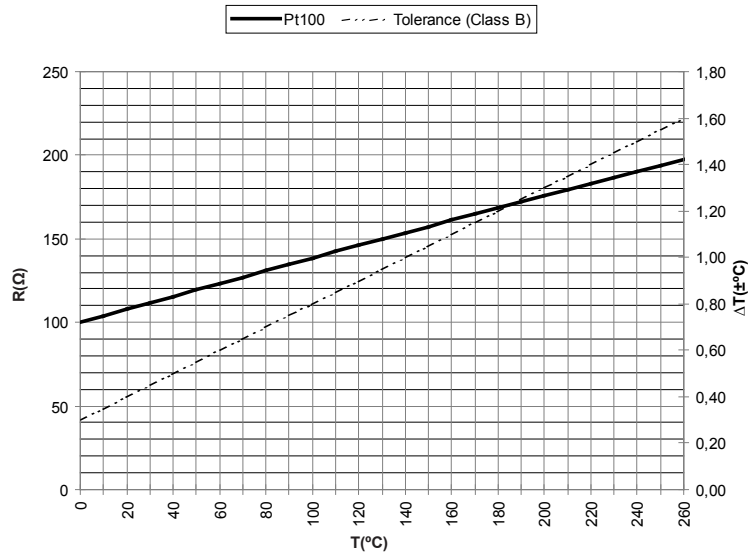
NTC 20KΩ 1%@25°C B3970

Temperature T (°C)	Resistance R _{nom} (Ω)	Tolerance ΔT (±°C)
0	66048	0,45
10	40034	0,40
20	25027	0,30
30	16090	0,30
40	10613	0,40
50	7166	0,50
60	4943	0,65
70	3478	0,80
80	2492	0,95
90	1816	1,10
100	1344	1,25
110	1009	1,40
120	767,7	1,55
130	591,6	1,70
140	461,2	1,90
150	363,5	2,10
160	289,5	2,25
170	232,7	2,40
180	188,8	2,60
190	154,5	2,80
200	127,4	3,00
210	105,8	3,25
220	88,58	3,50
230	74,63	3,70
240	63,28	3,95
250	53,98	4,20
260	46,31	4,40



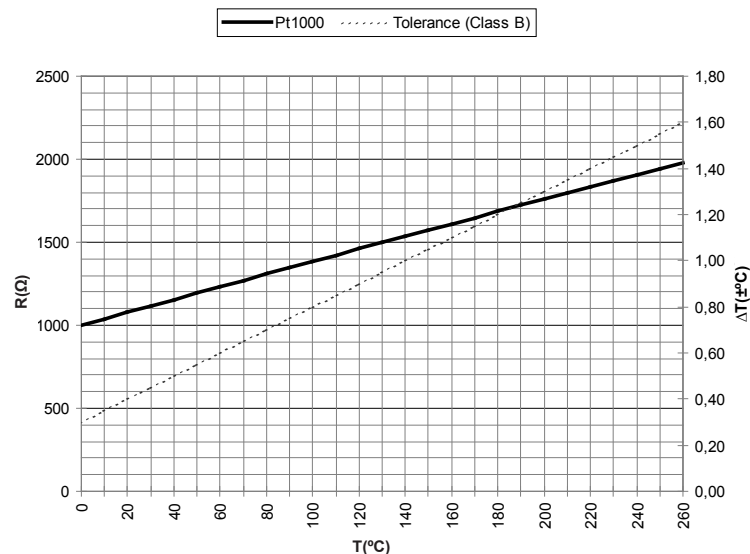
Pt100 (IEC751, class B)

Temperature T (°C)	Resistance R _{nom} (Ω)	Tolerance ΔT (±°C)
0	100,0	0,30
10	103,9	0,35
20	107,8	0,40
30	111,7	0,45
40	115,5	0,50
50	119,4	0,55
60	123,2	0,60
70	127,1	0,65
80	130,9	0,70
90	134,7	0,75
100	138,5	0,80
110	142,3	0,85
120	146,1	0,90
130	149,8	0,95
140	153,6	1,00
150	157,3	1,05
160	161,1	1,10
170	164,8	1,15
180	168,5	1,20
190	172,2	1,25
200	175,9	1,30
210	179,5	1,35
220	183,2	1,40
230	186,6	1,45
240	190,5	1,50
250	194,1	1,55
260	197,7	1,60



Pt1000 (IEC751, class B)

Temperature T (°C)	Resistance R _{nom} (Ω)	Tolerance ΔT (±°C)
0	1000	0,30
10	1039	0,35
20	1078	0,40
30	1117	0,45
40	1155	0,50
50	1194	0,55
60	1232	0,60
70	1271	0,65
80	1309	0,70
90	1347	0,75
100	1385	0,80
110	1423	0,85
120	1461	0,90
130	1498	0,95
140	1536	1,00
150	1573	1,05
160	1611	1,10
170	1648	1,15
180	1685	1,20
190	1722	1,25
200	1759	1,30
210	1795	1,35
220	1832	1,40
230	1866	1,45
240	1905	1,50
250	1941	1,55
260	1977	1,60



ORDERING INFORMATION

Measuring element	Tube size (Øw x h)	Cable length/material	Connection	Ordering Code
NTC 20K	5 x 30 mm	1 m PTFE	Splice	TSK30C0
NTC 20K	5 x 30 mm	3 m PTFE	Splice	TSK30C1
NTC 20K	5 x 30 mm	5 m PTFE	Splice	TSK30C2
NTC 20K	5 x 45 mm	1 m PTFE	Splice	TSK30C3
NTC 20K	5 x 45 mm	3 m PTFE	Splice	TSK30C4
NTC 20K	5 x 45 mm	5 m PTFE	Splice	TSK30C5
NTC 20K	6 x 45 mm	1 m PTFE	Splice	TSK30C6
NTC 20K	6 x 45 mm	3 m PTFE	Splice	TSK30C7
NTC 20K	6 x 45 mm	5 m PTFE	Splice	TSK30C8
Pt100	5 x 30 mm	1 m PTFE	Splice	TSK3410
Pt100	5 x 30 mm	3 m PTFE	Splice	TSK3411
Pt100	5 x 30 mm	5 m PTFE	Splice	TSK3412
Pt100	5 x 45 mm	1 m PTFE	Splice	TSK3413
Pt100	5 x 45 mm	3 m PTFE	Splice	TSK3414
Pt100	5 x 45 mm	5 m PTFE	Splice	TSK3415
Pt100	6 x 45 mm	1 m PTFE	Splice	TSK3416
Pt100	6 x 45 mm	3 m PTFE	Splice	TSK3417
Pt100	6 x 45 mm	5 m PTFE	Splice	TSK3418
Pt1000	5 x 30 mm	1 m PTFE	Splice	TSK3450
Pt1000	5 x 30 mm	3 m PTFE	Splice	TSK3451
Pt1000	5 x 30 mm	5 m PTFE	Splice	TSK3452
Pt1000	5 x 45 mm	1 m PTFE	Splice	TSK3453
Pt1000	5 x 45 mm	3 m PTFE	Splice	TSK3454
Pt1000	5 x 45 mm	5 m PTFE	Splice	TSK3455
Pt1000	6 x 45 mm	1 m PTFE	Splice	TSK3456
Pt1000	6 x 45 mm	3 m PTFE	Splice	TSK3457
Pt1000	6 x 45 mm	5 m PTFE	Splice	TSK3458

Other measuring elements, cable lengths and connectors on request

Tasseron Sensors B.V.
 Ambachtshof 50
 NL-2632 BB Nootdorp
 The Netherlands
 Tel: +31 (0)15 310 40 00
 Fax : +31 (0)15 310 40 40
 Email: sensors@tasseron.nl

Tasseron Sensors Inc.
 2401 Reach Road
 Williamsport, PA 17701
 United States
 Tel: +1 (570)601-1971
 Fax : +1 (570)601-1972
 Email: sales@tasseronusa.com