



MODEL 44902

GSFC Space Qualified Thermistor

- Fully Qualified to GSFC S311-P18-02S7R6 Specification for Flight Use
- 2252 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
- 2252 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

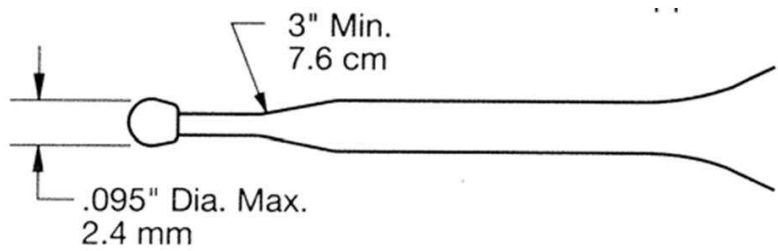
- Extended Space Applications
- Low and Mid Range Temperature Applications
- Tight Tolerance Instrumentation
- Applications Requiring Sensing Small Changes in Temperature
- Applications with Outgassing Requirements

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

PERFORMANCE SPECS

Parameter	Units	Value
Resistance @ 25°C	Ohms	2252
Tolerance 0°C to 70°C	°C	± 0.1
Beta Value 25/85	K	3987
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	Temp °C	K-Ohms	Temp °C	K-Ohms	Temp °C	K-Ohms
-55	217.100	-15	16.430	25	2.252	65	0.4690
-54	201.700	-14	15.540	26	2.156	66	0.4529
-53	187.400	-13	14.700	27	2.064	67	0.4374
-52	174.300	-12	13.910	28	1.977	68	0.4225
-51	162.200	-11	13.160	29	1.894	69	0.4082
-50	151.000	-10	12.460	30	1.815	70	0.3945
-49	140.600	-9	11.810	31	1.739		
-48	131.000	-8	11.190	32	1.667		
-47	122.100	-7	10.600	33	1.599		
-46	113.900	-6	10.050	34	1.533		
-45	106.300	-5	9.534	35	1.471		
-44	99.260	-4	9.046	36	1.412		
-43	92.720	-3	8.586	37	1.355		
-42	86.650	-2	8.151	38	1.301		
-41	81.020	-1	7.741	39	1.249		
-40	75.790	0	7.355	40	1.200		
-39	70.930	1	6.989	41	1.152		
-38	66.410	2	6.644	42	1.107		
-37	62.210	3	6.319	43	1.064		
-36	58.300	4	6.011	44	1.023		
-35	54.660	5	5.719	45	0.9838		
-34	51.270	6	5.444	46	0.9462		
-33	48.110	7	5.183	47	0.9102		
-32	45.170	8	4.937	48	0.8758		
-31	42.420	9	4.703	49	0.8428		
-30	39.860	10	4.482	50	0.8113		
-29	37.470	11	4.273	51	0.7811		
-28	35.240	12	4.074	52	0.7522		
-27	33.150	13	3.886	53	0.7245		
-26	31.200	14	3.708	54	0.6979		
-25	29.380	15	3.539	55	0.6725		
-24	27.670	16	3.378	56	0.6481		
-23	26.070	17	3.226	57	0.6248		
-22	24.580	18	3.081	58	0.6024		
-21	23.180	19	2.944	59	0.5809		
-20	21.870	20	2.814	60	0.5603		
-19	20.640	21	2.690	61	0.5405		
-18	19.480	22	2.572	62	0.5215		
-17	18.400	23	2.460	63	0.5033		
-16	17.390	24	2.354	64	0.4858		

MODEL 44902

GSFC Space Qualified Thermistor

ORDERING INFORMATION

Part Number	Description	Ω @25°C
095801	44902 THERM GSFC 311P18-02S7R6	2252
SP44902X-xx	44902X GSFC 311P18-02, Various Lead lengths and Types	2252

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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[311P18-02S7R6](#)