

NORTH STAR SENSORS CURVE 47

R/T SPECIFICATIONS

°C	RESISTANCE RATIO Rt / R25	NTC (%/°C)	POINT MATCHED RESISTANCE MFG. TOL. ADDER (±%)	INTER- CHANGEABLE T2A CODE ±°C TOL.
-50	83.3790	-7.42	7.7	0.65
-45	57.8828	-7.18	6.2	0.60
-40	40.6707	-6.94	5.6	0.54
-35	28.9074	-6.72	5.1	0.49
-30	20.7731	-6.50	4.5	0.45
-25	15.0850	-6.30	4.0	0.39
-20	11.0646	-6.10	3.4	0.35
-15	8.19383	-5.91	2.9	0.30
-10	6.12371	-5.74	2.5	0.25
-5	4.61689	-5.56	2.0	0.22
0	3.51020	-5.40	1.6	0.20
5	2.69037	-5.24	1.3	0.20
10	2.07803	-5.09	1.0	0.20
15	1.61702	-4.94	0.7	0.20
20	1.26728	-4.80	0.3	0.20
25	1.00000	-4.67	0.0	0.20
30	0.79430	-4.54	0.3	0.20
35	0.63490	-4.42	0.6	0.20
40	0.51059	-4.30	0.9	0.20
45	0.41302	-4.18	1.2	0.20
50	0.33598	-4.07	1.4	0.20
55	0.27479	-3.97	1.7	0.20
60	0.22593	-3.87	1.9	0.20
65	0.18669	-3.77	2.2	0.20
70	0.15502	-3.67	2.4	0.20
75	0.12932	-3.58	2.6	0.22
80	0.10837	-3.49	2.8	0.25
85	0.09121	-3.41	3.1	0.28
90	0.07709	-3.32	3.3	0.32
95	0.06542	-3.24	3.5	0.36
100	0.05574	-3.17	3.7	0.41
105	0.04767	-3.09	3.9	0.45
110	0.04091	-3.02	4.1	0.50
115	0.03524	-2.95	4.3	0.55
120	0.03046	-2.88	4.4	0.60
125	0.02642	-2.82	4.6	0.66
130	0.02299	-2.75	4.7	0.72
135	0.02006	-2.69	4.9	0.77
140	0.01757	-2.63	5.0	0.85
145	0.01542	-2.57	5.2	0.95
150	0.06542	-2.52	5.4	1.05

COLUMN HEADING DEFINITIONS:

RESISTANCE RATIO – The ratio of the resistance at temperature “t” to the resistance at 25 °C. To determine the resistance of a thermistor at a temperature point other than 25 °C, multiply the given resistance ratio by the resistance at 25 °C.

NTC - The Negative Temperature Coefficient of resistance is the % change in resistance per change in temperature, expressed in units of -%/ °C. To determine the approximate % resistance tolerance of a thermistor at a particular temperature, multiply the given NTC value by the temperature tolerance at that temperature.

POINT MATCHED - For thermistors with a specified tolerance at a single temperature point, the manufacturing tolerance is used to determine the tolerance at other temperature points. Typically, thermistors are specified at 25 °C. To determine the resistance tolerance at another temperature point, add the manufacturing tolerance to the specified point matched tolerance. For example, a thermistor with a ±10 % resistance tolerance at 25 °C has a ±11.6 % tolerance at 0 °C. Point matched thermistors should typically not cycle or operate continuously above 105 °C.

INTERCHANGEABLE T2A CODE - An interchangeable tolerance means that a thermistor has a temperature tolerance specified over a temperature range. For example, a “T2A” code indicates a ± 0.2 °C temperature tolerance from 0 °C to 70 °C. Typically, interchangeable thermistors should not cycle or operate continuously above their specified temperature range.