18714 Parthenia St
Northridge CA, 914234

THERMOMETRICS

Precision Temperature Sensors

(818) 886-3755
Fx. (818) 772-7690
sales@thermometricscorp.com

Accessories

Connection Heads

Wireless

Sanitary/ Tri Clover

Flanges & Wells

Tube Skin/ Weld Pad

Bearing Sensors

Transmitters

RTDs

Thermocouples

"Quality You Can Sense"

Thermometrics Corporation has been a manufacturer of Thermocouples, RTD's and related accessories since 1965. Our company staff includes over 220 years of collective experience and is eager to meet any of our customer's challenges or requests. We are committed to providing outstanding service, competitive pricing and excellent lead times. We are quality audited to ISO-9001-2008 and have an excellent reputation both domestically and globally.

PRODUCTS AND SERVICES AVAILABLE

Thermocouple and RTD Sensors
Bearing Sensors
Tube Skin Thermocouples
Feed Thru's
Thermocouple Wire & Cable
RTD Leadwire
Waterproof Connectors
Replacement Elements
Thermistor Probes Multipoint Thermocouple and RTD Probes
Bimetal Dial Thermometers
Precision Wire Wound Resistors
Thermowells and Protection Tubes
Custom Mounting Fittings

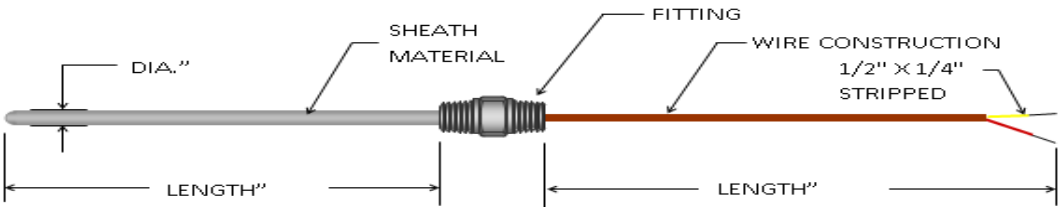
Calibration Services Include: Thermocouples, RTDs, Temperature Transmitters, Controllers and Indicators

INDUSTRIES SERVED

Oil, Gas & Petrochemical
Pharmaceutical
Paper & Pulp
Mining
Utilities
Marine
Waste Water
Compost
Military
Dairy
Power Generation
Refrigeration

MADE IN THE U.S.A. WITH PRIDE

REGISTERED COMPANY ISO 9001: 2008



Assemblies offer a wide variety of configurations and termination styles to meet various applications.

Material

- 304 Stainless Steel
- 310 Stainless Steel
- 316 Stainless Steel
- INC. Alloy 600

**Special Material Available*

Diameter

- 0.010" (single TC)
- 0.020" (single TC)
- 0.032" (TC only)
- 0.040" (TC only)
- 0.063"
- 0.125"
- 0.188"
- 0.250"
- 0.313"
- 0.375"
- 0.500"

Construction

- S=Single Thermocouple
- D=Dual Thermocouple
- S2=Single 2 wire RTD
- S3=Single 3 wire RTD
- S4=Single 4 wire RTD
- D2=Dual 2 wire RTD
- D3=Dual 3 wire RTD
- D4=Dual 4 wire RTD
- MP=Multi-Point

Sensor

- B
- C
- E
- J
- K
- N
- R
- S
- T
- 10A– 10Ω copper @ 0°C
- 10B- 10Ω copper @ 25°C
- 100- 100Ω platinum @ 0°C
- 120- 10Ω nickel @ 0°C
- 500-500Ω platinum @ 0°C
- 1000-1000Ω platinum @ 0°C
- TH– Thermistor

Junction/Alpha

- G
- GWP
- GPT
- U
- UWP
- UPT
- E
- 385 PLT
- 390 PLT
- 392 PLT
- 421 CU
- 673 NI

Material

304 S.S. -Most commonly used low temperature sheath material. Good corrosion resistance. Subject to damaging carbide precipitation in the 900ºF to 1600ºF range. Max Temp. 1650°F

310 S.S. Mechanical and corrosion resistance similar to but better than 304 S.S. Very good heat resistance. This alloy contains 25% Cr, 20% Ni. Not as ductile as 304 S.S. Max Temp 2100°F

316 S.S.- Best corrosion resistance of the austenetic stainless steel grades. Good corrosion resistance in Hydrogen Sulfide. Subject to damaging carbide precipitation in the 900ºF to 1600ºF range. Max Temp. 1650°F

Other Available Materials

316L	ALUMINUM
347	TANTALUM
446	MONEL 400
INC-625	MOLYBDENUM
COPPER	HASTELLOY B-2
TITANIUM	HASTELLOY C-276

Junction

G – Grounded

Grounded Junction– The sheath and conductors are welded together forming a sealed integral junction. Recommended in Liquids, Gas, Moisture, or High Pressure. Response time approaches that of an exposed junction.

U – Ungrounded

Ungrounded Junction– Junction is fully insulated from welded sheath end. Electrically isolates junction from outer sheath. Response time is lights longer than grounded junction.

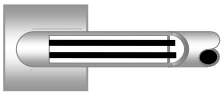
E – Exposed

Exposed Junction– Thermocouple conductors are butt welded. Insulation is sealed for moisture protection . This design provides the fastest response time but leaves the junction unprotected from corrosive or mechanical damage.

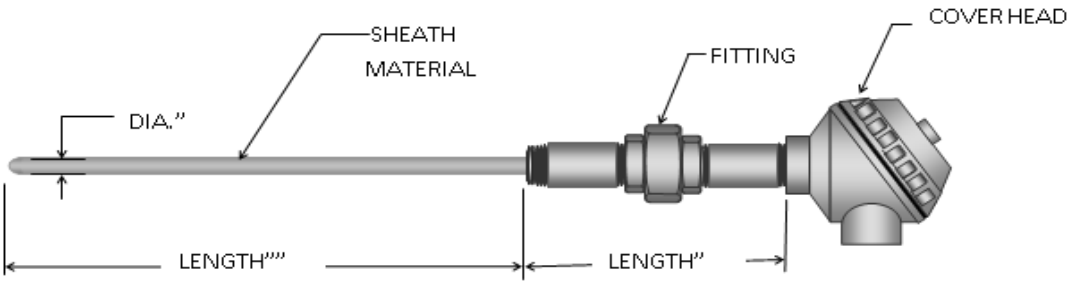
PT - Pointed Tip

Pointed tip– Is available for piercing probe applications.

WP - Welded Pad



Weld Pad- 300 series stainless steel 1" x 1" x 1/8" is available in grounded (GWP) and ungrounded (UWP) configurations. Weld pad can be parallel, perpendicular or curved per your specification.



Immersion Length

Length In Inches

**Tip to first fixed obstruction*

Lead Style

- L1
- L2
- TL2
- L3
- TL3
- L4
- TL4
- L5
- TL5
- TLCC
- *add "S" for strain relief spring.

Lead Length

Lead Length in Inches.

Covering

- SS
- FA
- TFA
- PFA
- 0= None

Termination

- P
- J
- MP
- MJ
- ASCH
- SSCH
- EXH
- PH
- MPH
- MAH
- SL
- BW

Fittings

- 1/8"
- 1/4"
- 3/8"
- 1/2"
- 3/4"
- 1"
- 1/8" x 1/8"
- 1/4" x 1/4'
- 3/8" x 3/8"
- 1/2" x 1/2"
- 3/4' x 3/4"
- 1" x 1"
- S=Sanitary

Lead Styles:

L1 = Wires Exposed

L2 = PVC Insulated Lead Wire. Rated 105ºC, Epoxy Potted

L3 = Teflon Insulated Lead Wire. Rated 204ºC, Epoxy Potted

L4 = Fiberglass Insulated Lead Wire. Rated 204ºC, Epoxy Potted

L5 = Fiberglass Insulated Lead Wire. Rated 510ºC, Ceramic Cement

**For transition housing, add "T" to the order code. Ex. "TL2".*

**For spring strain relief spring, ass "S" to the order code. Ex."TL2S".*

Coverings:

SS=Stainless Steel Overbraid

TCTU=Tinned Copper Overbraid

FA*=Stainless Steel Flex Armor

TFA*=Teflon Coated Stainless Steel Flex Armor

PFA*=PVC Coated Stainless Steel Flex Armor

0=None

**Add length to armor code.*

Example; "PFA24"

Terminations

P=Male Plug * (MP = Mini Plug)

J=Female Jack* (MJ = Mini Jack)

ASCH=Aluminum Screw Cover Head

SCH=Stainless Steel Screw Cover Head

PH=Plastic Screw Cover Head

MPH=Mini Plastic Screw Cover Head

MAH=Mini Aluminum Screw Cover Head

EXH=Explosion Proof Head (USL, CSA)

HCH=Hinged Cover Head

HPH=High Profile Hinged Cover Head

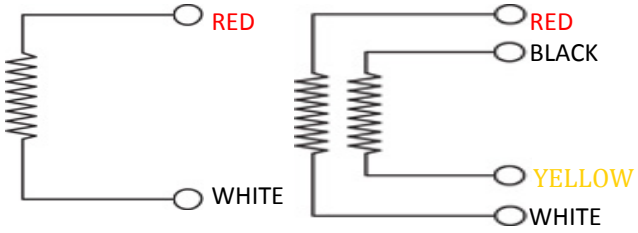
SL=Spade Lugs (# 10 Screw Size)

BW=Bare Wire

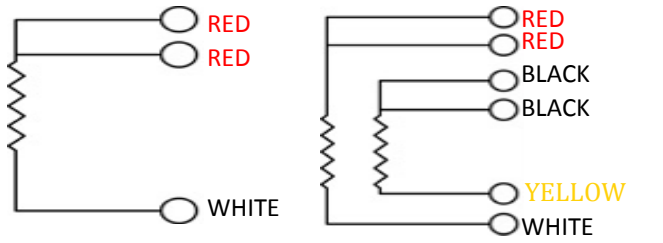
RTDs

Element Material	Base Resistance (ohms) Ω	TCR (Ohm/Ohm/C)	Base Resistance Tolerance +/-	TCR Tolerance
COPPER	10Ω @ 25C	.00427	0.2%	1%
COPPER	10Ω @ 25C	.00427	0.5%	1%
NICKEL	120Ω @ 0C	.00672	0.5%	1%
PLATINUM	100Ω @ 0C	.00385	0.6%	0.12%
PLATINUM	***100Ω @ 0C***	***.00385***	**0.12%**	**0.35%**
PLATINUM	100Ω @ 0C	.00385	0.5%	1%
PLATINUM	100Ω @ 0C	.00391	0.12%	0.35%
PLATINUM	100Ω @ 0C	.00391	0.5%	1%
PLATINUM	100Ω @ 0C	.00375	0.12%	0.35%
PLATINUM	100Ω @ 0C	.00392	0.5%	0.1%

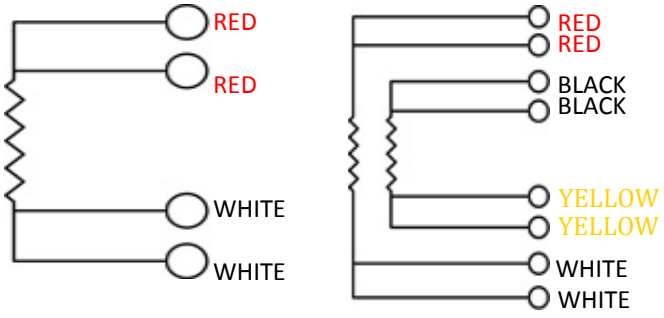
Two-Wire:
Provides one connection to each end of the element. This construction is suitable where the resistance of the lead wire may be considered as an additive constant in the circuit, and particularly where the changes in lead resistance due to ambient temperature changes may be ignored.



Three-Wire:
Provides one connection to one end of the element and two to the other end of the element. Connected to an instrument designed to accept three-wire input, sufficient compensation is usually achieved for leadwire resistance and temperature change in Leadwire resistance. This is the most commonly used configuration.

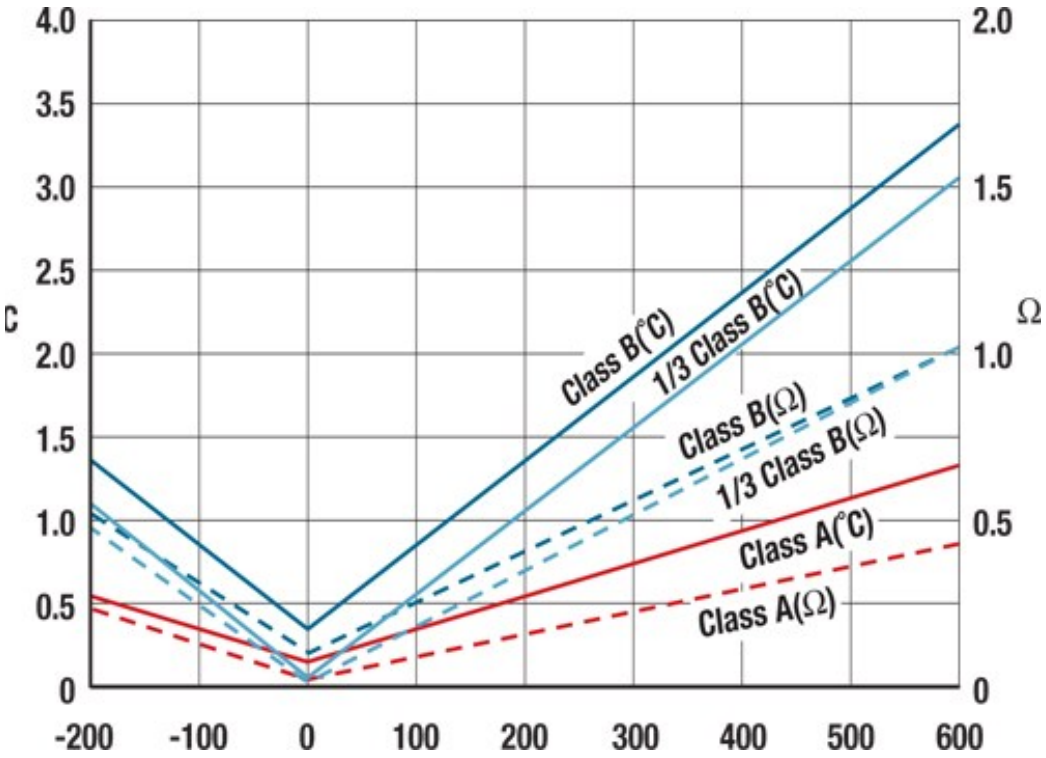


Four-Wire:
Provides two connections to each end of the element to completely compensate for leadwire resistance and temperature change in lead wire resistance. This configuration is used where highly accurate temperature measurement is vital.



RTDs

TOLERANCES FOR A 100Ω PLATINUM RTD PER IEC 751-95						
Temperature Deg (C)	Tolerance					
	Class B		1/3 Class B		Class A	
	(±C)[1]	(±Ohm)	(±C)	(±Ohm)	(±C)[2]	(±Ohm)
-200	1.30	0.56	1.10	0.48	0.55	0.24
-100	0.80	0.32	0.60	0.24	0.35	0.14
0	0.30	0.12	0.10	0.04	0.15	0.06
100	0.80	0.30	0.60	0.23	0.35	0.13
200	1.30	0.48	1.10	0.40	0.55	0.20
300	1.80	0.64	1.60	0.57	0.75	0.27
400	2.30	0.79	2.10	0.72	0.95	0.33
500	2.80	0.93	2.60	0.87	1.15	0.38
600	3.30	1.06	3.10	1.00	1.35	0.43

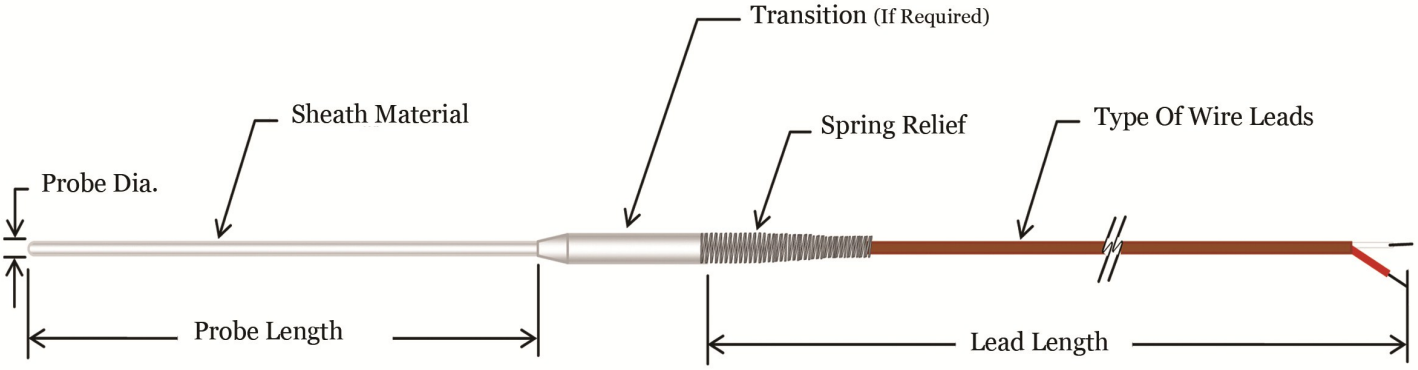


RTDs

RTDs are temperature sensors that contain a sensing element whose resistance changes with temperature. Theses sensors are often place so they can be in a position in the process where it can reach the same temperature. Platinum wire or film RTDs are the most common type in use today. Platinum RTDs are used to measure temperatures from -400°F to 1550°F. Due to higher accuracy and repeatability RTDs are slowly replacing the use of thermocouples in many industrial applications below 1200°F.

Resistance Temperature Detectors also known as RTDs, accurately sense temperature with an excellent degree of repeatability and interchangeability of elements. RTD stands for Resistance Temperature Detector. RTDs are sometimes referred to generally as resistance thermometers. The RTD is composed of certain metallic elements whose change in resistance is a function of temperature. IN operation, a small excitation current is passed across the element, and the voltage, which is proportional to resistance, is then measure and converted to units of temperature. The RTD element is manufactured by winding a wire (wire wound elements) or plating a film (thin film elements) on a ceramic or glass core and sealing the element within a ceramic or glass capsule.

Material	*Diameter*	*Single or Dual*	*Calibration*	*Junction*	*Immersion*	*Lead Wire*	*Wire Length*	*Protective Covering*	*Termination*	*Fitting*	*Special*



304 - 062 – J – S – G – 20 - TL4 – 24 – 0 – BW – 0 – S .

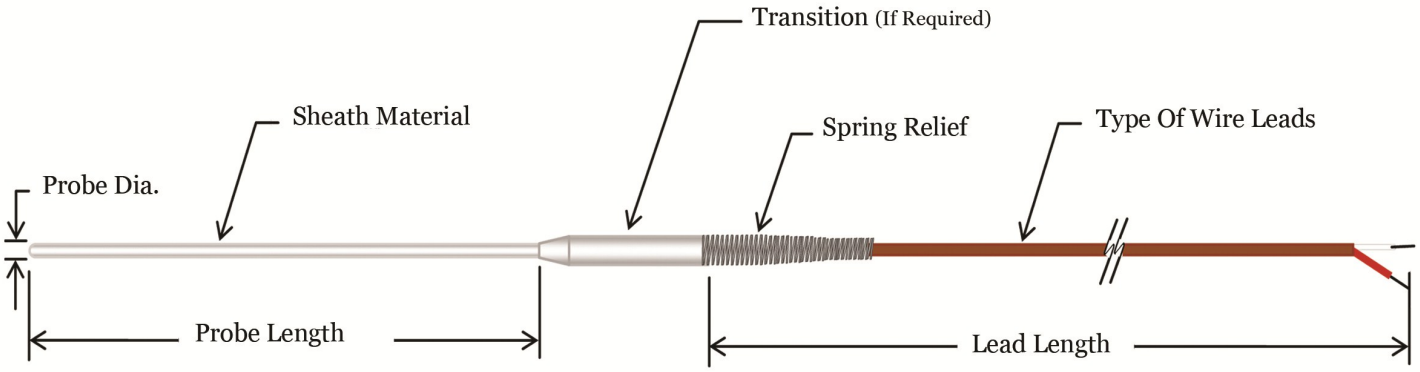
- **SPECIAL**: CONFIGURATION, DETAIL, CONCEPT, COMPONENTS ETC...
- **THREADED ADAPTERS**: HEX FITTINGS, COMPRESSION FITTINGS, FLUID SEALS ETC...
- **TERMINATION**: BARE WIRE, PLUG, JACK, RING LUGS, TERMINALS ETC...
- **CABLE PROTECTION**: SS OVERBRAID, FLEX ARMOR, RUBBER SLEEVE ETC...
- **CABLE LENGTH**: ANY LENGTH IN INCHES
- **CABLE INSULATION**: PVC, TEFLON, FIBERGLASS, KAPTON ETC...
- **PROBE LENGTH**: ANY LENGTH IN INCHES
- **JUNCTION STYLE**: TC: GROUNDED, UNGROUNDED, EXPOSED, ETC... RTD: ALPHA
- **CONFIG**: TC: SINGLE, DUAL, MULTIPOINT ETC... RTD: S2, 3 OR 4, D2, 3 or 4 (Single or Dual)
- **SENSOR TYPE**: TC'S: J, K, T, E, R, S, ETC... RTD'S: 100Ohm, 500Ohm, 1000Ohm, 120Ni...
- **PROBE DIAMETER**: .063, .125, .188, 250, .375 ETC... (SINGLE TC's .010, .020, .040)
- **SHEATH MATERIAL**: 304SS, 316SS, INCONEL, HASTELOY ETC...

Thermocouples

Thermocouples are the most common, convenient, and versatile devices used to measure temperature. The convert units of heat into useable engineering units that serve as input signals for process controllers and recorders. Through selection of appropriate thermocouple wires and sheath components, thermocouples are suitable to be used in temperature ranges from (-200 to 2316)°C [-328 to 4200]°F.

Thermometrics thermocouple assemblies offer a wide variety of termination styles and mounting fittings, as well as extensive choices in sensor calibration, sheath diameter and sheath material. This section outline the key choices needed to specify the correct Thermometrics part description for your needs. In each case, you will be asked to select the:

Material	*Diameter*	*Single or Dual*	*Calibration*	*Junction*	*Immersion*	*Lead Wire*	*Wire Length*	*Protective Covering*	*Termination*	*Fitting*	*Special*



304 - 062 – J – S – G – 20 - TL4 – 24 – 0 – BW – 0 – S .

SPECIAL: CONFIGURATION, DETAIL, CONCEPT, COMPONENTS ETC...

THREADED ADAPTERS: HEX FITTINGS, COMPRESSION FITTINGS, FLUID SEALS ETC...

TERMINATION: BARE WIRE, PLUG, JACK, RING LUGS, TERMINALS ETC...

CABLE PROTECTION: SS OVERBRAID, FLEX ARMOR, RUBBER SLEEVE ETC...

CABLE LENGTH: ANY LENGTH IN INCHES

CABLE INSULATION: PVC, TEFLON, FIBERGLASS, KAPTON ETC...

PROBE LENGTH: ANY LENGTH IN INCHES

JUNCTION STYLE: TC: GROUNDED, UNGROUNDED, EXPOSED, ETC... RTD: ALPHA

CONFIG: TC: SINGLE, DUAL, MULTIPOINT ETC... RTD: S2, 3 OR 4, D2, 3 or 4 (Single or Dual)

SENSOR TYPE: TC'S: J, K, T, E, R, S, ETC... RTD'S: 100Ohm, 500Ohm, 1000Ohm, 120Ni...

PROBE DIAMETER: .063, .125, .188, 250, .375 ETC... (SINGLE TC's .010, .020, .040)

SHEATH MATERIAL: 304SS, 316SS, INCONEL, HASTELOY ETC...

Thermocouples

Selecting Your Thermocouple-

The primary factor in selecting a thermocouple for a given application is the temperature range it will be exposed to, the table below offers a quick reference for this purpose. Other important factors to consider are the expected lifespan of the element and the process conditions present during the operation. Listed below, are the most commonly used thermocouple calibration and their temperature limits.

ANSI/ASME Designation	Calibration	Service Temperatures (Bare/Exposed Wire*)	Remarks
J	Iron vs. Constantan	32˚ F to 1400˚ F (0˚ C to 760˚ C)	For use in reducing atmospheres. Iron may oxidize if unprotected in oxidizing atmospheres. Limited use possible in oxidizing atmospheres at high temperatures; not recommended at low temperatures.
K	Chromel® vs. Alumel®	-328˚ F to 2300˚ F (-200˚ C to 1260˚ C)	For use in oxidizing atmospheres. Not recommended for reducing atmospheres.
E	Chromel vs. Constantan	-328˚ F to 1600˚ F (-200˚ C to 870˚ C)	Good for use in oxidizing atmospheres. Highest EMF output of the common thermocouples.
T	Copper vs. Constantan	-328˚ F to 700˚ F (-200˚ C to 370˚ C)	For use in oxidizing, reducing and inert atmospheres. Capable of cryogenic temperature service. Good where moisture is present.
N	Nicrosil vs. Nisil	32˚ F to 2300˚ F (0˚ C to 1260˚ C)	Less affected by the order/disorder transformation that causes calibration shifts in Type K. For use in oxidizing atmospheres.
S	Platinum-10% Rhodium vs. Platinum	32˚ F to 2700˚ F (0˚ C to 1480˚ C)	For use in oxidizing atmospheres. Alumina protection tubes are recommended to resist contamination at elevated temperatures.
R	Platinum-13% Rhodium vs. Platinum	32˚ F to 2700˚ F (0˚ C to 1480˚ C)	For use in oxidizing atmospheres. Alumina protection tubes are recommended to resist contamination at elevated temperatures.
B	Platinum-30% Rhodium vs. Platinum-6% Rhodium	1600˚ F to 3100˚ F (870˚ C to 1700˚ C)	For use in oxidizing, inert or vacuum atmospheres. Alumina protection tubes are recommended to resist contamination at elevated temperatures.
C	Tungsten-5% Rhenium vs. Tungsten-26% Rhenium	32˚ F to 4200˚ F (0˚ C to 2315˚ C)	For use in hydrogen, inert or vacuum atmospheres.

- Supplied environment data for bare or exposed wire, less protective sheath.

Thermocouples

THERMOCOUPLE CHARACTERISTICS TABLE

ANSI/ASTM	Symbol Single	Generic Names	Color Coding: Individual Conductor	Color Coding: Overall Jacket Extension Grade Wire	Magnetic Yes/No	Environment (Bare Wire)
T	TP TN	Copper Constantan, Nominal Composition: 55% Cu, 45% Ni	Blue Red	Blue	X X	Mild Oxidizing, Reducing. Vacuum or Inert. Good where moisture is present.
J	JP JN	Iron Constantan, Nominal Composition: 55% Cu, 45% Ni	White Red	Black	X X	Reducing Vacuum, Inert. Limited use in oxidizing at High Temperatures. Not recommended for low temps.
E	EP EN	Chromel®, Nominal Composition: 90% Ni, 10% Cr Constantan, Nominal Composition: 55% Cu, 45% Ni	Purple Red	Purple	X X	Oxidizing or Inert. Limited use in Vacuum or Reducing.
K	KP KN	Chromel, Nominal Composition: 90% Ni, 10% Cr Alumel®, Nominal Composition: 95% Ni, 2% Mn, 2% Al	Yellow Red	Yellow	X X	Clean Oxidizing and Inert. Limited use in Vacuum or Reducing
N	NP NN	Nicrosil®, Nominal Compositions: 84.6% Ni, 14.2% Cr, 1.4% Si Nisil®, Nominal Composition: 95.5% Ni, 4.4% Si, 1% Mg	Orange Red	Orange	X X	Clean Oxidizing and Inert. Limited use in Vacuum or Reducing
S	SP SN	Platinum 10% Rhodium Pure Platinum	Black Red	Green	X X	Oxidizing or Inert Atmospheres. Do not insert in metal tubes. Beware of contamination.
R	RP RN	Platinum 13% Rhodium Pure Platinum	Black Red	Green	X X	Oxidizing or Inert Atmospheres. Do not insert in metal tubes. Beware of contamination.
B	BP BN	Platinum 30% Rhodium Platinum 6% Rhodium	Gray Red	Gray	X X	Oxidizing or Inert Atmospheres. Do not insert in metal tubes. Beware of contamination.
C*	P N	Tungsten 5% Rhenium Tungsten 26% Rhenium	Green Red	Red	X X	Vacuum, Inert, Hydrogen Atmospheres. Beware of Embrittlement.

Thermocouples

TOLERANCE OF THERMOCOUPLES

ANSI/ASTM	°C			°F		
	Temperature Range	Standard	Special	Temperature Range	Standard	Special
T	-200° to -67°	± 1.5% T	± 0.8% T*	-328° to -88°	± 1.5% (T – 32)	± 0.8% (T – 32)*
	-67° to -62°	± 1°	± 0.8% T*	-88° to -80°	± 1.8°	± 0.8% (T – 32)*
	-62° to 125°	± 1°	± 0.5°	-80° to 257°	± 1.8°	± 0.9° *
	125° to 133°	± 1°	± 0.4% T	257° to 272°	± 1.8°	± 0.4% (T – 32)
	133° to 370°	± 0.75% T	± 0.4% T	272° to 700°	± 0.75% (T – 32)	± 0.4% (T – 32)
J	0° to 275°	± 2.2°	± 1.1°	32° to 527°	± 3.96°	± 1.98°
	275° to 293°	± 2.2°	± 0.4% T	527° to 560°	± 3.96°	± 0.4% (T – 32)
	293° to 760°	± 0.75% T	± 0.4% T	560° to 1400°	± 0.75% (T – 32)	± 0.4% (T – 32)
E	-200° to -170°	± 1% T	± 1°*	-328° to -274°	± 1% (T – 32)	± 1.8°*
	-170° to 250°	± 1.7°	± 1°*	-274° to 482°	± 3.06°	± 1.8°*
	250° to 340°	± 1.7°	± 0.4% T	482° to 644°	± 3.06°	± 0.4% (T – 32)
	340° to 870°	± 0.5% T	± 0.4% T	644° to 1600°	± 0.5% (T – 32)	± 0.4% (T – 32)
K	-200° to -110°	± 2% T	—	-328° to -166°	± 2% (T – 32)	—
	-100° to 0°	± 2.2°	—	-166° to 32°	± 3.96°	—
	0° to 275°	± 2.2°	± 1.1°	32° to 527°	± 3.96°	± 1.98°
	275° to 293°	± 2.2°	± 0.4% T	527° to 560°	± 3.96°	± 0.4% (T – 32)
	293° to 1260°	± 0.75% T	± 0.4% T	560° to 2300°	± 0.75% (T – 32)	± 0.4% (T – 32)
N	0° to 275°	± 2.2°	± 1.1°	32° to 527°	± 3.96°	± 1.98°
	275° to 293°	± 2.2°	± 0.4% T	527° to 560°	± 3.96°	± 0.4% (T – 32)
	293° to 1250°	± 0.75% T	± 0.4% T	560° to 2300°	± 0.75% (T – 32)	± 0.4% (T – 32)
R or S	0° to 1260°	± 1.5°	± 0.6°	32° to 1112°	± 2.7°	± 1.08°
	1260° to 1480°	± 0.25% T	± 0.1% T	1112° to 2700°	± 0.25% (T – 32)	± 0.1% (T – 32)
B	870° to 1700°	± 0.5% T	± 0.25%	1600° to 3100°	± 0.5% (T – 32)	± 0.25% (T – 32)
C**	0° to 426°	± 4.4°	—	32° to 800°	± 8°	—
	426° to 2315°	± 1% T	—	800° to 4200°	± 1% (T – 32)	—

Bearing Sensors

Avoid costly plant shut downs with our express bearing sensor manufacturing service. We stock an inventory of components to manufacture bearing sensors for high and moderate temperature services. Top hat, small profile bearing cap, and double oil seal configurations are routinely assembled with Nickel 120 ohm, Pt 100 ohm and thermocouples.

With over 45 years experience and a manufacturing facility on the West Coast, the days of waiting a week or two for delivery of critically needed embedded bearing sensors is over! We currently stock many common bearing sensor configurations and have the ability to stock customer specific bearing sensors.

Bearing Sensor Types	Case Style A		Case Style B		Case Style C		Case Style D	
	 Case L: 0.250" (6.4 mm) Case Ø: 0.275" (7.0 mm)		 Case L: 0.250" (6.4 mm) Case Ø: 0.188" (4.8 mm)		 Case L: 0.300" (7.6 mm) Case Ø: 0.125" (3.2 mm		 Case L: 0.300" (7.6 mm) Case Ø: 0.080" (2.0 mm)	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Platinum, 100 Ω ± 0.12% at 0°C (Meets EN60751, Class B)	22/24	30	26	30	26	30	30	N/A
Thermocouple (E, J, K, T)	24	24	24	24	24	24	N/A	N/A

*Other Wire Sizes Available
*Stranded Wire Is Used, Consult Factory If Solid Is Desired
*All Parts Subject To Conform Per Drawings Sent At Time Of RFQ

Thermocouples Type J, K, T, E

RTDs– 100Ω platinum, 0.00285 Ω/Ω/°C

2, 3, and 4 wire configurations.

Case Style– A, B, C, D

Operating Temperature: -50°F to +250°F

Custom Designs– Sensors Built To Your Specs.

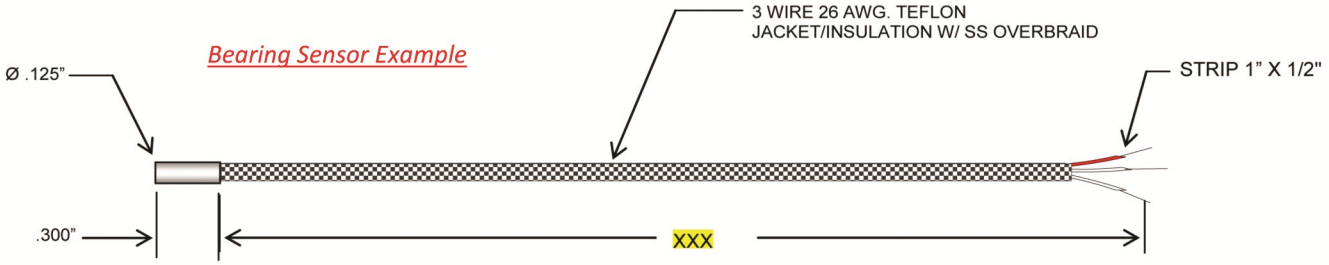
Many orders placed by 12:00pst can ship the same day UPS RED for next day delivery

Bearing Sensors

Bearing Sensor Types	Case Style A		Case Style B		Case Style C		Case Style D	
	 Case L: 0.250" (6.4 mm) Case Ø: 0.275" (7.0 mm)		 Case L: 0.250" (6.4 mm) Case Ø: 0.188" (4.8 mm)		 Case L: 0.300" (7.6 mm) Case Ø: 0.125" (3.2 mm		 Case L: 0.300" (7.6 mm) Case Ø: 0.080" (2.0 mm)	
	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Platinum, 100 Ω ± 0.12% at 0°C (Meets EN60751, Class B)	22/24	30	26	30	26	30	30	N/A
Thermocouple (E, J, K, T)	24	24	24	24	24	24	N/A	N/A

*Other Wire Sizes Available
*Stranded Wire Is Used, Consult Factory If Solid Is Desired
*All Parts Subject To Conform Per Drawings Sent At Time Of RFQ

Bearing Sensor Example



Case Style
- A- Ø= 0.275" L= 0.250"
- B- Ø= 0.188" L= 0.250"
- C- Ø= 0.125" L= 0.300"
- D- Ø= 0.080" L= 0.300"

Sensor
- 100- 100Ω platinum @ 0°C
- 120- 120Ω nickel @ 0°C
- 1000-1000Ω platinum @ 0°C
- T/C– Type E
- T/C– Type J
- T/C– Type K
- T/C– Type T

Junction Type
- G= Grounded
- U= Ungrounded
- X= RTD

Sensor Configuration
- S=Single Thermocouple
- D=Dual Thermocouple
- S3=Single 3 wire RTD
- S4=Single 4 wire RTD
- D2=Dual 2 wire RTD
- D3=Dual 3 wire RTD

Wire Gauge
Reference Above For Options. Contact Sales Rep. For More Options

Coverings
- SS= Stainless Steel Over Braid
- OIL= Oil Resistant Wire

Leadwire Length
Length (in.)

Large (.175"ID) ____
Small (.136"ID) ____

*PARTS WILL INCLUDE SMALL CLIP UNLESS NOTED OTHERWISE

FEEDTHRU OPTION
- .188"Ø X_____
- .215"Ø X_____
- .250"Ø X_____
- .375"Ø X_____

Accessories

Transmitters

Convert RTD and Thermocouple inputs to analog signals for direct interface with indicators, recorders, controllers, PLC, DCS and PC-based SCADA systems

Flex Armor Cable

Provides flexible wire protection.

Plugs & Jacks

Temperature ratings for plugs and jacks are continuous use. The plugs and jacks come in standard and miniature sizes.

Ceramic Protection Tubes

Used in applications where contamination from hostile environments or the cutting action of concentrated and direct flame impingement are factors.

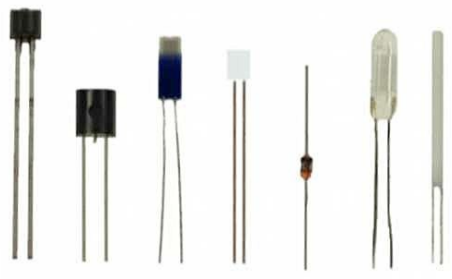
MgO or Magnesium Oxide Cable

Providing a simple solution to many difficult wiring problems and makes for a dependable and permanent installation for virtually all types of electrical circuits.

Thermowells and Flanges

Thermowells are used to provide an isolation between a temperature sensor and the environment, either liquid, gas or slurry.

Accessories



Fittings

Quality Stainless Steel temperature sensor fittings for any application. Thermometrics can create any custom design temperature with any fitting of your choice

Elements

Temperature sensing component at the heart of an RTD or resistance thermometer.

Connection Heads

Thermometrics offers a multitude of sensor accessories including connection heads and explosion proof heads.

Wireless Systems

The ability to add remote sensing points, without the cost of running wires, results in numerous benefits including energy and material savings, process improvements, labor savings, and productivity increases.

RTD Wire

2, 3, 4 wire nickel or tin plated copper conductor constructions in a variety of gauge sizes.

Thermocouple Wire

Matched pairs with duplex insulation color coded. Wide variety of calibration types and insulation materials available.

Calibration

Thermometrics calibration laboratory provides temperature calibrations from approximately –100°C to +1200°C comparison methods. Our prices are very competitive and our turn-around times are excellent. Our reports are comprehensive and include pass/fail criteria (where applicable) and a concise statement of the method used. Calibrations are performed in accordance with ANSI Z540 and MIL-STD 45662 and are traceable to N.I.S.T. industrial specifications such as AMS,ASTM, DIN, IEC, and JIS are common knowledge among our calibration staff.

For comparison calibrations, we use Hart baths, Hart SPRTs, and Hart readouts. We use several different techniques to minimize uncertainties while maximizing efficiency to keep the costs as low as possible without compromising quality. We are the laboratory of choice for many of our customers because they know that they can depend on us for correct, complete, and on-time calibrations at reasonable prices.

Application Assistance

Our sales engineers and cross trained and able to attend to all of our customer's special needs and requirements. By doing so, this means you'll speak with the same Sales Engineer every time and consequently, you can depend on getting sales assistance based on your needs. Our sales team, all with hands-on, in-house production experience and field application knowledge, can provide you with information about our products and their process applications, as well as help you select a standard or special product to solve your specific problem. They are your partners and your first link to the successful application and use of our products.

General Questions: sales@thermometricscorp.com

Northridge, California Headquarters

18714 Parthenia St. Northridge, CA 91324

(818) 886-3755

-Northridge, Ca Sales Team-

Johnny Galvez- Sales Manager (x105), Email- jgalvez@thermometricscorp.com

Otniel Galvez- Sales Associate (x115), Email- ogalvez@thermometricscorp.com

Ken Garden- Sales Associate (x111), Email- kgarden@themometricscorp.com

Rick Carlson- Sales Associate (x114), Email- rcarlson@thermometricscorp.com

Eric Castillo- Sales Associate (x114), Email- ecastillo@thermometricscorp.com

-Northridge, Ca Business Development Department-

Billy Butler- Business Dev./Sales, Email- bbutler@thermometricscorp.com

Kevin Hernandez- Business Development, Email- khernandez@thermometricscorp.com

Houston, Texas- Mid West Representative

Merv Albert- Sales Representative, Email- malbert@thermometricscorp.com

Phone # (281) 257-8000 Fax # (281) 379-3963 Cell # (713) 899-1513

Orwell, Vermont Office

Dave King- Engineer fax: (802) 948-2858, email:dking@thermometricscorp.com

Engineering

Tom Fishwick- Lead Engineer (818) 886-3755, (x104),email: tfishwick@thermometricscorp.com

Dave King- Engineer fax: (802) 948-2858, email:dking@thermometricscorp.com

Calibration

Dan Dobbs- Calibration Technician (818) 886-3755 (x107), email:ddobbs@thermometricscorp.com