

NORTH STAR SENSORS CURVE 43

R/T SPECIFICATIONS

°C	RESISTANCE RATIO Rt / R25	NTC (%/°C)	POINT MATCHED RESISTANCE MFG. TOL. ADDER (±%)	INTER- CHANGEABLE T2A CODE ±°C TOL.
-50	56.4322	-6.71	6.5	0.58
-45	40.5702	-6.49	5.7	0.53
-40	29.4731	-6.29	5.0	0.49
-35	21.6261	-6.09	4.4	0.44
-30	16.0205	-5.91	3.8	0.39
-25	11.9767	-5.73	3.3	0.34
-20	9.03221	-5.56	2.8	0.30
-15	6.86889	-5.39	2.4	0.26
-10	5.26579	-5.24	2.0	0.23
-5	4.06802	-5.09	1.7	0.21
0	3.16600	-4.94	1.4	0.20
5	2.48150	-4.80	1.1	0.20
10	1.95829	-4.67	0.8	0.20
15	1.55555	-4.54	0.5	0.20
20	1.24344	-4.42	0.3	0.20
25	1.00000	-4.30	0.0	0.20
30	0.80892	-4.18	0.3	0.20
35	0.65804	-4.07	0.5	0.20
40	0.53820	-3.97	0.7	0.20
45	0.44249	-3.87	0.9	0.20
50	0.36563	-3.77	1.2	0.20
55	0.30357	-3.67	1.4	0.20
60	0.25323	-3.58	1.6	0.20
65	0.21219	-3.49	1.8	0.20
70	0.17858	-3.41	2.0	0.20
75	0.15093	-3.32	2.1	0.22
80	0.12808	-3.24	2.3	0.24
85	0.10912	-3.17	2.5	0.28
90	0.09332	-3.09	2.7	0.31
95	0.08010	-3.02	2.8	0.36
100	0.06900	-2.95	3.0	0.40
105	0.05963	-2.88	3.1	0.45
110	0.05171	-2.82	3.3	0.49
115	0.04499	-2.75	3.4	0.54
120	0.03926	-2.69	3.6	0.59
125	0.03437	-2.63	3.7	0.65
130	0.03017	-2.57	3.8	0.70
135	0.02657	-2.52	4.0	0.77
140	0.02346	-2.46	4.1	0.83
145	0.02077	-2.41	4.3	0.92
150	0.01843	-2.36	4.4	1.00

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 ± 5 % resistance tolerance at 25 °C has a ± 6.4 % 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.