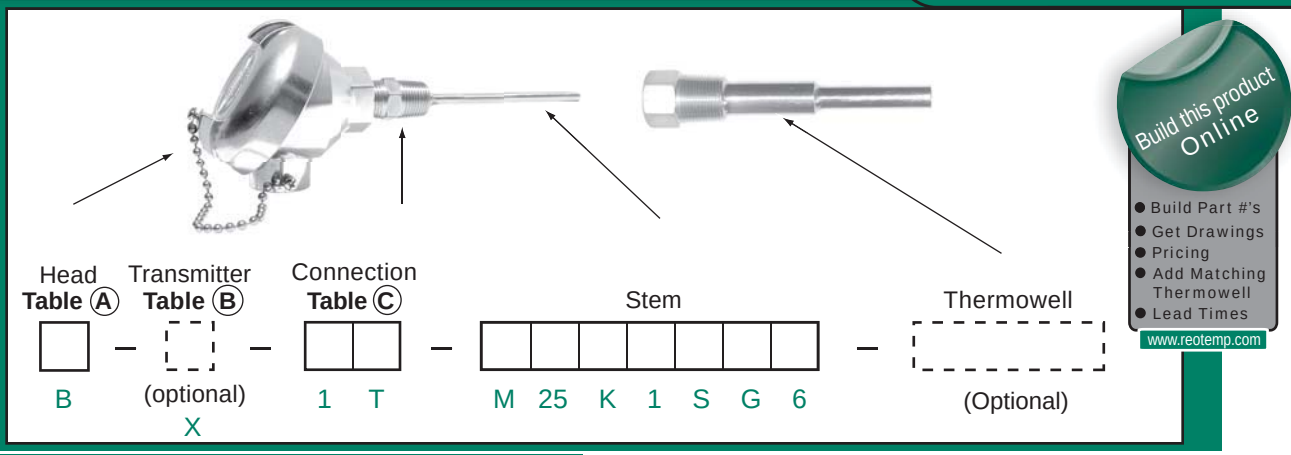
REOTEMP INSTRUMENTS

Head Assemblies – (Head & Connection)



Head Table Ⓐ	Transmitter Table Ⓑ	Connection Table Ⓒ	Stem							Thermowell
B	(optional) X	1	T	M	25	K	1	S	G	6	(Optional)

Build this product Online

- Build Part #'s
- Get Drawings
- Pricing
- Add Matching Thermowell
- Lead Times

www.reotemp.com

Table Ⓐ - Heads

TYPE B

Universal Cast Aluminum

TYPE A

Universal Cast Iron

TYPE G

316SS

TYPE H

Aluminum Flip-Top

TYPE I

Epoxy Coated Aluminum

TYPE Y

316SS with Window

TYPE E

Explosion Proof, Aluminum

TYPE T

ATEX Explosion Proof, Aluminum

TYPE J

Explosion Proof 316SS

TYPE Z

(use with digital display)
Explosion Proof, Window

TYPE S

Poly Plastic (white)

TYPE C

Poly Plastic (Black)

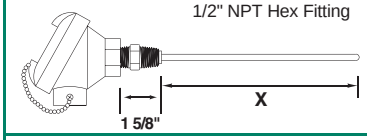
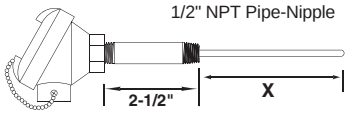
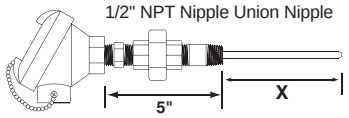
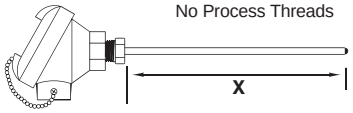
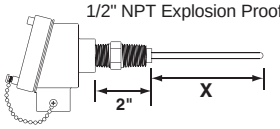
Note: Add'l heads on price list.

Table Ⓑ - Transmitters - (optional)

In Head Standard	In Head with Digital Display (with window head Z)
X = 4-20mA 2-wire trans. **R** = 4-20mA 2-wire Hart trans. **F** = 4-20mA 2-wire Foundation Fieldbus **P** = 4-20mA 2-wire Profibus	**B** = 4-20mA 2-wire trans. **Y** = 4-20mA 2-wire Hart trans.

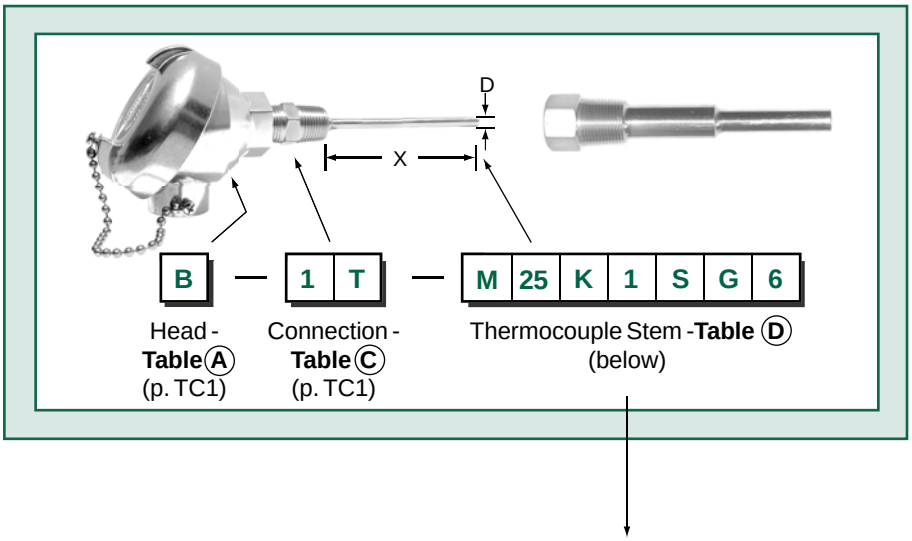
Table Ⓒ - Threaded Connections

Use spring loaded connection with thermowells. Use welded connection when stem goes directly into the process medium.

	Std 316 SS Fittings	
	Spring Loaded	Welded
1/2" NPT Hex Fitting 	1T	1F
1/2" NPT Pipe-Nipple 	2T	---
1/2" NPT Nipple Union Nipple 	4T	---
No Process Threads 	---	6F
1/2" NPT Explosion Proof Hex 	7T	---

Note: Add'l connections on price list.

Head Assemblies - (Stem)



Build this product Online

- Build Part #'s
- Get Drawings
- Pricing
- Add Matching Thermowell
- Lead Times

www.reotemp.com

TABLE D Thermocouple Stems

STEP 1

Metal Sheathed Thermocouple Assembly - Insert "**M**"

STEP 2 - Sheath Diameter (D)

Insert 2 digit number designated below

06 = .062in. (1/16") **12** = .125in. (1/8") **18** = .188in (3/16") **25** = .250in. (1/4") **37** = .375in. (3/8") **50** = .500in. (1/2")

STEP 3 - ANSI Type Thermocouple

Insert designation below.

K = Chromel Alumel **T** = Copper Constantan

J = Iron Constantan **E** = Chromel Constantan

For Special Limits of Error- Add "S" to code above (eg., KS, JS, TS, ES).

STEP 4 - Type of Sheath Material

Insert single-digit number designated below

1 = 316 SS **3** = 304 SS

2 = 310 SS **5** = Inconel 600

STEP 5 - Number of Element

S = Single element assembly

D = Dual element assembly

STEP 6 - Type of Junction

Elements: **G** = Grounded **E** = Exposed

U = Ungrounded **UU** = Ungrounded, Uncommon

STEP 7 - Probe Length (X) in inches

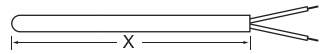
Stem length measured from bottom of threads to stem tip.

M						

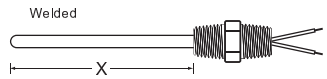
REOTEMP INSTRUMENTS

Stem Only Assemblies

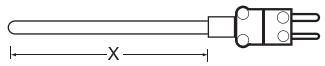
Table Ⓐ TC Styles



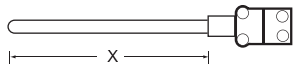
A = Plain stem (choose this for all lead assemblies) — **A**



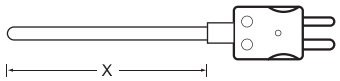
B = Welded SS bushing — **B**



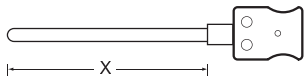
C = Male mini plug — **C**



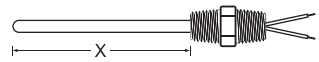
D = Female mini jack — **D**



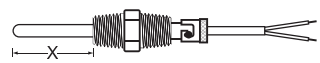
F = Male standard plug — **F**



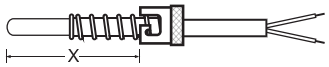
G = Female standard jack — **G**



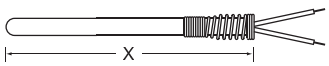
H = Spring loaded bushing — **H**



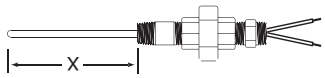
P = 1/2" NPT Nipple w/ Bayonet — **P**



R = Bayo Cap w/ spring — **R**



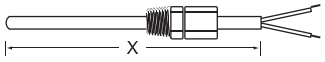
S = Load Spring only — **S**



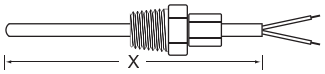
4T= 5" nominal sprg. load N-U-N 316SS — **4T**

Table Ⓐ-2 Stem Options Styles

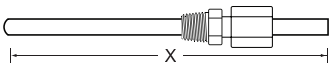
Stem Options:



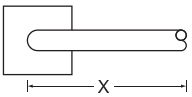
T = 1/4" NPT Compression fitting, loose on stem (316SS) — **T**



U = 1/2" NPT Compression fitting, loose on stem (316SS) — **U**



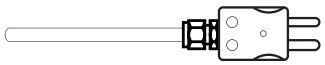
V = 1/8" compression fitting — **V**



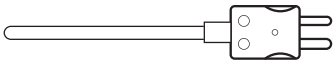
W = Weld Pad — **W**

Plug Options:

MC = Mating connection for plug or jack — **MC**



BR = Compression bracket for plug — **BR**



HT = High temperature plug — **HT**

THERMOCOUPLES

STEP 1 - Style
Choose Thermocouple style from table Ⓐ

(Optional) STEP 2 - Stem Options
Choose Stem Options from Table Ⓐ-2

STEP 3
Metal Sheathed thermocouple Assembly - insert "M"

STEP 4 - Sheath Diameter
Insert 2 digit number designated below
06 = .062in. 12 = .125in. 18 = .188in 25 = .250 in. 37 = .375in. 50 = .500in.

STEP 5 - ANSI Type Thermocouple
Insert designation below (Add "S" for special limits Ex. KS)
K = Chromel Alumel T = Copper Constantan
J = Iron Constantan E = Chromel Constantan

STEP 6 - Type of Sheath Material
Insert single-digit number designated below
1 = 316 SS 3 = 304 SS
2 = 310 SS 5 = Inconel 600

STEP 7 - Number of Element
S = Single element assembly D = Dual element assembly

STEP 8 - Type of Junction
Elements: G = Grounded E = Exposed
U = Ungrounded UU = Ungrounded, Uncommon

STEP 9 - Probe Length (X)
See "X" dimensions in table Ⓐ. Specify in inches.

STEP 10 - Lead Wire
If leadwire, leadwire part # (p. TC6) Ex. LJ2P36F1F

		M							

Note: more styles on price list

REOTEMP INSTRUMENTS

Lead Wire Configuration

Plain Leadwires (Most are supplied without a transition)

1	2	3	4
L	36	T2	S

T/C stem Part # see p. TC5

Lead Wire "L"

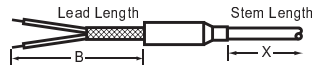
Lead Length
Insert "B" Length, Inches
eg. 3 feet=36

6. Insulation/Conductor
- **T1=** Teflon, solid
- **F1=** Fiberglass, solid
- **T2=** Teflon, stranded
- **F2=** Fiberglass, stranded (J&K only)
- **P1=** PVC, solid (J&K only)

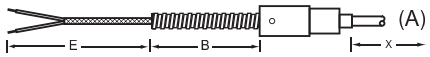
7. Wire Termination
- **S=** Stripped leads
- **L=** Spade lugs
- **T=** Terminal pins
- **M=** Copper Crimp Pins

Other Leadwires (These require a transition)

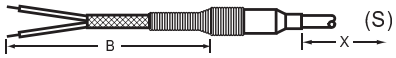
Transitions - TableⒶ



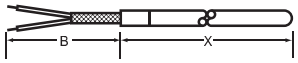
(P) Standard Transition Fitting



(A) Armor Transition Fitting

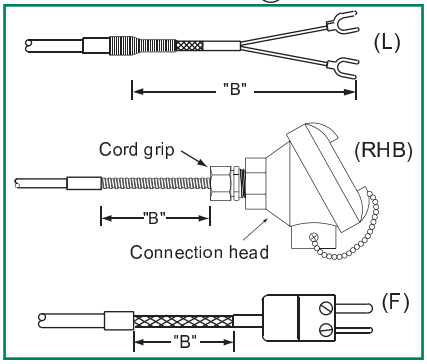


(S) Spring Transition Fitting



(L) Same Size Transition Fitting

Terminations - TableⒷ



Example: APX125116X - **L6LJ2P36F1F**

1	2	3	4	5	6	7	8	9
L	J	2	P	36	T1	F		

T/C stem Part # see p.TC5

1. Lead Wire "L"

2. Type of Wire
- TC,Type J = **J**
- TC,Type K = **K**
- TC,Type E = **E**
- TC,Type T = **T**

3. Number of Leads
- Single T/C = **2**
- Duplex T/C = **4**
- Triplex T/C = **6**

4. Transition Type (Table Ⓐ)
- Std, Plain = **P**
- Std, with spring = **S**
- Armor = **A**
- Same size = **L**

5. Lead Length or Armor Length
Insert "B" Length, Inches
eg. 3 feet=36

6. Insulation/Conductor
- **T1=** Teflon, solid
- **F1=** Fiberglass, solid
- **T2=** Teflon, stranded
- **F2=** Fiberglass, stranded (J&K only)
- **P1=** PVC, solid (J&K only)

7. Wire Termination (Table Ⓑ)
- **P=** Plain leads- not stripped
- **S=** Stripped leads
- **L=** Spade lugs
- **T=** Terminal pins
- **F=** Std. Male plug
- **C=** Mini Male Plug
- **R=** Cord grip 1/2" NPT
- **RH__=** Cord grip with connection head (*Specify head code from table Ⓐ, p.TC1 e.g. RHB)*

For mating connection - add MC= (i.e.,C-MC, F-MC)

8. Wire Protection (optional)
- **A=** SS armor
- **P=** PVC coated ss armor
- **T=** Teflon coated ss armor
- **O=** SS overbraid

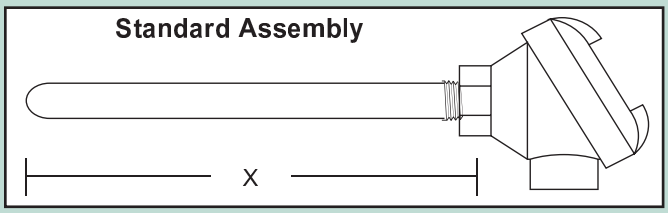
(omit if no armor)

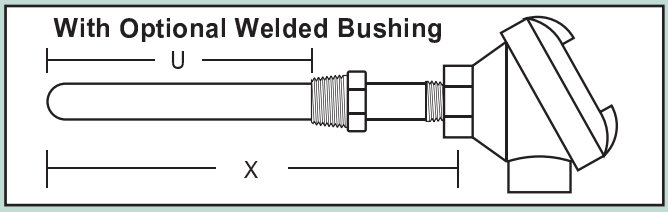
9. Wire Extension (optional)
"E" Length
Wire Extension
beyond armor inches
(omit if no armor)

Build this product Online
www.reotemp.com

REOTEMP INSTRUMENTS

Metal Tube Assemblies





Metal Tube Assembly **MTA** — | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| A | KK | 20R | C5 | 12 | |

1. Head Type \ Connection

A = Cast Iron
B = Cast Aluminum

2. Sensor Type

Single	Dual
K	KK
J	JJ
N	NN

3. Wire Gauge / Insulator

AWG
20
14
8
R = round
C = oval

4. Tube Material / NPT Size

Material
S = 316SS
F = 304SS
C = Carbon Steel
I = Inconel 600
Pipe Size (NPT)
2 = 1/4"
5 = 1/2"
7 = 3/4"
1 =1"

5. Tube Length (X)

12 = 12"
18 = 18"
24 = 24"
30 = 30"
36 = 36"
Other - Specify

6. Options

Process Connection

W = Welded Bushing (Specify NPT & insertion length "U")

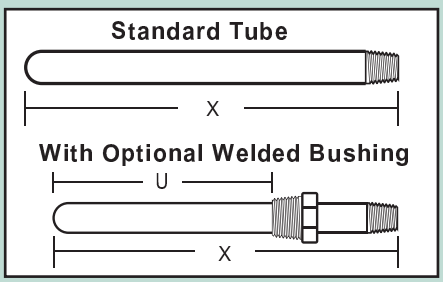
N = Union Nipple (Specify Extension length)

F = Malleable Iron flange

Metal Protection Tube Only

MTO — **C5** — **12** —

Tube Material / Size | Tube Length (X) | Options



Tube Material
S = 316SS
F = 304SS
C = Carbon Steel
I = Inconnel 600
Pipe Size (NPT)
2 = 1/4"
5 = 1/2"
7 = 3/4"
1 =1"

12 = 12"
18 = 18"
24 = 24"
30 = 30"
36 = 36"
Other - Specify

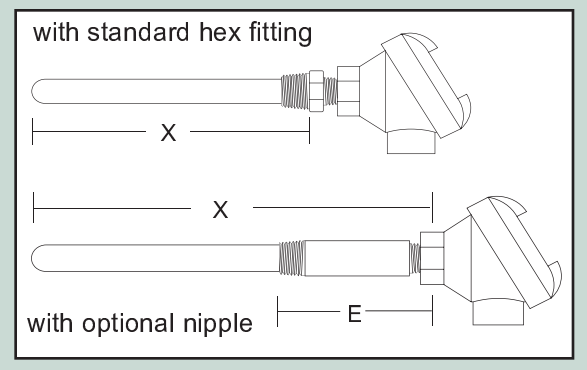
Process Connection

W = Welded Bushing (Specify NPT & insertion length "U")

N = Union Nipple (Specify Extension length)

F = Malleable Iron flange

Ceramic Tube Assemblies



Ceramic Tube Thermocouple Assemblies

- For High temperature process heating applications
- Alumina (max 3400 °F) or Mullite (max 2700 °F)
- Base metal or Noble metal thermocouples
- Applications: Kilns, Furnaces, Gas Heaters, Incinerators, Heat Treating, Smelting, Foundry

Complete Assemblies (Tube, Element, Head)

Ceramic Tube Assemblies	Head Type Connection	Sensor Type	Wire Gauge	Tube Material/ Length	Tube OD/Hex Fitting Process NPT	Options
CTA	A	KK	20	M18	B	

Head Type Connection
- A = Cast Iron
- B = Cast Aluminum

Sensor Type

Single	Dual
Base Metal	
K	KK
J	JJ
Noble Metal	
R	RR
S	SS
B	BB

*Call for Noble Metals

Wire Gauge

WG
Base
20
14
8
Noble
24

Tube Material/ Length

Material
- A = Alumina (to 3400F)
- M = Mullite (to 2700F)

Length (x)
- 12 = 12 Inches
- 18 = 18 Inches
- 24 = 24 Inches
- 30 = 30 Inches
- 36 = 36 Inches
- *other - specify*

Tube OD/Hex Fitting Process NPT
- A = 3/8"OD x 1/2"NPT
- B = 11/16"OD x 3/4"NPT
- C = 1"OD x 1 1/4"NPT
- D = 11/16" OD x 1" NPT
- E = 11/16" OD x 1 1/4" NPT
- F = 1/2" OD x 1/2" NPT
- G = 3/4" OD x 3/4" NPT
- H = 3/4" OD x 1" NPT

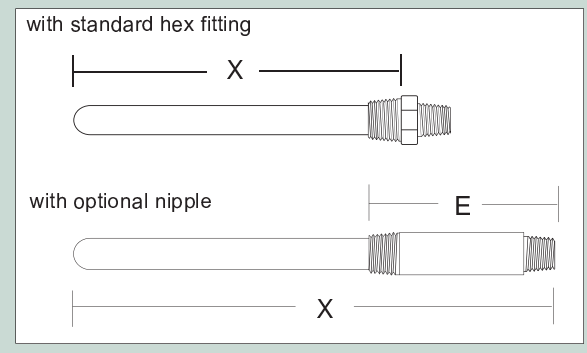
Options

Process Connection
(Std. = Steel Hex Ftg.)
- N __= Pipe Nipple (specify length "E")
- F = Malleable Iron Flange
- S = Stainless Fitting

Hot Junction Styles
(Std. = plain)
- I = Insulated

Insulator Styles
(Std. = round ceramic)
- C = Oval Ceramic
- Q = Other (specify)

Noble Metal (platinum) thermocouples are widely relied upon for their accuracy, durability and reliability in very high temperature (up to 3100°F) applications in both laboratory and industry.



Ceramic Tubes Only (No Element or Head)

Replacement Elements see p. TC13 →

Ceramic Tube-Tube Only	Tube Material Length	Tube OD/Hex Fitting Process NPT	Options
CTO	M18	B	

Tube Material Length

Material
- A = Alumina
- M = Mullite

Length (x)
- 12 = 12 Inches
- 18 = 18 Inches
- 24 = 24 Inches
- 30 = 30 Inches
- 36 = 36 Inches
- *other - specify*

Tube OD/Hex Fitting Process NPT
- A = 3/8"OD x 1/2"NPT
- B = 11/16"OD x 3/4"NPT
- C = 1"OD x 1 1/4"NPT
- D = 11/16" OD x 1" NPT
- E = 11/16" OD x 1 1/4" NPT
- F = 1/2" OD x 1/2" NPT
- G = 3/4" OD x 3/4" NPT
- H = 3/4" OD x 1" NPT

Options

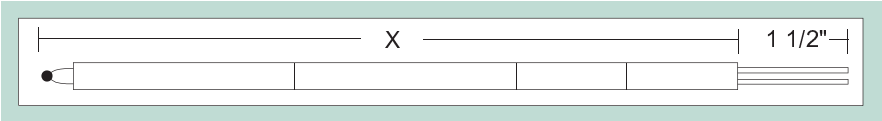
Process Connection
(Std. = Steel Hex Ftg.)
- N __= Pipe Nipple (specify length "E")
- F = Malleable Iron Flange
- S = Stainless Fitting

REOTEMP INSTRUMENTS

Replacement Elements

For Use in REOTEMP Protection Tubes, or in other manufacturers' protection tubes.

Base Metal Thermocouples



Element	Type	Wire Gauge	Insulator	Length (x)	Hot Junction Style	Lead Length
RE	K	20	R	12	P	1.5

Type
- single: K, J, N
- duplex: KK, JJ

Wire Gauge
- 20 AWG
- 18
- 14
- 11
- 8

Insulator
- B = Bare (no insulator)
- C = Oval Ceramic

Wire gauge	Dimensions
8	.500 x .286
11	.375 x .218
14, 18	.313 x .288

- R = Round Ceramic

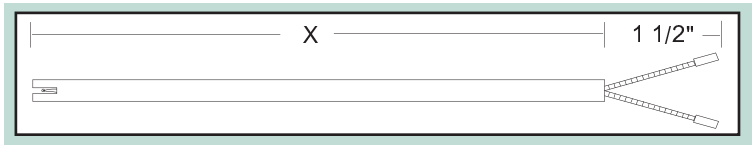
Wire gauge	OD Single	OD Duplex
8, 11	.465	.500
14, 18	.250	.320
20	.150	.188

Length (x)
- 12 = 12"
- 18 = 18"
- 24 = 24"
- Other, specify

Hot Junction Style
- P = Plain
- I = Insulated

Lead Length
- 1.5 = 1.5" (std.)
- 4 = 4"
- etc.

Noble Metal Thermocouples



Element	1	2	3	4	5	6
RE	R	24	R	12	R	F1.5

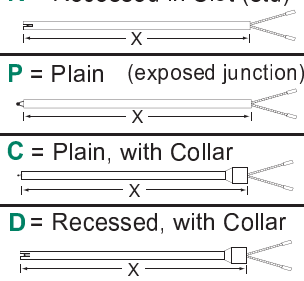
1. Type
- R = Pt - PT/13% Rh
- S = Pt - Pt/10%Rh
- B = Pt/6%Rh - Pt/30%Rh
- RR = Duplex R
- SS = Duplex S
- BB = Duplex B

2. Wire Gauge
- 24 AWG
- 26

3. Insulator
- R = Round Alumina (std.) (.188" o.d.)
- B = Bare (no insulator)

4. Length (x)
- 12 = 12"
- 18 = 18"
- 24 = 24"
- Other, specify

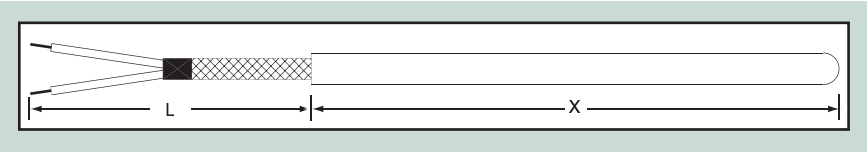
5. Hot Junction Style
- R = Recessed in Slot (std)
- P = Plain (exposed junction)
- C = Plain, with Collar
- D = Recessed, with Collar



6. Leads
- F1.5 = 1.5" Long with fish spine insulators and copper crimp (std)
- F4 = 4"
- etc.

REOTEMP INSTRUMENTS

Cut-to-length Sensors



- For on-the-spot replacements
- Order your max length and keep on shelf
- Simply cut shorter for your other lengths
- Use standard tube cutter. Minimum length 3".
- Spring loaded bushing kits, heads, terminal blocks available (see p. 19)

THERMOCOUPLES

Std Element: 18" long, 1/4" dia., 304 S.S., single, grounded. 900°F max fiberglass wire, 400°F max teflon wire.

Sensor Type	TC Type	Grounded	Element Length (X) in Inches	Alloy	Lead Length (L)	Options
T3	J	G	18	F	L6	(T1)

T3 = Thermocouple

TC Type

Single (std)
- J
- K
- E
- T

Duplex
- JJ
- KK
- EE
- TT

Grounded
- G = Grounded
- U = Ungrounded

Element Length (X) in Inches
- 18 = 18" (std.)
- 24 = 24"
- 36 = 36"

Alloy
- F = 304SS (std.)
- S = 316SS

Lead Length (L)
- L6 = 6" (std.)
- L12 = 12"

Options

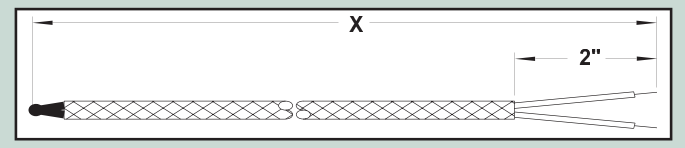
Wire/Insulation (if not std. solid fiberglass)
- F2 = Stranded, Fiberglass
- T1 = Solid, Teflon
- T2 = Stranded, Teflon

Stem Dia. (if not std. 1/4")
- D18 = .188" (3/16")
- D37 = .375" (3/8")

Wire Gauge (if not 20 AWG)
- G4 = 24 gauge

REOTEMP INSTRUMENTS

Plain Wire- with Beaded Junction



Wire Thermocouple

1	2	3	4	5	6
W — K	60	F1	20	S	

1. Thermocouple Type

Standard Wire	Special limits of error
J	JS
K	KS
T	
E	

2. Wire Length "L"

Insert length in inches

3. Insulation Type (inner/outer)

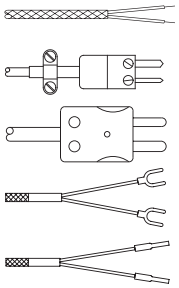
Code	Insulation	Max Temp
Solid Wire		
F1	Fiberglass	900 °F
T1	Teflon	400 °F
Stranded Wire (J, K only)		
F2	Fiberglass	900 °F
T2	Teflon	400 °F

4. Wire gauge

20 = 20 gauge
24 = 24 gauge

5. Wire Termination

S = Stripped Leads
C = Mini Male Plug
F = Std. Male Plug
L = Spade Lugs
T = Terminal Pins



6. Options

Wire Protection

A = S.S. Armor
P = PVC coated S.S. Armor
T = Teflon coated S.S. Armor
O = S.S. Overbraid (omit if no armor)

Tip

W ( )= Washer welded to tip for surface mount with screw. Put screw size in parentheses. Ex: W (1/4")

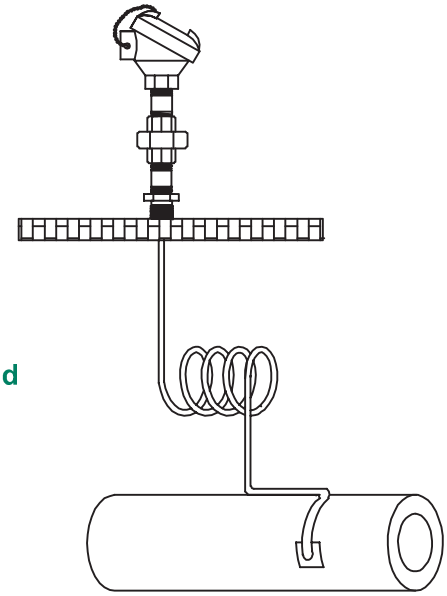
REOTEMP INSTRUMENTS

Weld Pad (Tube Skin) Thermocouples

REO*TEMP* manufactures a full line of standard and custom weld pad thermocouples. The weld-pad (tube skin) termination allows a temperature sensor to be welded directly onto piping or other metal surfaces to sense the surface temperature.

Std. Flat Pad

Knife Edge



Applications/Markets:

- Fired Heater Tubes
- Steam Super Heaters, Cokers, Re-Heaters & Drums
- Boilers & Furnaces in Refineries, Power Plants & Processors
- Industrial Boilers & Heat Exchangers
- Vessel Surfaces

Features/Benefits:

- Variety of Junction Materials, Stem Lengths, & More
- Custom Designs
- Made in U.S.A

The REO*TEMP* Difference...

- Custom designs

Your Product Here
Call us, we're here to help.

- Application assistance
- Exceptional customer service

Fired Heater Tubes

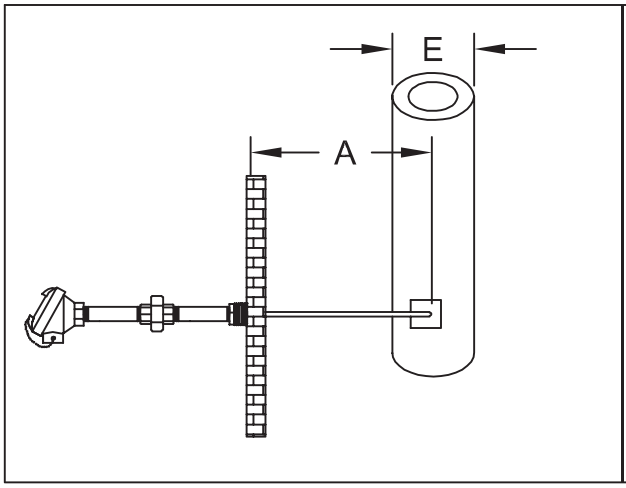
Gas Burner in Fire Box

Part builder on back ➔

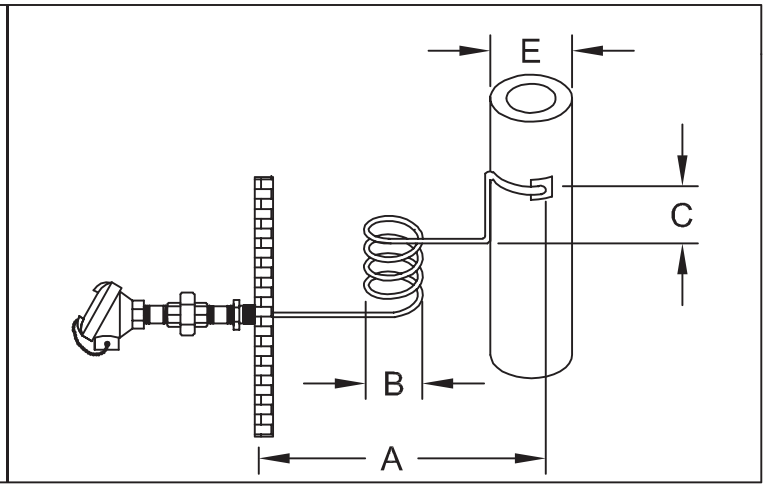
REOTEMP INSTRUMENTS

Weld Pad (Tube Skin) Thermocouples

Basic Weld Pad Configuration



Weld Pad Configuration with Options



Thermocouple P/N# (ex. B1TM25K1ASG)

1	2	3	4	5		6	7	8	9	10
10	1	06	90	10	—	90	4	F	S	1

Contact Factory for Pricing

1. Stem Length "A" Dim. in inches

- 10 = 10 in.
- 15 = 15 in.
- 20 = 18 in.
- 25 = 24 in.
- 30 = 30 in.
- 35 = 36 in.
- Other - specify

2. Number of expan. loops "B"

- 1 = 1 exp. loop
- 2 = 2 exp. loops
- 3 = 3 exp. loops
- 4 = 4 exp. loops
- 5 = 5 exp. loops
- Other - specify
- N = None

3. Expansion loop "B" diameter in inches

- 06 = 6 in.
- 08 = 8 in.
- 10 = 10 in.
- 12 = 12 in.
- 14 = 14 in.
- 16 = 16 in.
- 18 = 18 in.
- 20 = 20 in.
- Other - specify
- N = None

4. Bend "C" angle in degrees (45°,90°, etc)

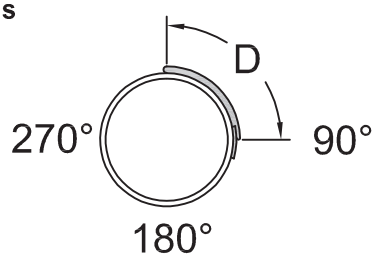
Specify your degrees needed. Put "N" for none.

5. Bend "C" length in inches

- 10 = 10 in.
- 15 = 15 in.
- 20 = 20 in.
- 25 = 25 in.
- Other - specify
- N = None

6. Pipe Wrap-around angle "D"in degrees

Specify your degrees needed. Put "N" for none. (ex. 90° or 180°)

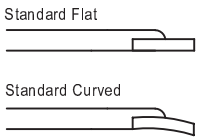


7. "E" pipe size (nominal) inch diameter

Specify your diameter needed. Put "N" for none.

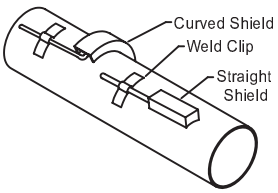
8. Weld pad style

- F = Std. Flat
- C = Std. curved



9. Insulated heat shield

- S = Straight
- C = Curved
- N = None

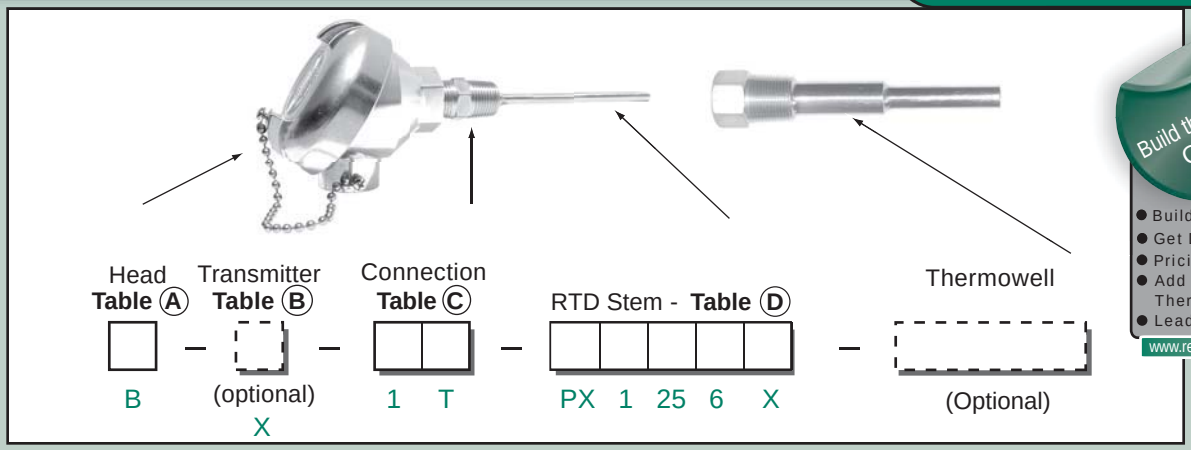


10. Weld clip amount

- 1 = 1
- 2 = 2
- 3 = 3
- 4 = 4
- Other - specify
- N = None

REOTEMP INSTRUMENTS

Head Assemblies - (Head & Connection)



Build this product Online

- Build Part #'s
- Get Drawings
- Pricing
- Add Matching Thermowell
- Lead Times

www.reotemp.com

Table Ⓐ - Connection Heads

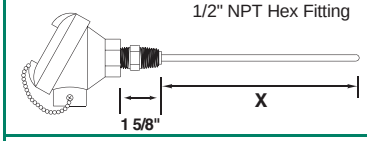
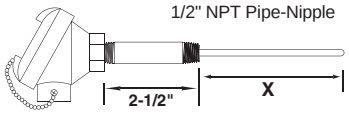
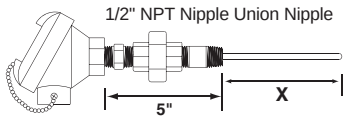
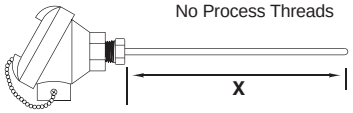
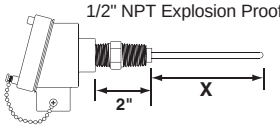
TYPE B  Universal Cast Aluminum	TYPE A  Universal Cast Iron
TYPE G  316SS	TYPE H  Aluminum Flip-Top
TYPE I  Epoxy Coated Aluminum	TYPE Y  316SS with Window
TYPE E  Explosion Proof, Aluminum	TYPE T  ATEX Explosion Proof, Aluminum
TYPE J  Explosion Proof 316SS	TYPE Z  (use with digital display) Explosion Proof, Window
TYPE S  Poly Plastic (white)	TYPE C  Poly Plastic (Black)

Note: Add'l heads on price list.

Table Ⓑ - Transmitters - (optional)

In Head Standard	In Head with Digital Display (with window head Z)
X = 4-20mA 2-wire trans. R = 4-20mA 2-wire Hart trans. F = 4-20mA 2-wire Foundation Fieldbus P = 4-20mA 2-wire Foundation Profibus	B = 4-20mA 2-wire trans. Y = 4-20mA 2-wire Hart trans.

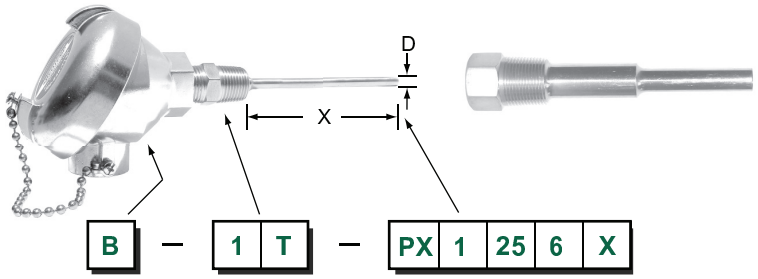
Table Ⓒ - Threaded Connections

Use spring loaded connection with thermowells. Use welded connection when stem goes directly into the process medium.	Std 316 SS Fittings	
	Spring Loaded	Welded
	1T	1F
	2T	---
	4T	---
	---	6F
	7T	---

Note: Add'l connections on price list.

Head Assemblies – (Stem)

RTDs (Resistance Temperature Detectors)



B	–	1	T	–	PX	1	25	6	X
Head - **Table Ⓐ** (p. RTD1)		Connection - **Table Ⓒ** (p. RTD1)			RTD stem - **Table Ⓓ** (below)				

TABLE Ⓓ RTD Stems

STEP 1 - RTD Sensor

Insert sensor code below	Code	Material/Class	Ω @ 0°C	Acc
(Std) Din B Pt 100	***PX (std)**	**Pt/385/B**	**100 Ω**	**0.12%**
Pt 100 with Other Accuracies	**PD**	Pt/385/A3	100 Ω	0.03%
	***PA**	Pt/385/Cl A	100 Ω	0.06%
	***PE**	Pt/385/A5	100 Ω	0.01%
Other RTDs	**PK**	Pt/385/B	1000 Ω	0.12%
	PM	Pt/385/B	500 Ω	0.12%
	***PY**	Pt/392	100 Ω	0.10%
	NI	Nickel/6725	120 Ω	0.50%
	CU	Copper/421	10Ω(@25°C)	0.50%

*Available in standard or extended ranges.

STEP 2 - Temperature Range

Insert single-digit number designated below.

1 Std. range -60°F / 600°F

2 (Extended range) -328°F / 1100°F (only available on sensors with asterisk *)

STEP 3 - Sheath Diameter

Insert two-digit number designated below

25 = .250 dia. **12** = .125 dia. **18** = .188 dia. **37** = .375 dia.

STEP 4 - Determine the required length "X" in inches

Stem length measured from bottom of threads to stem tip.

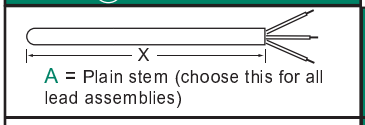
STEP 5 - Number of Leads/RTD's

Single RTD	Leads/RTD	Duplex RTD
X	3-wire	**XX**
Y	4-wire	**YY**

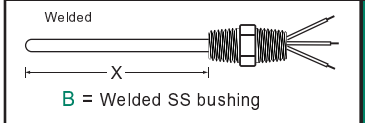
REOTEMP INSTRUMENTS

Stem Only Assemblies

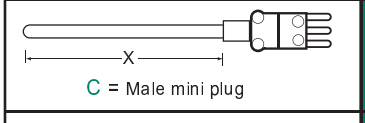
Table Ⓐ RTD Styles



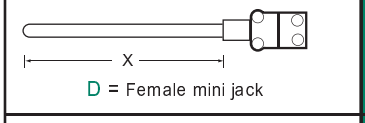
A = Plain stem (choose this for all lead assemblies) — **A**



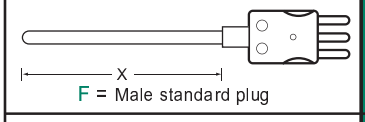
B = Welded SS bushing — **B**



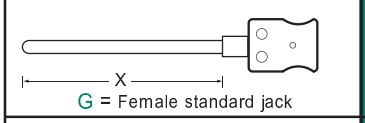
C = Male mini plug — **C**



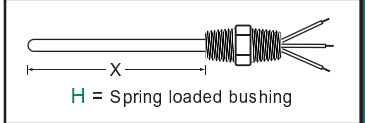
D = Female mini jack — **D**



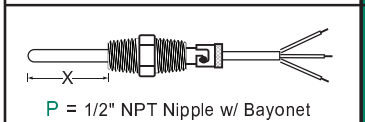
F = Male standard plug — **F**



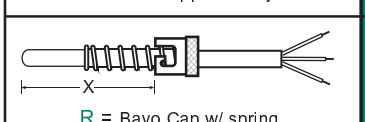
G = Female standard jack — **G**



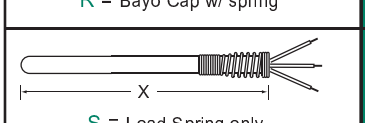
H = Spring loaded bushing — **H**



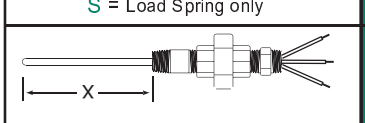
P = 1/2" NPT Nipple w/ Bayonet — **P**



R = Bayo Cap w/ spring — **R**



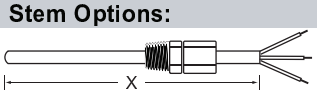
S = Load Spring only — **S**



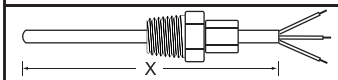
4T = 5" nominal sprg. load N-U-N 316SS — **4T**

Table Ⓐ-2 Stem Options Styles

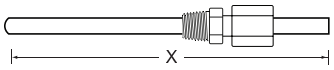
Stem Options:



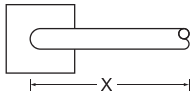
T = 1/4" NPT Compression fitting, loose on stem (316SS) — **T**



U = 1/2" NPT Compression fitting, loose on stem (316SS) — **U**



V = 1/8" compression fitting — **V**



W = Weld Pad — **W**

Plug Options:

MC = Mating Connection for plug or jack — **MC**

BR = Compression bracket for plug — **BR**

RTD

STEP 1 - RTD Style

Choose RTD Style from Table Ⓐ

(Optional) STEP 2 - Stem Options

Choose Stem Options from Table Ⓐ-2

STEP 3 - RTD Sensor

Insert sensor code below.

	Code	Material/Class	Ω@ 0°C	Acc
(Std) Din B Pt 100	***PX**(std)	**Pt/385/B**	**100**	**0.12%**
Pt 100 with Other Accuracies	**PD**	Pt/385/ A3	100Ω	.03%
	***PA**	Pt/385/Cl A	100Ω	0.06%
	***PE**	Pt/385/A5	100Ω	0.01%
Other RTD's	**PK**	Pt/385/B	1000 Ω	0.12%
	PM	Pt/385/B	500 Ω	0.12%
	***PY**	Pt/392	100Ω	0.1%
	NI	Nickel/6725	120Ω	0.5%
	CU	Copper/421	10Ω (@25°C)	0.5%

*Available in standard or extended range.

STEP 4 - Temperature Range

Insert single-digit number designated below

1 Std. range -60°F / 600°F

2 Extended range -328°F / 1100°F (Only available on sensors with asterisk *)

STEP 5 - Sheath Diameter

Insert two-digit number designated below

25 = .250 dia. **12** = .125 dia. **18** = .188 dia. **37** = .375 dia.

STEP 6 - Probe Length (X)

See "X" dimensions in table Ⓐ

STEP 7 - Number of Leads/RTD's

Single RTD	Leads/RTD	Duplex RTD
X	3-wire	**XX**
Y	4-wire	**YY**

STEP 8 - Lead Wire

If leadwire, add lead wire part # (p. RTD6)
Ex. LR2P36T1S

REOTEMP INSTRUMENTS

Lead Wire Configuration

Plain Leadwires (These are supplied without a transition)

1	2	3	4
L	36	T2	S

RTD stem Part # see p. RTD5

Lead Wire "L"

Lead Length
Insert "B" Length, Inches
eg. 3ft.=36

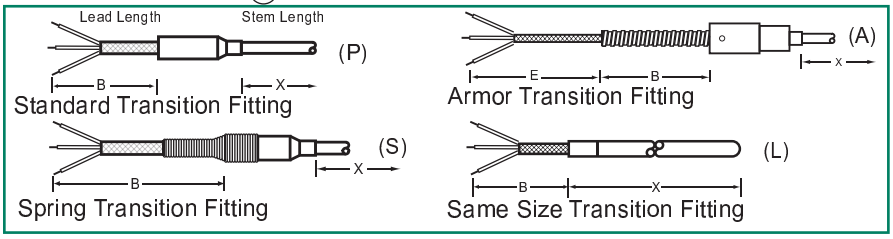
6. Insulation/Conductor
- **T2=** Teflon, stranded
- **T3=** Teflon, 20 AWG stranded
- **A2=** Teflon, w/ Mlylar Shield/Drain
- **F2=** Fiberglass, stranded

7. Wire Termination
- **S=** Stripped leads
- **L=** Spade lugs
- **T=** Terminal pins
- **M=** Copper Crimp Pins

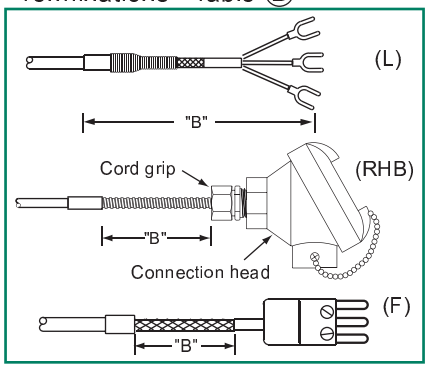
Build this product Online
www.reotemp.com

Fancy Leadwires (These require a transition)

Transitions - Table Ⓐ



Terminations - Table Ⓑ



Example: APX125116X - **L6LJ2P36F1F**

1	2	3	4	5	6	7	8	9
L	J	2	P	36	F1	F		

RTD stem Part # see p. 6

1. Lead Wire "L"

2. Type of Wire
RTD = **R**

3. Number of Leads
- RTD 2-wire = **2**
- RTD 3-wire = **3**
- RTD 4-wire = **4**
- RTD, Duplex 3-wire = **6**
- RTD, Duplex 4-wire = **8**

4. Transition Type (Table Ⓐ)
- Std, Plain = **P**
- Std, with spring = **S**
- Armor = **A**
- Same size = **L**

5. Lead Length or Armor Length
Insert "B" Length, Inches
eg. 3ft.=36

6. Insulation/Conductor
- **T2=** Teflon, stranded
- **T3=** Teflon, 20 AWG stranded
- **A2=** Teflon, w/ Mlylar Shield/Drain
- **F2=** Fiberglass, stranded

7. Wire Termination (Table Ⓑ)
- **P=** Plain leads- not stripped
- **S=** Stripped leads
- **L=** Spade lugs
- **T=** Terminal pins
- **F=** Std. Male plug
- **C=** Mini Male Plug
- **R=** Cord grip 1/2" NPT
- **RH__=** Cord grip with connection head (*Specify head code from table Ⓐ, p.RTD1 e.g. RHB)*

For mating connection - add MC= (i.e.,C-MC, F-MC)

8. Wire Protection (optional)
- **A=** SS armor
- **P=** PVC coated ss armor
- **T=** Teflon coated ss armor
- **O=** SS overbraid
(omit if no armor)

9. Wire Extension (optional)
"E" Length
Wire Extension
beyond armor inches
(omit if no armor)

REOTEMP INSTRUMENTS

Cut-to-length Sensors

RTD's

Std Element: 18" long, 1/4" dia., 316 S.S., single, 3-wire RTD. 400°F max.

Sensor Type	# Sensors	# Wires per Sensor	Length in Inches (X)	Alloy	Lead Length (L)	Options
R3	S	3	18	S	L6	D18

R3 = RTD (type B)

S = Single
D = Dual

3 = 3-Wire (std)
4 = 4-wire (N/C)

18 = 18" (std.)
24 = 24"
36 = 36"

S = 316SS (std.)
F = 304SS

L6 = 6" (std.)
L12 = 12"

Stem Dia. (if not std. 1/4")	Wire Gauge (if not 24 AWG)
D18 = .188" (3/16")	**G0** = 20 gauge
D37 = .375 (3/8")	**G2** = 22 gauge

REOTEMP INSTRUMENTS

Z-Temp Transmitter

Explosion Proof Transmitter w/ Digital Display

The Z-Temp Transmitter is a more economical alternative to traditional fully-featured smart transmitters. It is perfectly suited to applications where an explosion-proof temperature transmitter with local indication is required, but all of the extra features are not.

Benefits

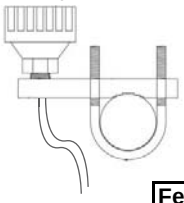
- **Everything you need from a fully-featured smart transmittter at a fraction of the cost.**
- Sensor/transmitter can be matched for very high accuracy requirements.
- Quick turnaround (3-5 days)
- High vibration resistance
- Built for heavy-duty, harsh, industrial environments
- Bright red, easy-to-read LED display

Features

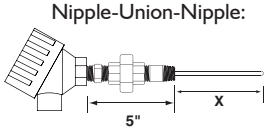
- Explosion proof housing
- FM, CSA, ATEX, EExd
- 4-20 mA output
- HART available
- Std temp. range -60/600°F, ext. range available -328/1100°F Thermocouples: -328/2282°F
- NIST calibration certificates available
- Available w/custom thermowells

Connections:

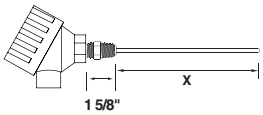
Pipe Mount:



Nipple-Union-Nipple:



1/2" NPT:



Feature	REOTEMP®	Honeywell®	Rosemount®	Yokogawa®
Calendar Van Dusen/ temperature sensor match (highest possible accuracy)	X	X	X	X
HART	X	X	X	X
Input: all industrial curve RTDs, all TCs, resistance	X	X	X	X
Output: 4-20mA	X	X	X	X
Sil II approval	X	X	X	X
FM, CSA, ATEX, EExd	X	X	X	X
Digital display	X	X	X	X
Bold Red Digital Display	X			
Multi-level display (w/ two decimals, bar graph, etc.)		X	X	X
Advanced diagnostic utilities (for rare occasions it's needed)		X	X	X
Hot swap capability		X	X	X
Made in U.S.A.	X			
Available in 3-5 days	X			
Two sensors readings simultaneously			X	X

REOTEMP INSTRUMENTS

Z-Temp Transmitter

Explosion Proof Transmitter w/ Digital Display

Technical Data:

Minimum Immersion: 2.5”
Ambient Temperature: -40 to 70°C (-40 to 158°F)
Supply Voltage, DC: 13 to 30V
Voltage Drop: 12VDC
Warm-up Time: 5 min.
Output: 2-wire, 4-20mA
Display: LED, 4-digit, 9.5mm high
Temperature Range: RTDs: -60/600°F, ext. range avail. -328/1100°F. Thermocouples:-328/2282°F
Accuracy: .2% of span (±1 digit), plus sensor accuracy.
Temperature Coefficient: ± 0.02% of span/°C
Sensor Error Detection: Programmable upscale or downscale 23mA or 3.5mA
Supply Voltage Variation Effect: ≤ 0.005% of span/VDC
EMC Immunity Influence: ≤ ± 0.5% of span
Humidity: < 95% RH (non-cond.)

Enclosure: IP66, NEMA 4X, CSA, Explosion proof

CONNECTION HEAD						
Protection Method	Type of Protection	Atex Marking	Permitted Use	Approval Body	EC-type certification No.	Protection Principle
Increased Safety EN 50014 EN 50018 EN 50281-1-1	EEx d IIC	1026 Ex II2GD	Zone 1 Zone 2 Zone 21 Zone 22	FTZU Czech Republic	FTZU 03 ATEX 0074 U	Contain the explosion and quench the flame
Explosion Proof FM 3600 FM 3615 FM 3810	XP	XP/I/I/A,B,C,D/T6 DIP/II,III/1/E,F,G/T6 Type 4x	Class I, Div 1 Gr. A,B,C,D Class II/III,Div1 Gr. E,F,G NEMA 4X	FM Approvals	3019264	Contain the explosion and quench the flame

Part Numbers & Pricing:

Online:

Build this product Online

www.reotemp.com/thermocouple_rtd_configurator.php
(Check pricing, custom sensor assemblies, custom drawings, thermowell assemblies, lead times)

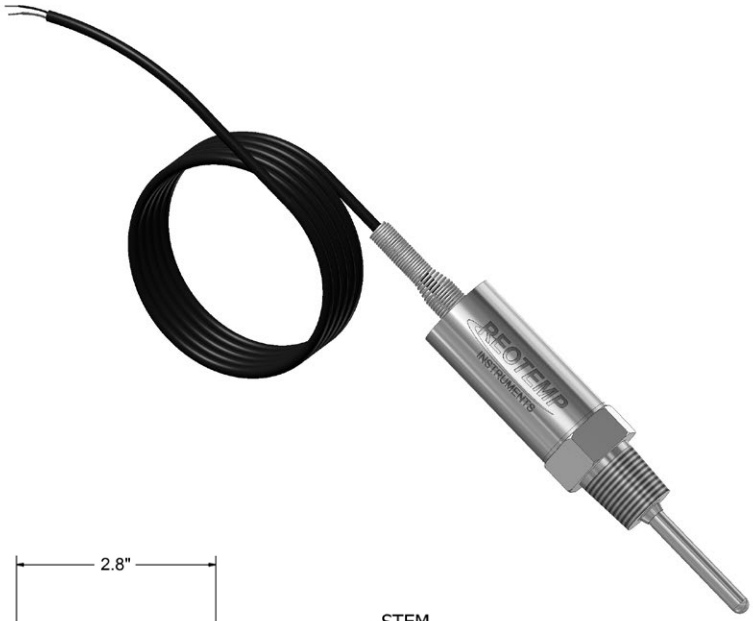
Printed Materials:

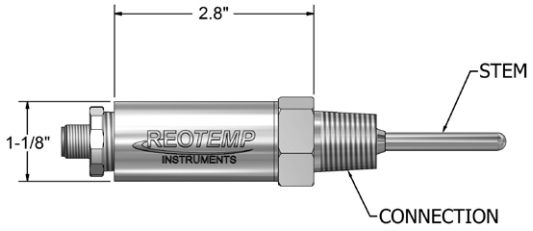
For Z-Temp with thermocouple elements, see Thermocouples Tab-Head Assemblies (pg. TC1)
For Z-Temp with RTD elements, see RTD Tab-Head Asseblies (pg. RTD1)

REOTEMP INSTRUMENTS

Slim-Line Industrial Temp. Transmitter

REO*TEMP*'s Slim-line Temperature Transmitter is a compact, rugged transmitter perfectly suited to applications where space is limited. The fully sealed design keeps out any water, liquids or moisture. It's great for applications where the transmitter is exposed to the elements or equipment is washed down. Our thick-walled 316SS construction makes this transmitter shock and vibration resistant, increasing product longevity.





Features/Benefits:

- Minimal installation space required
- High vibration & shock resistance
- Hermetically sealed (To NEMA 6P, IP67)
- All-Welded 316SS construction
- Heavy-Duty, rugged assembly
- 4-20mA linearized two wire output
- Wide temperature range with high accuracy
- A variety of process connections & electrical terminations

Applications/Markets:

- Oil & Gas
- Power Generation
- Limited space applications

Specifications:

Power Supply:	10Vdc to 30Vdc for current output 14Vdc to 30Vdc for voltage output
Housing Material:	316SS
Wetted:	316SS
Compliance:	CE compliant to EMC norm EN 61326: 1997/A1 1998 RFI, EMI and ESD, IP67, NEMA 6P (IEC 529)
Temperature Ranges:	-40°F to 500°F/-40°C to 260°C
Ambient Temp. Ranges:	-40°F to 185°F/-40°C to 85°C
Accuracy:	+/-0.5% Full Scale

REOTEMP INSTRUMENTS

Slim-Line Industrial Temp. Transmitter

HOW TO ORDER

RTDX — 025 1 F 1 P36

Stem Length:	Connection:	Temp. Scale:	Output:	Electrical Connection:
025 = 2.5” **040** = 4” **060** = 6” **090** = 9” **120** = 12” Intermediate lengths available	**1** = 1/2” NPT **4** = 1/4” NPT **X** = Plain Bushing **T** = 1/4” compression fitting **U** = 1/2” compression fitting *Other connections available. Contact factory.	**F** = Farenheit **C** = Celcius	**1** = 4mA to 20mA, 2-wire **2** = 0Vdc to 10Vdc, 3-wire	**P36** = w/ cable length in inches **H** = Hirschmann connector **C** = 1/2” NPT conduit **M** = M12X1.5 connector **E** = 4 pin Bendix connetor **F** = 6 pin Bendix connetor

Electrical Connections:

Cable

4 Pin Bendix

Hirschmann

1/2” NPT Conduit

M-12

Dual Mode Thermometers

REOTEMP INSTRUMENTS

Measuring your world since 1965

The Dual Mode Thermometer (DMT) is a convenient, multi-purpose indicator for local and remote temperature monitoring. This rugged dual-sensor system puts TWO independent sensors in ONE THERMOWELL, and allows easy tie-in to process controls. Both sensors are NIST traceable. Special sensor encapsulation and optimal liquid filling make the DMT the most rugged, durable instrument of its kind.

Fillable

HiVis Dials

Custom Logos

Made in the USA

Bimetal Thermometer

- Local Easy-to-Read Temperature Indication
- Self-actuating, Dampened Bimetal Helix Sensor
- Choice of 3", 4" or 5" Sizes, with Back, Bottom, or Adjustable Angle Connection
- Hermetically Sealed per ASME B40.3 (3/8" stem only)
- NIST Traceable Calibration

Thermocouple or RTD

- Remote and Local Indication
- Data Acquisition for Process Control
- Choice of Connection Styles (see drawing below)
- 4-20mA Transmitter Output Available

Standard Delivery 5-7 Days

Thermowell Recommended

DMT Advantages:

- Allows local and remote reading (Up to 1000°F) from one thermowell.
- Redundant sensors for simple, effective calibration or spot checking without removing instrument from thermowell!
- Easily installed in any standard thermowell.
- Interchangeable with existing thermometer, RTD, Thermocouple.

Specifications:

Case and Bezel:	304 SS (316 SS Available)
Case Style:	Back or Adjustable Angle connection
Dial Size:	3", 4" or 5"
Process Connection:	1/2" NPT Standard (1/2" NPT Union available)
External Reset:	Slotted Hex Screw
Crystal:	Glass standard, Plastic or Tempered Glass optional
Hermetic Seal:	Bimetal Thermometer per ASME B40.3 (3/8" stem only)
Stem Material:	304 SS
Stem Diameter:	0.375" O.D. or 1/4" O.D.
Stem Length:	2 1/2" to 36"
RTD:	100 Ω Platinum; 0.00385Ω/0/°C, 3-wire std.
Thermocouple:	Type K grounded junction std. (Optional: types T, E, J, or ungrounded)
Connection:	Standard screw-cover connection head.
Ranges:	Standard ranges and divisions to 1000ºF (538ºC). See inside of back page.
Over Ranges:	50% over range to 550ºF, 1000ºF max
Accuracy:	(+/-) 1% of full scale
Thermowell:	Model DMT fits any standard 0.385" bore thermowell or Model DM4 fits 0.260" bore
Options:	Silicone case fill for vibration (3/8" stem only) HiVis Dial for bimet; sanitary tri-clamp fittings

Build this product Online
www.reotemp.com

Int'l (00) 1-858-784-0710

U.S. (800) 648-7737

Dual Mode Thermometers

REOTEMP INSTRUMENTS

Measuring your world since 1965

HOW TO ORDER

Model	Style/Stem (Table 1)	Stem Length (Table 2)	Temp Range (Table 3)	Sensor (Table 4)	Heads/Output Connection (Table 5)	Electrical Connection (Table 6)	Options (Table 7)	Thermowell (Table 8)
DM	TA	040		TK	A	N	U	ST4316B3

Table 1 - Style & Stem Dia.

Code 3/8" Stem	Code 1/4" Stem	Description
TA	4A	3" Back Connected
TC	4C	4" Back Connected
TB	4B	5" Back Connected
TL	4L	3" Adjustable-Angle
TM	4M	4" Adjustable-Angle
TJ	4J	5" Adjustable-Angle

Table 2 - Stem Length

Code	Length	Code	Length
025*	2.5"	150	15"
040	4"	180	18"
060	6"	240	24"
090	9"	300	30"
120	12"	360	36"

* available only with 3/8" dia. stem.

Table 3-Temperature Range

See inside of Back Cover for complete list of ranges.

Table 4 - Sensor

Code Single	Code Dual	Description
TK	TKK	Thermocouple, Type K (grounded)
TJ	TJJ	Thermocouple, Type J (grounded)
TE	TEE	Thermocouple, Type E (grounded)
TT	TTT	Thermocouple, Type T (grounded)
UK	UKK	Thermocouple, Type K (ungrounded)
UJ	UJJ	Thermocouple, Type J (ungrounded)
UE	UEE	Thermocouple, Type E (ungrounded)
UT	UTT	Thermocouple, Type T (ungrounded)
RC	RRC	RTD, 100 ohm, 3-wire (max. 500°F)

Table 5 - Heads/Output Connections

Code	Description
A	Cast Iron Black
C	Poly Plastic Black
E	Explosion Proof Aluminum
G	316 SS
H	Cast Aluminum
HH	Aluminum Flip Top
I	Blue Epoxy Aluminum
J	Explosion Proof 316 SS
S	Poly Plastic white
T	ATEX Explosion Proof Aluminum
Z	Window Expl Pr (dig. display req'd)
EC	1/2" NPT Male Electrical Connection w/Lead Wire (ignore table 6)

Table 6 - Electrical Connection

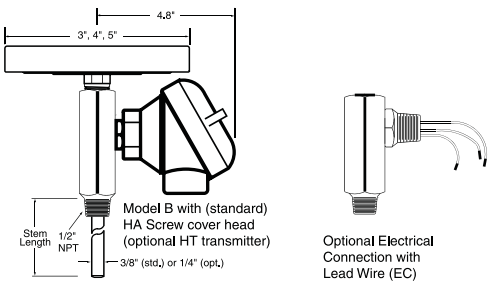
Code	Description
A	Terminal Block
N	No terminal block, 6" leads
T	4-20mA Xmtr
D	4-20mA Hart Xmtr
B	4-20mA Xmtr w/ display (Z head only)
H	4-20mA Hart Xmtr w/ display (Z head only)

Table 7 - Options

Code	Description
HV	HiVis Bimet Dial
U	Fixed Union
S	Sliding Union
C	1.5" or 1" Sanitary Tri-Clamp
L	2" Sanitary Tri-Clamp
A	2.5" Sanitary Tri-Clamp
P	3" Sanitary Tri-Clamp

Table 8- Thermowell

See Thermowell Section

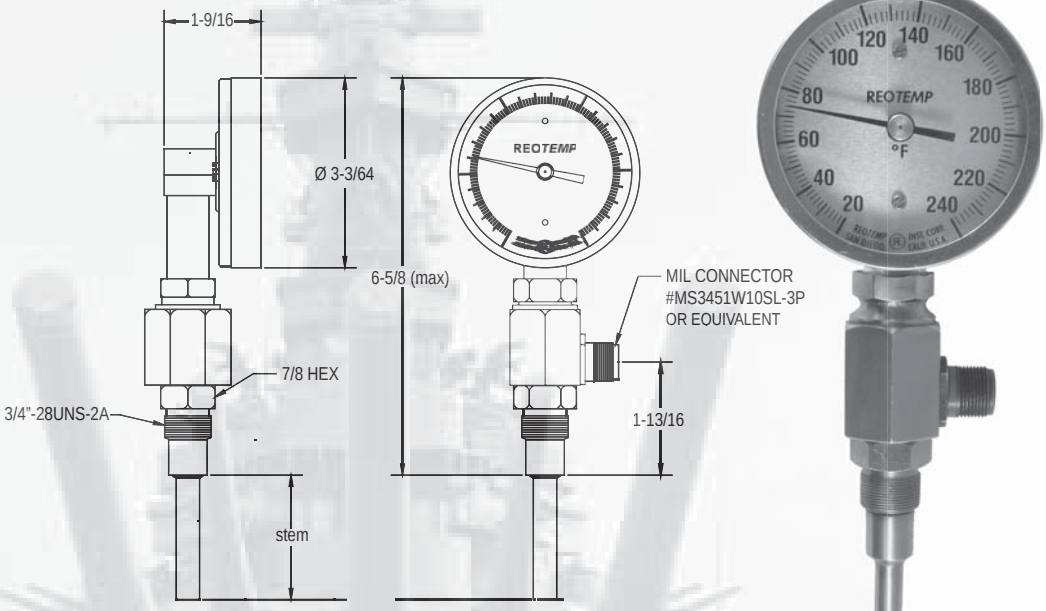


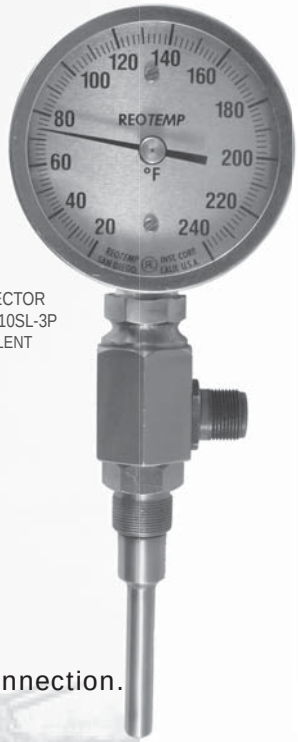
REOTEMP INSTRUMENTS

Mil-Spec Dual Mode Thermometer

The Mil-Spec. Dual Mode Thermometer combines a bimetal thermometer and RTD sensor into the same stem. This provides local indication and remote reading from a single instrument. The 3/8" stem will fit existing "Navy" type thermowells.

This unit has a heavy duty, all-welded construction with added reinforcement and dampening elements built to withstand tough shock and vibration environments. It is qualified by the Navy to mil-spec shock and vibration requirements MIL-S-901D and MIL-STD-167-1A.





*Available in bottom connection (shown) or back connection.

Features/Benefits:

- Combines a bimetal element for local indication and a 3 wire 100 ohm platinum RTD for remot indication.
- Navy Mil Spec Approved
- An improved dual element alternative to standard MIL-I-17244E bimetal thermometer.
- Designed for use on Navy ships and other demanding commercia applications.
- Back or bottom connection with various stem lengths.

Specifications:

Sensor:	3 wire, 100ohm platinum RTD
Dial Temperature Range:	All Std. bimetal ranges
RTD Temperature Range:	-40°F to 1000°F
Electrical Connection:	Mil Spec 3 pin electrical cable (MS3456W10SL-3P)connector
Process Connection:	Std. 3/4" - 28 thread
Stem Diameter:	3/8"
Stem Material:	304SS
Accuracy:	RTD= Class B Bimet = ±1% of scale
Mil Spec. Approvals:	MIL-S-901D (shock) and MIL-STD-167 (vibration)
External Dial Reset:	Slotted hex screw
Lens:	Polycarbonate

Applications/Markets:

- Military
- Harsh commercial applications

REOTEMP INSTRUMENTS

Mil-Spec Dual Mode Thermometer

HOW TO ORDER

DM — S A 04 F53 R A3

Style:	Bimetal Connection:	Stem Length:	Temperature Range:	Sensor Type:	Output Connection:
S = Mil-Spec approved, Shockproof, 3/8" stem; 3/4"-28 std thread, fixed swivel union with Navy collar (std)	**A** = 3" Back **X** = 3" Bottom reset	**02** = 2" **04** = 4" **06** = 6" **10** = 10" etc. Note: -Intermediate lengths available -Max. stem length on DMS model is 10"	**F53** = 20 to 240F **F69** = 50 to 550F {all std bimetal ranges available}	**R** = RTD, Pt 100/385, High Vibration	**A3** = Mil Spec 3 pin connector

Pricing

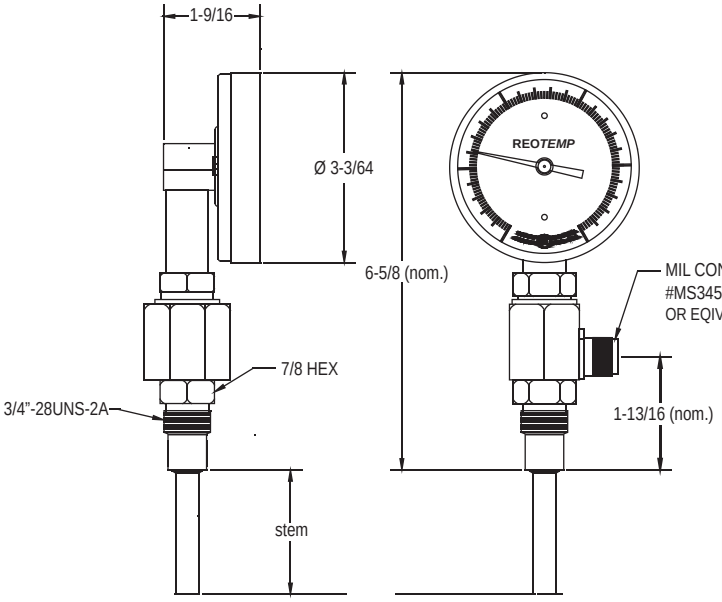
Contact Factory

REOTEMP INSTRUMENTS

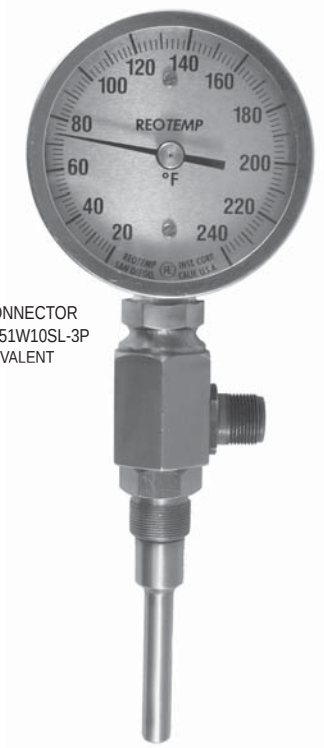
Navy Type Dual Mode Thermometer

The Navy Type Dual Mode Thermometer combines a bimetal thermometer and RTD sensor into the same stem. This provides local indication and remote reading from a single instrument.

This unit has a heavy duty, all-welded construction built to withstand tough shock and vibration environments. The Navy Type DMT is currently used by supply and cargo ships where mil spec approval is not required.



*Available in bottom connection (shown) or back connection.



Features/Benefits:

- Combines a bimetal element for local indication and a 3 wire 100 ohm platinum RTD for remote indication.
- Designed for use on Navy ships and other demanding commercial applications where mil spec approval is not required.
- Back or bottom connection with various stem lengths.

Applications/Markets:

Military (non-mil spec)
Harsh commercial applications

Specifications:

Sensor:	3 wire, 100ohm platinum RTD
Dial Temperature Range:	All Std. bimetal ranges
RTD Temperature Range:	-40°F to 1000°F
Electrical Connection:	Mil connector (MS3456W10SL-3P) 3 pin electrical cable connection
Process Connection:	Std. 3/4" - 28 thread
Stem Diameter:	3/8" or 1/4"
Stem Material:	304SS
Accuracy:	RTD= Class B Bimet = ±1% of scale
External Dial Reset:	Slotted hex screw
Lens:	Polycarbonate

REOTEMP INSTRUMENTS

Navy Type Dual Mode Thermometer

HOW TO ORDER

DM — N A 04 F53 R A3 [ ]

Style:	Bimetal Connection:	Stem Length:	Temperature Range:	Sensor Type:	Output Connection:	Process Connection:
N = Navy type 3/8" stem; fixed swivel union **C** = Navy type, 1/4" stem, fixed swivel union	**A** = 3" Back **X** = 3" Bottom reset	**02** = 2" (not available in 1/4" dia stem) **04** = 4" **06** = 6" **09** = 9" etc. Note: -Intermediate lengths available	**F53** = 20 to 240F **F69** = 50 to 550F **F85** = 200 to 1,000F {all std bimetal ranges available}	**R** = RTD, Pt 100/385, High Vibration	**A3** = Mil Spec 3 pin connector	No Code= 3/4"-28 fixed swivel union with Navy collar (std) **P** = 1/2" NPT fixed swivel union w/ Navy collar **I** = 7/8"- 14 fixed swivel union w/ Navy collar

Plastic Industry

Plastics Sensor

1	2	3	4	5	6	7
P —	AB	JS	G	1	12	S	B4

1. Type

Adjustable Bayonet
- **AB** = Adj. Bayonet on Armor
- **SB** = Adj. Bayonet on Spring

Fixed Bayonet
- **FB** = Fixed Bayonet

Compression Ftg/ Armor
- **C8** = 1/8 NPT
- **CP** = Plain, no fitting

Direct Connect/ no Armor
- **FBD** = Fixed Bayonet/ no Armor
- **C8D** = with 1/8 NPT
- **CPD** = Plain

2. Sensor Type

Thermocouples Single Sensor
- **JS** = J single sensor
- **KS** = K single
- **ES** = E single
- **TS** = T single

Duplex Sensor
- **JD** = J dual sensor
- **KD** = K dual sensor
- **TD** = T dual sensor
- **ED** = E dual sensor

RTD's (100 ohm/.00385)
- **RS** = RTD 3-wire single
- **RD** = RTD 3-wire dual

3. Sensor Grounding

Thermocouples
- **G** = Grounded
- **U** = Ungrounded

RTD's
- **RTD** - leave blank

4. Probe Length "A" (fixed only)

- **1.0** = 1"
- **1.2** = 1 1/4"
- **1.5** = 1 1/2"
- **1.7** = 1 3/4"
- **2.0** = 2"
- **2.5** = 2 1/2"
- **2.7** = 2 3/4"

(insert any length)

Enter "NA" for styles AB, SB

5. "B' Length in inches

- **12** = 12"
- **24** = 24"

(insert any length)

Leave blank if none.

6. Terminations

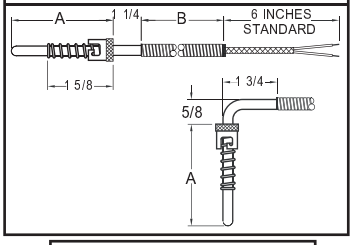
- **S** = Stripped leads
- **L** = Spade lugs
- **F** = Std. Male Plug
- **G** = Std. Female Jack
- **C** = Mini Male Plug
- **D** = Mini Female Plug
- **B** = BX connector with Spade lugs.

7. (optional) Bend Angle (fixed only)

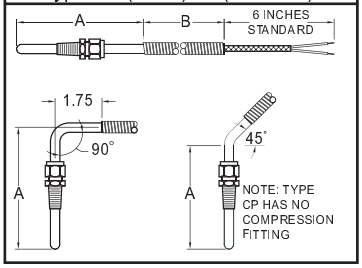
- **B4** = 45 deg. Bend
- **B9** = 90 deg. Bend

General Specs: Stems: 304SS, 3/16" dia. (.188)
Wire: Stranded, w/fiberglass insulation

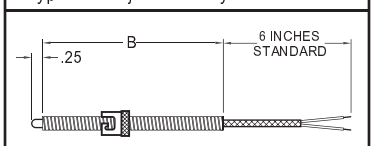
Type FB - Fix Bayonet



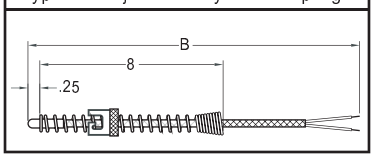
Type CP (Plain) C8 (1/8 NPT)



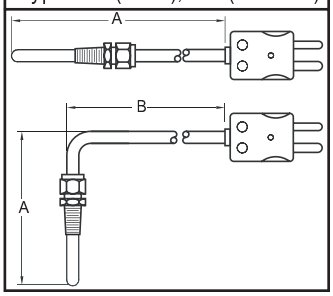
Type AB - Adjustable Bayonet on Armor



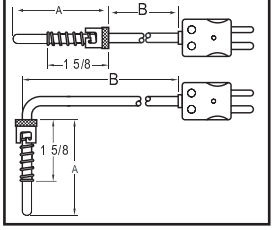
Type SB - Adjustable Bayonet on Spring



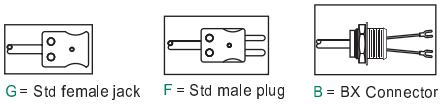
Type CPD (Plain), C8D (1/8 NPT)



Direct Connection (no armor)
Type FBD (Fixed Bayonet)

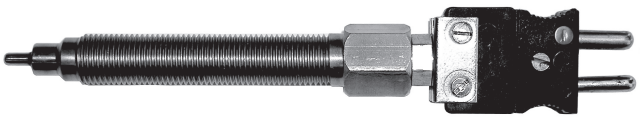


Terminations:



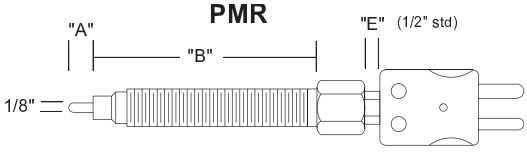
REOTEMP INSTRUMENTS

Melt Bolt

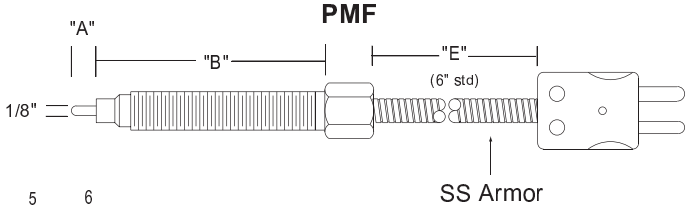


- Extruder Heads
- Die Adapters
- Tip goes directly into plastic melt

PMR



PMF



1	2	3	4	5	6
PMF	JG	4	03	6	F

1. Style

PMF = Flexible style

PMR = Rigid style

2. TC Type

Grounded
JG = Type J
KG = Type K
EG = Type E
TG = Type T
Ungrounded
JU = Type J
KU = Type K
EU = Type E
TU = Type T

3. Tip Length (A)

4 = 1/4" (std.)
8 = 1/8"
F = flush
2 = 1/2"
3 = 3/4"
1 = 1"

4. Bolt Length (B)

03 = 3"
04 = 4"
06 = 6"
08 = 8"
12 = 12"

5. (E) Dim

For Flex Style (F)
6 = 6" (std.)
12 = 12"
specify other
For Rigid Style (R)
2 = 1/2" (std.)
specify other

6. Termination

For Rigid Type
F =Std. size Male Plug (std.)
G =Std size Female Jack
For Flex type
F =Std. size Male Plug (std.)
G =Std size Female Jack
C = Male Mini Plug
D = Female Mini Jack

Sanitary RTD Head Assembly: Series RH

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s Sanitary RTD sensors are specifically designed for direct insertion into sanitary process applications when a standard thermowell is not specified or the process environment is not exposed to pressure. Sanitary RTD's are ideal for food, beverage, and pharmaceutical industries.

FEATURES / BENEFITS

- 3A approved wetted surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- Optional transmitter, 4-20 mA calibrated to -58ºF to 302ºF
  Note: You may request any calibrated temperature between -328ºF/600ºF; min. 45ºF span
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0ºC, 3-wire or 4-wire
ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400ºC only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100ºC only]
TEMPERATURE RANGE: -328ºF/600ºF
PROCESS CONNECTION: Tri-clamp (std); various sizes.
STEM LENGTH: 2" to 36" std lengths; custom lengths available.
STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip
WETTED FINISH: Ra20 - Ra32 max., Ra20 max. (optional)
ENCLOSURE HEAD: White poly, Blue epoxy-coated aluminum, 316SS
OPTIONAL TRANSMITTER: 4-20 mA transmitter
HART transmitter

Made in U.S.A.

Standard Lead Time 5-7 Days

sales@reotemp.com www.reotemp.com Ph: (858) 784-0710

Sanitary RTD Head Assembly: Series RH

REOTEMP INSTRUMENTS
Measuring your world since 1965

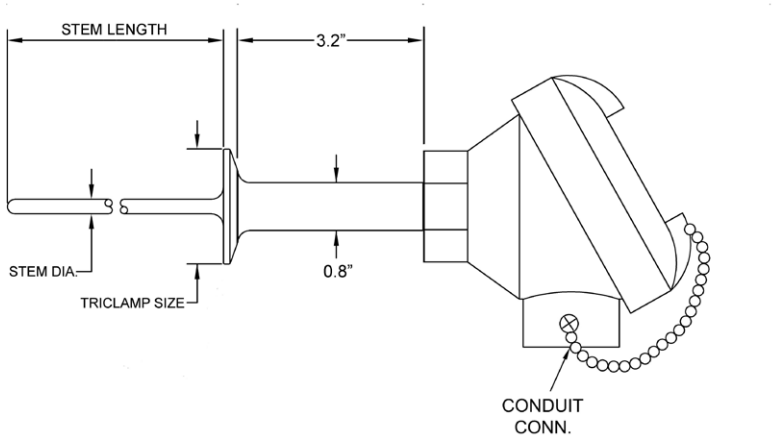
HOW TO ORDER

RH [S] [ ] [ ] — [T15] [A] [020] — [A] [S3] — [ ]

Connection Head (comes w/ Terminal Block):	Head Options (optional):	Transmitter (optional):	Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Options:
S = Poly White **I** = Blue Epoxy-Coated Aluminum **G** = 316SS w/Window for Display **Z** = Window Explosion Proof (1/2" conduit) *All heads available. Check out our website for more options.	**-** = 3/4" NPT **H** = 1/2" NPT Conduit **N** = No Terminal Block	**-** = None **X** = 4-20 mA Tranx (std) **R** = 4-20 mA HART Tranx **F** = 4-20 mA Foundation Fieldbus Tranx Must Use w/ Z Window Head Only **B** = 4-20 mA Tranx w/ Display **Z** = 4-20 mA HART Tranx w/Display	**T15** = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** = 4" Tri-Clamp **T75** = 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	Single (one element) **S3** = Single 3-Wire **S4** = Single 4-Wire Dual (two elements) **D3** = Dual 3-Wire **D4** = Dual 4-Wire	**-** = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 PT (0°F, 100°F, 190°F) **L3** = Cal Cert, 3 PT (32°F, 100°F, 150°F) **R1** = Cal Cert, 1 pt (150°F) **L1** = Cal Cert, 1 pt (100°F) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
*1.5"	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



Sanitary RTD Sensor: Series RDW
Sealed Wire-Out Cable

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s Sanitary RTD sensors are specifically designed for direct insertion into sanitary process applications when a standard thermowell is not specified or the process environment is not exposed to pressure. Sanitary RTD's are ideal for food, beverage, and pharmaceutical industries.

Online Configurators

FEATURES / BENEFITS

- 3A approved wetted surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- Fully sealed for washdown (IP67)
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0°C, 3-wire or 4-wire

ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400°C only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100°C only]

TEMPERATURE RANGE: -328°F/600°F

PROCESS CONNECTION: Tri-clamp (std); various sizes.

STEM LENGTH: 2" to 36" std lengths; custom lengths available.

STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip

WETTED FINISH: Ra20 - Ra32 max., Ra20 max. (optional)

STRAIN RELIEF: Nylon spring

WIRE TYPE: Teflon insulated, 24 AWG, stranded
PVC insulated, 24 AWG, stranded
Teflon insulated, 24 AWG, stranded with aluminum mylar shield and drain wire

3-A®

Made in U.S.A.

Standard Lead Time 5-7 Days

sales@reotemp.com www.reotemp.com Ph: (858) 784-0710

Sanitary RTD Sensor: Series RDW
Sealed Wire-Out Cable

REOTEMP INSTRUMENTS
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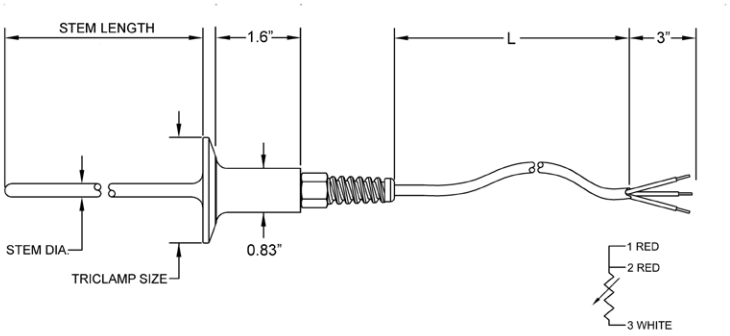
HOW TO ORDER

RDW [120] [T] [S] — [T15] [A] [020] — [A] [S3] — [ ]

Wire Length:	Wire Type:	Wire Termination:	Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Options:
Wire Length *Specify length in inches	**T** = Teflon Insulated (std) **P** = PVC Insulated **A** = Teflon w/ Al/Mylar Shield/Drain	**S** = Stripped (std) **L** = Spade Lugs **T** = Terminal Pins **M** = Copper Crimps	**T15** = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** = 4" Tri-Clamp **T75**= 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	Single (one element) **S3** = Single 3-Wire **S4** = Single 4-Wire Dual (two elements) **D3** = Dual 3-Wire **D4** = Dual 4-Wire	**-** = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 pt (0ºF, 100ºF, 190ºF) **L3** = Cal Cert, 3 pt (32ºF, 100ºF, 150ºF) **R1** = Cal Cert, 1 pt (150ºF) **L1** = Cal Cert, 1 pt (100ºF) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
*1.5"	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



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www.reotemp.com
Ph: (858) 784-0710

Sanitary RTD Sensor: Series RDP
M12 Quick-Connect Plug

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s Sanitary RTD sensors are specifically designed for direct insertion into sanitary process applications when a standard thermowell is not specified or the process environment is not exposed to pressure. Sanitary RTD's are ideal for food, beverage, and pharmaceutical industries.

Online Configurators

FEATURES / BENEFITS

- 3A Approved Wetted Surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- Fully sealed for washdown (IP67)
- M12 plug for easy hookup
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

3-A®

Made in U.S.A.

Standard Lead Time 5-7 Days

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0°C, 3-wire or 4-wire

ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400°C only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100°C only]

TEMPERATURE RANGE: -328°F/600°F

PROCESS CONNECTION: Tri-clamp (std); various sizes.

STEM LENGTH: 2" to 36" std lengths; custom lengths available.

STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip

WETTED FINISH: Ra20 - Ra32 max., Ra20 max. (optional)

M-12 4-PIN QUICK CONNECT: see next page for pin scheme

OPTIONAL MATING CONNECTOR: Female connector with or without wire available

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Sanitary RTD Sensor: Series RDP
M12 Quick-Connect Plug

REOTEMP INSTRUMENTS
Measuring your world since 1965

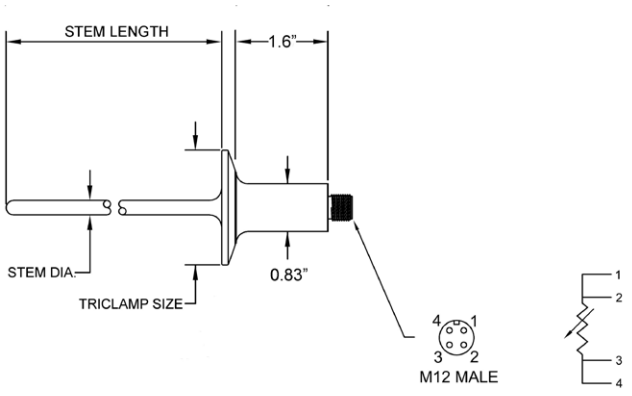
HOW TO ORDER

RDP — [T15] [A] [020] — [A] [S3] [W] [120] [P] [S] — [ ]

Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Mating Connector for M12 Plug:	Wire Length (if "W" is selected):	Wire Type (if "W" is selected):	Wire Termination (if "W" is selected):	Options:
T15 = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** = 4" Tri-Clamp **T75** = 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	Single (one element) **S3** = Single 3-Wire **S4** = Single 4-Wire	**N** = None **W** = Mating Female Connector w/ Wire **F** = Mating Female Connector Only (user installs wire)	Wire Length *Specify length in inches	**P** = PVC Insulated	**S** = Stripped (std) **L** = Spade Lugs **T** = Terminal Pins **M** = Copper Crimps	**-** = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 pt (0°F, 100°F, 190°F) **L3** = Cal Cert, 3 pt (32°F, 100°F, 150°F) **R1** = Cal Cert, 1 pt (150°F) **L1** = Cal Cert, 1 pt (100°F) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
*1.5"	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



NOTE: FOR 3-WIRE HOOKUP, USE ANY THREE PINS

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Slimline Sanitary RTD Sensor: Series RTW
Transmitter with Sealed Wire-Out Cable

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s Slimline Sanitary temperature transmitter is a compact, rugged transmitter perfectly suited to applications where space is limited. The fully sealed design keeps out any water, liquids, or contaminants. It's great for applications where the transmitter is exposed to the elements or equipment is washed down. Our thick-walled 316SS construction and encapsulated design makes this transmitter shock and vibration resistant, increasing product longevity.

FEATURES / BENEFITS

- 3A approved wetted surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- 4-20 mA transmitter calibrated to -58ºF to 302ºF
  Note: You may request any calibrated temperature between -328ºF/600ºF; min. 45ºF span
- Fully sealed for washdown (IP67)
- High vibration and shock resistant
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0ºC, 3-wire or 4-wire
ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400ºC only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100ºC only]
TEMPERATURE RANGE: -328ºF/600ºF
PROCESS CONNECTION: Tri-clamp (std); various sizes.
STEM LENGTH: 2" to 36" std lengths; custom lengths available.
STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip
WETTED FINISH: Ra20 - Ra32 max., Ra20 max. (optional)
TRANSMITTER: 4-20 mA output (wiring scheme on next page)
STRAIN RELIEF: Nylon spring
WIRE TYPE: Teflon insulated, 24 AWG, stranded
PVC insulated, 24 AWG, stranded
Teflon insulated, 24 AWG, stranded with aluminum mylar shield and drain wire

3-A®

Made in U.S.A.

Standard Lead Time 5-7 Days

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Slimline Sanitary RTD Sensor: Series RTW
Transmitter with Sealed Wire-Out Cable

REOTEMP INSTRUMENTS
Measuring your world since 1965

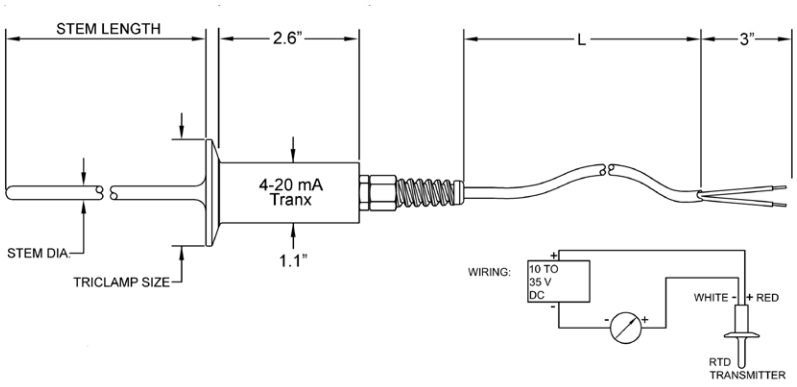
HOW TO ORDER

RTW **120** **T** **S** — **T15** **A** **020** — **A** **S3** — ☐

Wire Length:	Wire Type:	Wire Termination:	Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Options:
Wire Length *Specify length in inches	**T** = Teflon Insulated (std) **P** = PVC Insulated **A** = Teflon w/ Al/Mylar Shield/Drain	**S** = Stripped (std) **L** = Spade Lugs **T** = Terminal Pins **M** = Copper Crimps	**T15** = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** =4" Tri-Clamp **T75**= 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	Single (one element) **S3** = Single 3-Wire **S4** = Single 4-Wire	**-** = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 pt (0ºF, 100ºF, 190ºF) **L3** = Cal Cert, 3 pt (32ºF, 100ºF, 150ºF) **R1** = Cal Cert, 1 pt (150ºF) **L1** = Cal Cert, 1 pt (100ºF) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
*1.5"	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



sales@reotemp.com
www.reotemp.com
Ph: (858) 784-0710

Slimline Sanitary RTD Sensor: Series RTP
Transmitter with M12 Quick-Connect Plug

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s Slimline Sanitary temperature transmitter is a compact, rugged transmitter perfectly suited to applications where space is limited. The fully sealed design keeps out any water, liquids, or contaminants. It's great for applications where the transmitter is exposed to the elements or equipment is washed down. Our thick-walled 316SS construction and encapsulated design makes this transmitter shock and vibration resistant, increasing product longevity.

FEATURES / BENEFITS

- 3A approved wetted surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- 4-20 mA transmitter calibrated to -58ºF to 302ºF
  Note: You may request any calibrated temperature between -328ºF/600ºF; min. 45ºF span
- Fully sealed for washdown (IP67)
- High vibration and shock resistant
- M12 plug for easy hookup
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

Made in U.S.A.

Standard Lead Time 5-7 Days

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0ºC, 3-wire or 4-wire
ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400ºC only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100ºC only]
TEMPERATURE RANGE: -328ºF/600ºF
PROCESS CONNECTION: Tri-clamp (std); various sizes.
STEM LENGTH: 2" to 36" std lengths; custom lengths available.
STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip
WETTED FINISH: Ra20 - Ra32 max., Ra20 max. (optional)
TRANSMITTER: 4-20 mA output (wiring scheme on next page)
M-12 4-PIN QUICK CONNECT: see next page for pin scheme
OPTIONAL MATING CONNECTOR: Female connector with or without wire available

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Slimline Sanitary RTD Sensor: Series RTP
Transmitter with M12 Quick-Connect Plug

REOTEMP INSTRUMENTS
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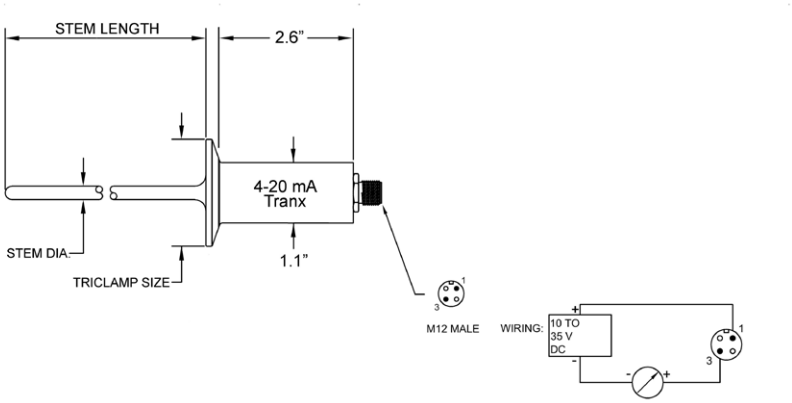
HOW TO ORDER

RTP — **T15** **A** **020** — **A** **S3** **W** **120** **P** **S** — [ ]

Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Mating Connector for M12 Plug:	Wire Length (if "W" is selected):	Wire Type (if "W" is selected):	Wire Termination (if "W" is selected):	Options:
T15 = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** = 4" Tri-Clamp **T75** = 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	**S3** = Single 3-Wire	**N** = None **W** = Mating Female Connector w/ Wire **F** = Mating Female Connector Only (user installs wire)	Wire Length *Specify length in inches	**P** = PVC Insulated	**S** = Stripped (std) **L** = Spade Lugs **T** = Terminal Pins **M** = Copper Crimps	**-** = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 pt (0°F, 100°F, 190°F) **L3** = Cal Cert, 3 pt (32°F, 100°F, 150°F) **R1** = Cal Cert, 1 pt (150°F) **L1** = Cal Cert, 1 pt (100°F) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
1.5"*	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



Sanitary RTD Sensor: Series RCW
ReoClick with Sealed Wire-Out Cable

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s patent pending ReoClick makes disconnecting and reconnecting your temperature sensor a snap, literally. With the click of a button, your temperature sensor is released from the female tri-clamp allowing it to be quickly placed into a temperature bath for a calibration check and then snapped back into place in a matter of seconds.

Online Configurators

3A®

Made in U.S.A.

Standard Lead Time 5-7 Days

FEATURES / BENEFITS

- 3A approved wetted surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- Connect/disconnect sensor with a click of a button for easy calibration
- Fully sealed for washdown (IP67)
- Sealed spring loaded sensor can be placed directly into calibration bath
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0°C, 3-wire or 4-wire

ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400°C only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100°C only]

TEMPERATURE RANGE: -328°F/600°F

PROCESS CONNECTION: Tri-Clamp (std); various sizes.

STEM LENGTH: 2" to 36" std lengths; custom lengths available.

STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip

WETTED FINISH: Ra20 - Ra32 max., Ra20 max.(optional)

WIRE TYPE: Teflon insulated, 24 AWG, stranded
PVC insulated, 24 AWG, stranded
Teflon insulated, 24 AWG, stranded with aluminum mylar shield and drain wire

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Sanitary RTD Sensor: Series RCW
ReoClick with Sealed Wire-Out Cable

REOTEMP INSTRUMENTS
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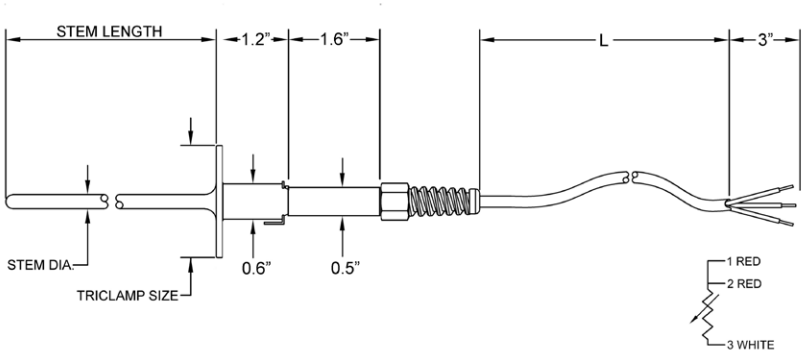
HOW TO ORDER

RCW [120] [T] [S] — [T15] [A] [020] — [A] [S3] — [ ]

Wire Length:	Wire Type:	Wire Termination:	Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Options:
Wire Length *Specify length in inches	**T** = Teflon Insulated (std) **P** = PVC Insulated **A** = Teflon w/ Al/Mylar Shield/Drain	**S** = Stripped (std) **L** = Spade Lugs **T** = Terminal Pins **M** = Copper Crimps	**T15** = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** =4" Tri-Clamp **T75**= 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	Single (one element) **S3** = Single 3-Wire **S4** = Single 4-Wire	**-** = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 pt (0ºF, 100ºF, 190ºF) **L3** = Cal Cert, 3 pt (32ºF, 100ºF, 150ºF) **R1** = Cal Cert, 1 pt (150ºF) **L1** = Cal Cert, 1 pt (100ºF) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
*1.5"	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



Sanitary RTD Sensor: Series RCP
ReoClick with M12 Quick-Connect Plug

REOTEMP INSTRUMENTS
Measuring your world since 1965

REO*TEMP*'s patent pending ReoClick makes disconnecting and reconnecting your temperature sensor a snap, literally. With the click of a button, your temperature sensor is released from female tri-clamp allowing it to be quickly placed into a temperature bath for a calibration check and then snapped back into place in a matter of seconds. The ReoClick replaceable element design also allows the sensor to be easily replaced with minimal downtime.

Online Configurators

FEATURES / BENEFITS

- 3A approved wetted surfaces (32 Ra max.)
- 3A certificate provided
- Sanitary tri-clamp design
- 316SS wetted materials
- Fully sealed for washdown (IP67)
- Connect/disconnect sensor with a click of a button for easy calibration
- Sealed spring loaded sensor can be placed directly into calibration bath
- ReoClick feature allows for time and cost saving replacements
- M12 plug for easy hookup
- Calendar-Van Dusen coefficients available for optimized sensor accuracy (Hi accuracy curve plot option)

SPECIFICATIONS

RTD: 100 ohm Pt., 0.00385 Ω/0°C, 3-wire or 4-wire

ACCURACY: Class A, C = ± (0.15 + 0.0028*(t)) [-100/400°C only]
1/10 Din B, C = ± 1/10(0.3 + 0.005*(t)) [0-100°C only]

TEMPERATURE RANGE: -328°F/600°F

PROCESS CONNECTION: Tri-clamp (std); various sizes.

STEM LENGTH: 2" to 36" std lengths; custom lengths available.

STEM DIAMETER: Straight stems 1/4", 3/8", 3/16", 1/8"
Reduced stems 3/8" reduced to 3/16" tip
1/2" reduced to 1/4" tip

WETTED FINISH: Ra20 - Ra32 max., Ra20 max.(optional)

M-12 4-PIN QUICK CONNECT: see next page for pin scheme

OPTIONAL MATING CONNECTOR: Female connector with or without wire available

Replacement Parts

Replaceable Sensor Only

Female ReoClick Tri-Clamp

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Sanitary RTD Sensor: Series RCP
ReoClick with M12 Quick-Connect Plug

REOTEMP INSTRUMENTS
Measuring your world since 1965

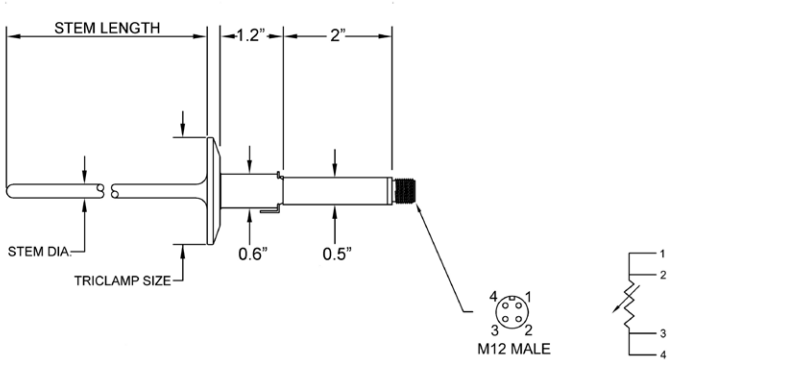
HOW TO ORDER

RCP — T15 | A | 020 — A | S3 | W | 120 | P | S — [ ]

Process Connection:	Stem Style:	Stem Length:	RTD Tolerance 100 ohm 385 Curve:	Element:	Mating Connector for M12 Plug:	Wire Length (if "W" is selected):	Wire Type (if "W" is selected):	Wire Termination (if "W" is selected):	Options:
T15 = 1.5" Tri-Clamp (std) **T20** = 2" Tri-Clamp **T25** = 2.5" Tri-Clamp **T30** = 3" Tri-Clamp **T40** = 4" Tri-Clamp **T75** = 3/4" Tri-Clamp	Straight Stems **A** = 1/4" dia. (std) **F** = 3/8" dia. **D** = 3/16" dia. **H** = 1/8" dia. Reduced Tip Stems **B** = 3/8" dia. reduced to 3/16" tip **C** = 1/2" dia. reduced to 1/4" tip **E** = Special HTST Fast-Response 3/8" dia. reduced to 3/16" tip	**020** = 2" Stem **030** = 3" Stem **040** = 4" Stem **060** = 6" Stem **090** = 9" Stem **120** = 12" Stem **180** = 18" Stem **240** = 24" Stem **360** = 36" Stem *Other stems available up to 72".	**A** = Class A (std) **T** = 1/10 B	**S3** = Single 3-Wire **S4** = Single 4-Wire	**N** = None **W** = Mating Female Connector w/ Wire **F** = Mating Female Connector Only (user installs wire)	Wire Length *Specify length in inches	**P** = PVC Insulated	**S** = Stripped (std) **L** = Spade Lugs **T** = Terminal Pins **M** = Copper Crimps	- = None **TS** = Stainless Steel Tag **RA** = Ra 20 Max Wetted Finish w/ Cert **AC** = Hi Accuracy Curve Plot Cal Certs **R3** = Cal Cert, 3 pt (0ºF, 100ºF, 190ºF) **L3** = Cal Cert, 3 pt (32ºF, 100ºF, 150ºF) **R1** = Cal Cert, 1 pt (150ºF) **L1** = Cal Cert, 1 pt (100ºF) **C3** = Cal Cert, 3 pt (customer picks pts) **C1** = Cal Cert, 1 pt (customer picks pt)

Tri-Clamp Size	"D" Diameter	
	in	(mm)
3/4"	0.98	(25.0)
*1.5"	1.98	(50.4)
2"	2.52	(63.9)
2.5"	3.05	(77.4)
3"	3.58	(90.9)
4"	4.68	(118.9)

*1.5" tri-clamp fits 1.5" and 1" tri-clamp fittings



NOTE: FOR 3-WIRE HOOKUP, USE ANY THREE PINS

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THREADED THERMOWELLS

REOTEMP Threaded Thermowells make it possible to remove an instrument without dropping pressure or losing contents of the process. Thermowells also protect the instrument from getting bent by the process media. Threaded thermowells are perfect for applications that require infrequent replacement and are commonly installed on smaller pipes or vessels. They are best suited for non-corrosive media. REOTEMP threaded thermowells are machined from solid bar stock.

Threaded

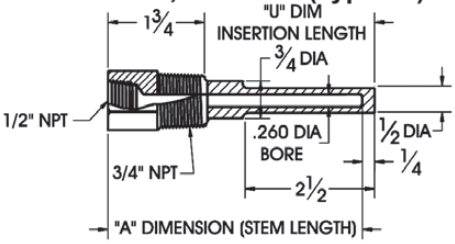
FEATURES / BENEFITS

- Die Stamped with Material
- Protects Your Instrument from the Process
- Easy Removal of Instrument for Calibration or Replacement

OPTIONS

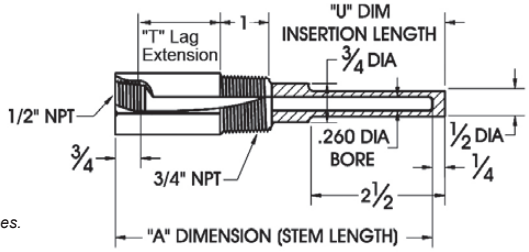
- Wake Frequency
- Hydrostatic Test
- NACE Certified
- Material Certificate
- Special Marking (Stamping)
- Special Marking (Stamping)
- Plug & Chain

Standard, Threaded (Type ST)



All dimensions are in inches.

Lagging, Threaded (Type LG)



Standard Dimensions

Stem "A"	Standard "U"	Lagging "U"	Overall Length
2 1/2"	1 5/8"	N/A	2 7/8"
4"	2 1/2"	N/A	4 1/4"
6"	4 1/2"	2 1/2"	6 1/4"
9"	7 1/2"	4 1/2"	9 1/4"
12"	10 1/2"	7 1/2"	12 1/4"

THREADED THERMOWELLS

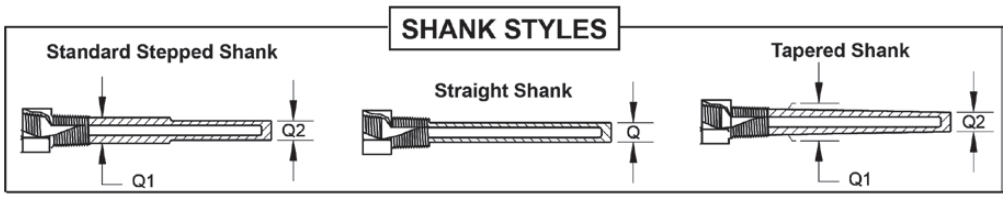
Visit reotemp.com

- ✓ Check Stock
- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing

HOW TO ORDER: Choose options to build a part number. For example: ST6316-MT

ST | **6** | **316** | | | | **-MT**

TYPE	"A" STEM LENGTH	MATERIAL	PROCESS CONNECTION	SHANK	BORE DIAMETER	OPTIONS
ST = Threaded **LG** = Threaded Lagging	**2.5** = 2.5" **4** = 4" **6** = 6" **9** = 9" **12** = 12" **2.0** = 2"	**304** = 304SS **316** = 316SS **316L** = 316L SS **B** = Brass **C** = Carbon Steel (1018) **G** = Hastelloy B **H** = Hastelloy C **M** = Monel/A400 **T** = Titanium **Y** = Inconel 600 **A** = Alloy 105 Carbon Stainless Steel **D** = Alloy 20 **5** = F5 Alloy **P** = PTFE Coated 316SS **N** = F22 Alloy Other materials available. Contact REOTEMP customer service for more information.	**" "** = 3/4" NPT (std.) **1** = 1" NPT **H** = 1/2" NPT **2** = 1.5" NPT	**" "** = Stepped (std.)* **T** = Tapered **S** = Straight *Not available with .385 bore.	**" "** = .260 (std.) **B3** = .385 **B5** = .515 **I3** = 3/4" NPT Internal Thread Other bore and internal thread sizes available.	**EP** = External Pressure Test **IT** = Internal Pressure Testing (5 min. test) **MT** = Material Certificate **ML** = Mill Certificate **MR** = NACE MR-01-75 Approval **M3** = NACE MR-01-03 Approval **PM** = Positive Material Identification (PMI) **P4** = SS 304 Plug & Chain **P6** = SS 316 Plug & Chain **PB** = Brass Plug & Chain **R2** = Special Surface Finish (Ra 20 max) **T1** = Tantalum Coating/ Halar Coating **T2** = Teflon Coating **T3** = Tungsten Carbide Coating **TM** = Special Marking (Stamping) **TS** = SS Tag (attached) **WK** = Wake Frequency Calculation



All dimensions are in inches.

Stepped Shank

Bore Dia. B	Ext Thread Size P	Shank Dia. Q1 (U>2.5)	Shank Dia. Q2
.260	1/2" NPT	.625	.500
.260	3/4" NPT	.750	.500
.260	1" NPT	.875	.500

All dimensions are in inches.

Straight Shank

Bore Dia. B	Ext Thread Size P	Shank Dia. Q (U≤2.5)	Shank Dia. Q (U>2.5)
.260	1/2" NPT	.500	.625
.260	3/4" NPT	.500	.625
.260	1"NPT	.750	.875
.385	1/2" NPT	.680	.680
.385	3/4" NPT	.766	.766
.385	1" NPT	.875	.875

All dimensions are in inches.

Tapered Shank

Bore Dia. B	Ext Thread Size P	Shank Dia. Q1	Shank Dia. Q2
.260	1/2" NPT	.680	.625
.260	3/4" NPT	.875	.625
.260	1" NPT	1.062	.625
.385	1/2" NPT	.680	.625
.385	3/4" NPT	.875	.766
.385	1" NPT	1.062	.766

All dimensions are in inches.

WELD-IN THERMOWELLS

REOTEMP Weld-in Thermowells make it possible to remove an instrument without dropping pressure or losing the contents of the process. Thermowells also protect the instrument from getting bent by the process media. Weld-in thermowells are welded directly to a pipe or tank, providing a very high quality connection. Because they are welded, they should only be used when access is not required and corrosion is not an issue. Common installations include high temperature and high pressure applications with non-corrosive media. REOTEMP weld-in thermowells are machined from bar stock.

Socket Weld

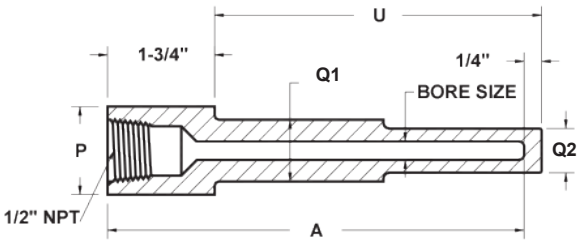
FEATURES / BENEFITS

- High Quality Connection
- Ideal for High Temperature and High Pressure Applications with Non-corrosive Media
- Socket Weld or Standard Weld-in
- Easy Removal of Instrument for Calibration or Replacement

OPTIONS

- Wake Frequency
- Hydrostatic Test
- NACE Certified
- Material Certificate
- Special Marking (Stamping)
- Plug & Chain

Socket Weld Well (Type SW)



All dimensions are in inches.

Socket Weld Stepped Shank

Bore Dia. "B"	Nominal Pipe Size "P"	O.D.	Shank Dia. "Q1" (U≤2.5)	Shank Dia. "Q1" (U>2.5)	Shank Dia. "Q2"
.260	3/4	1.050	.500	.750	.500
.260	1	1.315	.750	.875	.500
.260	1.5	1.900	1.000	1.120	.500

All dimensions are in inches.

Socket Weld Straight Shank

Bore Dia. "B"	Nominal Pipe Size "P"	O.D.	Shank Dia. "Q" (U≤2.5)	Shank Dia. "Q" (U>2.5)
.260	3/4	1.050	.500	.750
.260	1	1.315	.750	.875
.260	1.5	1.900	1.00	1.12
.385	3/4	1.050	.766	.766
.385	1	1.315	.766	.875
.385	1.5	1.900	1.00	1.12

All dimensions are in inches.

Socket Weld Tapered Shank

Bore Dia. "B"	Nominal Pipe Size "P"	O.D.	Shank Dia. "Q1"	Shank Dia. "Q2"
.260	3/4	1.050	.750	.625
.260	1	1.315	1.000	.625
.260	1.5	1.900	1.370	.625

All dimensions are in inches.

WELD-IN THERMOWELLS

Visit reotemp.com

- ✓ Check Stock
- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing

HOW TO ORDER: Choose options to build a part number. For example: SW6316P1T-MT

SW	6	316	P1	T		-MT
TYPE	"A" STEM LENGTH	MATERIAL	PROCESS CONNECTION	SHANK	BORE DIAMETER	OPTIONS

SW = Socket Weld
SWL = Socket Weld w/ Lagging
WI = Weld-In
WIL = Weld-In w/ Lagging

2.5 = 2.5"
4 = 4"
6 = 6"
9 = 9"
12 = 12"
2.0 = 2"

304 = 304SS
316 = 316SS
316L = 316L SS
B = Brass
C = Carbon Steel (1018)
G = Hastelloy B
H = Hastelloy C
M = Monel/A400
T = Titanium
Y = Inconel 600
A = Alloy 105 Carbon Stainless Steel
D = Alloy 20
5 = F5 Alloy
P = PTFE Coated 316SS
N = F22 Alloy

Other materials available. Contact REOTEMP customer service for more information.

" " = 3/4" Pipe Nominal (1.050" OD) (std.)
P1 = 1" Pipe Nomina (1.315" OD)
P2 = 1.5" Pipe Nominal
P3 = 2" Pipe Nominal

" " = Stepped (std.)*
T = Tapered
S = Straight

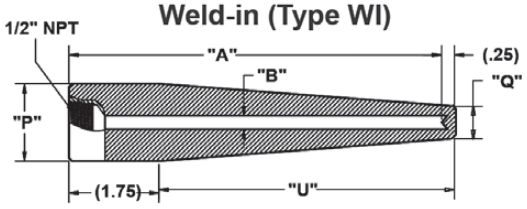
*Not available with .385 bore.

" " = .260 (std.)
B3 = .385
B5 = .515
I3 = 3/4" NPT Internal Thread

Other bore and internal thread sizes available.

EP = External Pressure Test
IT = Internal Pressure Testing (5 min. test)
MT = Material Certificate
ML = Mill Certificate
MR = NACE MR-01-75 Approval
M3 = NACE MR-01-03 Approval
PM = Positive Material Identification (PMI)
P4 = SS 304 Plug & Chain
P6 = SS 316 Plug & Chain
PB = Brass Plug & Chain
R2 = Special Surface Finish (Ra 20 max)
T1 = Tantalum Coating/ Halar Coating
T2 = Teflon Coating
T3 = Tungsten Carbide Coating
TM = Special Marking (Stamping)
TS = SS Tag (attached)
WK = Wake Frequency Calculation

Weld-in (Type WI)



All dimensions are in inches.

Weld-in Tapered Shank

Bore Dia. "B"	Nominal Pipe Size "P"	O.D.	Tip Dia "Q"
.260	3/4"	1.050	.625
	1"	1.315	.766
.385	3/4"	1.050	.625
	1"	1.315	.766

All dimensions are in inches.

FLANGED TYPE THERMOWELLS

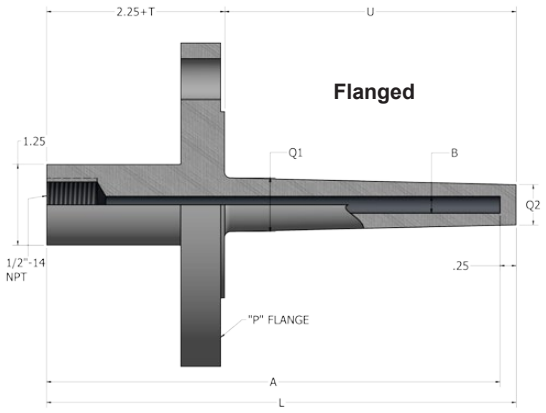
REOTEMP's Flanged Thermowells make it possible to remove an instrument without dropping pressure or losing contents of the process. Thermowells also protect the instrument from getting bent by the process media. Flanged thermowells are the preferred well for applications that require frequent removal or replacement due to corrosion or other hazards. Flanged wells bolt to a mating flange that is installed on the process piping. Common installations include large pipes with high pressure and high corrosion.

FEATURES / BENEFITS

- Die Stamped with Material
- Ideal for High Pressure and High Corrosion Applications Requiring Frequent Replacement
- Easy Removal of Instrument for Calibration or Replacement

OPTIONS

- Wake Frequency
- Hydrostatic Test
- Full Penetration Welds
- NACE Certified
- Material Certificates



Tapered Shank

Bore Dia. "B"	Flange Size	Shank Dia. "Q1"	Shank Dia. "Q2"
.260	3/4"	.750	.625
.260	1"	.875	.625
.260	1 1/2" & up	1.062	.625
.385	3/4"	.750	.625
.385	1"	.875	.766
.385	1 1/2" & up	1.062	.766

All dimensions are in inches.

Stepped Shank

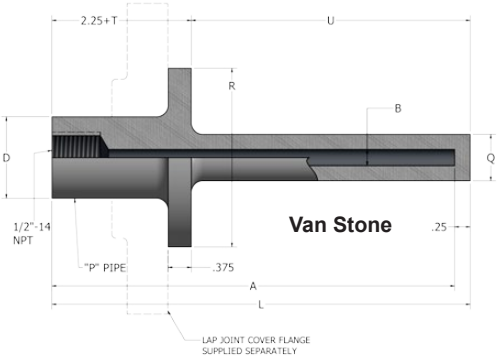
Bore Dia. "B"	Shank Dia. "Q1"	Shank Dia. "Q2"
.260	.750	.500

All dimensions are in inches.

Straight Shank

Bore Dia. "B"	Shank Dia. "Q2"
.260	.750
.385	.875

All dimensions are in inches.



Van Stone

Bore Dia. "B"	Shank Dia. "Q"
.260	.750
.385	.875

All dimensions are in inches.

Van Stone

Nominal Pipe Size "P"	O.D. "D"	Raised Face Dia. "R"
1"	1.315	2.000
1.5"	1.900	2.875

All dimensions are in inches.

FLANGED TYPE THERMOWELL

Visit reotemp.com

- ✓ Check Stock
- ✓ Configure Part #
- ✓ Get Price
- ✓ Generate a Custom Engineering Drawing

HOW TO ORDER: Choose options to build a part number. For example: 151R2STU040L062-MT

15 | 1 | R | 2 | S | T | U040L062

FLANGE SIZE

05 = 1/2”
07 = 3/4”
10 = 1”
15 = 1.5”
20 = 2”
25 = 2.5”
30 = 3”

FLANGE RATING

1 = 150#
3 = 300#
6 = 600#
9 = 900 - 1500#
5 = 2500#
V = VanStone

SEALING FACE

R = Raised Face
F = Flat Face
J = RTJ (Ring Type Joint)
Q = Other (Specify)

BORE DIAMETER

2 = .260” (For 1/4” Stem)
3 = .385” (For 3/8” Stem)
Q = Other (Specify)

*Not available with .385 bore.

MATERIAL

S = 316SS
F = 304SS
C = Carbon Steel
D = Carp. 20/Alloy 20
G = Hastelloy B
H = Hastelloy C
L = F11 Alloy
M = Monel
Y = Inconel (600)
U = Tantalum Lined
Z = Zirconium (316 flg)
V = 317SS
T = Titanium
K = 316/Stellite Coating
2 = Alloy 20
5 = F5 Alloy
N = F22 Alloy
P = PTFE Coated 316SS

SHANK STYLE

T = Tapered
S = Straight
P = Stepped*
R = Tapered w/ Support Ring
Q = Other

*Not available with .385 bore.

“U” DIMENSIONS & OVERALL LENGTH

“U” Dimensions	Overall Length
U020 = 2”	**L042 =** 4.25”
U040 = 4”	**L062 =** 6.255
U070 = 7”	**L092 =** 9.25”
U100 = 10”	**L122 =** 12.25”
U130 = 13”	**L152 =** 15.25”
U160 = 16”	**L182 =** 18.25”
U220 = 22”	**L242 =** 24.25”
U225 = 22.5”	**L247 =** 24.75”
M250 = 250mm	**M307 =** 307mm

Note: Rows above indicate standard pairings, for example: a 2” U dimension comes standard with a 4.25” overall length.

-MT

OPTIONS

EP = External Pressure Test
IT = Internal Pressure Testing (5 min. test)
MT = Material Certificate
ML = Mill Certificate
MR = NACE MR-01-75 Approval
M3 = NACE MR-01-03 Approval
PM = Positive Material Identification (PMI)
P4 = SS 304 Plug & Chain
P6 = SS 316 Plug & Chain
PB = Brass Plug & Chain
R2 = Special Surface Finish (Ra 20 max)
T1 = Tantalum Coating/ Halar Coating
T2 = Teflon Coating
T3 = Tungsten Carbide Coating
TM = Special Marking (Stamping)
TS = SS Tag (attached)
WK = Wake Frequency Calculation

SANITARY THERMOWELLS

REOTEMP's SanitaryThermowells make it possible to remove an instrument without dropping pressure or losing contents. Each stainless steel Thermowell is die stamped with type of material from which it is made. Sanitary wells have a smooth surface (RA32 or Better) and a Tri-Clamp® connection which allows for easy cleaning to prevent contamination of the process. They are used in the Dairy, Food Processing and Pharmaceutical industries.

3A® Certified

FEATURES / BENEFITS

- Smooth Surface for Easy Cleaning (RA32 or Better)
- Provides Sanitary Protection for Temperature Probes
- All 316L Stainless Steel Construction
- Fast Installation and Removal
- Ideal for Food, Beverage, Biotech, and Pharmaceutical Applications
- Exceeds 3A #4 Finish
- Easy Removal of Instrument for Calibration or Replacement

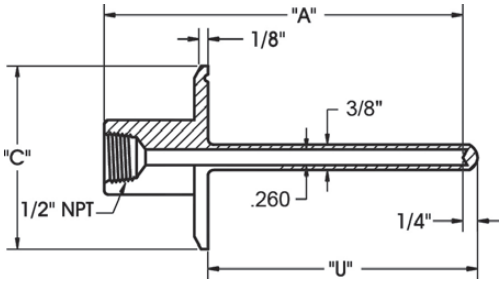
Visit reotemp.com

✓ Check Stock ✓ Get Price
✓ Configure Part # ✓ Generate a Custom Engineering Drawing

HOW TO ORDER: Choose a code to make your selection. For example: STF1.5-2.5

STF1.5-2.5

Tri-Clamp® Size	"A" Stem Length	"U" Dimension	"C" Dimension	Code
1 1/2"	2 1/2"	1 5/8"	2" (51mm)	STF1.5-2.5
	4"	2 1/2"		STF1.5-4
	6"	4 1/2"		STF1.5-6
	9"	7 1/2"		STF1.5-9
2"	2 1/2"	1 5/8"	2.5" (63mm)	STF2-2.5
	4"	2 1/2"		STF2-4
	6"	4 1/2"		STF2-6
	9"	7 1/2"		STF2-9
2 1/2"	2 1/2"	1 5/8"	3" (76mm)	STF2.5-2.5
	4"	2 1/2"		STF2.5-4
	6"	4 1/2"		STF2.5-6
	9"	7 1/2"		STF2.5-9
3"	2 1/2"	1 5/8"	3.6" (91mm)	STF3-2.5
	4"	2 1/2"		STF3-4
	6"	4 1/2"		STF3-6
	9"	7 1/2"		STF3-9



All dimensions are in inches.

Accessories

Terminal Blocks

2 pole **TCX001T2**

3 pole **TCX001T3**

4 pole **TCX001T4**

6 pole **TCX001T6**

Plugs & Jacks

Thermocouples

Std. Male Plug
TCX_*_ PLUG

Std. Female Jack
TCX_*_JACK

TCXSTDCLA = clamp set for std. plug/jack

Mini Male Plug
TCX_*_PLUG MINI

Mini Female Jack
TCX_*_JACK MINI

TCXMINCLA = clamp set for Mini plug/jack

* Insert thermocouple type (J,K,T,E)

Heads

TCX006_*_

Spring Loaded Kit

TCXBSL22

* = Enter letter code from p. TC1 (A)

In-Head Transmitters

TCXT4-X = 4-20mA transmitter

TCXT4-R = 4-20mA Hart transmitter

Bulk Wire

Thermocouple Type	Wire Gauge	Insulation Type	Options
K	20	F1	P

Extension Grade

Thermocouple Type K	Wire Gauge 20	Insulation Type F1
JX TX KX EX	16 = 16 gauge 20 = 20 gauge	P1 = PVC, solid, 221 °F

Standard Grade

Thermocouple Type K	Wire Gauge 20	Insulation Type F1	Options P
J K T E	20 = 20 gauge 24 = 24 gauge	Code / Insulation / Max Temp	P = Special Limits of error

Code	Insulation	Max Temp
Solid Wire		
F1	= fiberglass	900 °F
T1	= Teflon	400 °F
Stranded Wire (types J, K only)		
F2	= fiberglass	900 °F
T2	= Teflon	400 °F

Note: Consult factory for other options or wire types

Pricing

Call for Quote

REOTEMP INSTRUMENTS

Digital Thermometers

Thermistor Sensor

Thermcouples Sensor

Model TM99A

Features

- All Solid State
- High Accuracy
- Detachable Probes
- Wide Temperature Ranges

Model THH503

Water Resistant Min - Max,° F/°C

Model THH504

Specifications	TM99A	THH503	THH504
Range & Resolution	**Measurement Range:** -40° F to 300° F (-40°C to +150°C) **Resolution:** 0.1°C or 0.2°F	**Measurement Range:** Type J: -200°C to 1050°C, (-328°F to 1922°F) Type K: -200°C to 1370°C, (-328°F to 2498°F) **Resolution:** 0.1°C or 0.2°F	**Measurement Range:** Pt385 (100w) -200°C to 800°C, (-328°F to 1472°C), Pt3926 (100w) -200°C to 630°C, (-328°F to 1166°C) **Resolution:** 0.1°C or 0.2°F
Accuracy	Greater of ±0.3°F, or ±0.5% of reading	Accuracy is specified for operating temperatures over the range of 18°C to 28°C (64°F to 82°F), for 1 year, not including thermocouple error. ±(0.05% rdg + 0.3°C) -50°C to 1370°C ±(0.05% rdg + 0.7°C) -50°C to -200°C ±(0.05% rdg + 0.6°F) -58°F to 2498°F ±(0.05% rdg + 1.4°F) -58°F to -328°F	Accuracy is specified for operating temperatures over the range of 18°C to 28°C (64°F to 82°F), for 1 year, not including thermocouple error. ±(0.05% rdg + 0.2°C) on °C scale ±(0.05% rdg + 0.4°F) on °F scale
Ambient Range	0 to 150°F max, RH -90%, noncondensing	0°C to 50°C (32°F to 122°F) <80% R.H.	0°C to 50°C (32°F to 122°F) <80% R.H.
Display	Backlighted, 4" LCD	4½ digit liquid crystal display (LCD) with maximum reading of 19999.	4½ digit liquid crystal display (LCD) with maximum reading of 19999.
Probe	#1075 10K Thermistor, detachable	Type J or K thermocouple (optional)	RTD (Pt385 or Pt3926)
Power	Standard 9V battery	Standard 9V battery	Standard 9V battery
Size	9.5" x 6.5" x 2.5" (case closed)	7.6" x 3.9" x 2.1" (192x 91x 52.5mm)	7.6" x 3.9" x 2.1" (192x 91x 52.5mm)

Probes for Models: TM99A
10K Thermistor Probes
All have 3" handle and 48" coiled lead.

Model	Description	Probe Dimensions
1075	S/S Immersion (comes standard)	.142" x 4"
1078	S/S Immersion	.142" x 8"

How to Order

1. Specify Model #
2. Specify Probe.

Model #		Probe
TM99A	–	FRK4

HH503
Thermocouple Probes (intermediate sizes, or industrial configurations available on application) Probes have 4" handle and min. 36" lead, except where noted.

Model	Description	Probe Dimensions
FRK4	Fast Response	1/16" x 4"
HPK2	Piercing Tip	.156" x 4"
LPK12	Heavy Duty General Purpose	1/4" x 12"
MRK36, 48,60	Heavy Duty Penetration (pointed)	.40" x 36", 48" or 60"

HH504
RTD Probes (intermediate sizes, or industrial configurations available on application) Probes have 4" handle and min. 36" lead, except where noted.

Model	Description	Probe Dimensions
RFRK4	Fast Response	1/16" x 4"
RHPK2	Piercing Tip	.156" x 4"
RLPK12	Heavy Duty General Purpose	1/4" x 12"
RMRK36, 48,60	Heavy Duty Penetration (pointed)	.40" x 36", 48" or 60"

Other REO*TEMP* Products

Pressure Products (Catalog # RPP)

- Pressure Gauges
- Diaphragm Seals
- Pressure Transmitters
- Sanitary Products
- Pressure Switches

Temperature Products (Catalog # TI)

- Bimetal Thermometers
- Thermowells
- Sanitary Thermometers & Thermowells
- Filled System Thermometers
- Digital Thermometers
- Surface & Pocket Thermometers
- Temperature Switches

REO*TEMP* Guarantee & Warranty Information

One Year Warranty

All REO*TEMP* temperature instruments are warranted for a minimum of one year from date of receipt to be free of manufacturer's defects in material and workmanship (Certain bimetal thermometers are warranted for 5 years; see TI catalog).

Our Guarantee

Reotemp guarantees the products will perform within the cataloged performance specifications if used within specified parameters. Determination of defect or failure will be made at Reotemp or at a certified test facility. Warranty is limited to replacement or repair at factory. This warranty is expressly in lieu of any other warranty, expressed or implied, and of all other obligations or liability on our part for damages, including but not limited to, consequential damages arising out of use or misuse of our temperature instruments, and we neither assume nor authorize anyone to assume for us, any other liability in connection with the sale of our instruments or sensors. Suitability of product for the customer's application rests with the customer; REO*TEMP* does not warrant suitability of its product for the application selected by customer.

REO*TEMP* reserves the right to make product improvements and change its specification stated throughout this catalog at anytime without notification. Please contact the factory on all critical dimensions and specifications for verification.

Ph (800) 648-7737 • Fx (858) 784-0720 • sales@reotemp.com • www.reotemp.com
10656 Roselle St. • San Diego, CA • 92121