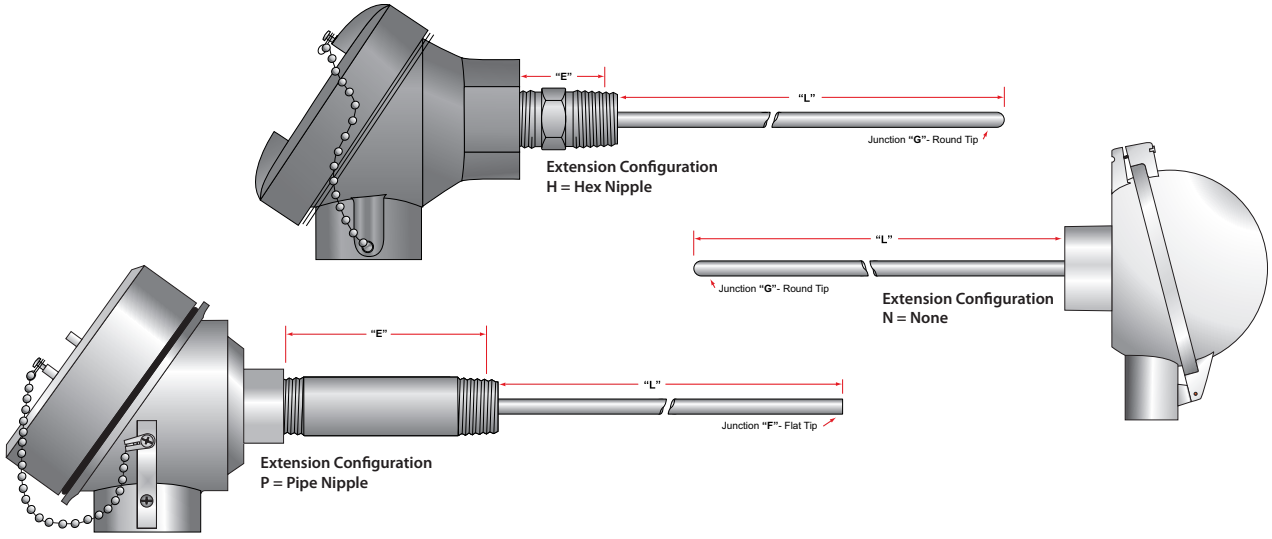
T/C's for Existing Thermowells

Style T – Connection Head Assembly For Wells and Protection Tubes



TT [1] - [2][3][4][5] - [6][7][8] - **N** - [9][10][11][12]

1. Connection Head (See page 19 for other C-Heads)

A = Aluminum	D = Poly Black
B = Cast Iron	G = 316 Stainless Steel
C = Explosion Proof	H = FDA Poly - Chain
E = FDA Poly - Latch	V = Dan

Z = Other (Consult Factory for Specialty Heads)

2. Calibration (See page 13 for other Cals)

J = Type J (1400°F) T = Type T (700°F)
K = Type K (2300°F) E = Type E (1600°F)

3. Junction (See page 15)

	Grounded	Ungrounded
Round Tip	G (Std)	U
Flat Tip	F	B
118° Drill Tip	D	C

4. Element Type (See page 14)

A = Single B = Duplex* C = Triplex*

* Common Ungrounded is Standard for Ungrounded Junctions
For Separated Ungrounded choose "O" under Special Options

5. Sheath Operating Temperature

A = -200°C to 260°C (500°F)	D = 0°C to 900°C (1650°F)
B = -200°C to 400°C (750°F)	E = 0°C to 1150°C (2100°F)
C = -200°C to 600°C (1200°F)	Z = Other

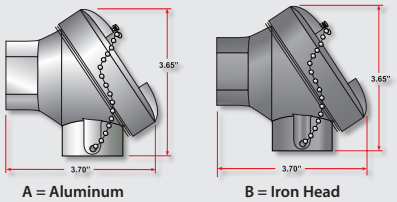
6. Sheath Material (See page 14 for other Materials)

4 = 304SS (1650°F)(Std) 0 = 310SS (2100°F)
6 = 316SS (1650°F) C = Copper (1000°F)
I = INCONEL (2150°F)
A = Alumina Insulator (3000°F)
P = Steatite (Porcelain) Insulators (1830°F)
L = Mullite Insulators (2640°F)

7. Sheath Diameter

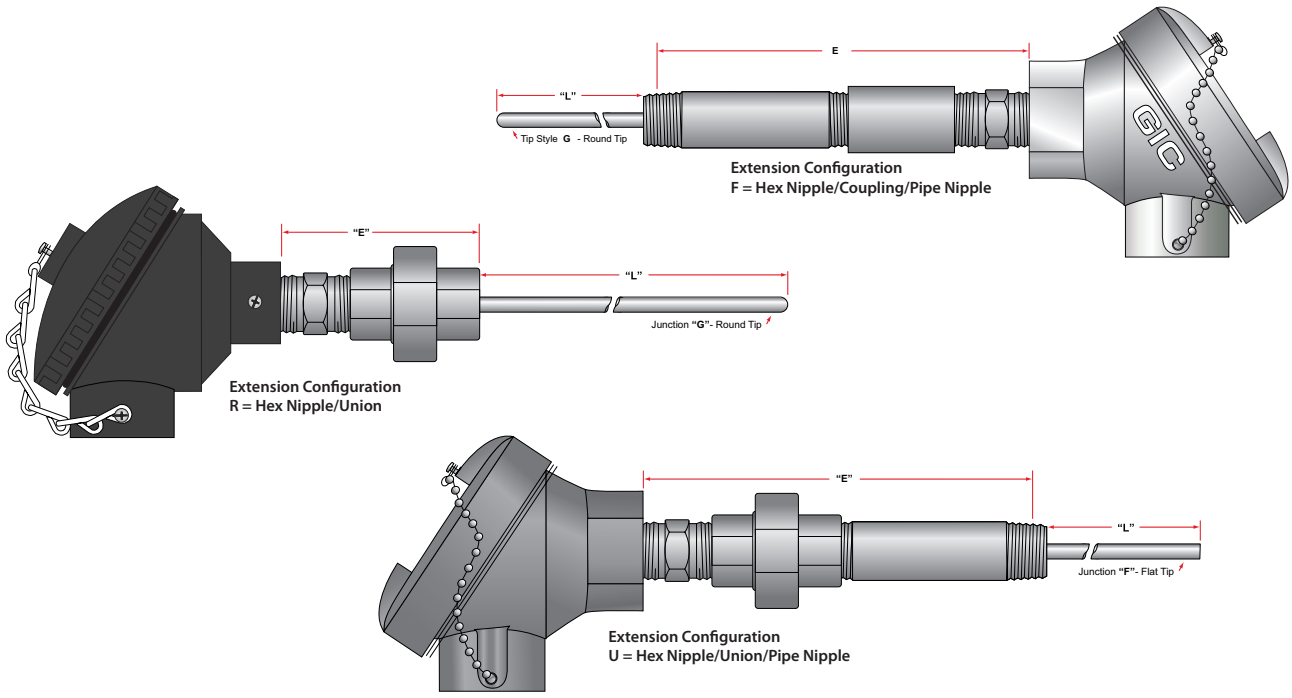
I = .250 M = .375

Connection Head Options



A = Aluminum B = Iron Head

Style T - Thermocouple Thermowell Assemblies are 1/4" and 3/8" OD sensors meant to be used with existing .260" ID and .385" ID thermowells or Protection tubes.



12. Special Options (Choose all that apply - See Page 17 for more Options)

N = None
A = Special Limits of Error
D = Universal Transmitter* (See Page 70)
E = Economy Multi-input Transmitter* (See Page 70)
H = High Vibration
I = SS ID Tag
O = Separate Ungrounded Junctions
P = Electro-etching
Q = Ground Screw
S = Spring Loaded
Y = Certificate of Conformance
X = X-Ray Junction
Z = Other (Consult Factory)

* Not available on some head styles

For more information Thermowell Assemblies go to:
www.GICThermodynamics.com

11. Extension Length "E" (Example 12.5 = 12-1/2 Inches)

10. Extension Material

S = Steel(Std) 4 = 304SS 6 = 316SS Z = Other

9. Extension configuration

N = None

H = Hex Nipple
R = Hex Nipple/Union
U = Hex Nipple/Union/Pipe Nipple
W = Hex Nipple/Union/Hex Nipple*
P = Pipe Nipple
S = Pipe Nipple/Union
T = Pipe Nipple/Union/Hex Nipple
V = Pipe Nipple/Union/Pipe Nipple*
C = Hex Nipple/Coupling
D = Pipe Nipple/Coupling
F = Hex Nipple/Coupling/Pipe Nipple
G = Pipe Nipple/Coupling/Hex Nipple

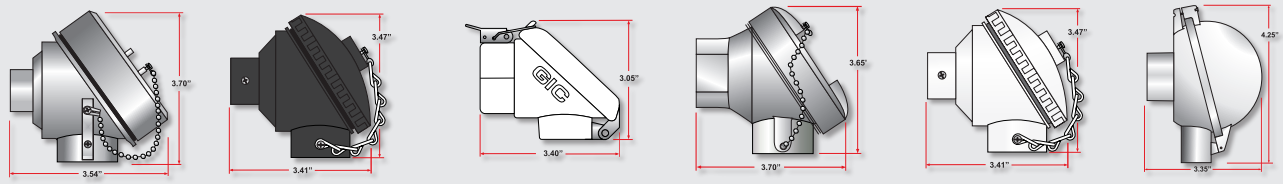
* (If this option is chosen then at least one of the pipe nipples lengths will have to be call out in the notes.)

8. Sheath Length "L" (Example 012= 12 inches)

00 - 99 inches Z = greater than 99 inches - consult Factory

For more Connection Head options go to www.GICThermodynamics.com

Connection Head Options

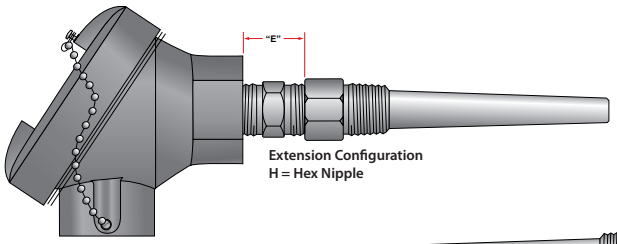


C = Explosion Proof | D = Poly Black | E = FDA Poly - Latch | G = 316 Stainless | H = FDA Poly - Chain | V = Dan Head

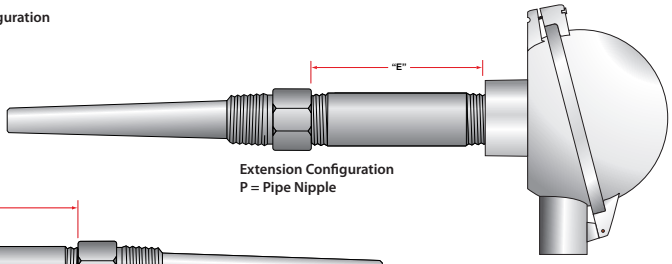
Thermocouple Thermowell Assemblies

Style U – Thermocouple Thermowell Assembly

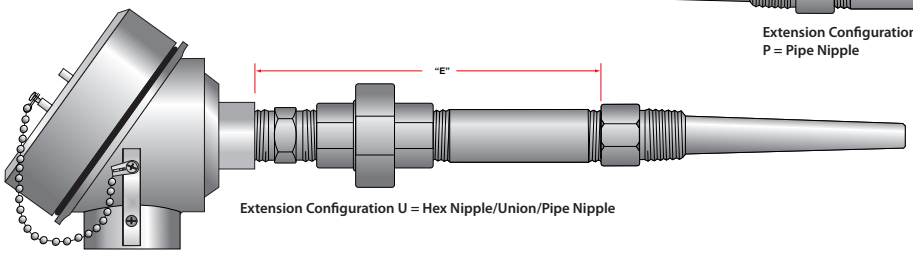
Style U - Thermocouple Thermowell Assemblies
Are 1/4" and 3/8" OD sensors with .260" ID and .385" ID thermowells. To order build the sensor part number below then choose a drilled or flanged thermowell from the pages 55 thru 59 and put it's part number after the sensor part number.



Extension Configuration
H = Hex Nipple



Extension Configuration
P = Pipe Nipple



Extension Configuration U = Hex Nipple/Union/Pipe Nipple

TU [1] - [2][3][4] [5] - [6][7] -N- [8][9] [10] - [11] - [12] Thermowell Part Number

1. Connection Head

A = Aluminum	D = Poly Black
B = Cast Iron	G = 316 Stainless Steel
C = Explosion Proof	H = FDA Poly - Chain
E = FDA Poly - Latch	V = Dan
Z = Other (Consult Factory for Specialty Heads)	

2. Calibration (See page 13 for other Cals)

J = Type J (1400°F) T = Type T (700°F)
K = Type K (2300°F) E = Type E (1600°F)

3. Junction (See Diagram TS-TC)

	Grounded	Ungrounded
Round Tip	G (Std)	U
Flat Tip	F	B
118° Drill Tip	D	C

4. Element Type (See Diagram ET page 14)

A = Single B = Duplex* C = Triplex*
* Common Ungrounded is Standard for Ungrounded Junctions
For Separated Ungrounded choose "O" under Special Options

5. Sheath Operating Temperature

A = -200°C to 260°C (500°F)	D = 0°C to 900°C (1650°F)
B = -200°C to 400°C (750°F)	E = 0°C to 1150°C (2100°F)
C = -200°C to 600°C (1200°F)	Z = Other

6. Sheath Material (See page 14 for other Materials)

4 = 304SS (1650°F)(Std) 0 = 310SS (2100°F)
6 = 316SS (1650°F) C = Copper (1000°F)
I = INCONEL (2150°F)
A = Alumina Insulator (3000°F)
P = Steatite (Porcelain) Insulators (1830°F)
L = Mullite Insulators (2640°F)

7. Sheath Diameter

I = .250 M = .375 Consult factory for other diameters

8. Extension Configuration "E"

H = Hex Nipple
P = Pipe Nipple
U = Hex Nipple/Union/Pipe Nipple
See page 41 section 9 for more Extension Configurations

9. Extension Material

S = Steel(Std) 4 = 304SS 6 = 316SS Z = Other

10. Extension Length "E" (Hex Nipple = .75 Inches)

11. Special Options (Choose all that apply)

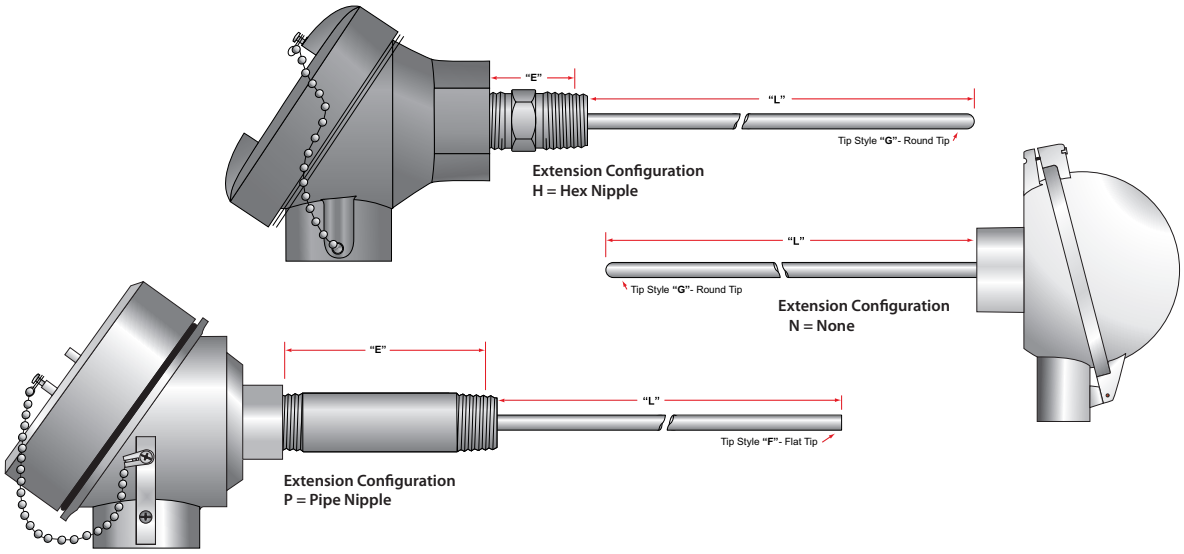
N = None (See page 17)
D = Universal Transmitter* (See Page 70)
E = Economy Multi-input Transmitter* (Page 71)
H = High Vibration
I = SS ID Tag
O = Separate Ungrounded Junctions
P = Electro-etching
Q = Ground Screw
S = Spring Loaded
Y = Certificate of Conformance
Z = Special (Consult Factory)
* Not available on all head styles

12. Thermowell Part number

Select a Thermowell from the Thermowell section (pages 61 - 65) and enter the part number here.

RTD's for Existing Thermowells

Style T – Connection Head Assembly For Wells and Protection Tubes



R T [1] - [2] [3] [4] [5] - [6] [7] [8] - **N** - [9] [10] [11] - [12]

1. Connection Head (See page 19 for other Heads)

A = Aluminum	D = Poly Black
B = Cast Iron	G = 316 Stainless Steel
C = Explosion Proof	H = FDA Poly - Chain
E = FDA Poly - Latch	V = Dan
Z = Other (Consult Factory for Specialty Heads)	

2. RTD Element Type

Material	Resistance	Temp. Coefficient
A = Platinum (Std)	100 ohms @ 0°C	.00385 ohm/ohm/°C
B = Platinum	100 ohms @ 0°C	.00392 ohm/ohm/°C
C = Platinum	500 ohms @ 0°C	.00385 ohm/ohm/°C
D = Platinum	1000 ohms @ 0°C	.00385 ohm/ohm/°C
F = Nickel	120 ohms @ 0°C	.00672 ohm/ohm/°C
G = Copper	10 ohms @ 25°C	.00427 ohm/ohm/°C
H = NiFe	604 ohms @ 0°C	.00519 ohm/ohm/°C

3. Tip Style / Element Accy. (See Diagram TS-RTD)

	.01%	.02%	.03%	.05%	.10%	.50%	1.00%
Flat Tip:	M	L	K	P	F (Std)	I	J
Round Tip:	H	E	D	A	G	B	C
Vented Tip:	Q	U	T	W	V	R	S

4. Configuration (See Diagram RTD) Z = Other

A = 2 Wire - Single Element	D = 4 Wire - Dual Element*
B = 3 Wire - Single Element (Std)	E = 6 Wire - Dual Element*
C = 4 Wire - Single Element	* Not available for all head styles

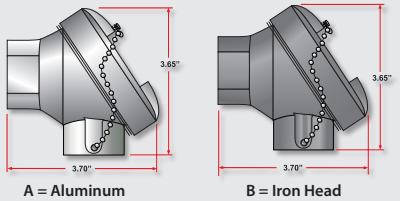
5. Sheath Operating Temperature

A = -200°C to 260°C (500°F)(Std)	C = -200°C to 600°C (1200°F)
B = -200°C to 400°C (750°F)	Z = Other

6. Sheath Material (See page 14 for other Materials)

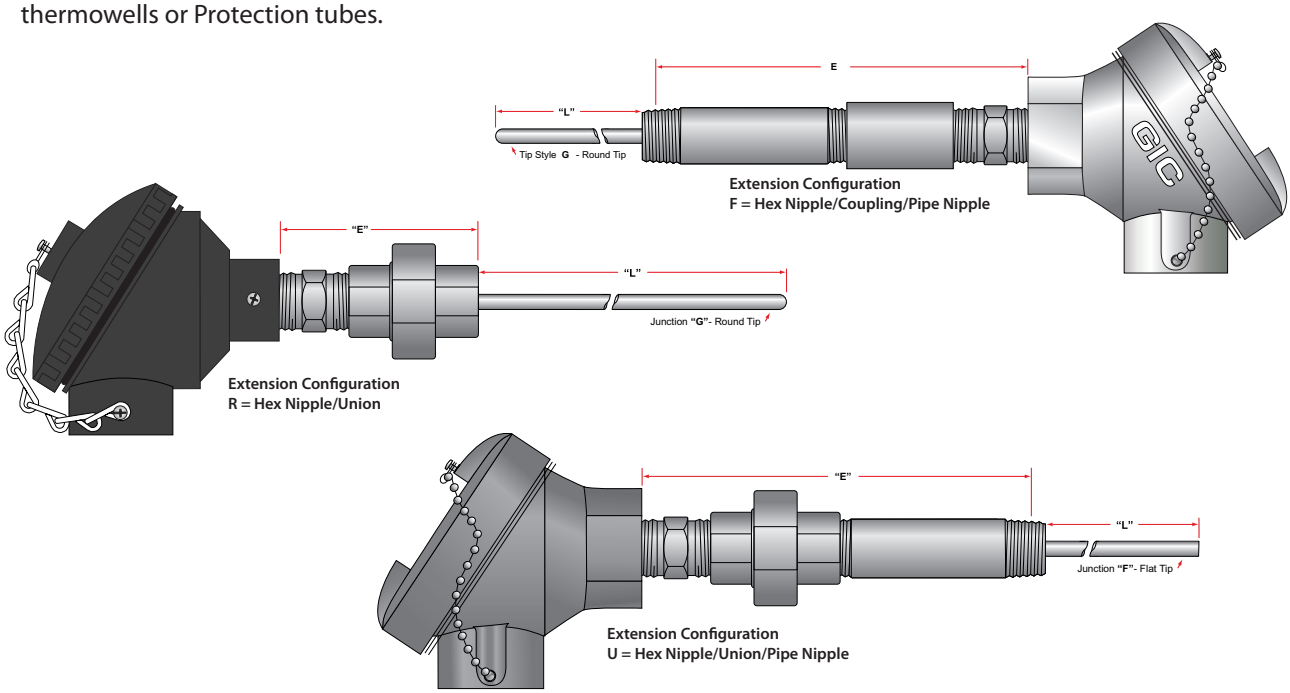
4 = 304SS (1650°F)(Std)	0 = 310SS (2100°F)
6 = 316SS (1650°F)	I = INCONEL (2150°F)

Connection Head Options



A = Aluminum B = Iron Head

Style T - RTD Thermowell Assemblies - Are 1/4" and 3/8" OD sensors meant to be used with existing .260" ID and .385" ID thermowells or Protection tubes.



12. Special Options (Choose all that apply - See Page 17 for more Options)

N = None
B = RTD Transmitter* (See page 71)
C = Programmable Transmitter* (See page 71)
H = High Vibration
I = SS ID Tag
M = MgO Construction
P = Electro-etching
Q = Ground Screw
S = Spring Loaded
Y = Certificate of Conformance
Z = Other (Consult Factory)

* Not available for all head styles

For more information Thermowell Assemblies go to:
www.GICThermodynamics.com

11. Extension Length "E" (Example 12.5 = 12-1/2 Inches)

10. Extension Material

S = Steel(Std) 4 = 304SS 6 = 316SS Z = Other

9. Extension configuration

N = None

H = Hex Nipple
R = Hex Nipple/Union
U = Hex Nipple/Union/Pipe Nipple
W = Hex Nipple/Union/Hex Nipple*
P = Pipe Nipple
S = Pipe Nipple/Union
T = Pipe Nipple/Union/Hex Nipple
V = Pipe Nipple/Union/Pipe Nipple*
C = Hex Nipple/Coupling
D = Pipe Nipple/Coupling
F = Hex Nipple/Coupling/Pipe Nipple
G = Pipe Nipple/Coupling/Hex Nipple

* (If this option is chosen then at least one of the pipe nipples lengths will have to be call out in the notes.)

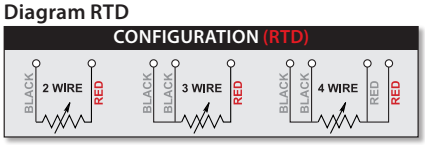
8. Sheath Length "L" (Example 012= 12 inches)

00 - 99.9 inches ZZ = greater than 99 inches - consult Factory

7. Sheath Diameter

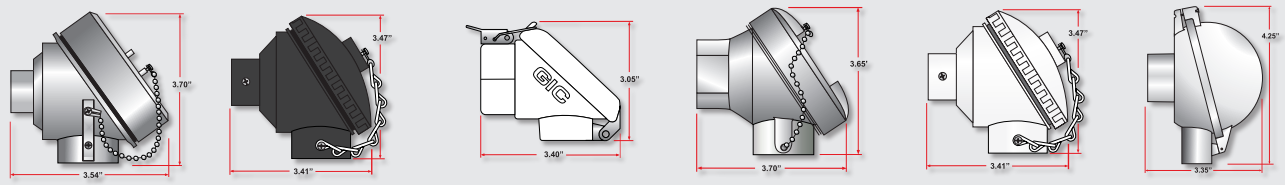
I = .250 M = .375 Z = Other

Diagram RTD



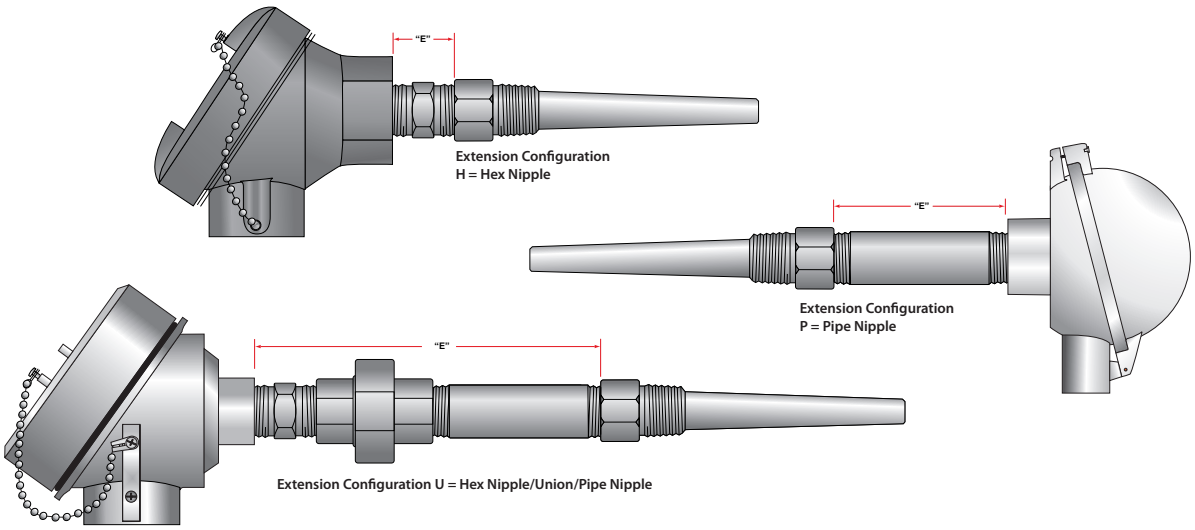
For more Connection Head options go to www.GICThermodynamics.com

Connection Head Options



C = Explosion Proof D = Poly Black E = FDA Poly - Latch G = 316 Stainless H = FDA Poly - Chain V = Dan Head

Style U – RTD Thermowell Assembly



RU [1] - [2][3][4][5] - [6][7] -N- [8][9][10] - [11] - [12] Thermowell Part Number

1. Connection Head (See page 19 for other Heads)

A = Aluminum	D = Poly Black
B = Cast Iron	G = 316 Stainless Steel
C = Explosion Proof	H = FDA Poly - Chain
E = FDA Poly - Latch	V = Dan
Z = Other (Consult Factory for Specialty Heads)	

2. RTD Element Type

Material	Resistance	Temp. Coefficient
A = Platinum (Std)	100 ohms @ 0°C	.00385 ohm/ohm/°C
B = Platinum	100 ohms @ 0°C	.00392 ohm/ohm/°C
C = Platinum	500 ohms @ 0°C	.00385 ohm/ohm/°C
D = Platinum	1000 ohms @ 0°C	.00385 ohm/ohm/°C
F = Nickel	120 ohms @ 0°C	.00672 ohm/ohm/°C
G = Copper	10 ohms @ 25°C	.00427 ohm/ohm/°C
H = NiFe	604 ohms @ 0°C	.00519 ohm/ohm/°C

3. Tip Style / Element Accy. (See Diagram TS-RTD)

	.01%	.02%	.03%	.05%	.10%	.50%	1.00%
Flat Tip:	M	L	K	P	F (Std)	I	J
Round Tip:	H	E	D	A	G	B	C

4. Configuration (See Diagram RTD)

A = 2 Wire - Single Element	D = 4 Wire - Dual Element*
B = 3 Wire - Single Element (Std)	E = 6 Wire - Dual Element*
C = 4 Wire - Single Element	* Not available for all head styles

5. Sheath Operating Temperature

A = -200°C to 260°C (500°F) (Std)	C = -200°C to 600°C (1200°F)
B = -200°C to 400°C (750°F)	Z = Other

6. Sheath Material (See page 14 for other Materials)

4 = 304SS (1650°F) (Std)	0 = 310SS (2100°F)
6 = 316SS (1650°F)	I = INCONEL (2150°F)

7. Sheath Diameter

I = .250 M = .375 Consult factory for other diameters

8. Extension configuration

H = Hex Nipple
P = Pipe Nipple
U = Hex Nipple/Union/Pipe Nipple

9. Extensions Material

S = Steel (Std) 4 = 304SS 6 = 316SS Z = Other

10. Extension Length "E" (Hex Nipple = .75 Inches)

11. Special Options (Choose all that apply)

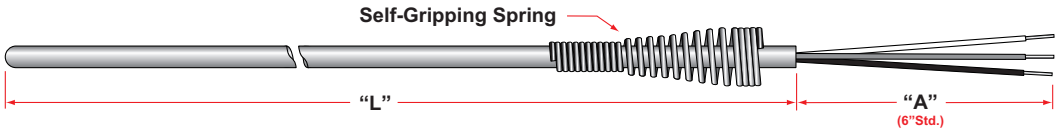
(See page 17)

N = None	
B = RTD Transmitter* (See page 71)	
C = Programmable Transmitter* (See page 71)	
H = High Vibration	
I = SS ID Tag	
M = MgO Construction	
P = Electro-etching	
Q = Ground Screw	
S = Spring Loaded	
Y = Certificate of Conformance	
Z = Special (Consult Factory)	* Not available on some head styles

12. Thermowell Part number

Select a Thermowell from the Thermowell section (pages 61 - 65) and enter the part number here.

Style C – Spring Loaded Replacement Thermowell Element



Spring Loaded Replacement Elements for **Style U**, **Style T,** and spring loaded **Style H** assemblies.

RCN- [1] [2] [3] [4] **-** [5] [6] [7] **-** [8] [9] [10] **-** [11] **NN-** [12]

1. RTD Element Type

Material	Resistance	Temp. Coefficient
A = Platinum (Std)	100 ohms @ 0°C	.00385 ohm/ohm/°C
B = Platinum	100 ohms @ 0°C	.00392 ohm/ohm/°C
C = Platinum	500 ohms @ 0°C	.00385 ohm/ohm/°C
D = Platinum	1000 ohms @ 0°C	.00385 ohm/ohm/°C
F = Nickel	120 ohms @ 0°C	.00672 ohm/ohm/°C
G = Copper	10 ohms @ 25°C	.00427 ohm/ohm/°C
H = NiFe	604 ohms @ 0°C	.00519 ohm/ohm/°C

2. Tip Style / Element Accy.

	.01%	.03%	.10%	1.00%
Flat Tip:	M	K	F	J
Round Tip:	H	D	G (Std)	C

3. Configuration (See Diagram RTD)

A = 2 Wire - Single Element
B = 3 Wire - Single Element (Std)
C = 4 Wire - Single Element

4. Sheath Operating Temperature

A = -200°C to 260°C (500°F)(Std)
B = -200°C to 400°C (750°F)
C = -200°C to 600°C (1200°F)
Z = Other

5. Sheath Material (See page 14 for other Materials)

4 = 304SS (1650°F) 6 = 316SS (1650°F) I = INCONEL

6. Sheath Diameter

H = .188 I = .250 (Std) M = .375

7. Sheath Length "L" (Example 12.5 = 12-1/2 inches)

1.75 - 99 inches Z = greater than 99 inches (Consult factory)

8. Leadwire Construction Z = Other

Stranded wire	Standard	Overbraid
Fiberglass (900°F)	C	H
Teflon® (400°F)	D (Std)	I
Kapton® (700°F)	Q	R

9. Leadwire Gauge

A = 26 gauge B = 24 gauge (Std) C = 20 gauge

10. Leadwire Length "A" (Example 12.5 = 12-1/2 inches)

11. Leadwire Terminations: (See page 14)

N = No Split/ No Strip (Std)
T = Split Leads (std = 2" split/3/8" strip)
U = Spade Lugs (std = 2" split)
V = Ring Lugs (std = 2" split)
W = 1/4 Push-on (std = 2" split)
Z = Special

12. Special Options (Choose all that apply)

(See page 17)

N = None
H = High Vibration
M = MgO Construction
Y = Certificate of Conformance
Z = Special (Consult Factory)

TEXT