

Product division: NTC

Product type: S861/10k/A43

Product name: NTC Sensor

Ordering code: B57861S0103A043

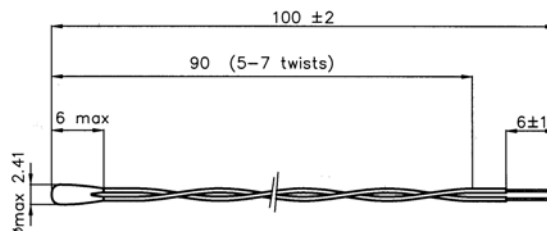
Data sheet

Application

Industrial electronics

Version

NTC soldered to wire and coated with Epoxy.
 wire: AWG30, Ni-core, silvered $\varnothing$ 0.25mm
 PTFE insulation, colour blue
 coating: Epoxy resin, colour black;
 length of components: 100 ± 2 mm
 stripped length: 6 ± 1 mm,
 head diameter: 2.41 mm max
 head length: 5 mm max (6.0 mm max)



Data

Climatic Category (IEC 60068-1)

: 55/155/56

(test without voltage)

Lower category temperature

[°C]: -55

Upper category temperature

[°C]: 155

Rated resistance // Tolerance

R_N

[Ω // %]: 10 000 // ± 1

Rated temperature

T_N

[°C]: 25

B-value : $B_{(25/100)}$ // Tolerance

B_N

[K//%]: 3988 // ± 1

R/T-Curve no. // R_{25}

[n// Ω]: 8016 // 10 000

Max. power rating at 25°C

P_{25}

[mW]: 60

Dissipation factor (in air)

δ_{th}

[mW/K]: approx. 1.5

Thermal cooling time constant (in air)

τ_C

[s]: approx. 15

Heat capacity

C_{th}

[mJ/K]: approx. 22.5

Remarks

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NTC Resistance Temperature Curve

R/T-Curve
R at 25°C

8016 / A01
10 000 [Ω]

B(25/100)
RN at 25 °C

3988 [K] $\pm$ 1 [%]
10 000 [Ω] $\pm$ 1 [%]

Temp. [°C]	R_nom [Ω]	R_min [Ω]	R_max [Ω]	ΔR [%]
-55	963048	905697	1020399	6,0
-50	670100	632939	707261	5,5
-45	471687	447377	495998	5,2
-40	336500	320419	352582	4,8
-35	242589	231867	253311	4,4
-30	177000	169786	184214	4,1
-25	130370	125487	135252	3,7
-20	97070	93743	100397	3,4
-15	72929	70652	75206	3,1
-10	55330	53765	56895	2,8
-5	42315	41237	43393	2,5
0	32650	31907	33393	2,3
5	25388	24877	25898	2,0
10	19900	19550	20250	1,8
15	15708	15470	15946	1,5
20	12490	12330	12650	1,3
25	10000	9900	10100	1,0
30	8057	7955	8159	1,3
35	6531	6434	6628	1,5
40	5327	5237	5417	1,7
45	4369	4286	4451	1,9
50	3603	3528	3678	2,1
55	2986	2918	3054	2,3
60	2488	2427	2549	2,5
65	2083	2028	2138	2,6
70	1752	1703	1801	2,8
75	1481	1437	1525	3,0
80	1258	1219	1297	3,1
85	1072	1037	1108	3,3
90	917,7	886,1	949,3	3,4
95	788,5	760,2	816,9	3,6
100	680,0	654,6	705,4	3,7
105	588,6	565,8	611,4	3,9
110	511,2	490,7	531,7	4,0
115	445,4	426,9	463,9	4,2
120	389,3	372,6	406,0	4,3
125	341,7	326,6	356,8	4,4
130	300,9	287,3	314,5	4,5
135	265,4	253,1	277,8	4,7
140	234,8	223,6	246,0	4,8
145	208,3	198,1	218,5	4,9
150	185,3	176,0	194,6	5,0
155	165,3	156,9	173,8	5,1

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