

# GE INFRASTRUCTURE SENSING

## NTC Thermistor Resistance - Temperature Data

GE Thermometrics (UK) Ltd +44 (0) 1823 335200

Customer:

Customer Ref:

Thm Ref: Material F/W tolerance

Thermistor resistance calculated from  $R/R_{25} = \exp(A_0 + A_1/T + A_2/T^2 + A_3/T^3)$   
 (T = Temperature in K = Temperature in °C + 273.15)

±0.2degC 0-70degC  
 Data outside 0°C to 70°C for guidance

RVt Coefficients		Reference Point													
ID	Material F	R nominal	R minimum	R maximum	Resistance Tolerance -%	Resistance Tolerance +%	Temperature Tolerance +°C	Temperature Tolerance -°C	Alpha %/°C	B nominal	K				
Temp min °C	-40														
Temp max °C	105														
A0	-1.409E+01														
A1	4.345E+03														
A2	3.054E+03														
A3	-1.376E+07														
B tolerance ±%	0.3														
Temperature	R / R25	R nominal	R minimum	R maximum	Resistance Tolerance -%	Resistance Tolerance +%	Temperature Tolerance +°C	Temperature Tolerance -°C	Alpha %/°C	B nominal	K				
°C		ohm	ohm	ohm											
-40	33.7240	337240.00	331463.23	343081.70	-1.71	1.73	0.26	-0.26	-6.64	3763					
-39	31.5632	315631.84	310286.79	321035.41	-1.89	1.71	0.26	-0.26	-6.60	3767					
-38	29.5541	295540.84	290593.15	300540.94	-1.87	1.69	0.26	-0.26	-6.55	3768					
-37	27.6851	276851.39	272720.13	281480.32	-1.65	1.67	0.25	-0.26	-6.51	3771					
-36	25.9458	259458.38	255214.60	263745.15	-1.64	1.65	0.25	-0.26	-6.47	3774					
-35	24.3264	243264.41	239331.77	247235.81	-1.62	1.63	0.25	-0.26	-6.42	3777					
-34	22.8180	228180.07	224005.40	231860.69	-1.60	1.61	0.25	-0.26	-6.38	3780					
-33	21.4123	214123.10	210742.22	217535.48	-1.58	1.59	0.25	-0.25	-6.34	3782					
-32	20.1018	201017.77	197881.31	204182.60	-1.56	1.57	0.25	-0.25	-6.29	3785					
-31	18.8794	188794.32	185883.55	191730.61	-1.54	1.56	0.25	-0.25	-6.25	3788					
-30	17.7388	177388.46	174686.20	180113.68	-1.52	1.54	0.25	-0.25	-6.21	3791					
-29	16.6741	166740.93	164231.37	169271.14	-1.51	1.52	0.24	-0.25	-6.17	3793					
-28	15.6797	156797.08	154465.67	159147.04	-1.49	1.50	0.24	-0.24	-6.13	3796					
-27	14.7506	147506.46	145339.85	148688.77	-1.47	1.48	0.24	-0.24	-6.09	3798					
-26	13.8823	138822.57	136808.39	140851.69	-1.45	1.46	0.24	-0.24	-6.05	3801					
-25	13.0702	130702.36	128829.29	132588.81	-1.43	1.44	0.24	-0.24	-6.01	3803					
-24	12.3106	123106.12	121363.70	124860.50	-1.42	1.43	0.24	-0.24	-5.97	3806					
-23	11.5987	115987.41	114375.74	117625.29	-1.40	1.41	0.24	-0.24	-5.93	3808					
-22	10.9341	109341.43	107832.19	110860.21	-1.38	1.39	0.23	-0.24	-5.89	3811					
-21	10.3108	103107.61	101702.32	104521.39	-1.36	1.37	0.23	-0.23	-5.85	3813					
-20	9.7287	97286.60	95957.17	98583.04	-1.35	1.35	0.23	-0.23	-5.81	3816					
-19	9.1791	91791.47	90572.00	93017.64	-1.33	1.34	0.23	-0.23	-5.77	3818					
-18	8.6657	86657.29	85520.79	87790.71	-1.31	1.32	0.23	-0.23	-5.74	3820					
-17	8.1841	81840.95	80781.47	82905.65	-1.29	1.30	0.23	-0.23	-5.70	3823					
-16	7.7321	77321.01	76333.06	78313.57	-1.28	1.28	0.23	-0.23	-5.66	3825					
-15	7.3078	73077.63	72156.11	74003.18	-1.27	1.27	0.23	-0.23	-5.63	3827					
-14	6.9092	69092.35	68232.56	69955.65	-1.24	1.25	0.22	-0.22	-5.59	3829					
-13	6.5348	65348.06	64545.66	66153.53	-1.23	1.23	0.22	-0.22	-5.55	3832					
-12	6.1829	61828.88	61079.83	62580.57	-1.21	1.22	0.22	-0.22	-5.52	3834					
-11	5.8521	58520.04	57820.04	59221.22	-1.20	1.21	0.22	-0.22	-5.49	3836					
-10	5.5408	55407.83	54754.58	55603.01	-1.18	1.18	0.22	-0.22	-5.45	3838					
-9	5.2479	52479.49	51869.21	53091.39	-1.16	1.17	0.21	-0.22	-5.41	3840					
-8	4.9723	49723.15	49152.88	50294.78	-1.15	1.15	0.21	-0.21	-5.38	3842					
-7	4.7123	47123.79	46594.78	47761.91	-1.13	1.13	0.21	-0.21	-5.34	3844					
-6	4.4683	44683.13	44184.82	45182.32	-1.12	1.12	0.21	-0.21	-5.31	3846					
-5	4.2380	42379.60	41913.64	42846.26	-1.10	1.10	0.21	-0.21	-5.28	3848					
-4	4.0208	40208.30	39772.49	40644.63	-1.08	1.09	0.21	-0.21	-5.24	3850					
-3	3.8161	38160.92	37753.22	38568.98	-1.07	1.07	0.21	-0.21	-5.21	3852					
-2	3.6230	36229.73	35848.24	36611.44	-1.05	1.05	0.20	-0.20	-5.18	3854					
-1	3.4407	34407.50	34050.48	34764.63	-1.04	1.04	0.20	-0.20	-5.14	3856					
0	3.2688	32687.51	32353.31	33021.71	-1.02	1.02	0.2	-0.2	-5.11	3858					
1	3.1063	31063.47	30855.60	31445.80	-1.22	1.22	0.2	-0.2	-5.08	3860					
2	2.9530	29529.53	29174.74	29886.31	-1.20	1.21	0.2	-0.2	-5.05	3862					
3	2.8080	28080.19	27747.00	28415.17	-1.19	1.19	0.2	-0.2	-5.02	3864					
4	2.6710	26710.34	26397.37	27024.93	-1.17	1.18	0.2	-0.2	-4.99	3866					
5	2.5415	25415.16	25121.16	25710.16	-1.16	1.16	0.2	-0.2	-4.96	3868					
6	2.4190	24190.32	23913.99	24467.95	-1.14	1.15	0.2	-0.2	-4.92	3870					
7	2.3031	23031.49	22771.74	23292.39	-1.13	1.13	0.2	-0.2	-4.89	3871					
8	2.1935	21934.80	21690.60	22180.03	-1.11	1.12	0.2	-0.2	-4.86	3873					
9	2.0897	20897.61	20666.97	21127.16	-1.10	1.10	0.2	-0.2	-4.83	3874					
10	1.9913	19913.47	19697.49	20130.26	-1.08	1.09	0.2	-0.2	-4.80	3877					
11	1.8982	18982.19	18777.00	19186.08	-1.07	1.07	0.2	-0.2	-4.77	3878					
12	1.8100	18099.75	17908.57	18291.55	-1.06	1.06	0.2	-0.2	-4.75	3880					
13	1.7263	17263.41	17083.41	17443.80	-1.04	1.05	0.2	-0.2	-4.72	3882					
14	1.6470	16470.31	16300.95	16640.14	-1.03	1.03	0.2	-0.2	-4.69	3884					
15	1.5718	15718.20	15558.76	15878.05	-1.01	1.02	0.2	-0.2	-4.66	3885					
16	1.5005	15004.67	14854.54	15155.15	-1.00	1.00	0.2	-0.2	-4.63	3887					
17	1.4328	14327.55	14186.16	14469.24	-0.99	0.99	0.2	-0.2	-4.60	3889					
18	1.3685	13684.80	13551.61	13812.22	-0.97	0.97	0.2	-0.2	-4.58	3890					
19	1.3074	13074.48	12949.00	13200.15	-0.96	0.96	0.2	-0.2	-4.55	3892					
20	1.2495	12494.79	12376.57	12613.17	-0.95	0.95	0.2	-0.2	-4.52	3893					
21	1.1944	11944.05	11832.64	12058.08	-0.93	0.93	0.2	-0.2	-4.49	3895					
22	1.1421	11420.65	11315.64	11525.75	-0.92	0.92	0.2	-0.2	-4.47	3897					
23	1.0923	10923.11	10824.11	11022.15	-0.91	0.91	0.2	-0.2	-4.44	3898					
24	1.0450	10450.00	10356.67	10543.35	-0.89	0.89	0.2	-0.2	-4.41	3900					
25	1.0000	10000.00	9912.00	10088.00	-0.88	0.88	0.2	-0.2	-4.38	3902					
26	0.9572	9571.87	9486.39	9657.37	-0.89	0.89	0.2	-0.2	-4.36	3903					
27	0.9164	9164.44	9081.41	9247.50	-0.93	0.91	0.2	-0.2	-4.34	3904					
28	0.8777	8777.59	8695.95	8857.29	-0.92	0.92	0.2	-0.2	-4.31	3906					
29	0.8407	8407.29	8328.97	8448.69	-0.93	0.93	0.2	-0.2	-4.29	3907					
30	0.8056	8056.56	7979.49	8131.72	-0.94	0.95	0.2	-0.2	-4.26	3909					
31	0.7720	7720.46	7646.59	7794.45	-0.96	0.96	0.2	-0.2	-4.24	3910					
32	0.7401	7401.14	7329.38	7473.02	-0.97	0.97	0.2	-0.2	-4.21	3911					
33	0.7097	7096.77	7027.09	7165.59	-0.98	0.98	0.2	-0.2	-4.19	3913					
34	0.6807	6806.58	6738.90	6874.40	-0.99	1.00	0.2	-0.2	-4.16	3914					
35	0.6530	6529.82	6464.09	6586.71	-1.01	1.01	0.2	-0.2	-4.14	3916					
36	0.6266	6265.82	6201.98	6320.98	-1.02	1.02	0.2	-0.2	-4.12	3917					
37	0.6014	6013.93	5951.92	6076.11	-1.03	1.03	0.2	-0.2	-4.09	3919					
38	0.5774	5773.52	5713.29	5833.93	-1.04	1.05	0.2	-0.2	-4.07	3920					
39	0.5544	5544.02	5485.51	5602.71	-1.06	1.06	0.2	-0.2	-4.04	3921					
40	0.5325	5324.87	5268.04	5381.97	-1.07	1.07	0.2	-0.2	-4.02	3922					
41	0.5116	5115.57	5060.36	5170.97	-1.08	1.08	0.2	-0.2	-4.00	3924					
42	0.4916	4915.61	4861.98	4969.44	-1.09	1.10	0.2	-0.2	-3.98	3925					
43	0.4725	4724.54	4672.44	4776.85											