



MODEL 44910

GSFC Space Qualified Thermistor

- Fully Qualified to GSFC S311-P18-10S7R6 Specification for Flight Use
- 30,000 ohm Resistance @ 25°C
- Interchangeable $\pm 0.1^{\circ}\text{C}$, 0°C to 70°C
- Pressed Disk Ceramic Sensor
- High sensitivity
- Thermally conductive epoxy coating that meet Outgassing Requirements
- 32 AWG, 3" (7.6 cm) long Solder plated copper leads
- Serialized and Color Coded for Identification

FEATURES

- Flight Qualified
- 30,000 ohm Resistance @ 25°C
- Interchangeability
- High Sensitivity
- Thermally Conductive Epoxy Coating
Exhibits <0.66% TML, <0.01% CVCM, 0.10% WVR when tested per ASTM E-595-90

NASA Qualified epoxy encapsulated precision interchangeable NTC thermistors for use in extended space flight applications. All parts are fully flight tested and characterized. Line re-qualified yearly per MIL-PRF-23648 requirements as specified in S311-P18 document. Resistance (Type 10) available in other lead and resistance configurations per S311-P18.

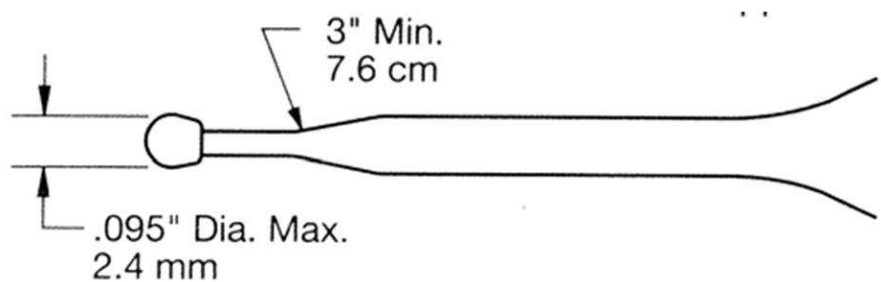
APPLICATIONS

- Extended Space Applications
- Low and Mid Range Temperature Applications
- Tight Tolerance Instrumentation
- Applications Requiring Sensing Small Changes in Temperature
- Applications with Outgassing Requirements

PERFORMANCE SPECS

Parameter	Units	Value
Resistance @ 25°C	Ohms	30,000
Tolerance 0°C to 70°C	°C	± 0.1
Beta Value 25/85	K	3943
Tolerance on Beta Value	%	0.4
Time response in air	Seconds	< 10
Dissipation Constant in air	mW/°C	1
Insulation Resistance (Min. of 100 Mohms for 1 sec.)	Volts	500

MECHANICAL DETAILS



TYPICAL PERFORMANCE CURVES (RESISTANCE OF INDIVIDUAL THERMISTORS)

Temp °C	K-Ohms
-40	884.6
-39	830.9
-38	780.8
-37	733.9
-36	690.2
-35	649.3
-34	611.0
-33	575.2
-32	541.7
-31	510.4
-30	481.0
-29	453.5
-28	427.7
-27	403.5
-26	380.9
-25	359.6
-24	339.6
-23	320.9
-22	303.3
-21	286.7
-20	271.2
-19	256.5
-18	242.8
-17	229.8
-16	217.6
-15	206.2
-14	195.4
-13	185.2
-12	175.6
-11	166.6
-10	158.0
-9	150.0
-8	142.4
-7	135.2
-6	128.5
-5	122.1
-4	116.0
-3	110.3
-2	104.9
-1	99.80

Temp °C	K-Ohms
0	94.98
1	90.41
2	86.09
3	81.99
4	78.11
5	74.44
6	70.96
7	67.66
8	64.53
9	61.56
10	58.75
11	56.07
12	53.54
13	51.13
14	48.84
15	46.67
16	44.60
17	42.64
18	40.77
19	38.99
20	37.30
21	35.70
22	34.17
23	32.71
24	31.32
25	30.00
26	28.74
27	27.54
28	26.40
29	25.31
30	24.27
31	23.28
32	22.33
33	21.43
34	20.57
35	19.74
36	18.96
37	18.21
38	17.49
39	16.80

Temp °C	K-Ohms
40	16.15
41	15.52
42	14.92
43	14.35
44	13.80
45	13.28
46	12.77
47	12.29
48	11.83
49	11.39
50	10.97
51	10.57
52	10.18
53	9.807
54	9.450
55	9.109
56	8.781
57	8.467
58	8.166
59	7.876
60	7.599
61	7.332
62	7.076
63	6.830
64	6.594
65	6.367
66	6.149
67	5.940
68	5.738
69	5.545
70	5.359
71	5.180
72	5.007
73	4.842
74	4.682
75	4.529
76	4.381
77	4.239
78	4.102
79	3.970

Temp °C	K-Ohms
80	3.843
81	3.720
82	3.602
83	3.489
84	3.379
85	3.273
86	3.172
87	3.073
88	2.979
89	2.887
90	2.799

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ORDERING INFORMATION

Part Number	Description	Ω @25°C
095809	44910 THERM GSFC 311P18-10S7R6	30,000
SP44908X-xx	44910X GSFC 311P18-10, Various Lead lengths and Types	30,000

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