

RAPID SHIP: RESPONDING TO YOUR SENSING NEEDS

In an ever-demanding industry where every minute counts, you can rely on Watlow Gordon to get you the products you need when you need them. Watlow Gordon is leading the industry with Rapid Ship, our exclusive shipping program, designed to ship products to you in one to three days*. Rapid Ship is the most advanced shipping program providing the highest quality parts with the most flexible line of options available. When you want custom or stock sensors as soon as possible, Watlow's Rapid Ship program responds to your needs.

To expedite your sensor order, services such as Federal Express® or UPS® will guarantee delivery at an additional charge. Tracking your sensor packages using FedEx® or UPS® is as easy as calling up their Web sites at www.fedex.com or www.ups.com. Ask your Watlow Gordon customer service representative for more details. It's just one more way Watlow Gordon responds to your sensing needs.

Stock Sensors

- Orders placed by 2:00 p.m. ship from Watlow Gordon the same day.
- The most commonly requested sensor products are included in the program.
- Any sensors listed on pages 2, 4, 8 and 9 are considered stock items and are available today.

Custom Sensors

- Orders ship from Watlow Gordon within 72 hours.
- Most flexible line of options available.
- Sensors listed on pages 3, 5, 6 and 7 are custom sensors tailored to your specific needs.

Style	Sheath Material	Dia.	Calibration & Temp. Range	Accuracy	Stock Items	Termination	Description/Applications	Page No.
F T/C	304 SS 316 SS Alloy 600	0.063 0.125 0.188 0.250	J = 32 to 1382°F K = 32 to 2282°F	<i>Std limits:</i> ±2.2°C or ±0.75% <i>Special:</i> ±1.1°C or ±0.4%	Yes	spade lugs, striped leads, standard or mini connectors	Low cost alternative to running MgO cable from application to instrument or when lead wire will be flexed. Semiconductor processing, food equipment, heat treating.	2-3
C T/C	304 SS 316 SS Alloy 600	0.063 0.125 0.188 0.250	J = 32 to 1382°F K = 32 to 2282°F	<i>Std limits:</i> ±2.2°C or ±0.75% <i>Special:</i> ±1.1°C or ±0.4%	Yes	standard or mini connectors	Used when quick and easy disconnect is required near application. Chemical processing, food equipment, industrial packaging.	4-5
B T/C	304 SS 316 SS Alloy 600	0.063 0.125 0.188 0.250	J = 32 to 1382°F K = 32 to 2282°F	<i>Std limits:</i> ±2.2°C or ±0.75% <i>Special:</i> ±1.1°C or ±0.4%	No	stripped leads	Used when application temperatures exceed fiberglass or Teflon®. Aerospace, heat treating, industrial furnaces.	6
P T/C	304 SS 316 SS Alloy 600	0.188 0.250	J = 32 to 1382°F K = 32 to 2282°F	<i>Std limits:</i> ±2.2°C or ±0.75% <i>Special:</i> ±1.1°C or ±0.4%	No	cast iron (zinc plated), aluminum NEMA 4 rated connection heads	For watertight connections or connecting to conduit. Industrial process, petro-chemical, power generation.	7
RB RTDs	316 SS	0.125 0.188 0.250	DIN 0.00385 100Ω -50 to 260°C	±0.12% @ 0°C	Yes	stripped leads, 3-wire	For use when temperatures are below 260°C and no bends are needed. Food equipment, plastics and medical.	8
RF RTDs	Alloy 600	0.188	DIN 0.00385 100Ω -200 to 650°C	±0.12% @ 0°C	Yes	stripped leads, 3-wire	Used when flexible lead wire is required and when a bend is needed. Industrial and chemical processing, semiconductor manufacturing.	8

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* Weekends and holidays excluded.



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R A P I D S H I P

STOCK STYLE F THERMOCOUPLES

Type K calibration - Alloy 600 Sheath

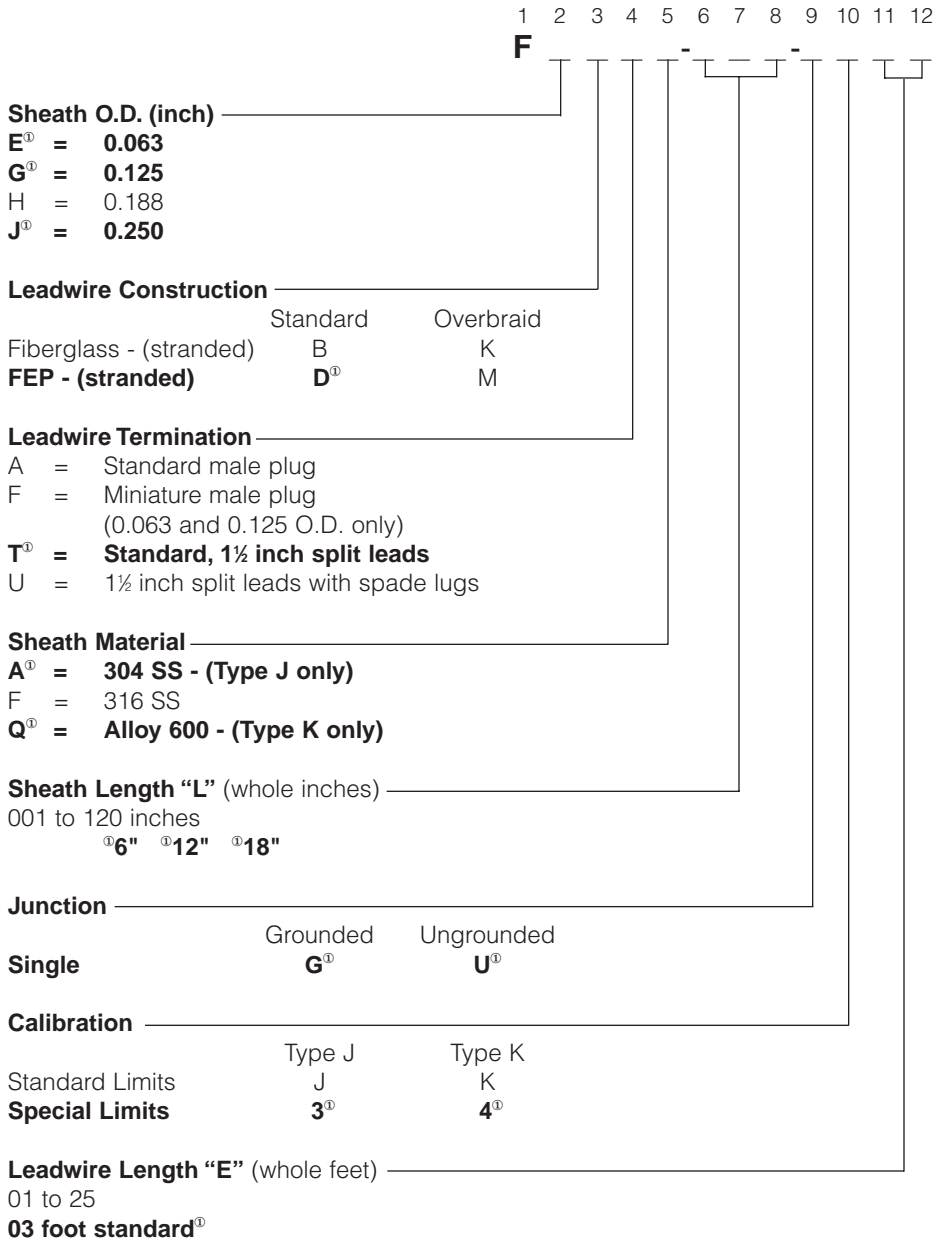
	<i>Grounded</i>	<i>Ungrounded</i>
0.063 Diameter - 6 inch "L" Dimension	FEDTQ-006-G403	FEDTQ-006-U403
0.063 Diameter - 12 inch "L" Dimension	FEDTQ-012-G403	FEDTQ-012-U403
0.063 Diameter - 18 inch "L" Dimension	FEDTQ-018-G403	FEDTQ-018-U403
0.125 Diameter - 6 inch "L" Dimension	FGDTQ-006-G403	FGDTQ-006-U403
0.125 Diameter - 12 inch "L" Dimension	FGDTQ-012-G403	FGDTQ-012-U403
0.125 Diameter - 18 inch "L" Dimension	FGDTQ-018-G403	FGDTQ-018-U403
0.250 Diameter - 6 inch "L" Dimension	FJDTQ-006-G403	FJDTQ-006-U403
0.250 Diameter - 12 inch "L" Dimension	FJDTQ-012-G403	FJDTQ-012-U403
0.250 Diameter - 18 inch "L" Dimension	FJDTQ-018-G403	FJDTQ-018-U403

Type J calibration - 304 SS Sheath

	<i>Grounded</i>	<i>Ungrounded</i>
0.063 Diameter - 6 inch "L" Dimension	FEDTA-006-G303	FEDTA-006-U303
0.063 Diameter - 12 inch "L" Dimension	FEDTA-012-G303	FEDTA-012-U303
0.063 Diameter - 18 inch "L" Dimension	FEDTA-018-G303	FEDTA-018-U303
0.125 Diameter - 6 inch "L" Dimension	FGDTA-006-G303	FGDTA-006-U303
0.125 Diameter - 12 inch "L" Dimension	FGDTA-012-G303	FGDTA-012-U303
0.125 Diameter - 18 inch "L" Dimension	FGDTA-018-G303	FGDTA-018-U303
0.250 Diameter - 6 inch "L" Dimension	FJDTA-006-G303	FJDTA-006-U303
0.250 Diameter - 12 inch "L" Dimension	FJDTA-012-G303	FJDTA-012-U303
0.250 Diameter - 18 inch "L" Dimension	FJDTA-018-G303	FJDTA-018-U303

R A P I D S H I P

CUSTOM STYLE F THERMOCOUPLES



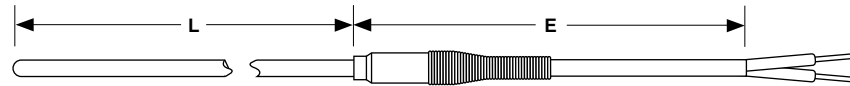
Performance Capabilities

- Standard maximum continuous operating temperature of 300°F (150°C) for the transition.

Features

- Transition body is filled with a potting compound which insulates and strengthens the splice.
- Coiled spring strain relief on Style F protects the wire against sharp bends in the transition area.
- Custom leadwire terminations offer standard or miniature male plugs or spade lugs.
- Custom options are available in leadwire construction, length and sheath material.
- Stranded leadwire construction is an ideal choice for applications where the lead wire is subjected to continuous flexing.

[Ⓟ] **Stocked options**
 Compression fitting options on page 9.



R A P I D S H I P

STOCK STYLE C THERMOCOUPLES

Type K calibration - Alloy 600 Sheath

Ungrounded

0.063 Diameter - 6 inch "L" Dimension	CEAQ-006-U4
0.063 Diameter - 12 inch "L" Dimension	CEAQ-012-U4
0.063 Diameter - 72 inch "L" Dimension	CEAQ-072-U4
0.125 Diameter - 6 inch "L" Dimension	CGAQ-006-U4
0.125 Diameter - 12 inch "L" Dimension	CGAQ-012-U4
0.125 Diameter - 72 inch "L" Dimension	CGAQ-072-U4

Type J calibration - 304 SS Sheath

Ungrounded

0.063 Diameter - 6 inch "L" Dimension	CEAA-006-U3
0.063 Diameter - 12 inch "L" Dimension	CEAA-012-U3
0.063 Diameter - 72 inch "L" Dimension	CEAA-072-U3
0.125 Diameter - 6 inch "L" Dimension	CGAA-006-U3
0.125 Diameter - 12 inch "L" Dimension	CGAA-012-U3
0.125 Diameter - 72 inch "L" Dimension	CGAA-072-U3

R A P I D S H I P

CUSTOM STYLE C THERMOCOUPLES

1 2 3 4 5 6 7 8 9
C

Sheath O.D. (inch) _____

E^① = 0.063
G^① = 0.125
 H = 0.188
 J = 0.250

Connector Type _____

A^① = Standard Male Plug (400°F)
 B = Standard female plug (400°F)
 C = Standard plug with mating connector (400°F)

0.063 and 0.125 O.D. only for all miniature connectors: F, G, H

F = Miniature male plug (400°F)
 G = Miniature female plug (400°F)
 H = Miniature plug with mating connector (400°F)

Sheath Material _____

A^① = 304 SS - (Type J only)
 F = 316 SS
Q^① = Alloy 600 - (Type K only)

Sheath Length "L" (whole inches) _____
 001 to 120 inches
 ①6" ①12" ①72"

Junction _____

	Grounded	Ungrounded
Single	G	U ^①

Calibration _____

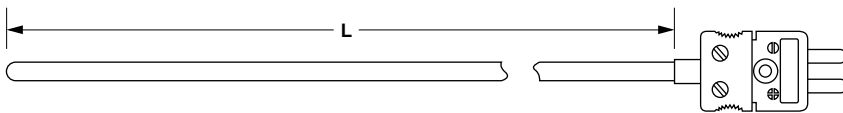
	Type J	Type K
Standard Limits	J	K
Special Limits	3^①	4^①

Performance Capabilities

- Ambient rating of 400°F (200°C) on standard and miniature connectors.

Features

- Plugs and jacks are easy to connect and disconnect, saving you time.
- ANSI color coded connectors allow quick identification of the thermocouple calibration.
- Miniature connectors, available with thermocouple diameters up to 0.125 inch, can be used in locations where space is minimal. The miniature plug permits quick connection to portable instrumentation.
- Matching thermocouple alloys provide higher accuracy.
- Brazing adapter assures the connector is mounted rigidly to the sheath, preventing the connector from twisting or turning.



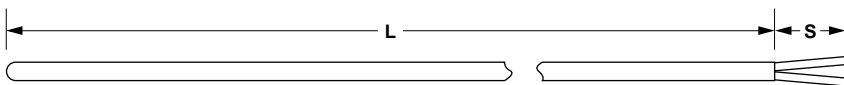
Watlow Gordon reserves the right to limit quantities.

R A P I D S H I P

CUSTOM STYLE B THERMOCOUPLES

	1	2	3	4	5	6	7	8	9
	B								
Sheath O.D. (inch) _____									
E = 0.063									
G = 0.125									
H = 0.188									
J = 0.250									
Sheath Material _____									
A = 304 SS									
F = 316 SS									
Q = Alloy 600									
Sheath Length "L" (whole inches) _____									
001 to 120 inches									
Junction _____									
Single	Grounded G								Ungrounded U
Calibration _____									
Standard Limits	Type J J								Type K K
Special Limits	3								4
Strip Length "S" (whole inches) _____									
1 to 3 inches									

Compression fitting options on page 9.



Watlow Gordon reserves the right to limit quantities.

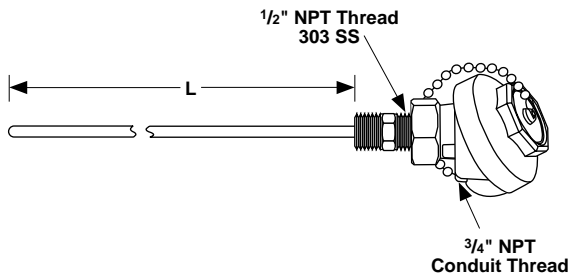
R A P I D S H I P

CUSTOM STYLE P THERMOCOUPLES

	1	2	3	4	5	6	7	8	9
	P								
Sheath O.D. (inch)	_____								
H =	0.188								
J =	0.250								
Connection Head	_____								
A =	Universal cast iron (NEMA 4)								
B =	Universal cast aluminum (NEMA 4)								
Sheath Material	_____								
A =	304 SS								
F =	316 SS								
Q =	Alloy 600								
Sheath Length "L" (whole inches)	_____								
	01 to 48 inches								
Sheath Length "L" (fractional inches)	_____								
0 =	0	4 =	1/2						
1 =	1/8	5 =	5/8						
2 =	1/4	6 =	3/4						
3 =	3/8	7 =	7/8						
Junction	_____								
		Grounded	Ungrounded						
Single		G	U						
Calibration	_____								
		Type J	Type K						
Standard Limits		J	K						
Special Limits		3	4						

Features

- Connection head provides superior dust and moisture resistance to NEMA 4.
- Offered in cast iron and cast aluminum.
- O-ring seal.
- Tangle-free chain and cap design for easy access.
- Integral color coded ground screw.



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R A P I D S H I P

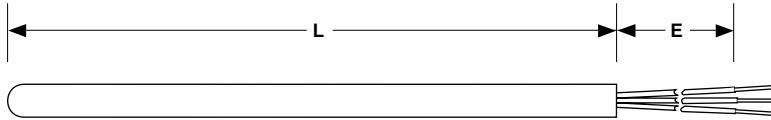
STOCK RB & RF STYLE RTDs

Features

- High accuracy for dependable readings.
- Customized diameters from 0.125 to 0.250 inch.
- Epoxy sealed to resist moisture and pullout. Standard 500°F potting.
- Durable rigid sheath made of corrosion resistant materials.

RB Style

0.125 Diameter - 2 inch "L" Dimension	RBGB-002-BB
0.125 Diameter - 4 inch "L" Dimension	RBGB-004-BB
0.125 Diameter - 6 inch "L" Dimension	RBGB-006-BB
0.125 Diameter - 12 inch "L" Dimension	RBGB-012-BB
0.188 Diameter - 2 inch "L" Dimension	RBHB-002-BB
0.188 Diameter - 4 inch "L" Dimension	RBHB-004-BB
0.188 Diameter - 6 inch "L" Dimension	RBHB-006-BB
0.188 Diameter - 12 inch "L" Dimension	RBHB-012-BB
0.250 Diameter - 2 inch "L" Dimension	RBJB-002-BB
0.250 Diameter - 4 inch "L" Dimension	RBJB-004-BB
0.250 Diameter - 6 inch "L" Dimension	RBJB-006-BB
0.250 Diameter - 12 inch "L" Dimension	RBJB-012-BB



Description

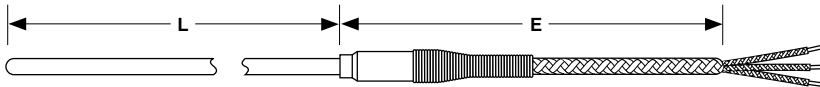
1/8, 3/16 and 1/4 inch diameter, 316 SS, 3-wire Teflon® insulated leads, 100Ω single element, Class B, DIN 0.00385, 260°C (500°F)
 Sheath Length: 2, 4, 6 and 12 inches
 Lead Length "E:" 3 foot

Features

- Stainless steel transitions are crimped to sheath and epoxy sealed. Optional brazing available.
- Coiled spring strain relief protects leadwire against sharp bends in the transition area.
- Flexible mineral insulated construction provides a bendable and highly durable sensor.

RF Style

0.188 Diameter - 3 inch "L" Dimension, fiberglass	RFHA-003-BB
0.188 Diameter - 4 inch "L" Dimension, fiberglass	RFHA-004-BB
0.188 Diameter - 6 inch "L" Dimension, fiberglass	RFHA-006-BB
0.188 Diameter - 12 inch "L" Dimension, fiberglass	RFHA-012-BB
0.188 Diameter - 3 inch "L" Dimension, Teflon®	RFHB-003-BB
0.188 Diameter - 4 inch "L" Dimension, Teflon®	RFHB-004-BB
0.188 Diameter - 6 inch "L" Dimension, Teflon®	RFHB-006-BB
0.188 Diameter - 12 inch "L" Dimension, Teflon®	RFHB-012-BB



Description

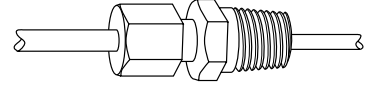
3/16 inch diameter, 316 SS, 3-wire Teflon® and fiberglass insulated leads, 100Ω single element, Class B, DIN 0.00385, 650°C (1200°F), Sheath Length: 3, 4, 6 and 12 inches, Lead Length "E:" 3 foot

R A P I D S H I P

COMPRESSION FITTINGS

Brass Compression Fitting, Non-adjustable

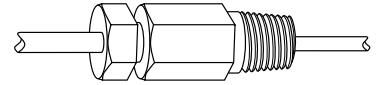
<i>Code Number</i>	<i>Sheath O.D. inches</i>	<i>Bore +0.010, -0.000 inches</i>	<i>Male NPT inches</i>	<i>Length inches</i>
TH-185-2	0.125	0.130	1/8	1
TH-185-3	0.188	0.192	1/8	1 1/8
TH-185-4	0.250	0.256	1/8	1 3/8
TH-185-5	0.250	0.256	1/4	1 3/8



Stainless Steel Compression Fitting, Non-adjustable (303 Stainless Steel)

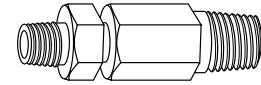
Single Threaded

<i>Code Number</i>	<i>Sheath O.D. inches</i>	<i>Bore ±0.001 inches</i>	<i>Male NPT inches</i>	<i>Length inches</i>	<i>Hex Across flats inches</i>
TH-2745-063	0.063	0.067	1/8	1 1/4	1/2
TH-2745-125	0.125	0.129	1/8	1 1/4	1/2
TH-2745-188	0.188	0.194	1/8	1 1/8	1/2
TH-2745-250	0.250	0.257	1/8	1 5/8	1/2



Double Threaded

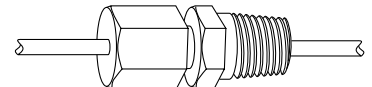
<i>Code Number</i>	<i>Sheath O.D. inches</i>	<i>Bore ±0.001 inches</i>	<i>Male NPT inches</i>	<i>Length inches</i>	<i>Hex Across flats inches</i>
TH-2749-063	0.063	0.067	1/8	1 1/8	1/2
TH-2749-125	0.125	0.129	1/8	1 1/8	1/2
TH-2749-188	0.188	0.194	1/8	1 1/8	1/2
TH-2749-250	0.250	0.257	1/8	1 1/8	1/2



Stainless Steel Compression Fitting, Adjustable (303 Stainless Steel)

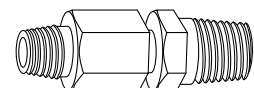
Single Threaded

<i>Code Number</i>	<i>Sheath O.D. inches</i>	<i>Bore +0.002 inches</i>	<i>Male NPT inches</i>	<i>Length inches</i>	<i>Hex Across flats inches</i>
TH-2747-*-063	0.063	0.067	1/8	1 1/4	1/2
TH-2747-*-125	0.125	0.136	1/8	1 1/4	1/2
TH-2747-*-188	0.188	0.193	1/8	1 1/4	1/2
TH-2748-*-250	0.250	0.257	1/4	2 1/8	7/8



Double Threaded

<i>Code Number</i>	<i>Sheath O.D. inches</i>	<i>Bore +0.002 inches</i>	<i>Male NPT inches</i>	<i>Length inches</i>	<i>Hex Across flats inches</i>
TH-2751-*-063	0.063	0.067	1/8	1 1/4	1/2
TH-2751-*-125	0.125	0.136	1/8	1 1/4	1/2
TH-2751-*-188	0.188	0.193	1/8	1 1/4	1/2
TH-2752-*-250	0.250	0.257	1/4	2 1/8	7/8



* Select gland type: L = Lava Gland, N = Neoprene Gland, T = Teflon® Gland