



U.S. SENSOR Corp.

Thermistors, RTDs, Probes & Assemblies

1-800-777-6467

Standard Precision Interchangeable NTC Thermistors

0.1°C and 0.2°C Accuracy

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U.S. Sensor

1832 W. Collins Ave
Orange, CA 92867
Tel: 800-777-6467
Tel: 714-639-1000
Fax: 714-639-1220
Email: sales@ussensor.com

U.S. Sensor's standard precision interchangeable [NTC thermistors](#) are low cost, highly accurate, stable devices designed specifically for temperature sensing and control applications. This [NTC thermistor](#) is epoxy coated and is offered with both insulated and uninsulated lead wires. These [NTC Thermistors](#) are particularly suited for uses where their precision interchangeability eliminates the necessity for costly individual circuit calibration. The [NTC thermistors](#) are also suitable for use in various [temperature probe](#) configurations. U.S. Sensor application engineers are available to assist with special [thermistor](#) requirements. Please contact engineering@ussensor.com for more information about our [NTC thermistors](#).

Features for Standard Precision Interchangeable NTC Thermistors

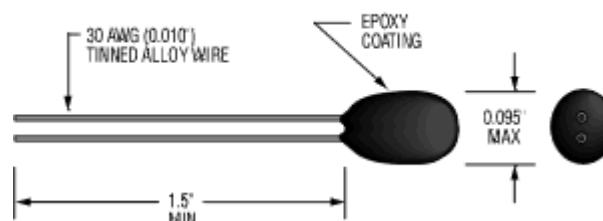
- High accuracy
- Fast thermal response
- Low cost
- Small size
- Epoxy encapsulated
- High stability
- Long life
- R/T Curve-matched



Options for Standard Precision Interchangeable NTC Thermistors

- Special lead materials and lengths
- Special encapsulants or probe housings
- Non-standard resistance values and tolerances

"PS" & "PT" Series

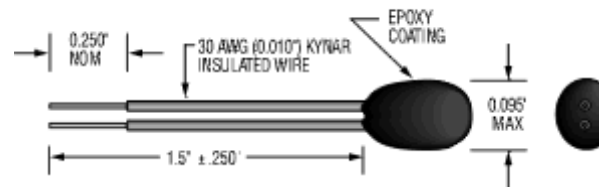


"KS" & "KT" Series

Specifications for Standard Precision Interchangeable NTC Thermistors

- Thermal time constant: 1 second max. in a well stirred oil bath, 10 seconds max. in still air
- Dissipation constant: 1 mW/°C
- Maximum power rating: 30 mW at 25°C derated to 1 mW at 125°C

- Interchangeability tolerance of $\pm 0.1^{\circ}\text{C}$ or $\pm 0.2^{\circ}\text{C}$ from $0-70^{\circ}\text{C}$








[View Photo](#)

- Operating temperature: PS and PT series -80°C to $+150^{\circ}\text{C}$, KS and KT series -80°C to $+135^{\circ}\text{C}$
- Storage and operation temperatures for best long term stability:
KT and PT series = -80° to $+120^{\circ}\text{C}$, KS and PS series = -80° to $+75^{\circ}\text{C}$













STANDARD PRECISION INTERCHANGEABLE THERMISTORS (150°C) $\pm 0.1^{\circ}\text{C}$ Accuracy - Bare Leads				
Part Number ($\pm 0.1^{\circ}\text{C}$ $0-70^{\circ}\text{C}$)	Resistance Ohms@ 25°C	R-T Curve	Beta (K) $0-50^{\circ}\text{C}$	View R-T Chart
PS102J2*	1000	J	3890	
PS222J2	2252	J	3890	
PS302J2	3000	J	3890	
PS502J2	5000	J	3890	
PS602J2	6000	J	3890	
PS103G2	10000	G	3575	
PS103J2	10000	J	3890	
PS203J2	20000	J	3890	
PS303J2	30000	J	3890	
PS503J2	50000	J	3890	
PS503R2	50000	R	4140	
PS104R2	100000	R	4140	

* $0.125''$ maximum diameter over epoxy coating












STANDARD PRECISION INTERCHANGEABLE THERMISTORS (150°C) $\pm 0.2^{\circ}\text{C}$ Accuracy- Bare Leads				
Part Number ($\pm 0.2^{\circ}\text{C}$ $0-70^{\circ}\text{C}$)	Resistance Ohms@ 25°C	R-T Curve	Beta (K) $0-50^{\circ}\text{C}$	View R-T Chart
PT102J2*	1000	J	3890	
PT222J2	2252	J	3890	
PT302J2	3000	J	3890	
PT502J2	5000	J	3890	
PT602J2	6000	J	3890	
PT103G2	10000	G	3575	
PT103J2	10000	J	3890	

PT203J2	20000	J	3890	
PT303J2	30000	J	3890	
PT503J2	50000	J	3890	
PT503R2	50000	R	4140	
PT104R2	100000	R	4140	

* 0.125" maximum diameter over epoxy coating

STANDARD PRECISION INTERCHANGEABLE THERMISTORS (135°C) ± 0.1°C Accuracy - Insulated Leads				
Part Number (±0.1°C 0-70°C)	Resistance Ohms@ 25°C	R-T Curve	Beta (K) 0-50°C	View R-T Chart
KS102J2 *	1000	J	3890	
KS222J2	2252	J	3890	
KS302J2	3000	J	3890	
KS502J2	5000	J	3890	
KS602J2	6000	J	3890	
KS103G2	10000	G	3575	
KS103J2	10000	J	3890	
KS203J2	20000	J	3890	
KS303J2	30000	J	3890	
KS503J2	50000	J	3890	
KS503R2	50000	R	4140	
KS104R2	100000	R	4140	

* 0.125" maximum diameter over epoxy coating

STANDARD PRECISION INTERCHANGEABLE THERMISTORS (135°C) ± 0.2°C Accuracy - Insulated Leads				
Part Number (±0.2°C 0-70°C)	Resistance Ohms@ 25°C	R-T Curve	Beta (K) 0-50°C	View R-T Chart
KT102J2 *	1000	J	3890	
KT222J2	2252	J	3890	
KT302J2	3000	J	3890	
KT502J2	5000	J	3890	
KT602J2	6000	J	3890	
KT103G2	10000	G	3575	
KT103J2	10000	J	3890	
KT203J2	20000	J	3890	
KT303J2	30000	J	3890	
KT503J2	50000	J	3890	
KT503R2	50000	R	4140	

KT104R2	100000	R	4140	
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* 0.125" maximum diameter over epoxy coating

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