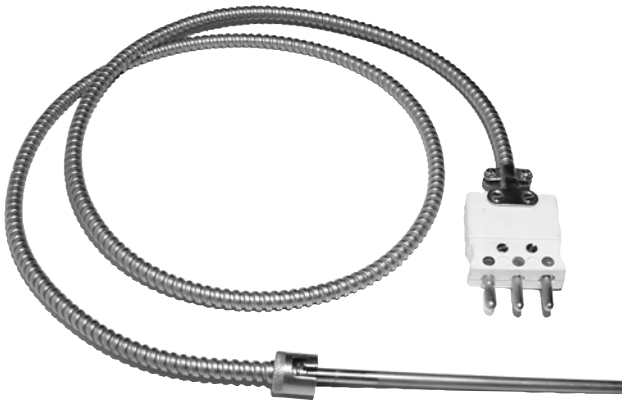


Temperature Sensors: Plastic Applications Thermocouples



The Plastic, Rubber and Packaging Industry sensors contained in the following pages are the most commonly used sensors in these three industries. The Thermocouple and RTD measuring elements all have insulated fiberglass leads inside the various sheath configurations. All are rated for use up to 900°F (J) maximum temperature. Some applications, because of higher temperature demands, physical abuse,

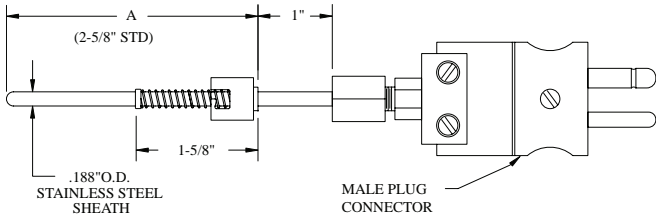
grounding problems, or other problems particular to a given process, may require the use of a MgO insulated type of sensor construction. The process may also require a special construction type of sensor to solve a particular application problem.

Our team of engineers invite your inquiries to solve your sensor application problems.

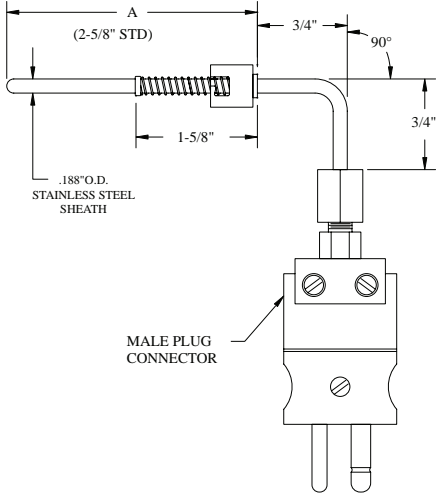
Helpful Hints

- Generally, plastics industry thermocouples are type J, and are enclosed in 304 Stainless Steel sheaths that are 3/16" in diameter.
- Plastics industry sensors are not to be used in process applications above 900°F (700°F for type T), as their construction uses 900°F rated fiberglass insulated thermocouple wire inside the sheath.
- Use stranded conductor leadwire where continuous or frequent flexing of the leads occur.
- Ungrounded thermocouples are demanded in many applications due to EMF stray and instrument grounding requirements. Most plastic instrument sensors can be supplied with this option, but in some cases a MgO insulated type of thermocouple may be required.
- The use of sensors with short leads, used in conjunction with extensions connected to permanent instrument connected junction boxes of jack panels, may be desirable in high sensor replacement applications. The cost of replacing long leads with each sensor replacement may not be cost effective.
- Our adjustable immersion AG3 and AH3 styles will replace almost all fixed bayonet style sensors as long as the lead length and cold end terminations are compatible with the sensors currently being used.
- RTD sensors usually are the DIN Standard with a $.00385\alpha$ temperature coefficient.
- Hot tip immersion with RTD sensors usually require a minimum immersion of 1 1/4" because of length of the RTD measuring element inside the sheath.

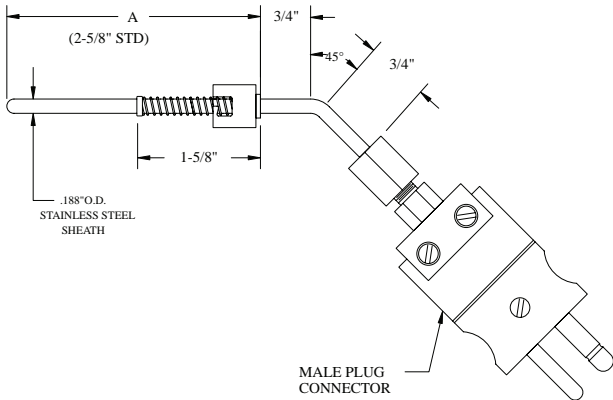
Temperature Sensors: Plastic Applications Thermocouples



Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AD3-□G



Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AF3-□G



Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AE3-□G

HOW TO ORDER (All Styles): T □ A F 3 - □ G

ANSI Type •
 Thermocouple Style •
 Dimension "A" Length (Inches) •
 Junction Type •

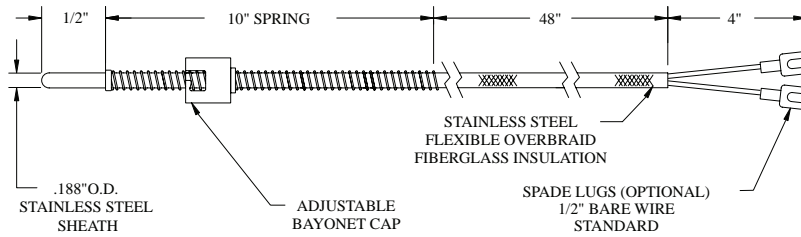
EXAMPLE: To order a Bayonet Thermocouple ANSI Type "J" with an "A" dimension of 8" -45° bend the part number is:

T J A E 3 - 8.00 G

ANSI Type •
 Thermocouple Style •
 Dimension "A" Length (Inches) •
 Junction Type •

* Ungrounded junctions are available.
 * Multiple Junction units are available - consult factory.

Temperature Sensors: Plastic Applications Thermocouples



Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AG3-48.0G□

HOW TO ORDER:

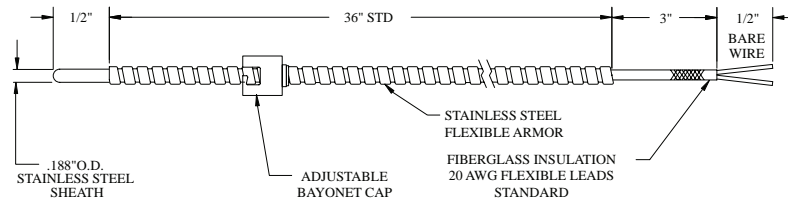
T □ AG3-48.0G □

ANSI Type
Thermocouple Style
Length in Inches of Leads
Junction Type
U=Ungrounded*; G=Grounded (Standard)
Cold End Termination Style

EXAMPLE: To order an adjustable Bayonet Thermocouple ANSI Type "J" Grounded Junction with 72" leads and style 3 termination the part number is:

T J AG3-72.0G 3

ANSI Type
Thermocouple Style
Length in Inches of Leads
Junction Type
Cold End Termination Style



Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AH3-36.0G□

HOW TO ORDER:

T □ AH3-36.0G □

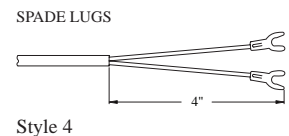
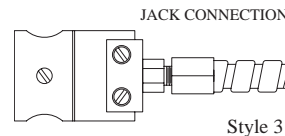
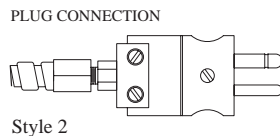
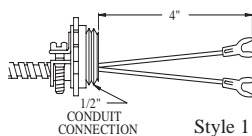
ANSI Type
Thermocouple Style
Length of Armored Leads (Inches)
Junction Type
U=Ungrounded*; G=Grounded (Standard)
Cold End Termination Style

EXAMPLE: To order an adjustable Armored Bayonet Thermocouple ANSI Type "J" Grounded Junction with 48" leads and style 3 termination the part number is:

T J AH3-48.0G 3

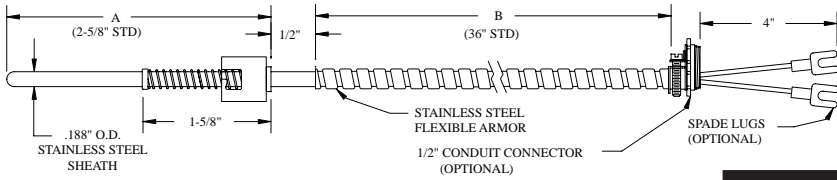
ANSI Type
Thermocouple Style
Length of Armored Leads (Inches)
Junction Type
Cold End Termination Style

Cold End Terminations:

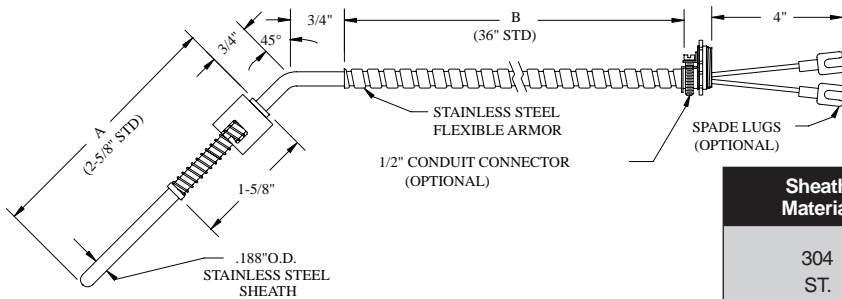


* Ungrounded junctions are available.
* Multiple Junction units are available - consult factory.

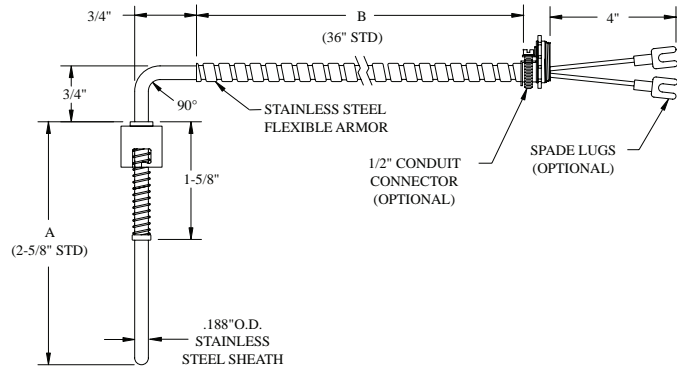
Temperature Sensors: Plastic Applications Thermocouples



Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AA3-□G□-□

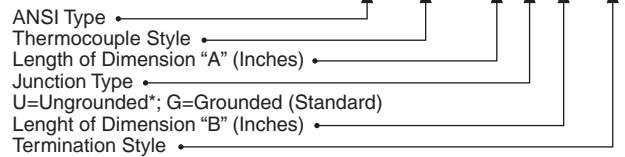


Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AB3-□G□-□



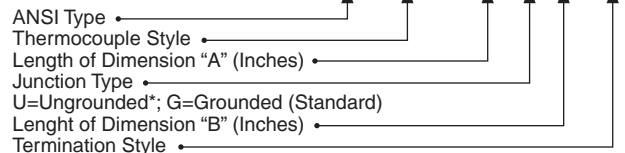
Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard) *U=Ungrounded	T□AC3-□G□-□

HOW TO ORDER (All Styles:) T□AC3-□G□-□

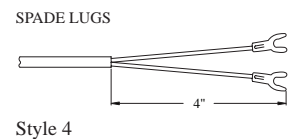
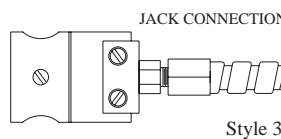
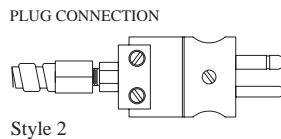
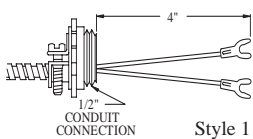


EXAMPLE: To order a Bayonet Thermocouple ANSI Type "K" with "A" Dimension, - 90° Bend 3", "B" Dimension 48" and a plug connection, the part number is:

T **K** **AC3-** **3.00** **G** **48** **-** **2**

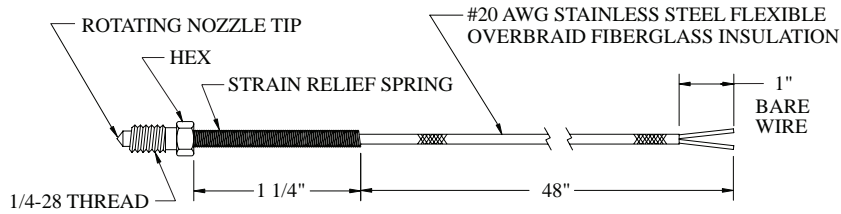


Cold End Terminations:



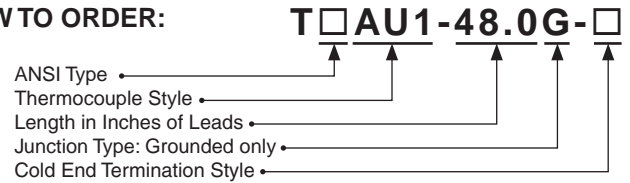
* Ungrounded junctions are available.
* Multiple Junction units are available - consult factory.

Temperature Sensors: Plastic Applications Thermocouples

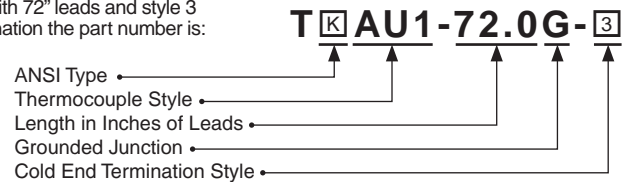


Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K T E	G=Grounded (Standard)	T□AU1-48.0G-□

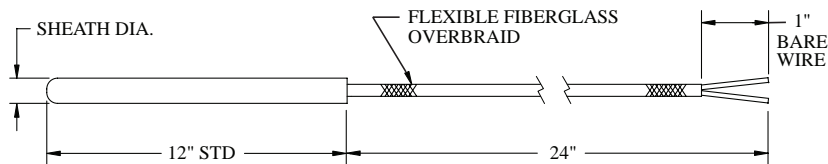
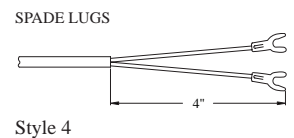
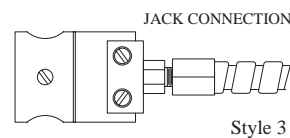
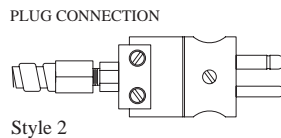
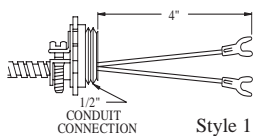
HOW TO ORDER:



EXAMPLE: To order a Nozzle Thermocouple ANSI type "K", with 72" leads and style 3 termination the part number is:

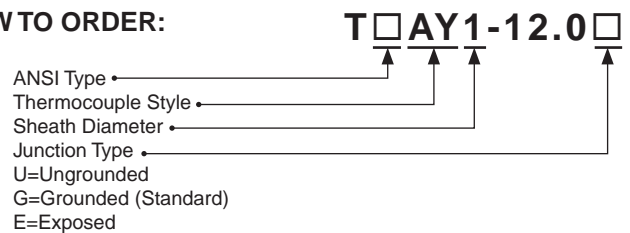


Cold End Terminations:



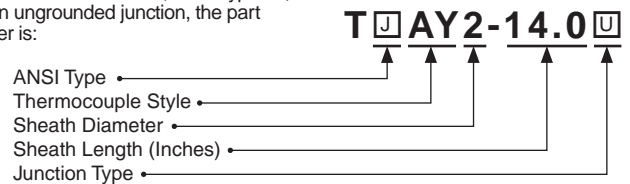
Sheath Size DIA	Sheath Material	ANSI Type	Junction Type	Part Number	STD Length (in.) Sheath
1/16	304 ST. STEEL	J K T E	U=Ungrounded G=Grounded E=Exposed	T□AY1-12.0□	12
1/8				T□AY2-12.0□	12
3/16				T□AY3-12.0□	12
1/4				T□AY4-12.0□	12

HOW TO ORDER:



Sheath Size DIA	Sheath Material	ANSI Type	Junction Type	Part Number	STD Length (in.) Sheath
1/16	INCO 600	J K T E	U=Ungrounded G=Grounded E=Exposed	T□AY1-12.0□0	12
1/8				T□AY2-12.0□0	12
3/16				T□AY3-12.0□0	12
1/4				T□AY4-12.0□0	12

EXAMPLE: To order a 14" long, 1/8" diameter St. Steel Sheath, ANSI type "J", with an ungrounded junction, the part number is:



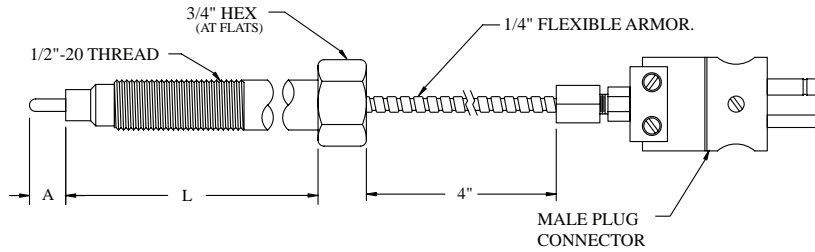
* When ordering, specify part number and quantity.

* Multiple junction units available - consult factory.

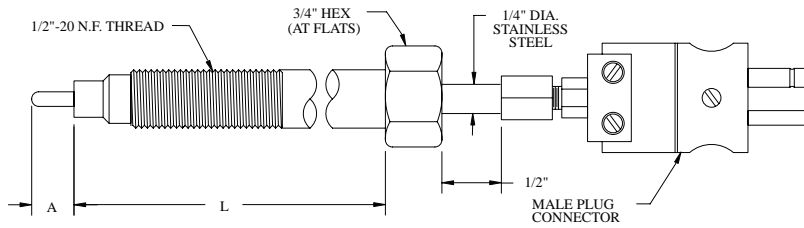
* For extension leads longer than 24", specify accordingly and adjust base price.

* Other styles of flexible leads are available with different types of insulations, armors and metal braids - consult factory.

Temperature Sensors: Plastic Applications Thermocouples

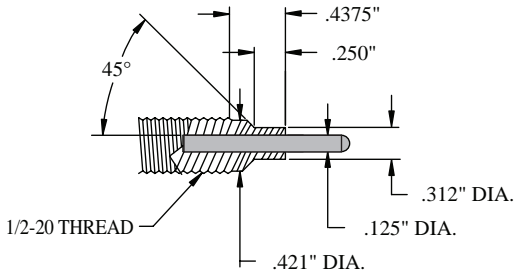


Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K	G=Grounded U=Ungrounded	T□AI1-03.0□□

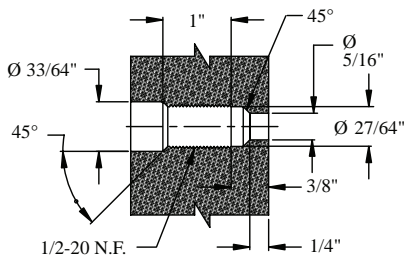


Sheath Material	ANSI Type	Junction Type	Part Number
304 ST. STEEL	J K	G=Grounded U=Ungrounded	T□AI2-03.0□□

Detailed Dimensions



Recommended Drilling Dimensions for Proper Mounting in Extruder



HOW TO ORDER (All Styles): T□AI2-03.0□□

- ANSI Type
- Thermocouple Style
- Bolt Length "L" (Inches)
- Sheath Length "A" (Inches)
- Junction Type
- U=Ungrounded
- G=Grounded (Standard)

EXAMPLE: To order a Bolt Thermocouple ANSI type "K" with an "A" dimension of 1/4" and "L" dimension of 6" with an ungrounded junction, the part number is:

T□KAI2-06.0□1/4□U

- ANSI Type
- Thermocouple Style
- Bolt Length "L"
- Sheath Length "A"
- Junction Type

* Multiple junction units available - consult factory.

* Other styles of flexible leads and terminations are available - consult factory.