



44900 SERIES

Thermistor Components

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. All S311-P18 lead options wire options available.

Testing

Requalification includes the following tests referenced in MIL-PRF-23648

- Short time load
- Thermal shock
- Insulation resistance
- Resistance to soldering heat
- Low-temperature storage
- High-temperature storage
- Dissipation constant
- Thermal time constraint
- Terminal strength
- Moisture resistance
- High-temperature exposure
- Medium-impact shock
- Immersion

Features

- Flight Qualified
- 2252 Ohm to 30K Ohm Resistance @ 25°C
- Interchangeability to $\pm 0.1^{\circ}\text{C}$
- High Sensitivity
- Thermally Conductive Epoxy Coating Exhibits $<0.66\%$ TML, $<0.01\%$ CVCM, 0.10% WVR when tested per ASTM E-595-90
- Pressed Disk Ceramic Characteristics
- Thermally Conductive Epoxy Coating
- RoHS Compliance

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 Specifications

	Model Number	Ordering Part Number	GSFC S311-P18 Number	Basic MEAS Thermistor	Zero Power Resistance ohm at 25°C	Beta 0- 50°C (K)	Operating & Storage Temperature*	Color Code Body	End
±0.2°C Interchangeability Tolerance 0 – 70°C	44901	095800	-01S7R6	44004	2252	3891	-55-+90°C	Black	Yellow
	44903	095802	-03S7R6	44005	3000	3891	-55-+90°C	Black	Green
	44905	095804	-05S7R6	44007	5000	3891	-55-+90°C	Black	Violet
	44907	095806	-07S7R6	44006	10K	3574	-55-+90°C	Black	Blue
	44909	095808	-09S7R6	44008	30K	3810	-55-+90°C	Black	Gray
±0.1°C Interchangeability Tolerance 0 – 70°C	44902	095801	02S7R6	44033	2252	3891	-55-+70°C	Orange	Orange
	44904	095803	-04S7R6	44030	3000	3891	-55-+70°C	Orange	Black
	44906	095805	-06S7R6	44034	5000	3891	-55-+70°C	Orange	Yellow
	44908	095807	-08S7R6	44031	10K	3574	-55-+70°C	Orange	Brown
	44910	095809	010S7R6	44032	30K	3810	-55-+70°C	Orange	Red

* Thermistors with ±0.2°C interchangeability tolerance may have short-term operating temperature excursions to 150°C
 Thermistors with ±0.1°C interchangeability tolerance may have short-term operating temperature excursions to 100°C

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