



## 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

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.

### 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

### APPLICATIONS

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

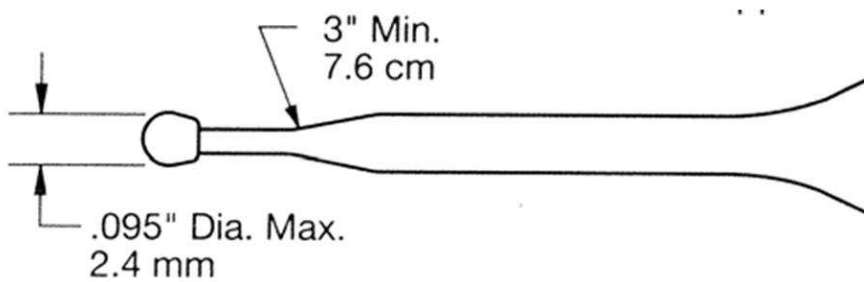
## MODEL 44910

GSFC Space Qualified Thermistor

### 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

## MODEL 44910

GSFC Space Qualified Thermistor

### ORDERING INFORMATION

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

#### NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Tel: 800-522-6752  
[customercare.ando@te.com](mailto:customercare.ando@te.com)

#### EUROPE

Measurement Specialties (Europe), Ltd.,  
a TE Connectivity Company  
Tel: 800-440-5100  
[customercare.tlse@te.com](mailto:customercare.tlse@te.com)

#### ASIA

Measurement Specialties (China), Ltd.,  
a TE Connectivity Company  
Tel: 0400-820-6015  
[customercare.chdu@te.com](mailto:customercare.chdu@te.com)

#### [te.com/sensorsolutions](http://te.com/sensorsolutions)

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties (MEAS), American Sensor Technologies (AST), TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2016 TE Connectivity Ltd. family of companies All Rights Reserved.