

# 44900 Series Thermistor Components

2252 Ohm to 30K Ohm  
Resistance @ 25°C  
Flight Qualified  
Interchangeability  
High Sensitivity  
Pressed Disk Key Characteristics



## 44900 SERIES THERMISTORS

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.

## 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-

## APPLICATIONS

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

## 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

# 44900 Series Thermistor Components

## product definition

|  | 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 | <a href="#">44901</a> | -01S7R6              | 44004                 | 2252                              | 3891             | -55 -+ 90°C                      | Black           | Yellow |
|  | <a href="#">44903</a> | -03S7R6              | 44005                 | 3000                              | 3891             | -55-+ 90°C                       | Black           | Green  |
|  | <a href="#">44905</a> | -05S7R6              | 44007                 | 5000                              | 3891             | -55 -+ 90°C                      | Black           | Violet |
|  | <a href="#">44907</a> | -07S7R6              | 44006                 | 10K                               | 3574             | -55-+ 90°C                       | Black           | Blue   |
|  | <a href="#">44909</a> | -09S7R6              | 44008                 | 30K                               | 3810             | -55 -+ 90°C                      | Black           | Gray   |
| ±0.1°C Interchangeability Tolerance 0 – 70°C | <a href="#">44902</a> | 02S7R6               | 44033                 | 2252                              | 3891             | -55 -+ 70°C                      | Orange          | Orange |
|  | <a href="#">44904</a> | -04S7R6              | 44030                 | 3000                              | 3891             | -55 -+ 70°C                      | Orange          | Black  |
|  | <a href="#">44906</a> | -06S7R6              | 44034                 | 5000                              | 3891             | -55 -+ 70°C                      | Orange          | Yellow |
|  | <a href="#">44908</a> | -08S7R6              | 44031                 | 10K                               | 3574             | -55 -+ 70°C                      | Orange          | Brown  |
|  | <a href="#">44910</a> | 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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