



MODEL 44905

GSFC Space Qualified Thermistor

- Fully Qualified to GSFC S311-P18-05S7R6 Specification for Flight Use
- 5000 ohm Resistance @ 25°C
- Interchangeable $\pm 0.2^\circ\text{C}$, 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 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

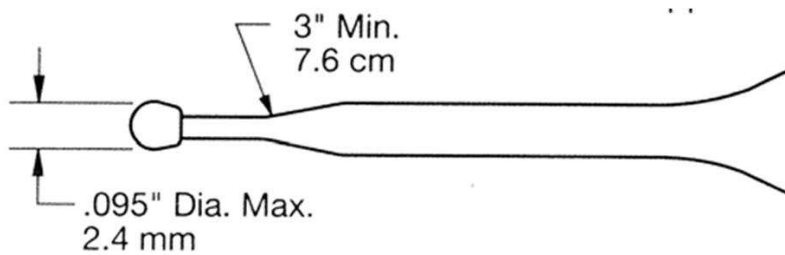
MODEL 44905

GSFC Space Qualified Thermistor

PERFORMANCE SPECS

Parameter	Units	Value
Resistance @ 25°C	Ohms	5000
Tolerance 0°C to 70°C	°C	± 0.2
Beta Value 25/85	K	3987
Tolerance on Beta Value	%	0.8
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	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	71	0.8464
-48	291.0	-8	24.83	32	3.702	72	0.8183
-47	271.3	-7	23.54	33	3.549	73	0.7912
-46	253.0	-6	22.32	34	3.404	74	0.7651
-45	236.2	-5	21.17	35	3.266	75	0.7400
-44	220.5	-4	20.08	36	3.134	76	0.7159
-43	205.9	-3	19.06	37	3.008	77	0.6927
-42	192.5	-2	18.10	38	2.888	78	0.6703
-41	180.0	-1	17.19	39	2.773	79	0.6488
-40	168.3	0	16.33	40	2.663	80	0.6281
-39	157.5	1	15.52	41	2.559	81	0.6082
-38	147.5	2	14.75	42	2.459	82	0.5889
-37	138.2	3	14.03	43	2.363	83	0.5704
-36	129.5	4	13.34	44	2.272	84	0.5526
-35	121.4	5	12.70	45	2.184	85	0.5354
-34	113.9	6	12.09	46	2.101	86	0.5188
-33	106.9	7	11.51	47	2.021	87	0.5028
-32	100.3	8	10.96	48	1.944	88	0.4874
-31	94.22	9	10.44	49	1.871	89	0.4726
-30	88.53	10	9.951	50	1.801	90	0.4582
-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		

MODEL 44905

GSFC Space Qualified Thermistor

ORDERING INFORMATION

Part Number	Description	Ω @25°C
095804	44905 THERM GSFC 311P18-05S7R6	5,000
SP44905X-xx	44905X GSFC 311P18-05, Various Lead lengths and Types	5,000

NORTH AMERICA

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

EUROPE

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

ASIA

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

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.