# **Thermocouples**



## **General Applications Tube and Wire**

Watlow® is a world class supplier of temperature measurement products, with more than 90 years of manufacturing, research and design expertise.

Companies engaged in critical process control of food and metals rely on Watlow thermocouples. Watlow designs and manufactures sensors to meet customers' industrial and commercial equipment needs.

Watlow has developed an extensive line of thermocouples to meet a broad range of sensing needs.

#### **Performance Capabilities**

 Fiberglass insulated thermocouples can reach temperatures up to 900°F (480°C) for continuous operation

#### **Features and Benefits**

#### Standard products including:

- 32 standard sheath lengths
- · Lead lengths from six to 360 inches
- Stainless steel braid or hose protection
- J, K, T and E calibrations
- · Grounded, ungrounded and exposed junctions
- Flat and drill point
- · Epoxy sealed cold ends
- Adjustable depths
- Flexible extensions
- Washers, nozzles and clamp bands
- · PFA coated and stainless steel sheaths
- Straight, 45° bend or 90° bend
- Locking bayonet caps in standard
- 300 series stainless tubing

#### **Typical Applications**

- Food processing equipment
- De-icing
- Plating baths
- Industrial processing
- Medical equipment
- · Pipe tracing control
- Industrial heat treating
- Packaging equipment
- Liquid temperature measurement
- Refrigerator temperature control
- Oven temperature control



### **Construction and Tolerances**

Thermocouples feature flexible SERV-RITE® wire insulated with woven fiberglass or high temperature engineered resins. For added protection against abrasion, products can be provided with stainless steel wire braid and flexible armor. ASTM E230 color-coding identifies standard catalog thermocouple types.

The addition of a metal sheath over the thermocouple provides rigidity for accurate placement and added protection of the sensing junction. Mounting options include springs, ring terminals, specialized bolts, pipe style clamps and shims.

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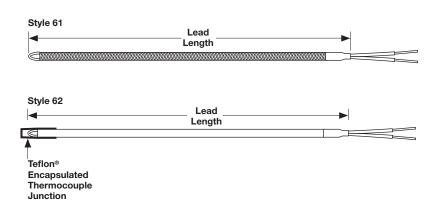
# Insulated Wire Styles 61 and 62



for most general purpose applications, such as measuring



air, gas and surface temperatures. Style 62 is fitted with an encapsulated measuring junction that is ideal for corrosive fluids and gases, such as sulfuric acid, hydrofluoric acid, strong mineral acids and oils.



#### **Ordering Information**

#### Part Number

1 2

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1 2	3	4	5	6	<b>(7</b> )	8 9 10	(11)
<u> </u>					, o	000	<u> </u>
Const.			Lead		Termination	Lead	Term./
Style	Diameter	Calibration	Protection	<b>Junction</b>	"A"	Length	Options
	V			_	V		
	X				<b>A</b>		

61	=	SERIES 61								
62	2* =	SERIES 62								
*Only available with wire (lead protection) options J or T (4th digit).										
(3)	③ Diameter									
X = Not applicable										
4	)	Calibration								
J	=	Type J								
Κ	=	Type K								
Т	=	= Type T								
Е	=	Type E								
Lead Protection										
Р	=	Fiberglass (20 gauge solid)								
В	=	= Fiberglass with stainless steel overbraid (20 gauge solid)								
F	=	Fiberglass (24 gauge solid)								
S	=	Fiberglass with stainless steel overbraid (24 gauge solid)								
Т	=	Extruded PFA (24 gauge solid)								
.1	= Extruded PEA (20 gauge solid)									

**Construction Style** 

•	Julicuoti						
E = Exposed							
8 9 10 Lead Length (in.)							
Available lengths: 006 to 360 in., over 360 in. contact factory							
① Termination/Options							
A =	Standard, 2 <sup>1</sup> / <sub>2</sub> in. split leads						
В =	21/2 in. split leads with spade lugs						
C =	21/2 in. split leads with #6 spade lugs and BX connector						
D =	Standard male plug, quick disconnect						
E =	Standard female jack, quick disconnect						
F =	Miniature male plug, quick disconnect						
G =	Miniature female jack, quick disconnect						
Н =	<sup>1</sup> / <sub>4</sub> in. push-on connector						