

44906 GSFC Space Qualified Thermistor



- Fully Qualified to GSFC S311-P18-06S7R6 Specification for Flight Use
- 5000 ohm Resistance @ 25°C
- Interchangeable $\pm 0.1^\circ\text{C}$, 0° 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

DESCRIPTION

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 05) available in other lead and resistance configurations per S311-P18.

FEATURES

- Flight Qualified
- 5000 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

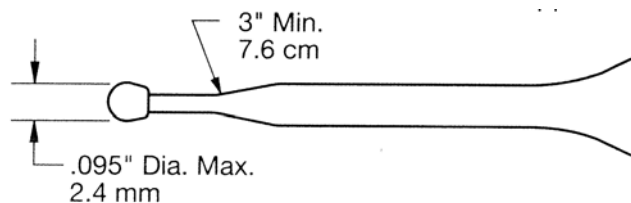
- Extended Space Applications
- Low and Mid Range Temperature Applications
- Tight Tolerance Instrumentation
- Applications Requiring Sensing Small Changes in Temperature
- Applications with Outgassing Requirements

PERFORMANCE SPECS

Parameter	Units	Value
Resistance @ 25°C	Ohms	5000
Tolerance 0°C to 70°C	°C	± 0.1
Beta Value 25/85	K	3978
Tolerance on Beta Value	%	0.4
Time response in air	Seconds	< 10
Dissipation Constant in air	mW/°C	1
Insulation Resistance (Min. of 100Mohms for 1 Sec.)	Volts	500

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MECHANICAL DETAILS



RESISTANCE V TEMPERATURE TABLE

Temp °C	K-Ohms	Temp °C	K-Ohms	Temp °C	K-Ohms	Temp °C	K-Ohms
-55	482.2	-15	36.49	25	5.000	65	1.041
-54	447.9	-14	34.50	26	4.787	66	1.006
-53	416.3	-13	32.63	27	4.583	67	0.9711
-52	387.1	-12	30.88	28	4.389	68	0.9380
-51	360.2	-11	29.23	29	4.204	69	0.9063
-50	335.3	-10	27.67	30	4.029	70	0.8757
-49	312.3	-9	26.21	31	3.861		
-48	291.0	-8	24.83	32	3.702		
-47	271.3	-7	23.54	33	3.549		
-46	253.0	-6	22.32	34	3.404		
-45	236.2	-5	21.17	35	3.266		
-44	220.5	-4	20.08	36	3.134		
-43	205.9	-3	19.06	37	3.008		
-42	192.5	-2	18.10	38	2.888		
-41	180.0	-1	17.19	39	2.773		
-40	168.3	0	16.33	40	2.663		
-39	157.5	1	15.52	41	2.559		
-38	147.5	2	14.75	42	2.459		
-37	138.2	3	14.03	43	2.363		
-36	129.5	4	13.34	44	2.272		
-35	121.4	5	12.70	45	2.184		
-34	113.9	6	12.09	46	2.101		
-33	106.9	7	11.51	47	2.021		
-32	100.3	8	10.96	48	1.944		
-31	94.22	9	10.44	49	1.871		
-30	88.53	10	9.951	50	1.801		
-29	83.22	11	9.486	51	1.734		
-28	78.26	12	9.046	52	1.670		
-27	73.62	13	8.628	53	1.608		
-26	69.29	14	8.232	54	1.549		
-25	65.24	15	7.857	55	1.493		
-24	61.45	16	7.500	56	1.439		
-23	57.90	17	7.162	57	1.387		
-22	54.58	18	6.841	58	1.337		
-21	51.47	19	6.536	59	1.290		
-20	48.56	20	6.247	60	1.244		
-19	45.83	21	5.972	61	1.200		
-18	43.27	22	5.710	62	1.158		
-17	40.86	23	5.462	63	1.117		
-16	38.61	24	5.225	64	1.079		

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
095805	44906 THERM GSFC 311P18-06S7R6	5,000	20
SP44906X-xx	44906X GSFC 311P18-06, Various Lead lengths and Types	5,000	20

* For quantities less than Minimum Order Quantity – contact distribution

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