



### FEATURES:

- Customer specified
- Various material options
- Modified stock or new custom design
- Available in Point Matched or Interchangeable tolerances

CS Series thermistors are designed to meet your specific application requirements. Custom thermistors are 'turn-key' ready to apply in your equipment. Their value-added features significantly reduce your labor costs. Contact our applications engineering personnel for assistance in designing a standard thermistor into a custom thermistor specific to your needs.

## SPECIFICATIONS

<b>Temperature rating/ recommended operating ranges</b>	CS Series thermistors may be intermittently cycled at temperatures from $-50^{\circ}\text{C}$ to $150^{\circ}\text{C}$ . Optimum stability is achieved when they are stored at temperatures less than $50^{\circ}\text{C}$ and will operate continuously in temperatures less than $100^{\circ}\text{C}$ . For CS Interchangeable Series thermistors, optimum stability is achieved when they are operated at temperatures within the specified temperature range.	<b>Dissipation constant</b>	1 mW/ $^{\circ}\text{C}$ in still air 8 mW/ $^{\circ}\text{C}$ in stirred oil
<b>R/T curves</b>	CS Series thermistors are available in all R/T curve materials. Detailed curve material information on pages 23-25.	<b>Thermal time constant</b>	Time constant varies depending on the configuration of each custom thermistor. Typically 1 second in stirred oil.
<b>Tolerances</b>	<ul style="list-style-type: none"> <li><math>\pm 0.10^{\circ}\text{C}</math></li> <li><math>\pm 0.20^{\circ}\text{C}</math></li> <li><math>\pm 0.25^{\circ}\text{C}</math></li> <li><math>\pm 0.50^{\circ}\text{C}</math></li> <li><math>\pm 1.00^{\circ}\text{C}</math></li> <li><math>\pm 1\%</math></li> <li><math>\pm 2\%</math></li> <li><math>\pm 3\%</math></li> <li><math>\pm 5\%</math></li> <li><math>\pm 10\%</math></li> </ul>	<b>Maximum power rating</b>	30mW at $25^{\circ}\text{C}$ to 1mW at $100^{\circ}\text{C}$ (used in "self-heat" applications such as liquid level control and air flow sensing)
		<b>Custom options</b>	Various lead diameters, material and insulation materials and lengths

# Custom NTC Thermistors

## CS Series - Ordering Map

CS- [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] -XX [ ]

**IN**-Interchangeable  
**PM**-Point Matched

**R/T CURVE**  
 A=Curve A F=Curve F P=Curve P  
 B=Curve B G=Curve G  
 C=Curve C H=Curve H  
 D=Curve D J=Curve J  
 E=Curve E K=Curve K

**Resistance in Ohms @25°C**  
 0300=300ohms  
 001K=1Kohms  
 005K=5Kohms  
 006K=6Kohms  
 010K=10Kohms  
 100K=100Kohms  
 2252=2252ohms  
 1MEG=1MEGohms

**IN TYPE ONLY Tolerance @25°C**  
 A=±1.0°C C=±0.2°C  
 B=±0.5°C D=±0.1°C  
 X=new letter assigned on specials

**PM TYPE ONLY Tolerance @ 25°C**  
 1=±1% 0=±10%  
 2=±2% A=±0.25 °C  
 3=±3% B=±0.50 °C  
 5=±5%  
 x=letter or digit to be assigned on specials

**IN TYPE ONLY Temperature Ranges**  
 1=+20°C to 45°C 6=-40°C to 40 °C  
 2=-20°C to 50°C 7=+50°C to 125°C  
 3= 0°C to 70°C 8= 0°C to 50°C  
 4= 0°C to 100°C 9=-20°C to 125°C  
 5=+20°C to 90°C x=new digit assigned on specials

**PM TYPE ONLY Temperature Ranges**  
 1=-20°C 4= 37°C  
 2= 0 °C 5= 70°C  
 3= 25°C 6=100°C  
 X=digit to be assigned on specials

**2"Leads**

Code	AWG	Lead o.d.	Lead Type	Chip Coating
04	30	0.010"	Tinned Copper	Uncoated
05	26	0.0169"	Tinned Copper	Epoxy
06	28	0.0126"	Tinned Copper	Epoxy
07	32	0.008"	Tinned Copper	Phenolic
08	30	0.010"	Nickel	Phenolic
09	26	0.0159"	Tinned Copper	Uncoated
10	26	0.0159"	Tinned Copper	Phenolic
11	32	0.008"	Nickel	Phenolic
12	32	0.008"	Tinned Copper	Epoxy
13	30	0.010"	Tinned Copper	Phenolic
14	30	0.010"	Tinned Copper	Epoxy
15	28	0.0126"	Tinned Copper	Phenolic
16	28	0.0126"	Tinned Copper	Uncoated
17	32	0.008"	Tinned Alloy 180	Phenolic
18	32	0.008"	Tinned Alloy 180	Epoxy
19	32	0.008"	Tinned Copper	Uncoated
20	28	0.0126"	Nickel	Phenolic

**3"Leads**

Code	AWG	Lead o.d.	Lead Type	Chip Coating
21	32	0.008"	Nickel	Phenolic
22	32	0.008"	Tinned Copper	Epoxy
23	30	0.010"	Tinned Copper	Phenolic
24	30	0.010"	Tinned Copper	Epoxy
25	28	0.0126"	Tinned Copper	Phenolic
26	28	0.0126"	Tinned Copper	Epoxy
27	32	0.008"	Tinned Alloy 180	Phenolic
28	32	0.008"	Tinned Alloy 180	Epoxy
31	30	0.010"	Red Teflon Alloy 180	Epoxy
41*	30	0.010"	Ag/Cu Twisted Kynar	Epoxy

\*6K to 30K only

For optional lengths other than 2" or 3" substitute XX with lengths in inches Example 4"=04

**Insulation Materials**  
 K=Kynar P=PVC I=Isomid  
 T=Etched Teflon N=Polynylon  
 X=Other options letter to be assigned