

Head Assemblies - (Head & Connection)

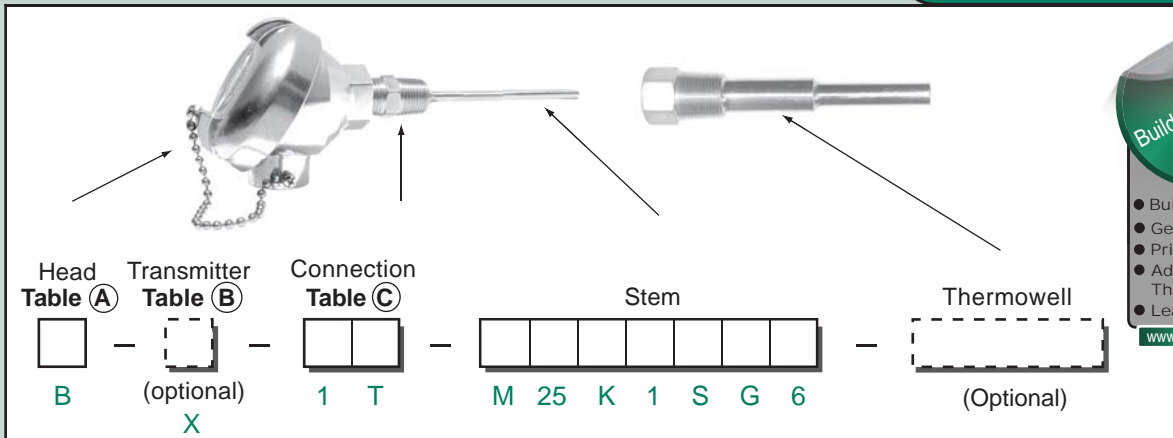


Table A - Heads

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

Note: Add'l heads on price list.

Table B - Transmitters - (optional)

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

Table C - 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
<p>1/2" NPT Hex Fitting</p> <p>1 5/8" X</p>	1T	1F
<p>1/2" NPT Pipe-Nipple</p> <p>2-1/2" X</p>	2T	---
<p>1/2" NPT Nipple Union Nipple</p> <p>5" X</p>	4T	---
<p>No Process Threads</p> <p>X</p>	---	6F
<p>1/2" NPT Explosion Proof Hex</p> <p>2" X</p>	7T	---

Note: Add'l connections on price list.



Thermocouples- Head Assemblies

Table(A)- Connections Heads

Code	Description	Price	
		Single	Dual
A	Cast iron	38	43
B	Cast alum. screw	31	36
C	Poly plastic (blk)	34	40
E	Cast. alum. exp.	69	73
G	316SS	138	143
H	Alum. flip-top	32	37
I	Epoxy coated alum.	36	41
J	Exp. prf. 316SS	167	173
S	White FDA poly	36	41
T	Atex exp. proof	90	98
Window Heads:			
Z	Window, exp. prf.	75	82
Y	Polished SS/window (use with "A", "B" xmtrs)	211	216
Other Heads:			
M	Exp. prf. alum., 3/4" x 3/4"	54	60
D	Mini cast alum.	95	100
F	Exp. prf. iron body	53	58
K	Polished 316SS/knurl (1/2x1/2)	148	152
L	Exp. prf. epoxy coated	90	98
P	Din black poly	35	41
U	Hi-dome fliptop	39	43
V	Ball-dome fliptop	33	38
Heads Options:			
H	1/2" conduit	6	6
G	BSP 1/2" conduit	25	25
M	M24 x 1.5"	25	25

Table(B)- Transmitters (Optional)

Code	Price
X	168
R	336
F	613
P	575
B	462
A	753
G	968
D	799

Table(C)- Threaded Connections

Code	Description	Price
1T	Spring-loaded 316SS bushing	31
4T	5" nominal sprg. load N-U-N 316SS	53
2T	Sprg. loaded 2.5" nipple 316SS	37
7T	Sprg. loaded expl. prf. bush 316SS	96
5T	N-U-N sprg. ld. expl. prf. bush. 316SS	149
Welded Fittings:		
1F	Welded bushing 316SS	28
4F	Nip-union-nip welded 316SS	59
6F	SS bushing, 1/2" NPT no proc. threads	22
Other N-Union-N:		
4T3	3" nominal spring loaded N-U-N	53
4T4	4" nominal spring loaded N-U-N	53
4T6	6" nominal spring loaded N-U-N	57
4T7	7" nominal spring loaded N-U-N	61
Other Nipples:		
2T3	3" spring loaded nipple	41
2T4	4" spring loaded nipple	45
2T5	5" spring loaded nipple	50
2T6	6" spring loaded nipple	54
2T7	7" spring loaded nipple	58
2T8	8" spring loaded nipple	62
Steel Fittings:		
2L	obsolete - use 2T	obsolete
4L	obsolete - use 4T	obsolete
Special Fittings:		
8T	Sprg-loaded term. block no fitting 1/2" NPT female head opening	52

Table(D)- Stems

Step 1

Code	Price
M	included

Step 2 - Sheath Diameter (D)

Code	Description	Price			
		Single		Dual	
		First 12"	Add'l 6"	First 12"	Add'l 6"
25	1/4" dia.	included	included	6.00	2.00
12	1/8" dia.	included	included	1.30	0.60
18	3/16" dia.	included	included	4.75	1.00
06	1/16" dia.	included	included	7.00	0.70
37	3/8" dia.	included	included	7.75	2.50
50	1/2" dia.	call	call	call	call

Step 3 - ANSI Type Thermocouple

Code	Price			
	Single		Dual	
	First 12"	Add'l 6"	First 12"	Add'l 6"
J	included	included	included	included
K	included	included	included	included
T	2.80	0.70	2.80	0.70
E	1.30	0.80	1.30	0.80
Special limits of error:				
JS	1.40	0.70	1.40	0.70
KS	1.40	0.70	1.40	0.70
TS	4.20	1.30	4.20	1.30
ES	2.60	1.40	2.70	1.40

Step 4 - Type of Sheath Material

Code	Description	Price									
		1/4 dia.		1/8 dia.		3/16 dia.		1/16 dia.		3/8 dia.	
		First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"
1	316SS	17.00	4.10	11.20	1.80	12.20	2.60	20.50	2.10	25.50	7.30
2	310SS	20.80	4.90	11.50	1.90	14.40	3.10	22.80	2.70	35.50	9.70
3	304SS	17.00	4.10	11.20	1.80	12.20	2.60	20.50	2.10	25.50	7.30
5	Inconel 600	25.10	7.30	12.80	2.90	17.20	4.70	22.80	3.30	54.40	16.40

Step 5 - Number of Elements

Code	Price
S	included
D	included

Step 6 - Type of Junction

Code	Price	
	Single	Dual
G	included	included
U	3.30	5.50
E	2.25	2.25
UU	n/a	10.75

Step 7 - Probe Length (X) in Inches

Code	Price
1 to 999	Included

Note: All prices subject to change without notice
Note: All prices U.S. dollars

Thermocouples - Stem Only Assemblies

Table (A) - Thermocouple Style

Code	Description	Price	
		Single	Dual
A	Plain stem	3	3
B	Welded SS bush.	39	41
C	Male mini plug	11	n/a
D	Female mini plug	11	n/a
F	Std. male plug	13	48
G	Std. female plug	13	57
H	Spring loaded bush.	39	41
P	1/2"NPT nipple w/Bay.	81	81
R	Bayonet cap w/spring	6	6
S	Load spring only	4	6

Table (A-2) - Options

Stem Options:			
Code	Description	Price	
T	1/4" NPT compression ftg.	36	
U	1/2" NPT compression ftg.	53	
V	1/8" NPT compression ftg.	39	
W	Weld pad	19	
Plug Options:			
Code	Description	Price	
		Single	Dual
MC	Mating connector	8.50	16.80
BR	Compression bracket for plug	13	n/a
HT	High Temp. Plug	22	39

Step 3

Code	Price
M	included

Step 4 - Sheath Diameter (D)

Code	Description	Price			
		Single		Dual	
		First 12"	Add'l 6"	First 12"	Add'l 6"
25	1/4" dia.	included	included	6.00	1.90
12	1/8" dia.	included	included	1.30	0.60
18	3/16" dia.	included	included	4.75	1.00
06	1/16" dia.	included	included	7.00	0.70
37	3/8" dia.	included	included	7.75	2.50
50	1/2" dia.	call	call	call	call



Step 5 - ANSI Type Thermocouple

Code	Price			
	Single		Dual	
	First 12"	Add'l 6"	First 12"	Add'l 6"
J	included	included	included	included
K	included	included	included	included
T	2.80	0.70	2.80	0.70
E	1.30	0.80	1.30	0.80
Special limits of error:				
JS	1.40	0.70	1.40	0.70
KS	1.40	0.70	1.40	0.70
TS	4.20	1.30	4.20	1.30
ES	2.60	1.40	2.60	1.40

Step 6 - Type of Sheath Material

Code	Description	Price									
		1/4 dia. (25)		1/8 dia. (12)		3/16 dia. (18)		1/16 dia. (06)		3/8 dia. (37)	
		First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"
1	316SS	17.00	4.10	11.20	1.80	12.20	2.60	20.50	2.10	25.50	7.30
2	310SS	20.80	4.90	11.50	1.90	14.40	3.10	22.80	2.70	35.50	9.70
3	304SS	17.00	4.10	11.20	1.80	12.20	2.60	20.50	2.10	25.50	7.30
5	Inconel 600	25.10	7.30	12.80	2.90	17.20	4.70	22.80	3.30	54.40	16.40

Step 7 - Number of Elements

Code	Price
S	included
D	included

Step 8 - Type of Junction

Code	Price	
	Single	Dual
G	included	included
U	3.30	5.50
E	2.25	2.30
UU	n/a	10.80

Step 9 - Probe Length (X) in inches

Code	Price
1 to 999	Included

Note: All prices subject to change without notice
Note: All prices U.S. dollars

Stem Only Assemblies

Table (A) TC Styles

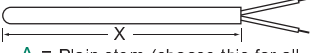

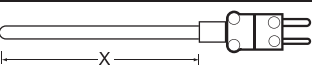
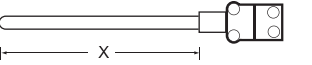
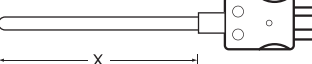
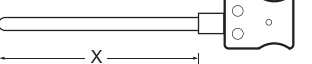
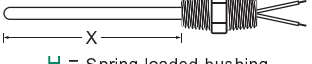
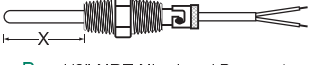



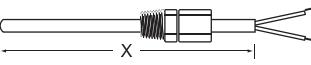
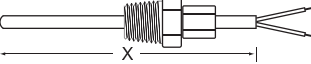
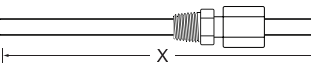


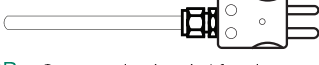
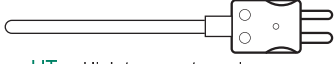
	A
A = Plain stem (choose this for all lead assemblies)	
	B
B = Welded SS bushing	
	C
C = Male mini plug	
	D
D = Female mini jack	
	F
F = Male standard plug	
	G
G = Female standard jack	
	H
H = Spring loaded bushing	
	P
P = 1/2" NPT Nipple w/ Bayonet	
	R
R = Bayo Cap w/ spring	
	S
S = Load Spring only	
	4T
4T = 5" nominal sprg. load N-U-N 316SS	

Table (A-2) Stem Options Styles

Stem Options:	
	T
T = 1/4" NPT Compression fitting, loose on stem (316SS)	
	U
U = 1/2" NPT Compression fitting, loose on stem (316SS)	
	V
V = 1/8" compression fitting	
	W
W = Weld Pad	
Plug Options:	
	MC
MC = Mating connection for plug or jack	
	BR
BR = Compression bracket for plug	
	HT
HT = High temperature plug	

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- Add Matching Thermowell
- Lead Times

www.reotemp.com

THERMOCOUPLES

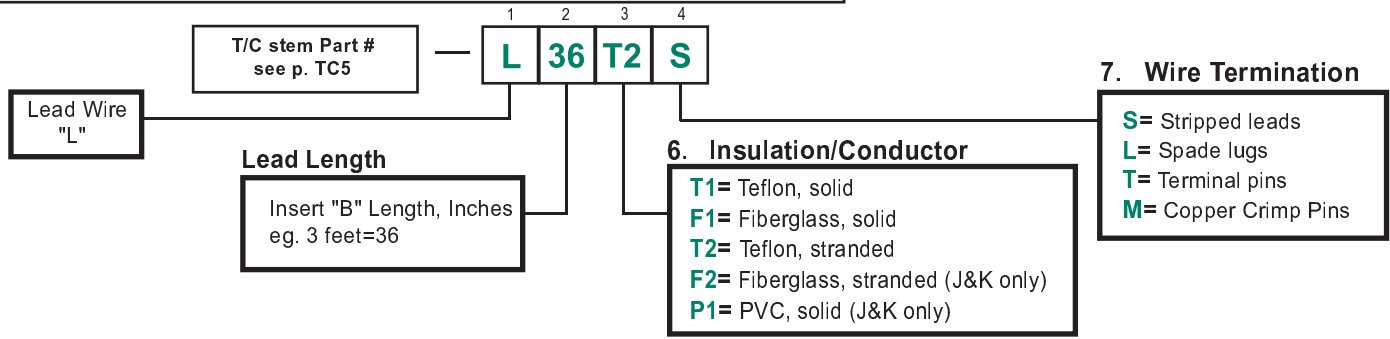
STEP 1 - Style	Choose Thermocouple style from table (A)
(Optional) STEP 2 - Stem Options	Choose Stem Options from Table (A-2)
STEP 3	Metal Sheathed thermocouple Assembly - insert "M"
STEP 4 - Sheath Diameter	Insert 2 digit number designated below 06 = .062in. 12 = .125in. 18 = .188in. 25 = .250 in. 37 = .375in. 50 = .500in.
STEP 5 - ANSI Type Thermocouple	Insert designation below K = Chromel Alumel T = Copper Constantan (Add "S" for special limits Ex. KS) 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 (A). Specify in inches.
STEP 10 - Lead Wire	If leadwire, leadwire part # (p. TC6) Ex. LJ2P36F1F

M

Note: more styles on price list

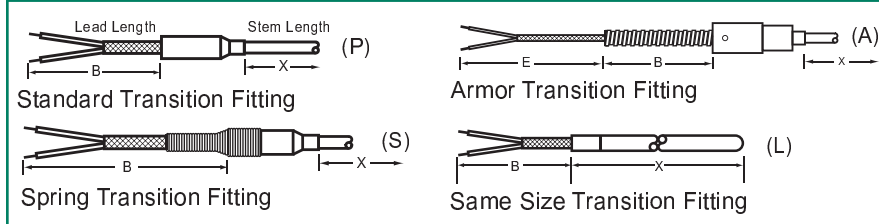
Lead Wire Configuration

Plain Leadwires (Most are supplied without a transition)

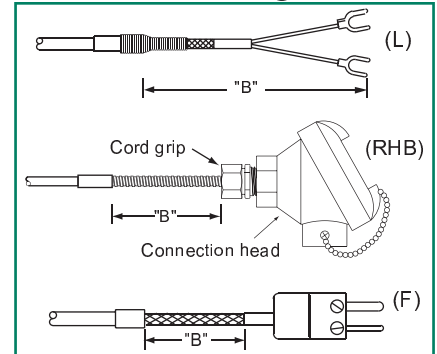


Other Leadwires (These require a transition)

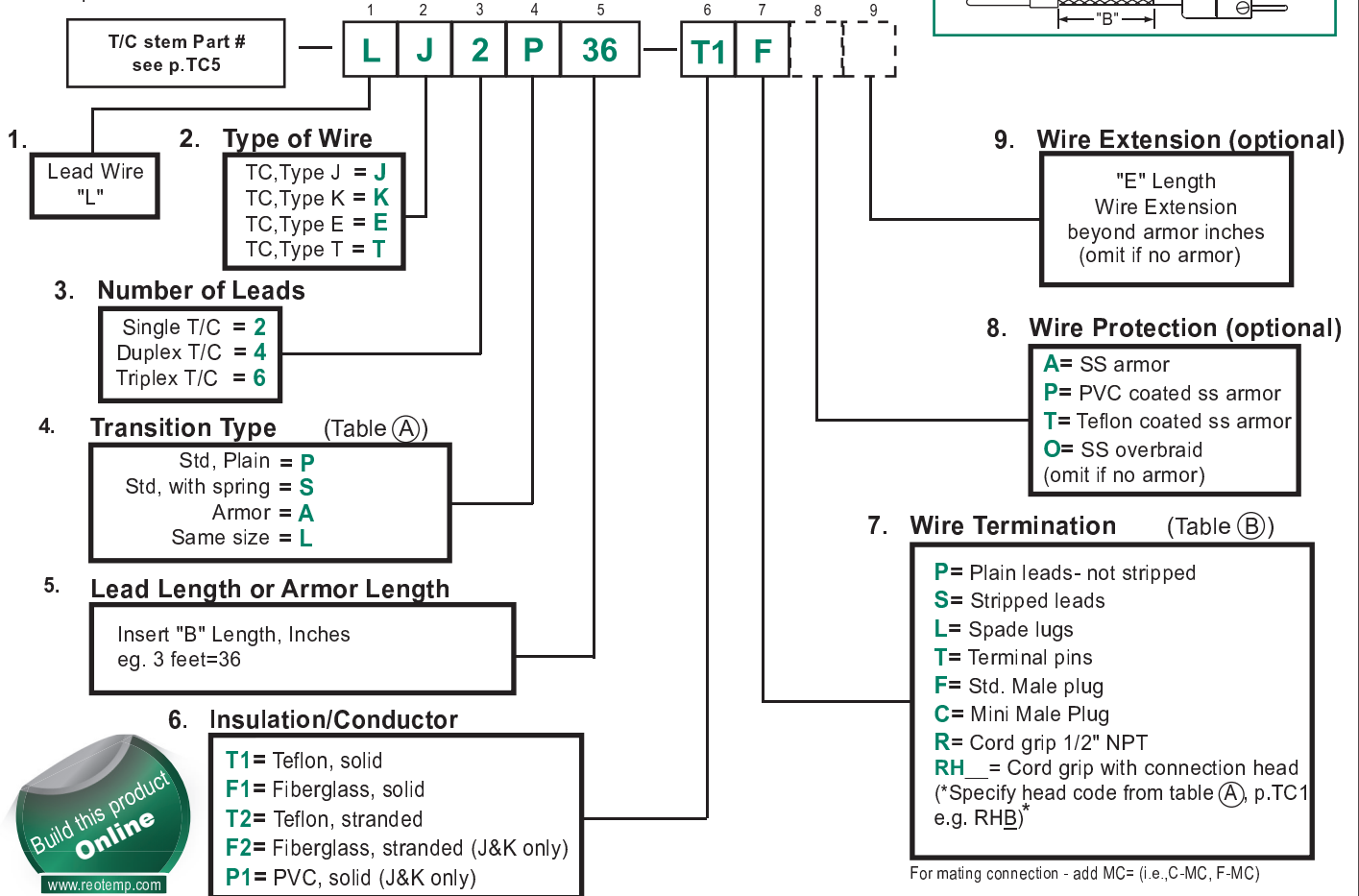
Transitions - Table(A)



Terminations - Table(B)



Example: APX125116X - L6LJ2P36F1F



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

Thermocouples- Lead Wire

Fancy Leads

1. Lead Wire			2. Type of Wire				3. Number of Leads			
Code	Description	Price	Code	Description	("B" length + "E" length)		Code	Description	Price	
L	Lead wire	incl'd			Single	Dual	2	2-wire: (single T/C)	incl'd	
			J	Type J thermocouple	incl'd	incl'd	4	4-wires (duplex T/C)	incl'd	
			K	Type K thermocouple	incl'd	incl'd	6	6-wire: (triplex T/C)	incl'd	
			E	Type E thermocouple	incl'd	incl'd				
			T	Type T thermocouple	incl'd	incl'd				
4. Transition Type				Price		5. Lead Length or Armor Length				
Code	Description	Single	Dual	Code	Description	Price				
P	Std., Plain	11.30	16.40	XX	Insert "B" length, in inches eg. 10ft = 120	incl'd				
S	Std., with spring	11.30	16.40							
A	Armor	12.90	17.80							
L	Same size	33.90	37.40							
Options:										
H	High temperature potting. Select transition first, e.g. "PH". Not avail. w/same size trans.	10.00	10.00							
6. Insulation/Conductor		Price Per Foot								
Code	Description	Single ("B" Length + "E" Length)				Dual ("B" Length + "E" Length)				
		Type J	Type K	Type E	Type T	Type J	Type K	Type E	Type T	
F1	Fiberglass, solid	0.90	1.40	1.30	1.20	1.60	1.70	2.50	1.40	
F2	Fiberglass, stranded	1.30	1.70	n/a	n/a	1.70	2.40	n/a	n/a	
T1	Teflon, solid	1.10	1.60	1.50	1.10	1.60	1.80	2.70	2.10	
T2	Teflon, stranded	1.40	1.70	n/a	n/a	1.80	2.30	n/a	n/a	
P1	PVC, solid	0.80	0.90	n/a	n/a	1.40	1.30	n/a	n/a	
7. Wire Termination		Price		8. Wire Protection (optional)						
Code	Description	Single	Dual	Code	Description	Price Per				
P	Plain leads - not stripped	incl'd	incl'd	A	SS armor	1.60				
S	Stripped leads	4.80	5.00	P	PVC coated ss armor	5.80				
L	Spade lugs	4.00	7.90	T	Teflon coated ss armor	7.40				
T	Terminal pins	7.80	10.30	O	SS overbraid	0.70				
F	Std. male plug	10.90	48.00		(omit if no armor)					
C	Mini male Plug	10.30	n/a							
R	Cord grip 1/2" NPT, zinc plated steel	25.90	25.90							
RH *	Cord grip with connection head (*Specify head code from table A, p. TC1)	25.90	25.90							
D	Mini female jack	10.50	n/a							
G	Std. female jack	12.70	57.00							
M	Copper crimps	8.00	10.80							
9. Wire Extension		Price								
Code	Description	Single	Dual	Code	Description	Price				
__	"E" Length wire extension beyond armor inches (omit if no armor)			__	"E" Length wire extension beyond armor inches (omit if no armor)	included				



Plain Leads

1. Lead Wire			2. Lead Length or Armor Length						
Code	Description	Price	Code	Description	Price				
L	Lead Wire	incl'd	XX	Insert "B" Length, in inches eg. 10ft = 120	incl'd				
3. Insulation/Conductor		Price Per Foot							
Code	Description	Single ("B" Length + "E" Length)				Dual ("B" Length + "E" Length)			
		Type J	Type K	Type E	Type T	Type J	Type K	Type E	Type T
F1	Fiberglass, solid	0.90	1.40	1.30	1.20	1.60	1.70	2.50	1.40
F2	Fiberglass, stranded	1.30	1.70	n/a	n/a	1.70	2.40	n/a	n/a
T1	Teflon, solid	1.10	1.60	1.50	1.10	1.60	1.80	2.70	2.10
T2	Teflon, stranded	1.40	1.70	n/a	n/a	1.80	2.30	n/a	n/a
P1	PVC, solid	0.80	0.90	n/a	n/a	1.40	1.30	n/a	n/a
4. Wire Termination		Price		Note: All prices subject to change without notice					
Code	Description	Single	Dual	Note: All prices U.S. dollars					
S	Stripped leads	4.80	5.00						
L	Spade lugs	4.00	7.90						
T	Terminal pins	7.80	10.30						
M	Copper crimp pins	8.00	10.80						

Thermocouple - Metal Tube Assemblies

Aluminum Head Single Type J or K Assembly						
AWG	Pipe Size = 1/2" (thread = 1/2" NPT)					
	Carbon Steel		304SS		316SS	
	first 12"	6" add'l	first 12"	6" add'l	first 12"	6" add'l
8awg	84.90	10.30	96.00	13.70	102.00	16.30
14awg	80.60	7.70	91.70	11.10	98.60	13.70
Pipe Size = 3/4" (thread = 3/4 NPT)						
8awg	93.43	12.90	104.60	16.30	110.60	18.00
14awg	89.14	10.30	100.30	13.70	107.10	15.40

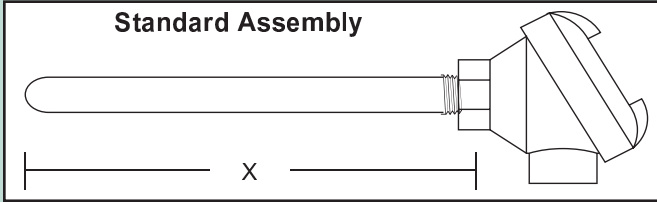
Metal Protection Tube Only						
	Pipe Size = 1/2" (thread = 1/2" NPT)					
	Carbon Steel		304SS		316SS	
	first 12"	6" add'l	first 12"	6" add'l	first 12"	6" add'l
	38.60	4.30	44.60	6.00	50.60	7.70
Pipe Size = 3/4" (thread = 3/4 NPT)						
	45.40	6.00	51.40	7.70	57.40	9.40

Adders		
Duplex Adders		
AWG	first 12"	6" add'l
8awg	13.70	3.40
14awg	9.40	1.70
Optional Adders		
Cast Iron Head		8.60
Steel Welded Bushing		15.40
SS Welded Bushing		51.40
Malleable Iron Flange		16.30
SS Union-nipple 6" or less		67.70
Additional 1" for above (Type N thermocouple)		5.10
20 AWG wire		See Factory
1" PIPE OR 1/4" pipe		See Factory
INCONEL 600 material		See Factory

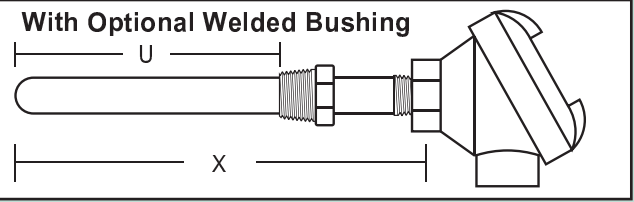
Note: All prices subject to change without notice
Note: All prices are U.S. dollars

Metal Tube Assemblies

Standard Assembly



With Optional Welded Bushing



Metal Tube Assembly

MTA — **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

6. Options

Process Connection

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

N = Union Nipple
(Specify Extension length)

F = Malleable Iron flange

5. Tube Length (X)

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

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"

Metal Protection Tube Only

MTO

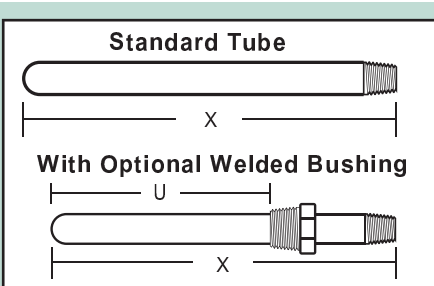
Tube Material / Size

C5

Tube Length (X)

12

Options



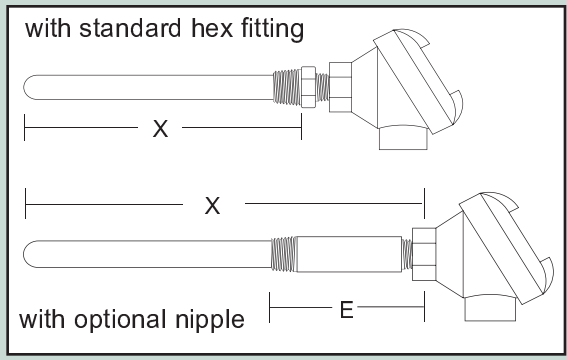
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(Specify NPT & insertion length "U")
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Ceramic Tube Assemblies

Ceramic Tube Thermocouple Assemblies



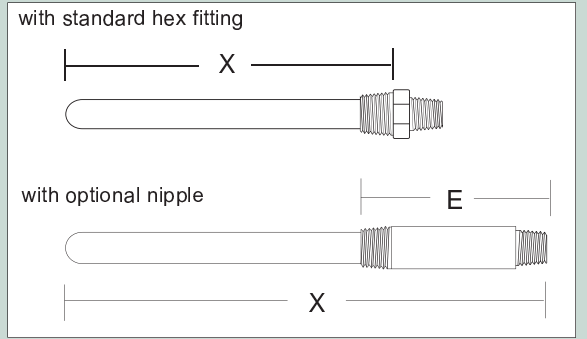
- For High temperature process heating applications
- Alumina (max 3400 °F) or Mullite (max 2700 °F)
- Base metal or Noble metal thermocouples
- Applications: Kilns, Furnaces, Gas Heaters, Incinerators, Heat Treating, Smelting, Foundry

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																																														
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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. *Call for Noble Metals

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																										
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Thermocouple - Ceramic Tube Assemblies

Aluminum Head Single Type J or K Assembly				
AWG	MULLITE		ALUMINA	
	first 12"	6" add'l*	first 12"	6" add'l*
Tube OD = 11/16" x Process = 3/4 NPT				
8awg	86.60	12.00	107.10	24.90
14awg	82.30	10.30	102.90	23.10
Tube OD = 1" x Process = 1 1/4 NPT				
8awg	102.90	13.70	119.10	30.00
14awg	98.60	12.00	114.90	28.30

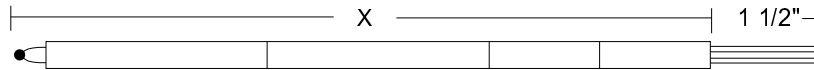
*adder only up to 36". See factory for longer
Call for pricing on other tube/thread sizes.

Ceramic Tube Fitting Only with Std. hex Fittings (no element or head)				
	MULLITE		ALUMINA	
	first 12"	6" add'l	first 12"	6" add'l
Tube OD = 11/16" x Process = 3/4 NPT				
	47.10	7.70	67.70	21.40
Tube OD = 1" x Process = 1 1/4 NPT				
	60.90	9.40	84.90	27.40

Note: All prices subject to change without notice
Note: All prices are U.S. dollars

Adders		
Duplex Adders		
AWG	12"	6" adder
8awg	13.70	3.40
14awg	9.40	1.70
Optional Adders		
Cast Iron Head	8.60	
SS Hex Fitting	33.40	
Malleable Iron Flange	16.30	
SS Pipe Nipple	18.00	
Insulated Hot Junction	8.60	
Tube 3/8" OD x 1/2" NPT	N/C	
Tube 11/16" OD x 1 1/4" NPT	21.40	
Tube 11/16" OD x 1" NPT	12.90	
Noble Metal TC		
See factory; prices dictated by current market prices for precious metals.		

Thermocouple - Replacement Elements For Base Metal



Type, AWG	first 12"	6" adder*
K8, J8	22.30	8.60
K14, J14	18.00	6.00
K20, J20	15.40	4.30
KK8, JJ8	33.40	12.90
KK14, JJ14	27.40	9.40
KK20, JJ20	23.10	6.90
*adder only up to 36". See factory for longer		

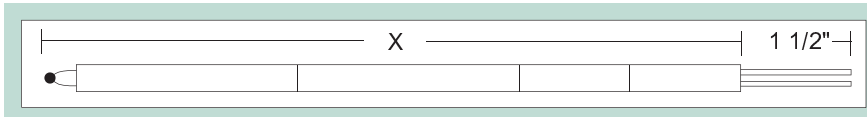
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Adders	
Optional Adders	
Twisted Junction (not available with 8 awg)	N/C
18 awg, 11 awg	See factory
Type N, T, E thermocouples	See factory
Insulated Junction	10.30
Noble Metal TC Adders	
See factory; prices dictated by current market prices for precious metals	

Replacement Elements

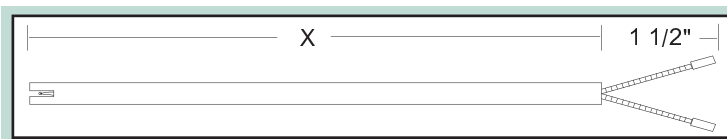
For Use in REOTEMP Protection Tubes, or in other manufacturers' protection tubes.

Base Metal Thermocouples



Element	Type	Wire Gauge	Insulator	Length (x)	Hot Junction Style	Lead Length																																	
RE	K	20	R	12	P	1.5																																	
	<table border="1"> <tr><td>single</td><td>duplex</td></tr> <tr><td>K</td><td>KK</td></tr> <tr><td>J</td><td>JJ</td></tr> <tr><td>N</td><td></td></tr> </table>	single	duplex	K	KK	J	JJ	N		<table border="1"> <tr><td>20 AWG</td></tr> <tr><td>18</td></tr> <tr><td>14</td></tr> <tr><td>11</td></tr> <tr><td>8</td></tr> </table>	20 AWG	18	14	11	8	<p>B = Bare (no insulator)</p> <p>C = Oval Ceramic </p> <table border="1"> <tr><th>Wire gauge</th><th>Dimensions</th></tr> <tr><td>8</td><td>.500 x .286</td></tr> <tr><td>11</td><td>.375 x .218</td></tr> <tr><td>14, 18</td><td>.313 x .288</td></tr> </table> <p>R = Round Ceramic </p> <table border="1"> <tr><th>Wire gauge</th><th>OD Single</th><th>Duplex</th></tr> <tr><td>8, 11</td><td>.465</td><td>.500</td></tr> <tr><td>14, 18</td><td>.250</td><td>.320</td></tr> <tr><td>20</td><td>.150</td><td>.188</td></tr> </table>	Wire gauge	Dimensions	8	.500 x .286	11	.375 x .218	14, 18	.313 x .288	Wire gauge	OD Single	Duplex	8, 11	.465	.500	14, 18	.250	.320	20	.150	.188	<p>12 = 12"</p> <p>18 = 18"</p> <p>24 = 24"</p> <p>Other, specify</p>	<p>P = Plain </p> <p>I = Insulated </p>	<p>1.5 = 1.5" (std.)</p> <p>4 = 4" etc.</p>
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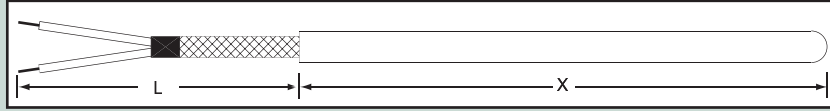
Noble Metal Thermocouples



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

- 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
- Wire Gauge**
 - 24** AWG
 - 26**
- Insulator**
 - R** = Round Alumina (std.) (.188" o.d.)
 - B** = Bare (no insulator)
- Length (x)**
 - 12** = 12"
 - 18** = 18"
 - 24** = 24"
 - Other, specify
- Hot Junction Style**
 - R** = Recessed in Slot (std)
 - P** = Plain (exposed junction)
 - C** = Plain, with Collar
 - D** = Recessed, with Collar
- Leads**
 - F1.5** = 1.5" Long with fish spine insulators and copper crimp (std)
 - F4** = 4" etc.

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)

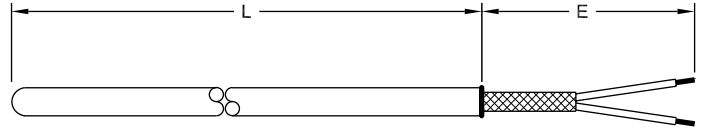
THERMOCOUPLES

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	Single (std) J K E T Duplex JJ KK EE TT	G = Grounded U = Ungrounded	18 = 18" (std.) 24 = 24" 36 = 36"	F = 304SS (std.) S = 316SS	L6 = 6" (std.) L12 = 12"	
			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		

Thermocouple Cut-to-Length Sensors

NOTE: Cut to length elements can be cut to any length (over 3") with an ordinary tube cutter.



1. Sensor Type

T3 = Thermocouple
(base price **\$18.90**)

2. Thermocouple Type

Single (std)	Duplex add \$4.30
K	KK
J	JJ
N	NN

3. Grounding

G = Grounded (std)
U = Ungrounded (add **\$2.10**)
UU = Uncommon/ungrounded (add **\$4.30**)

4. Element Length (L)

18 (std)
24 (add **\$3.40**)
36 (add **\$9.40**)

7. Options

Wire/Insulation (if not std. solid Fiberglass), per 3 ft.
F2 = Str., Fiberglass (**\$1.70**)
T1 = Solid, Teflon (**\$1.70**)
T2 = Str., Teflon (**\$1.70**)
P1 = Solid, PVC (**\$1.70**)
P2 = Str., PVC (**\$1.70**)
Stem Dia. (if not std. 1/4")
D18 = .188" (3/16") (**\$1.70**)
D37 = .375 (3/8") (**\$8.60**)
Wire Gauge (if not 20 AWG)
G4 = 24 gauge (**N/C**)

6. Lead Length (E)

L6 = 6" (std.)
L12 = 12" (add **\$1.70**)
(Other - add **\$1.70/ft**)

5. Alloy

F = 304SS (std.)
S = 316SS (add **\$2.10**)


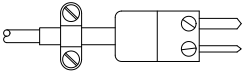
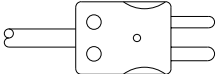
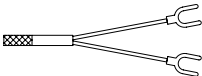

Note: All prices subject to change without notice
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Thermocouples - Plain Wire

(with beaded junction)

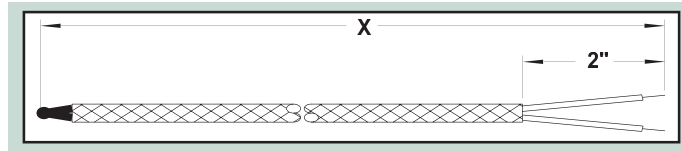
First Foot Any Type					
10.30					
		Adder Per Foot		20 awg, 24 awg	
		J	K	T	E
		Solid			
Fiberglass	F1	1.10	1.30	1.10	1.50
Teflon	T1	1.30	1.50	1.30	1.90
		Stranded			
Fiberglass	F2	1.40	1.60	---	---
Teflon	T2	1.60	1.90	---	---

Adders	
Options	
A = S.S. Armor	2.10
P = PVC over S.S. Armor	4.30
T = Teflon over S.S. Armor	5.10
O = S.S. Overbraid	1.30
W = Washer weld tip	16.30

Terminations		
S = Stripped Leads	2.80	
C = Mini Male Plug	10.70	
F = Std. Male Plug	12.90	
L = Spade Lugs	4.30	
T = Terminal Pins	4.30	

Note: All prices subject to change without notice
 Note: All prices are U.S. dollars

Plain Wire- with Beaded Junction



Wire Thermocouple

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

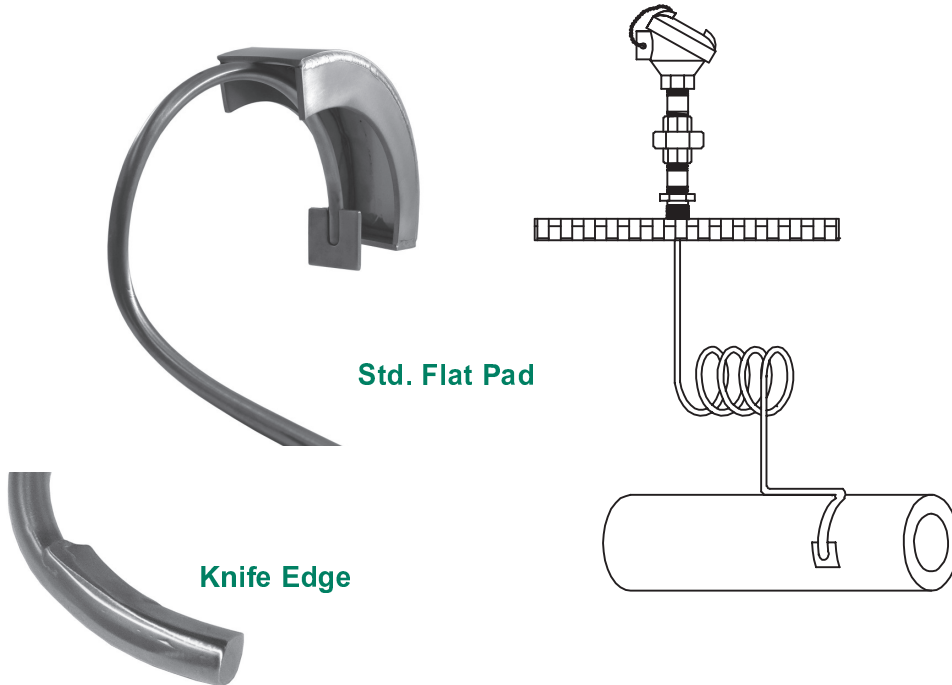
- S = Stripped Leads
- C = Mini Male Plug
- F = Std. Male Plug
- L = Spade Lugs
- T = Terminal Pins

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")

Weld Pad (Tube Skin) Thermocouples

REOTEMP 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.



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 REOTEMP Difference...

- Custom designs

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

- Application assistance
- Exceptional customer service



Fired Heater Tubes

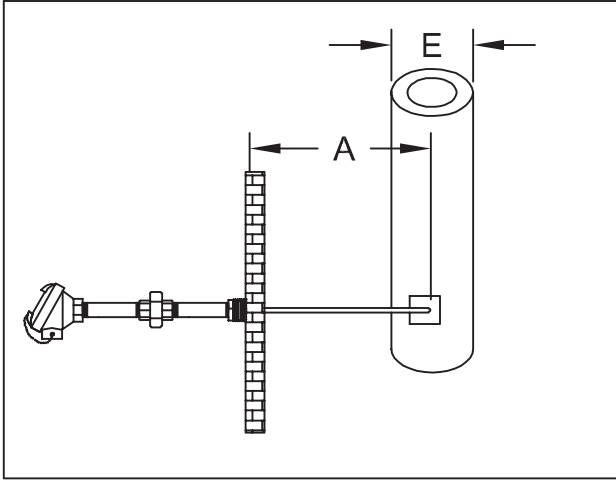


Gas Burner in Fire Box

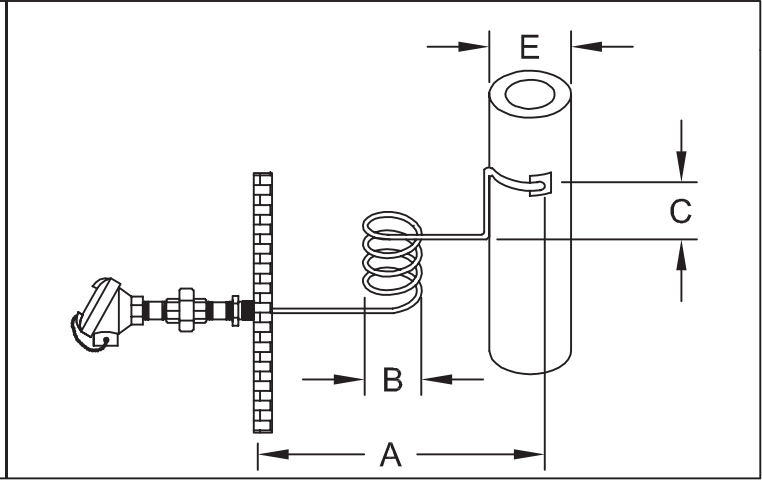
Part builder on back →

Weld Pad (Tube Skin) Thermocouples

Basic Weld Pad Configuration



Weld Pad Configuration with Options



Thermocouple P/N#
(ex. B1TM25K1ASG)

1 2 3 4 5
10 1 06 90 10

6 7 8 9 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

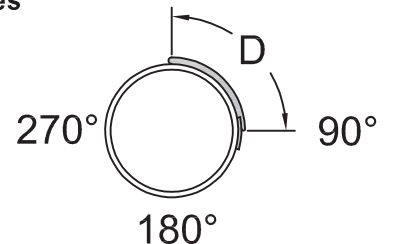
- 10 = 10 in.
- 15 = 15 in.
- 20 = 20 in.
- 25 = 25 in.
- Other - specify
- N = None

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

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

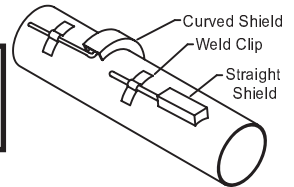
6. Pipe Wrap-around angle "D" in degrees

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



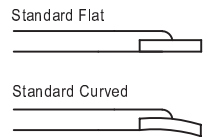
9. Insulated heat shield

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



8. Weld pad style

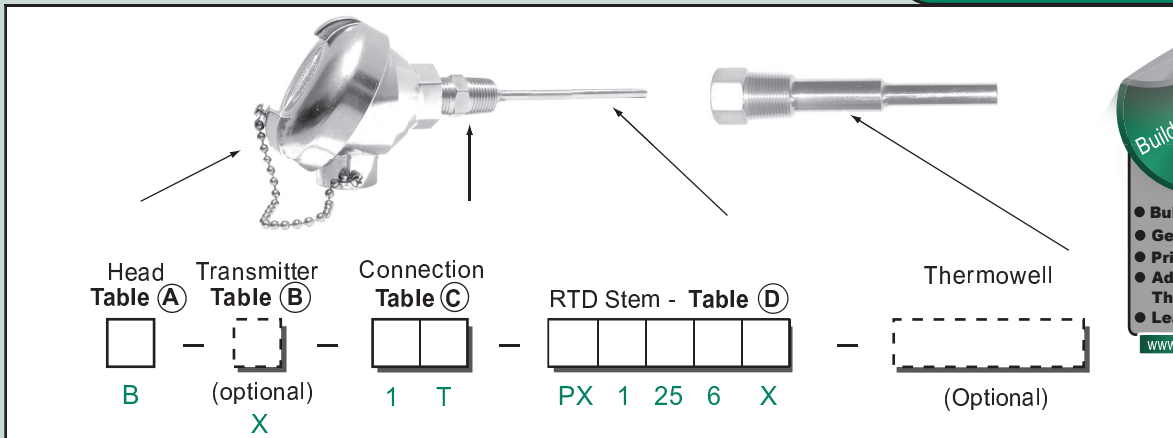
- F = Std. Flat
- C = Std. curved



10. Weld clip amount

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

Head Assemblies - (Head & Connection)



Build this product Online

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

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

Note: Add 'I' heads on price list.

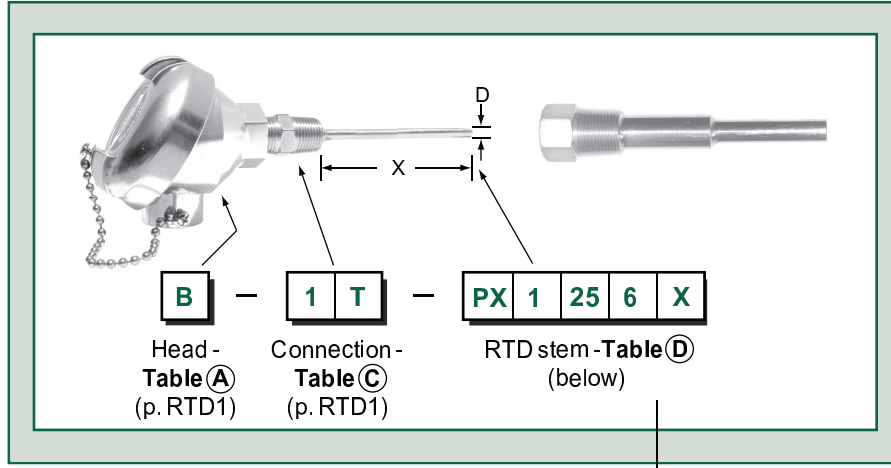
Table (B) - Transmitters - (optional)	
In Head Standard	In Head with Digital Display (with window head Z)
<p>X = 4-20mA 2-wire trans.</p> <p>R = 4-20mA 2-wire Hart trans.</p> <p>F = 4-20mA 2-wire Foundation Fieldbus</p> <p>P = 4-20mA 2-wire Foundation Profibus</p>	<p>B = 4-20mA 2-wire trans.</p> <p>A = 4-20mA 2-wire Hart trans.</p> <p>G = 4-20mA 2-wire Foundation Fieldbus</p> <p>D = 4-20mA 2-wire Foundation Profibus</p>

Table (C) - 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
<p>1/2" NPT Hex Fitting</p> <p>1 5/8" X</p>	1T	1F
<p>1/2" NPT Pipe-Nipple</p> <p>2-1/2" X</p>	2T	---
<p>1/2" NPT Nipple Union Nipple</p> <p>5" X</p>	4T	---
<p>No Process Threads</p> <p>X</p>	---	6F
<p>1/2" NPT Explosion Proof Hex</p> <p>2" X</p>	7T	---

Note: Add 'I' connections on price list.

Head Assemblies - (Stem)

RTDs (Resistance Temperature Detectors)



Build this product Online

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

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TABLE D RTD Stems

STEP 1 - RTD Sensor

Insert sensor code below (Std) Din B Pt 100	Code	Material/Class	$\Omega @ 0^{\circ}\text{C}$	Acc
	*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/CI 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	10 $\Omega @ 25^{\circ}\text{C}$	0.50%

*Available in standard or extended ranges.

STEP 2 - Temperature Range

Insert single-digit number designated below.

1 Std. range $-60^{\circ}\text{F} / 600^{\circ}\text{F}$

2 (Extended range) $-328^{\circ}\text{F} / 1100^{\circ}\text{F}$ (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

Input fields for the RTD code: [] [] [] [] [] [] [] [] [] []

RTDs- Head Assemblies

Table(A)- Connections Heads

Code	Description	Price	
		Single	Dual
A	Cast iron	38	43
B	Cast alum. screw	31	36
C	Poly plastic (blk)	34	40
E	Cast. alum. exp.	69	73
G	316SS	138	143
H	Alum. flip-top	32	37
I	Epoxy coated alum.	36	41
J	Exp. prf. 316SS	167	173
S	White FDA poly	36	41
T	Atex exp. proof	90	98
Window Heads:			
Z	Window, exp. prf.	75	82
Y	Polished SS/window (use with "A","B" xmtrs)	211	216
Other Heads:			
M	Exp. prf. alum., 3/4" x 3/4"	54	60
D	Mini cast alum.	95	100
F	Exp. prf. iron body	53	58
K	Polished 316SS/knurl (1/2x1/2)	148	152
L	Exp. prf. epoxy coated	90	98
P	Din black poly	35	41
U	Hi-dome fliptop	39	43
V	Ball-dome fliptop	33	38
Heads Options:			
H	1/2" conduit	6	6
G	BSPP 1/2" conduit	25	25
M	M24 x 1.5"	25	25

Table(D)- Stems

Step 1 - RTD Sensor

Code	Description	Price	
		Single	Dual
Available in Std. or Extended Temp:			
PX	Pt/385/B/100ohm/.12% (std)	45	73
PA	Pt/385/CI A/100ohm/.06%	68	125
PE	Pt/385/A5/100ohm/.01%	102	200
PM	Pt/385/B/500ohm/.12%	60	118
PY	Pt/392/100ohm/.1%	73	139
Available in Std. Temp only:			
PD	Pt/385/A3/100ohm/.03%	82	143
PK	Pt/385/B/1000ohm/.12%	58	110
NI	Nickel/6725/120ohm/.5%	115	201
CU	Copper/421/10ohm/.5%	209	384

Step 2 - Temperature Range

Code	Code	Price							
		1/4 dia. (25)		1/8 dia. (12)		3/16 dia. (18)		3/8 dia. (37)	
		First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"
1	Std. Range (-60 to 600F)	incl'd	8.00	4.00	9.00	incl'd	8.00	6.00	9.00
2	Ext. Range (-328 to 1100F)	34.50	10.00	60.00	10.00	28.00	9.00	45.00	19.00

Step 3 - Type of Sheath Diameter

Code	Description	Price
25	1/4" dia., 316SS	included
12	1/8" dia, 316SS	included
18	3/16" dia., 316SS	included
37	3/8" dia., 316SS	included

Note: All prices subject to change without notice
Note: All prices U.S. dollars

Table(B)- Transmitters (Optional)

Code	Price
X	168
R	336
F	613
P	575
B	462
A	753
G	968
D	799



Table(C)- Threaded Connections

Code	Description	Price
1T	Spring-loaded 316SS Bush	31
4T	5" nominal Sprg Load N-U-N 316SS	53
2T	Sprg loaded 2.5" Nip 316SS	37
7T	Sprg Loaded Expl. Prf. Bush 316SS	96
5T	N-U-N Sprg. Ld. Expl. Prf. Bush 316SS	149
Welded Fittings:		
1F	Welded Bushing 316SS	28
4F	Nip-Union-Nip welded 316SS	59
6F	SS bushing, 1/2" NPT no proc. threads	22
Other N-Union-N:		
4T3	3" nominal spring loaded N-U-N	53
4T4	4" nominal spring loaded N-U-N	53
4T6	6" nominal spring loaded N-U-N	57
4T7	7" nominal spring loaded N-U-N	61
Other Nipples:		
2T3	3" spring loaded nipple	41
2T4	4" spring loaded nipple	45
2T5	5" spring loaded nipple	50
2T6	6" spring loaded nipple	54
2T7	7" spring loaded nipple	58
2T8	8" spring loaded nipple	62
Steel Fittings:		
2L	obsolete - use 2T	obsolete
4L	obsolete - use 4T	obsolete
Special Fittings:		
8T	Sprg-loaded term. block no fitting 1/2" NPT female head opening	52

Step 4 - Probe

Length (X) in inches

Code	Price
1 to 999	included

Step 5 - Number of Elements

Code	Description	Price
X	Single 3-wire	included
Y	Single 4-wire	included
XX	Duplex 3-wire	included
YY	Duplex 4-wire	included

RTDs - Stem Only Assemblies

Table A-1 - RTD Stem Style

Code	Description	Price	
		Single	Dual
A	Plain stem	3	3
B	Welded SS bush.	39	41
C	Male mini plug	18	n/a
D	Female mini plug	19	n/a
F	Std. male plug	20	55
G	Std. female plug	23	57
H	Spring loaded bush.	39	41
P	1/2"NPT nipple w/Bay.	81	81
R	Bayonet cap w/spring	8	8
S	Load spring only	8	8
4T	5" Nominal sprg load N-U-N 316SS	53	53

Table A-2

Stem Options:			
Code	Description	Price	
T	1/4" NPT compression ftg.	36	
U	1/2" NPT compression ftg.	53	
V	1/8" NPT compression ftg.	39	
W	Weld pad	19	
Plug Options:			
Code	Description	Price	
		Single	Dual
MC	Mating connector	10	20
BR	Compression bracket for plug	13	n/a

Step 3 - RTD Sensor

	Description	Price	
		Single	Dual
Available in Std. or Extended Temp:			
PX	Pt/385/B/100ohm/.12% (std)	45	73
PA	Pt/385/CI A/100ohm/.06%	68	125
PE	Pt/385/A5/100ohm/.01%	102	200
PM	Pt/385/B/500ohm/.12%	60	118
PY	Pt/392/100ohm/.1%	73	139
Available in Std. Temp only:			
PD	Pt/385/A3/100ohm/.03%	82	143
PK	Pt/385/B/1000ohm/.12%	58	110
NI	Nickel/6725/120ohm/.5%	115	201
CU	Copper/421/10ohm/.5%	209	384

Step 4 - Temperature Range

Code	Description	Price							
		1/4 dia. (25)		1/8 dia. (12)		3/16 dia. (18)		3/8 dia. (37)	
		First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"	First 12"	Add'l 6"
1	Std. Range (-60 to 600F)	incl'd	8.00	4.00	9.00	incl'd	8.00	incl'd	9.00
2	Ext. Range (-328 to 1100F)	34.50	10.00	60.00	10.00	28.00	9.00	45.00	19.00

Step 5 - Type of Sheath Diameter

Code	Description	Price
25	1/4" dia., 316SS	included
12	1/8" dia., 316SS	included
18	3/16" dia., 316SS	included
37	3/8" dia., 316SS	included

Step 6 - Probe Length (X) in inches

Code	Price
1 to 999	included

Step 7 - Number of Elements

Code	Description	Price
X	Single 3-wire	included
Y	Single 4-wire	included
XX	Duplex 3-wire	included
YY	Duplex 4-wire	included

Note: All prices subject to change without notice
Note: All prices U.S. dollars

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Ph (800) 648-7737



Stem Only Assemblies

Table (A) RTD Styles

	A
A = Plain stem (choose this for all lead assemblies)	
	B
B = Welded SS bushing	
	C
C = Male mini plug	
	D
D = Female mini jack	
	F
F = Male standard plug	
	G
G = Female standard jack	
	H
H = Spring loaded bushing	
	P
P = 1/2" NPT Nipple w/ Bayonet	
	R
R = Bayo Cap w/ spring	
	S
S = Load Spring only	
	4T
4T = 5" nominal sprg. load N-U-N 316SS	

Table (A-2) Stem Options Styles

Stem Options:	
	T
T = 1/4" NPT Compression fitting, loose on stem (316SS)	
	U
U = 1/2" NPT Compression fitting, loose on stem (316SS)	
	V
V = 1/8" compression fitting	
	W
W = Weld Pad	
Plug Options:	
	MC
MC = Mating Connection for plug or jack	
	BR
BR = Compression bracket for plug	

Build this product Online

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

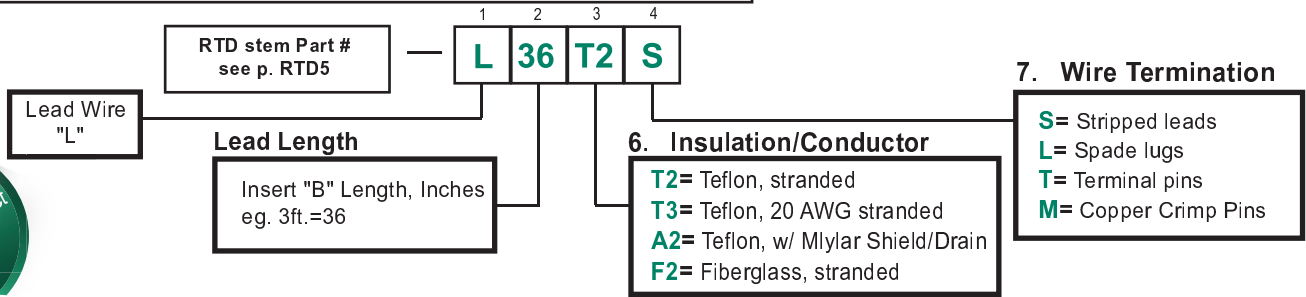
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R T D	STEP 1 - RTD Style																																												
	Choose RTD Style from Table (A)																																												
	(Optional) STEP 2 - Stem Options																																												
	Choose Stem Options from Table (A-2)																																												
	STEP 3 - RTD Sensor																																												
	Insert sensor code below.																																												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">(Std) Din B Pt 100</th> <th style="text-align: left;">Code</th> <th style="text-align: left;">Material/Class</th> <th style="text-align: left;">Ω@ 0°C</th> <th style="text-align: left;">Acc</th> </tr> </thead> <tbody> <tr> <td></td> <td>*PX(std)</td> <td>Pt/385/B</td> <td>100</td> <td>0.12%</td> </tr> <tr> <td rowspan="3">Pt 100 with Other Accuracies</td> <td>PD</td> <td>Pt/385/ A3</td> <td>100Ω</td> <td>.03%</td> </tr> <tr> <td>*PA</td> <td>Pt/385/Cl A</td> <td>100Ω</td> <td>0.06%</td> </tr> <tr> <td>*PE</td> <td>Pt/385/A5</td> <td>100Ω</td> <td>0.01%</td> </tr> <tr> <td rowspan="5">Other RTD's</td> <td>PK</td> <td>Pt/385/B</td> <td>1000 Ω</td> <td>0.12%</td> </tr> <tr> <td>PM</td> <td>Pt/385/B</td> <td>500 Ω</td> <td>0.12%</td> </tr> <tr> <td>*PY</td> <td>Pt/392</td> <td>100Ω</td> <td>0.1%</td> </tr> <tr> <td>NI</td> <td>Nickel/6725</td> <td>120Ω</td> <td>0.5%</td> </tr> <tr> <td>CU</td> <td>Copper/421</td> <td>10Ω (@25°C)</td> <td>0.5%</td> </tr> </tbody> </table> <p style="font-size: 0.8em; margin-top: 5px;">* Available in standard or extended range.</p>	(Std) Din B Pt 100	Code	Material/Class	Ω@ 0°C	Acc		*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%
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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																																													

Lead Wire Configuration

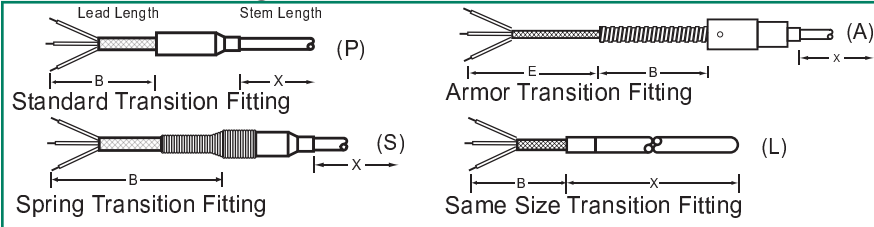


Plain Leadwires (These are supplied without a transition)

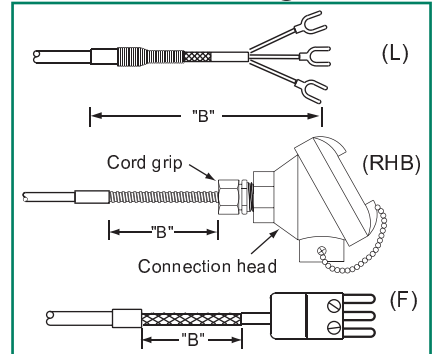


Fancy Leadwires (These require a transition)

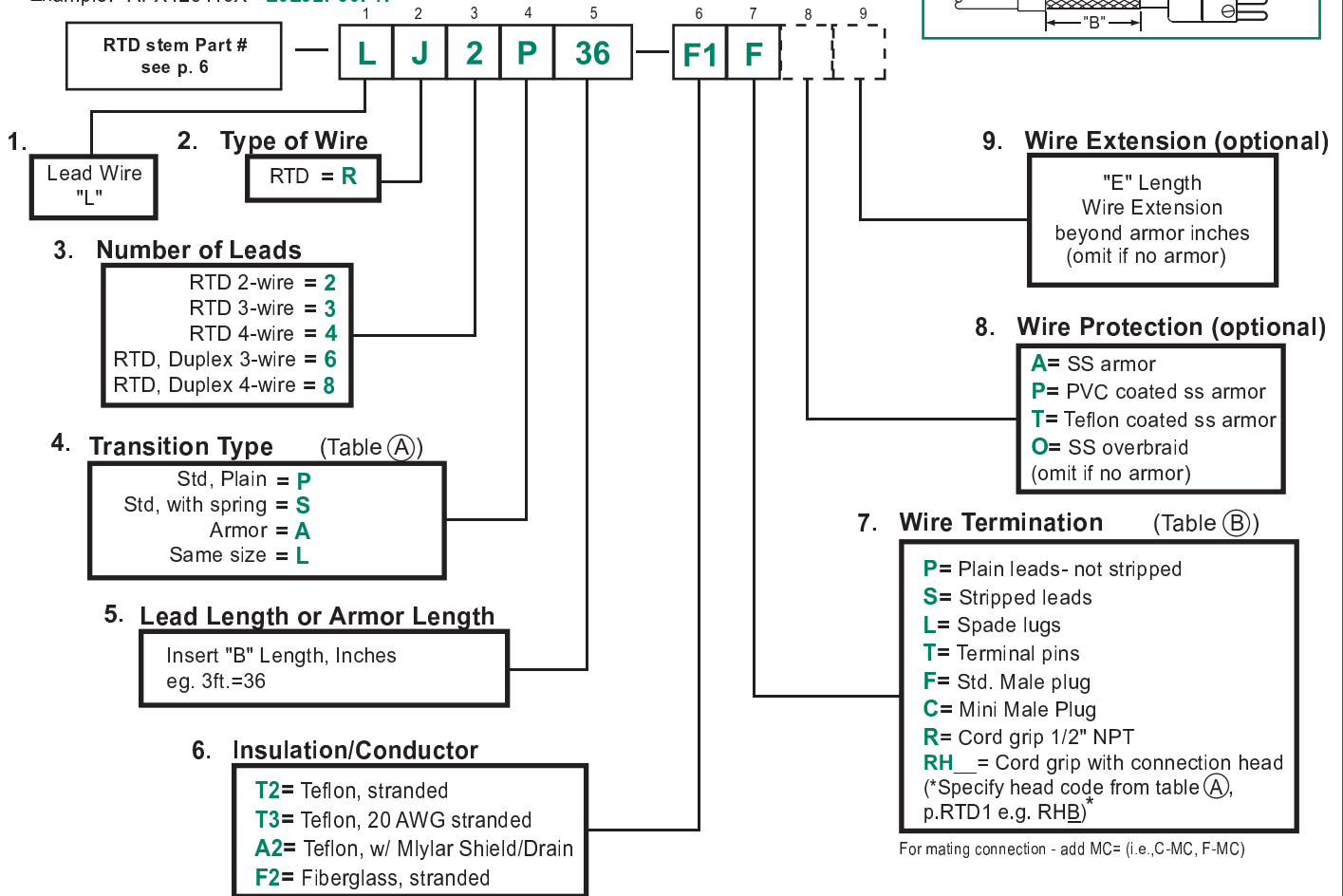
Transitions - Table (A)



Terminations - Table (B)



Example: APX125116X - L6LJ2P36F1F



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

RTDs - Lead Wire

Fancy Leads

1. Lead Wire		
Code	Description	Price
L	Lead Wire	incl'd

2. Type of Wire			
Code	Description	Price per Foot	
		Single	Dual
R	RTD	incl'd	incl'd

3. Number of Leads			
Code	Description	Price	
		Single	Dual
2	2-wire: (2-wire RTD)	incl'd	incl'd
3	3-wire: (std. RTD)	incl'd	incl'd
4	4-wires (4-wire or Duplex 2-wire)	incl'd	incl'd
6	6-wire: (Duplex 3-wire)	incl'd	incl'd
8	8-wire: (Duplex 4-wire)	incl'd	incl'd

4. Transition Type			
Code	Description	Price	
		Single	Dual
P	Std., Plain	13.60	17.00
S	Std., with spring	14.00	17.50
A	Armor	19.40	25.90
L	Same size	33.90	37.70

5. Lead Length or Armor Length		
Code	Description	Price
XX	Insert "B" Length, in inches eg. 10ft = 120	incl'd

6. Insulation/Conductor			
Code	Description	Price per Foot Price ("B" Length + "E" Length)	
		Single	Dual
T2	Teflon, stranded	1.40	2.70
T3	Teflon, 20 AWG stranded	1.60	2.90
A2	Teflon, w/Al/Mylar Shield/Drain	1.50	2.80
F2	Fiberglass, stranded	1.60	2.50

7. Wire Termination			
Code	Description	Price	
		Single	Dual
P	Plain leads - not stripped	incl'd	incl'd
S	Stripped leads	4.80	5.00
L	Spade lugs	4.00	7.90
T	Terminal pins	7.80	10.30
F	Std. Male plug	20.90	43.60
C	Mini Male Plug	18.10	n/a
R	Cord grip 1/2" NPT, zinc plated steel	25.90	25.90
RH *	Cord grip with connection head (*Specify head code from table(A) e.g. RH B)	25.90	25.90
D	Female Mini-Jack	19.40	n/a
G	Female Std. Jack	22.60	56.00
M	Copper Crimps	8.00	10.80

8. Wire Protection (optional)		
Code	Description	Price Per Foot ("B" length only)
A	SS armor	1.40
P	PVC coated ss armor	5.80
T	Teflon coated ss armor	7.40
O	SS overbraid (omit if no armor)	0.30

9. Wire Extension		
Code	Description	Price
	"E" Length Wire Extension beyond armor inches (omit if no armor)	included

Plain Leads

1. Lead Wire		
Code	Description	Price
L	Lead Wire	incl'd

2. Lead Length or Armor Length		
Code	Description	Price
XX	Insert "B" Length, in inches eg. 10ft = 120	incl'd

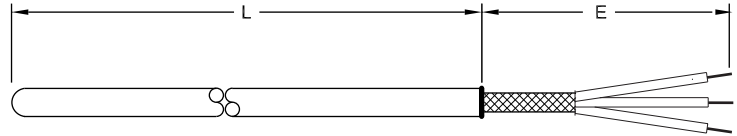
3. Insulation/Conductor			
Code	Description	Price Per Foot Price ("B" Length + "E" Length)	
		Single	Dual
T2	Teflon, stranded	1.40	2.70
T3	Teflon, 20 AWG stranded	1.60	2.90
A2	Teflon, w/Al/Mylar Shield/Drain	1.50	2.80
F2	Fiberglass, stranded	1.60	2.50

4. Wire Termination			
Code	Description	Price Per Foot	
		Single	Dual
S	Stripped leads	4.80	5.00
L	Spade lugs	4.00	7.90
T	Terminal pins	7.80	10.30
M	Copper crimp pins	8.00	10.80

Note: All prices subject to change without notice
Note: All prices U.S. dollars

RTD Cut-to-Length Sensors

NOTE: Cut to length elements can be cut to any length (over 3") with an ordinary tube cutter.



1. Sensor Type

R3 = RTD (type B) (base price \$45.00)
--

2. Number of Sensors

S = Single D = Dual (add \$26.80)

3. # Wires Per Sensor

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

4. Element Length in inches (L)

18 (std) 24 (add \$8.60) 36 (add \$19.30)
--

7. Options

Wire/Insulation (if not standard Teflon, stranded) P2 = Stranded, PVC (\$1.70)
Stem Dia. (if not std. 1/4") D18 = .188" (3/16") (\$4.30) D37 = .375 (3/8") (\$8.60)
Wire Gauge (if not 24 AWG) G0 = 20 gauge (\$1.70) G2 = 22 gauge (\$1.70)

6. Lead Length (E)

L6 = 6" (std.) L12 = 12" (add \$1.70) (Other - add \$1.70/ft)
--

5. Alloy

S = 316SS F = 304SS (N/C)
--

Note: All prices subject to change without notice
 Note: All prices are U.S. dollars

Cut-to-length Sensors



RTD's

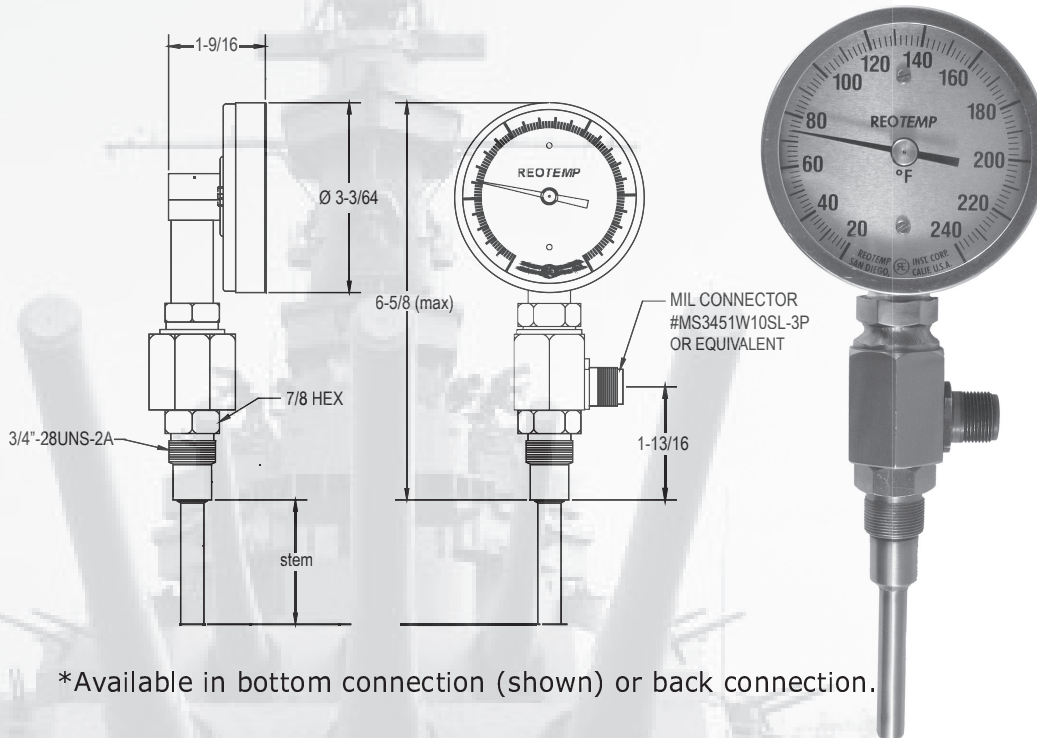
Std Element: 18" long, 1/4" dia., 316 S.S., single, 3-wire RTD. 400°F max.

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") D37 = .375 (3/8")	G0 = 20 gauge G2 = 22 gauge	

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 remote 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 commercial 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

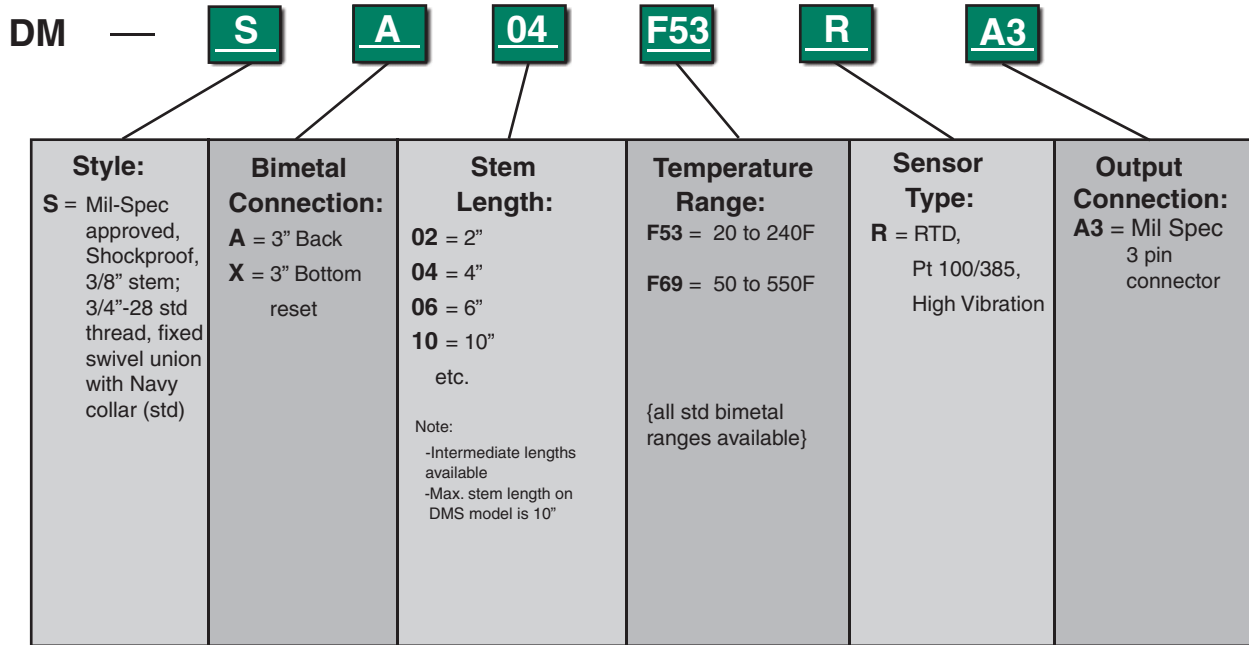
Lens: Polycarbonate

Applications/Markets:

- Military
- Harsh commercial applications

Mil-Spec Dual Mode Thermometer

HOW TO ORDER

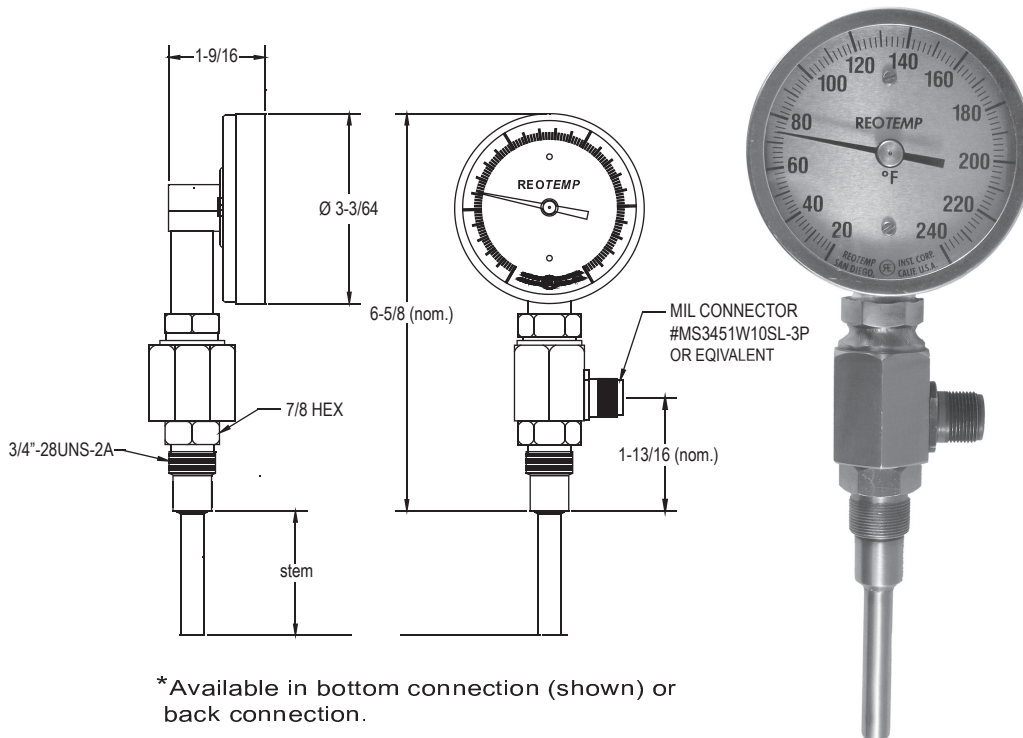


Pricing
Contact Factory

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.



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

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

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 sensor with a digital readout is required, but all of the extra features are not.



Benefits

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

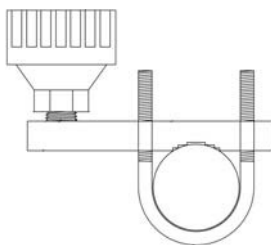
Features

- Explosion proof housing
- FM, CSA, ATEX, EExd
- 4-20 mA output
- HART, Profibus, Foundation Fieldbus available
- Std temp. range -40/600F, ext. range available -328/1100F
- Calibration certificates available
- Well coatings for abrasion and corrosion

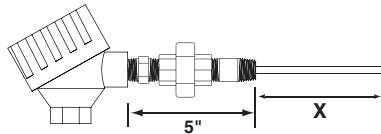


Connections:

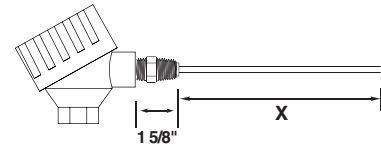
Pipe Mount:



Nipple-Union-Nipple:



1/2" NPT:



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:** -196 to 600°C
- Accuracy:** $\pm (0.3 + 0.005|t|)$ and $\pm .25\%$ of span
- Temperature Coefficient:** $\pm 0.02\%$ of span/°C
- Sensor Error Detection:** Programmable upscale or downscale 23mA or 3.5mA
- Supply Voltage Variation Effect:** $\leq 0.005\%$ of span/VDC
- EMC Immunity Influence:** $\leq \pm 0.5\%$ of span
- Humidity:** < 95% RH (non-cond.)
- Response Time:** 5 sec. maximum for a 63% recovery, based on a step change of temperature starting at room temperature of .25°C to immersion in 100°C water stirred at 1 m/s

Enclosure: IP66, NEMA 4X

Ratings

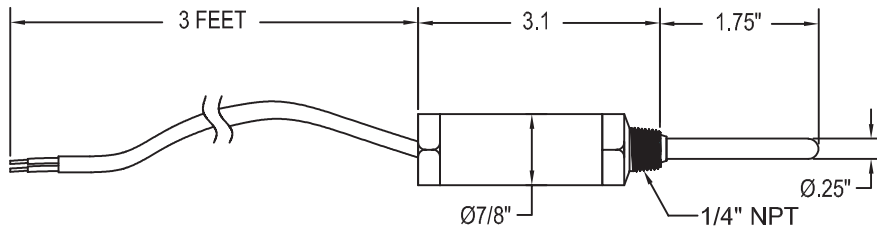
EEx d IIC	1026  II2GD	Zone 1 Zone 2 Zone 21 Zone 22
XP	XP/II/A,B,C,D/T6 DIP/II,III/1/E,F,G/T6 Type 4x	Class I, Div 1 Gr. A,B,C,D Class II/III, Div1 Gr. E,F,G NEMA 4X

Part Numbers and Pricing

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

Slim-Line Industrial Temp. Transmitter

REOTEMP'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 7, 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 7 (IEC 529)

Temperature Ranges: -40°F to 1000°F/-40°C to 538°C

Ambient Temp. Ranges: -40°F to 185°F/-40°C to 85°C

Accuracy: +/-0.5%

Slim-Line Industrial Temp. Transmitter

HOW TO ORDER

RTDX	—	025	1	L40	H800	F	1	P36
Stem Length:	Connection:	Bottom of Temp. Range:	Top of Temp. Range:	Temp. Scale:	Output:	Electrical Connection:		
025 = 2.5" 040 = 4" 060 = 6" 090 = 9" 120 = 12" 150 = 15" 180 = 18" 240 = 30" 300 = 30" 360 = 36" <small>Intermediate lengths available</small> <small>1/4" dia. is standard, other diameters available</small>	1 = 1/2" NPT 2 = 1/4" NPT 3 = 1/8" NPT 4 = 3/8" NPT 5 = 3/8"-24 NF (straight threaded) 6 = Plain with adjustable compression fitting	L = -40 to 1,000° F or -40 to 538° C <small>Example:</small> L40 (H800F) (4-20mA transmitter will send 4mA at 40°F)	H = -40 to 1,000° F or -40 to 538° C <small>Example:</small> H800 (F) (4-20mA transmitter will send 20mA at 800°F)	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 B = Bendix connetor C = 1/2" NPT conduit M = M12X1 connector		

Pricing

Contact Factory

Plastic Industry

Plastics
Sensor

P — 1 AB 2 JS 3 G 4 1 5 12 6 S 7 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

7. (optional) Bend Angle (fixed only)

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

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.

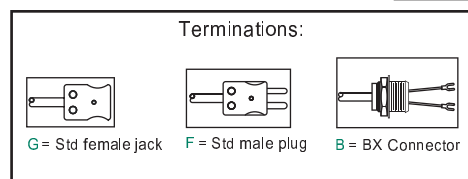
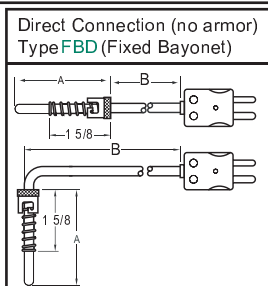
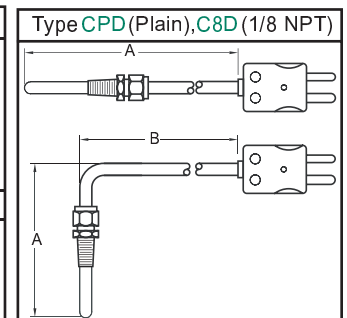
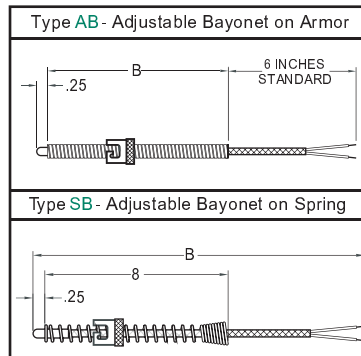
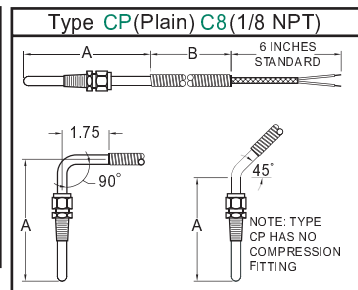
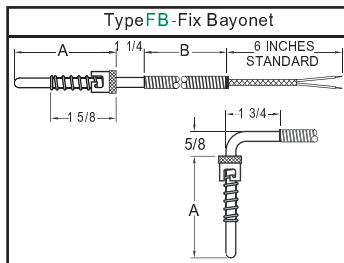
5. "B" Length in inches

12 = 12"
24 = 24"
(insert any length)
Leave blank if none.

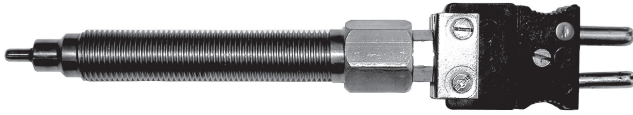
4. Probe Length "A" (fixed only)

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

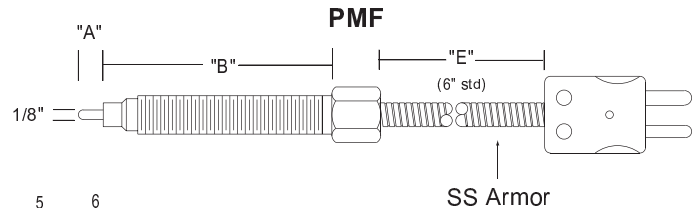
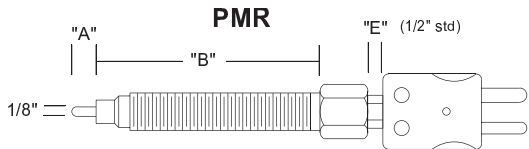
General Specs: Stems: 304SS, 3/16" dia. (.188)
Wire: Stranded, w/fiberglass insulation



Melt Bolt



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



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"

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

5. (E) Dim

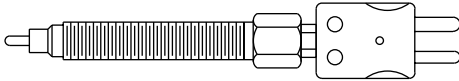
For Flex Style (F)	
6	= 6" (std.)
12	= 12"
specify other	
For Rigid Style (R)	
2	= 1/2" (std.)
specify other	

4. Bolt Length (B)

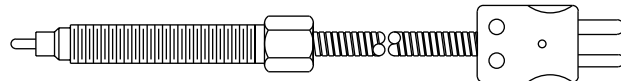
03 = 3"
04 = 4"
06 = 6"
08 = 8"
12 = 12"

Thermocouples - Melt Bolt

Type: PMR



Type: PMF



PMR, Any Termination	
Bolt length "B"	Price
3"	55.70
4"	59.10
6"	67.70
8"	84.90
12"	110.60

PMF, Any Termination, 6" Armor		
Bolt length "B"	Price	
3"	64.30	
4"	67.70	
6"	76.30	
8"	93.40	
12"	119.10	
Longer Armor Each Additional 6"	4.30	
	SINGLE	DUAL
DUAL TC	NC	6.90
UNGROUND	3.40	5.10
MC (Mating Connector)	9.60	19.30

Note: All prices are U.S. dollars

Note: All prices subject to change without notice.

CIP Sanitary Head Assemblies

REOTEMP's Sanitary RTDs and Thermocouples are designed for temperature sensing in food, dairy, beverage and pharmaceutical applications where sensor corrosion and product contamination are critical factors.

Features:

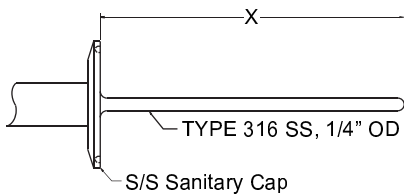
- Ideal for CIP (Clean-in-Place) or SIP
- All Wetted Parts Highly Polished to Exceed 3A Requirements
- Quick-Connect Tri-Clamp Design
- Fast Response Reduced Tip Available
- Variety of Stem and Termination Options



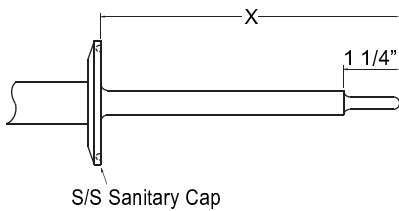
Table A

Stem Options

Standard 1/4" Dia. stem (Type A)



Reduced Tip Stem (Type B, C, E)



Mini-Stem (Type D)

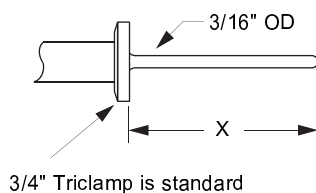
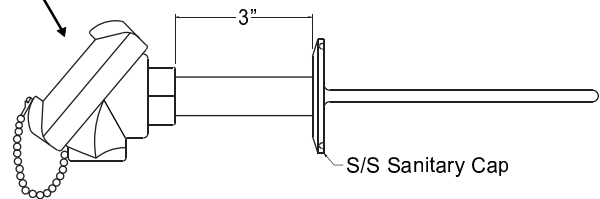


Table B

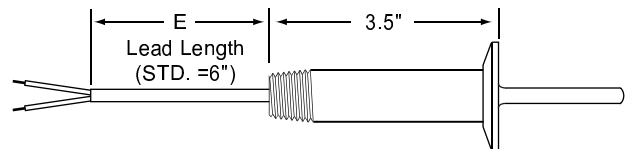
Termination Options

Type S = FDA Compliant
White Polypropylene
Screw Cover
Head (standard)

Connection head-Type S, Y, or T



Type L (with Teflon Leads)



CIP Sanitary Head Assemblies

How to Order

R — **L3** — **030** — **A** — **T 15** — **L 12**

Sensor Type

RTD - 100 ohm; .00385α; 3 wire
Accuracy # Elements

L3	= 0.10%	1 (std)
H3	= 0.01%	1
L6	= 0.10%	2
H6	= 0.01%	2

Maximum temperature: 600°F (316°C)

Thermocouples

JG JU	Type J	Grounded
		Ungrounded
KG KU	Type K	Grounded
		Ungrounded

Immersion Length (X)

Length	Length
020 = 2"	060 = 6"
030 = 3"	090 = 9"
040 = 4"	120 = 12"

Long or intermediate lengths OK
Please specify length

Stem Style

(See table (A), p. SAN11)

Description

- A** = 1/4" Diameter
- B** = Reduced Tip (3/16" tip OD x 3/8" sheath OD)
- C** = Reduced Tip (1/4" tip OD x 1/2" sheath OD)
- D** = 3/16" Diameter Stem (Single Element Only)
- E** = Special HTST Fast Response Reduced Tip (3/16" tip OD x 3/8" sheath OD, response time 3 to 3.5 sec.) Available in H3 & H6 RTD Type Only.
- F** = 3/8" dia. stem

Termination

(See Termination table (B), p. SAN11)

Description

- S** = Std. White Polypropylene Connection Head (FDA Compliant)
- T** = White Polypropylene Connection Head with 4-20mA Transmitter
- L** = 1/2" NPT 316SS threads with (E") Teflon Leads (Specify Length, e.g. 12" = **L12**)
- R** = White Polypropylene Connection Head with 4-20mA Transmitter with HART

Window and Digital Display

- Z** = Explosion proof window with digital display and 4-20mA Transmitter
- Y** = Explosion proof window with digital display and 4-20mA Transmitter with HART

Sanitary Cap Tri-Clamp Caps (Triclover 16 AMP Type)

Description

- T15** = 1.5" (Standard)
 - T20** = 2"
 - T30** = 3"
 - T75** = 3/4" Fractional (with "D" stem only)
- Other Cap Styles Available - Please Specify

All wetted parts meet or exceed 3-A standards

Other Available Options:

- Alternate Wire Termination
- Alternate Sanitary Cap Styles
- Digital Indicating Meters (Suitable for Washdown)
- Thermocouple Sensors (Sanitary & Industrial)
- RTD's/TC with CIP Sanitary Connected Wells
- Penetration Probes
- Chemical Resistant Thermocouples
- Stainless Steel Tags

Other REOTEMP CIP Sanitary Products



Sanitary Pressure Gauges



Sanitary Thermowells

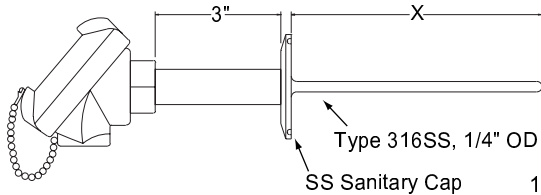


Sanitary Bimetal Thermometers



Sanitary Pressure Transmitters

Sanitary RTD's with Triclamp CIP Fittings



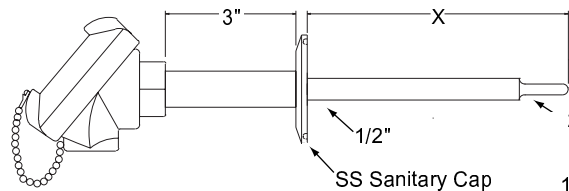
Standard 1/4" dia. Stem, White Poly (FDA) connecting head
0.1% single RTD (100 ohm, .00385 coef.)

SS Sanitary Cap 1.5" Triclamp models

Part #	Stem	Triclamp	Price
RL3020-AT15S	2"		150.00
RL3030-AT15S	3"		150.00
RL3040-AT15S	4"	1.5"	150.00
RL3060-AT15S	6"		150.00
RL3090-AT15S	9"		160.00
RL3120-AT15S	12"		160.00

2" Triclamp models

Part #	Stem	Triclamp	Price
RL3020-AT20S	2"		160.00
RL3030-AT20S	3"		160.00
RL3040-AT20S	4"	2"	160.00
RL3060-AT20S	6"		160.00
RL3090-AT20S	9"		175.00
RL3120-AT20S	12"		175.00



Reduced Tip Stem; White Poly (FDA) connecting head

SS Sanitary Cap 1/4" dia. Tip, on 1/2" dia Shank
Standard response tip
0.1% single RTD (100 ohm, .00385 coef.)

Part #	Stem	Triclamp	Price
RL3020-CT15S	2"		195.00
RL3030-CT15S	3"		195.00
RL3040-CT15S	4"	1.5"	195.00
RL3060-CT15S	6"		195.00
RL3090-CT15S	9"		210.00
RL3120-CT15S	12"		210.00

HTST Fast-Response tip

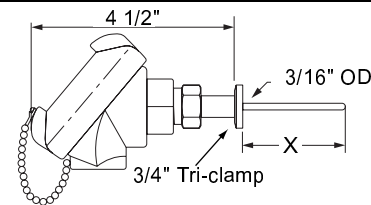
3/16" dia. Tip on 3/8" dia. Shank
0.01% single RTD (100 ohm, .00385 coef.)

Part #	Stem	Triclamp	Price
RH3020-ET15S	2"		265.00
RH3030-ET15S	3"		265.00
RH3040-ET15S	4"	1.5"	265.00
RH3060-ET15S	6"		265.00
RH3090-ET15S	9"		290.00
RH3120-ET15S	12"		290.00

Part #	Stem	Triclamp	Price
RL3020-CT20S	2"		200.00
RL3030-CT20S	3"		200.00
RL3040-CT20S	4"	2"	200.00
RL3060-CT20S	6"		200.00
RL3090-CT20S	9"		215.00

2" Triclamp - add to 1.5" price	20.00
---------------------------------	-------

Option 3/16" diameter tip on 3/8" shank (code "B") - N/C



Fractional (3/4 Triclamp) with 3/16" dia. Stem

White Poly (FDA) Head
0.1% RTD (100 ohm, .00385 coef.)

Part #	Stem	Triclamp	Price
RL3020-DT75S	2"		160.00
RL3030-DT75S	3"		160.00
RL3040-DT75S	4"	3/4"	160.00
RL3060-DT75S	6"		160.00
RL3090-DT75S	9"		175.00

Element Options

0.1% duplex element	60.00
0.01% single element	40.00
0.01% duplex element	90.00
Thermocouple element (specify type)	N/C

Stem Options

Intermediate Stems - Add to next stem length	20.00
Long Stem - Consult factory	

Tri Clamp Options (Add to 2" Tricl. price)

2.5" Tri Clamp	35.00
3" Tri Clamp	55.00

Termination

Code	Description	Price
S	Std. white polypropylene.	Incl'd
T	White polypropylene w/4-20mA trans.	168
L	1/2" NPT 316SS threads with teflon leads	(-20)
R	White poly. w/4-20mA HART transmitter	336

Window and Digital Display

Z	Exp. proof window, 4-20mA trans.	462
Y	Exp. proof window, 4-20mA HART trans.	753

Note: All prices subject to change without notice
Note: All prices U.S. dollars

Quick Connect & Quick Connect RE

(with Replaceable Element)

REOTEMP's patent pending **Quick Connect** makes **disconnecting and reconnecting your temperature sensor a snap, literally**. With the click of a button, your temperature sensor is released from the female QC adapter(A) 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 **Quick Connect RE** has a **replaceable temperature element**, which can be removed easily and replaced as necessary. This allows you to save money by reusing your existing leadwire assembly(B), male QC insert(C), and female QC adapter(A). Along with those cost savings, you will have avoided the usual headache associated with replacing a competitor's element (disconnecting wires, terminal blocks, reconnecting components, etc).

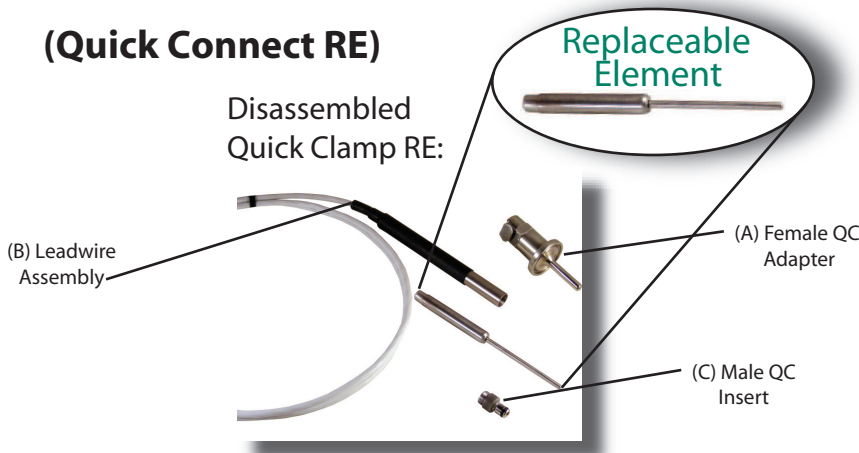
Fully Assembled:



Separated for Calibration Check:



(Quick Connect RE)



Features/Benefits:

Quick Connect

- Disconnect/re-connect temperature sensor with the click of a button.
- Calibration convenience: fully sealed spring-loaded sensor can be placed directly into temperature bath.
- External seal for washdown service
- 3A sanitary finish
- Lead time: 5-7 days

Quick Connect RE

- Replaceable Element = cost savings (reuse your leadwire assembly(B), male QC insert(C), and female QC adapter(A)).
- Replaceable Element = time savings (avoid hassles associated with competitors models: disconnecting wires, terminal blocks, re-connecting components, etc.).

Applications/Markets:

- Pharmaceuticals
- BioTech
- Food & Beverage

Quick Connect & Quick Connect RE

(with Replaceable Element)

HOW TO ORDER

QC — C3 020 A T15 240

RE = Replaceable Element (Optional)

Sensor Type

RTD - 100 ohm; .00385 α ; 3 wire or 4wire		
Accuracy	# Elements	
C3	= 0.06%	1
C4	= 0.06%	1
C6	= 0.06%	2
C8	= 0.06%	2
H3	= 0.01%	1
H4	= 0.01%	1
H6	= 0.01%	2
H8	= 0.01%	2
Maximum Temperature: 600 F (316 C)		
Thermocouples		
JG JU	Type J	Grounded
		Ungrounded
KG KU	Type K	Grounded
		Ungrounded

Immersion Length

020 = 2" **060** = 6"
030 = 3" **090** = 9"
040 = 4" **120** = 12"

Long or Intermediate Lengths OK.
Please Specify Length.

Leadwire Length in Inches

240 = 240" (20 feet)
 --- = Specify Your Length

Note: Available with other connections (such as heads). Contact factory for details.

Tri-Clamp (Triclover) Size

T15 = 1.5" (Standard)
T20 = 2.0"
T25 = 2.5"
T30 = 3.0"
T75 = 3/4" Fractional

Other Cap Styles Available - Please Specify

Stem Style

A = 1/4" Diameter Stem **D** = 3/16" Diameter Stem
B = Reduced Tip (3/16" Tip OD x 3/8" Sheath OD) **F** = 3/8" Diameter Stem
C = Reduced Tip (1/4" Tip OD x 1/2" Sheath OD)

Replacement Parts:

(Consult Factory for Part # and Pricing)

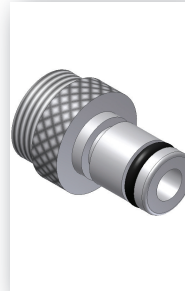
Leadwire Assembly (QCRE Only)



Spring Loaded Replaceable Element (QCRE Only)



Male QC Insert (QCRE Only)



Female QC Adapter



Sanitary Series

Quick Connect & Quick Connect RE

		Quick Connect (QC)	Quick Connect RE (QCRE)	
Base Price		\$260.00	\$360.00	
Sensor Type	C3	3 wire single, .06% accuracy	-	
	C4	4 wire single, .06% accuracy	-	
	C6	6 wire dual, .06% accuracy	40	
	C8	8 wire dual, .06% accuracy	40	
	H3	3 wire single, .01% accuracy	50	
	H4	4 wire single, .01% accuracy	50	
	H6	6 wire dual, .01% accuracy	95	
	H8	8 wire dual, .01% accuracy	95	
	JG	Type J thermocouple - grounded	-	
	JU	Type J thermocouple - ungrounded	12	
	KG	Type K thermocouple - grounded	-	
KU	Type K thermocouple - ungrounded	12		
Immersion Length	020	2 inches	-	
	030	3 inches	-	
	040	4 inches	-	
	060	6 inches	-	
	090	9 inches	20	
	120	12 inches	30	
Stem	A	1/4" diameter	-	
	B	Reduced tip (3/16" tip OD x 3/8" sheath OD)	45	
	C	Reduced tip (1/4" tip OD x 1/2" sheath OD)	60	
	D	3/16" diameter tip	-	
	F	3/8" diameter stem	30	
Tri-Clamp (Triclover) Size	T15	1.5" standard	-	
	T20	2.0"	10	
	T25	2.5"	35	
	T30	3.0"	55	
	T75	3/4" fractional (with "D" stem only)	20	
Leadwire		up to 060	Up to 60 inches (5ft.)	
		061+	Over 60 inches (single)	
		061+	Over 60 inches (dual)	
			Add 4.00/ft.	Add 4.00/ft.
			Add 7.00/ft.	Add 7.00/ft.

NOTE: All prices are F.O.B. our factory & are subject to change without notice.

NOTE: All prices are U.S. dollars

Secondary Reference Thermometers (SRT)

REOTEMP's Secondary Reference Thermometers include all of the traditional features you'd expect to find in a SRT probe along with considerable design improvements that significantly enhance longevity and durability versus many comparable probes on the market.

Our design enhancements include: **multiple glass seals under vacuum, a reinforced lead wire transition, and a uniquely supported element.** Along with these design enhancements, we also use top quality components and techniques during the manufacturing process: 22 AWG heavy duty lead wire cable with stainless steel overbraid, full-penetration welds at metal-to-metal joints, and a thick-walled inconel sheath.



Design Enhancements:

1) Multiple glass seals & vacuum system: This design enhancement increases the platinum's practical life by providing a higher level of protection than comparable products. By improving the environment in which the platinum lives, we have extended the usable life of the platinum and allowed it to maintain a higher accuracy for a longer period of time.

2) Reinforced lead wire transition: Our transition design enables the SRT to withstand handling, heat cycling, stress, and strain longer than comparable units in this cost bracket. Our hermetic seal holds up longer and replacements from leadwire degradation will be greatly reduced. The potting material used allows the transition to stay cooler and handle higher temperatures.

3) Unique element support: Our element is positioned and supported in a way that helps guard against the unforeseen knocks, bumps, and shakes of day to day handling, giving the sensor a durability not typically found in this class.

Calibration Services:

- NIST Traceable Calibration
- Precision Calibration Equipment
- Standard 3 day lead time
- Competitive pricing

Read more on the [Calibration Services](#) page.



Made in the U.S.A. 

Features/Benefits:

- 99.999% pure platinum
- .01% Accuracy
- Calibration report included
- Glass sealed transition
- .003925/100 ohm
- Standard lead time: 7-10 days
- Expedited lead time: Call factory
- 1 year limited warranty

Secondary Reference Thermometers (SRT)



Specifications:

Temperature coefficient:	0.003925 ohms/ohm/°C nominal
Nominal resistance:	100 ohms at 0°C
Element:	99.999% pure platinum
Temperature range:	-200°C to 500°C
Sheath material:	Inconel 600
Minimum immersion:	4 inches
Transition junction temperature range:	-100°C to 300°C
Min. insulation resistance 1,000 megohms at 23°C:	1,000 Megohms at 23°C
Response time:	9 seconds typical for 63.2% response to step change in temperature in water flowing at 3 ft/sec.
Self heating:	50 mW/°C in a well stirred ice bath
Long term stability:	+/- .007°C at 0.010°C after 100 hrs at maximum temperature, K=2
Hysteresis:	.01°C maximum
Short term repeatability:	+/- 0.009°C at 0.10°C (includes hysteresis), K=2
Lead wire cable:	10 feet of 22 AWG silver plated stranded copper conductors, multiple layer teflon insulation, stainless steel overbraid, aluminum mylar shield.
Sealing:	Full-penetration welds at metal-to-metal joints. Multiple glass seals under vacuum.
Transition:	A strain relief spring is recessed and anchored inside the transition along with a non-deforming sealing system which reduces fatigue and adds reinforcement.

Calibration uncertainty 1mA excitation current:

-196°C:	+/- .024°C
-38°C:	+/- .011°C
0.10°C:	+/- .010°C
200°C:	+/- .018°C
420°C:	+/- .029°C

Secondary Reference Thermometers (SRT)

HOW TO ORDER

Common Configurations:

Common Description

10' heavy duty lead wire (22 AWG double teflon w/SS overbraid), -200°C to 500°C range, ITS-90 calibration coefficients, stripped/tinned leads, Inconel 600 sheath, 0.0039250 alpha, 99.999% pure platinum RTD, heavy duty transition design, multiple glass seals under vacuum.

Part #	Stem dimensions
SRT-2512	1/4" dia., 12" stem
SRT-2509	1/4" dia., 9" stem
SRT-1809	3/16" dia., 9" stem
SRT-1806	3/16" dia., 6" stem
SRT-1209	1/8" dia., 9" stem

Build your own configuration:



Stem dia.:	Stem length:	Termination:	Temp scale:	Calibration Range:	Options:
25 = 1/4" dia. 18 = 3/16" dia. 12 = 1/8" dia.	15 = 15" 12 = 12" (std.) 09 = 9" 06 = 6"	S = stripped/tinned (std) G = gold-pltd spade lugs I = INFO-CON B = banana plugs D = 5-pin DIN plug	9 = ITS-90 (std) 6 = IPTS-68 C = CVD 4 = IPTS-48	1 = -200 to 500°C 2 = 0 to 500°C 3 = -100 to 500°C 4 = -200 to 420°C 5 = -200 to 300°C	B90 __ = 90° bend B45 __ = 45° bend ↓ inches from tip Example: B9006 = 90° bend, 6" from tip.

Secondary Reference Thermometers (SRT)

In addition to manufacturing secondary reference thermometers (SRTs), Reotemp also offers calibration services for these specialized probes, whether made by Reotemp or by competitors. Reotemp's dedicated calibration equipment and ISO9001 trained technicians ensure your SRTs are calibrated properly and in a timely manner. We offer a standard turnaround time of 3 days. Same day expedites are also available for time sensitive applications.

A full test report is provided with each calibration including before and after coefficients for the temperature scale and calibration range chosen. These SRT instruments require careful handling and our trained sales and technical staff are dedicated to providing high quality service for your calibration requirements.



HOW TO ORDER

SRTCAL — 9 1

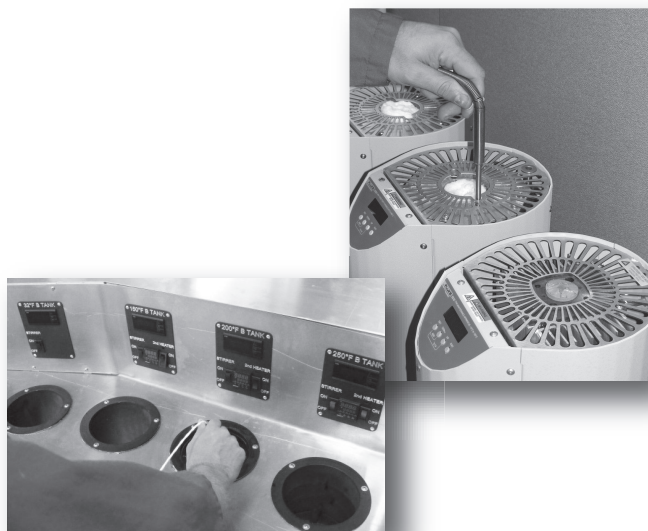
Temp scale:	Calibration Range:
9 = ITS-90 (std)	1 = -200 to 500°C
6 = IPTS-68	2 = 0 to 500°C
C = CVD	3 = -100 to 500°C
4 = IPTS-48	4 = -200 to 420°C
	5 = -200 to 300°C

Features/Benefits:

- NIST Traceable Calibration
- Calibration Test Reports:
 - Include before and after coefficients
 - All reports are archived for future reference
 - Include coefficients for ITS-90
- Precision Calibration Equipment
- Competitive Pricing
- Multiple temperature scales & calibration ranges available.

The REOTEMP Difference:

- Automated procedures & equipment to eliminate many potential error points.
- Standard turnaround: 3 days
- Expedited turnaround: Same day available
- Attentive & knowledgeable sales support



Threaded Thermowells

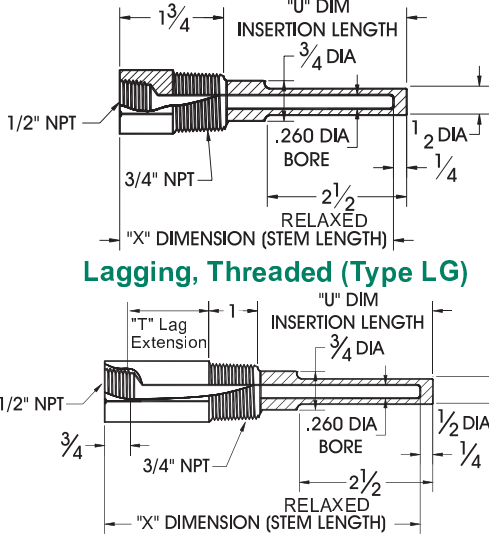
Thermowells are mated with spring loaded RTD's and Thermocouples.
Each stainless Thermowell is die stamped with the type of material from which it is made.

Build this product Online

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

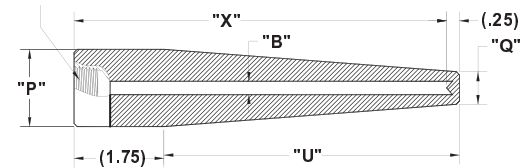
www.reotemp.com

Standard, Threaded (Type ST)

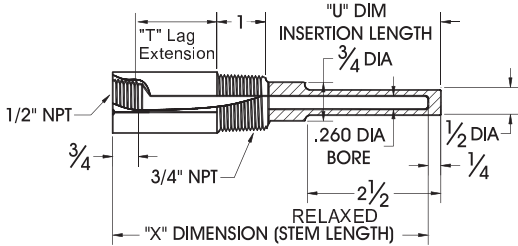


Types

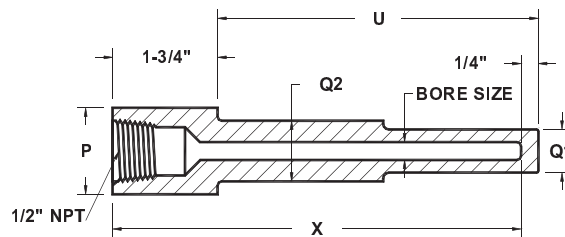
Weld-in (Type WI)



Lagging, Threaded (Type LG)



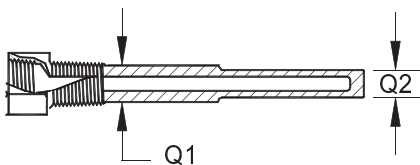
Socket-Weld Well (Type SW)



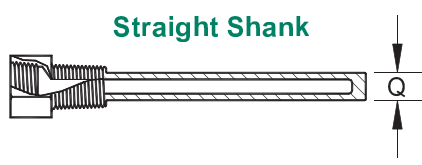
Note: For fixed thread-sensors (not spring-loaded), add 1/2" to "X" dim. of well.

SHANK STYLES

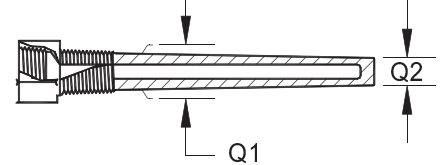
Standard Stepped Shank



Straight Shank



Tapered Shank



How To Order



Type	Stem Length "X"	Material	External Thread	Shank	Bore
ST = Threaded LG = Threaded Lagging SW = Socket Weld SWL = Socket Weld w/ lag WI = Weld-in WIL = Weld-in w/lag	2 = 2.5" 4 = 4" 6 = 6" 9 = 9" 12 = 12" 2.0 = 2"	304 = 304 SS 316 = 316SS/316L B = Brass C = Carbon Steel (1018) G = Hast B H = Hast C M = Monel/A400 T = Titanium Y = Inconel A = Alloy 105 Carb. Stl. 2 = Alloy 20 5 = F5 Alloy P = PTFE Coated 316SS N = F22 Alloy **For other Materials, use flanged well codes.	For Threaded Wells Blank for std. (3/4" NPT) " " = 3/4" NPT (std) -1 = 1" NPT H = 1/2" NPT 4 = 1/4" NPT 44 = 1/4" ext. x 14" int. NPT -2 = 1.5" NPT For Socket Weld and Weld-in wells Blank for std. (3/4" pipe) " " = 3/4" pipe nominal (1.050" OD)-std P1 = 1" pipe nominal (1.315" OD)	Blank for std. (stepped) " " = Stepped (std.) T = Tapered S = Straight	Bore Diameter Blank for std. (.260 Bore) " " = .260 (std.) B3 = .385 B5 = .515
Standard Dimensions					
Stem "X" Dim.	Std. "U" Dim.	Lagging "U" Dim.	Overall Length		
2 1/2"	1 5/8"	---	2 7/8"		
4"	2 1/2"	---	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"		

Flanged Thermowells

Build this product
Online

www.reotemp.com



How To Order

05 — **1** — **R** — **2** — **S** — **T** — **U020** — **L042**

Flange Size	Flange Rating	Sealing Face	Bore Diameter	Material	Shank Style	"U" Dimensions	Overall Length
05 = 1/2" 10 = 1" 15 = 1.5" 20 = 2" 25 = 2.5" 30 = 3" 07 = 3/4"	1 = 150# 3 = 300# 6 = 600# 9 = 900 - 1500# 5 = 2500# V = VanStone	R = Raised Face F = Flat Face J = RTJ (Ring type joint) Q = Other (Specify)	2 = .260" (for 1/4" stem) 3 = .385" (for 3/8" stem) Q = Other (Specify)	S = 316SS F = 304SS C = Carbon Stl. D = Carp. 20 G = Hast B H = Hast C (276) L = F 11 Alloy M = Monel Y = Inconel (600) U = Tantalum Lined Z = Zirconium (316 flg) V = 317SS T = Titanium	T = Tapered S = Straight P = Stepped R = Tapered w/ support ring Q = Other	U020 = 2" U040 = 4" U070 = 7" U100 = 10" U130 = 13" U160 = 16" U220 = 22" U225 = 22.5" M250 = 250mm	L042 = 4.25" L062 = 6.25" L092 = 9.25" L122 = 12.25" L152 = 15.25" L182 = 18.25" L242 = 24.25" L247 = 24.75" M307 = 307mm
				K = 316/ Stellite coating 2 = Alloy 20 5 = F5 Alloy N = F22 Alloy P = PTFE coated 316SS	Note: std. overall length for a given "U" is on same line.		

FLANGED WELLS

Call for Quote (or get pricing and drawings online!)

WELDED WELLS

SOCKET-WELD WELLS

Call for Quote (or get pricing and drawings online!)

WELD-IN WELLS

Call for Quote (or get pricing and drawings online!)

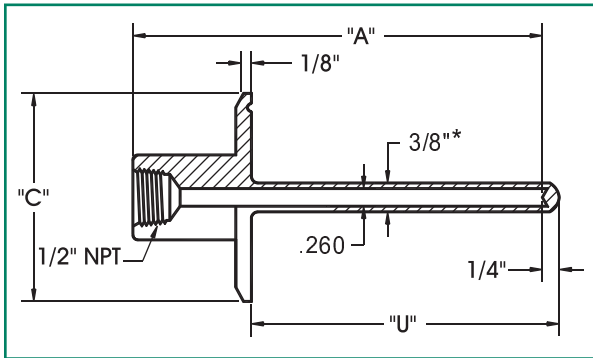
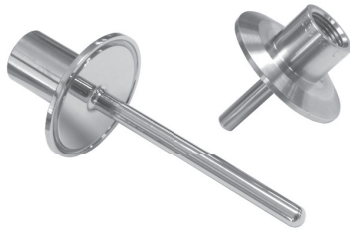
Build this product
Online

www.reotemp.com

Sanitary Thermowells

Features

- Provides Sanitary Protection for Temperature Probes
- All 316L Stainless Steel Construction
- Fast Installation & Removal
- Ideal for Food, Beverage, Biotech & Pharmaceutical Applications
- Finish Exceeds Ra 32 max. (finer finishes available)
- Exceeds 3A #4 Finish



* over 4" , shank diameter=1/2"

How To Order

Tri-Clamp Size	"A" Stem Lengths	Part No.	"U" Dim	"C" Dim (Flange Dia.)
1 1/2"	2 1/2"	STF1.5-2.5	1 5/8"	2.0" (51mm)
	4"	STF1.5-4	2 1/2"	
	6"	STF1.5-6	4 1/2"	
	9"	STF1.5-9	7 1/2"	
2"	2 1/2"	STF2-2.5	1 5/8"	2.5" (63mm)
	4"	STF2-4	2 1/2"	
	6"	STF2-6	4 1/2"	
	9"	STF2-9	7 1/2"	
2 1/2"	2 1/2"	STF2.5-2.5	1 5/8"	3.0" (76mm)
	4"	STF2.5-4	2 1/2"	
	6"	STF2.5-6	4 1/2"	
	9"	STF2.5-9	7 1/2"	
3"	2 1/2"	STF3-2.5	1 5/8"	3.6" (91mm)
	4"	STF3-4	2 1/2"	
	6"	STF3-6	4 1/2"	
	9"	STF3-9	7 1/2"	

Build this product **Online**

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

www.reotemp.com

Pricing

Call for Quote (or get pricing and drawings online!)

Accessories

Metal Heads		
P/N's	Description	Prices
TCX006B	Universal Cast Alum.	18.90
TCX006A	Universal Cast Iron	28.30
TCX006G	316SS	102.00
TCX006H	Alum. Flip-Top	19.70
TCX006I	Epoxy Coated Alum.	22.30
TCX006W	Alum. Window	30.90

Ceramic, Brass, Terminal Blocks		
P/N's	Description	Prices
TCX001T2	2 pole	6.00
TCX001T3	3 pole	7.10
TCX001T4	4 pole	8.10
TCX001T6	6 pole	9.20

In-Head Transmitters 4-20mA		
P/N's	Description	Prices
TCXT4-X	Std.	168
TCXT4-R	w/ Hart	336
TCXT4-B	w/ digital display	462
TCXT4-A	Hart w/ dig. display	753

Explosion Proof Heads		
P/N's	Description	Prices
TCX006E	Expl. Proof Alum.	33.40
TCX006T	ATEX Expl. Prf. Alum.	38.60
TCX006J	Expl. Proof 316SS	110.60
TCX006Z	Expl. Proof, Window	47.10
Plastic Heads		
TCX006S	Poly Plastic (white)	19.70
TCX006C	Poly Plastic (black)	19.70

Plugs & Jacks		
P/N's	Description	Prices
TCX*PLUG	Std. Male	8.10
TCX*JACK	Std. Female	8.10
TCXSTDCLA	Clamp Set (for std.)	2.10
TCX*PLUG MINI	Mini Male	7.30
TCX*JACK MINI	Mini Female	7.30
TCX*MINCLA	Clamp Set (for mini)	2.10

Spring Loaded Kit Includes bushing, spring, and retaining clip (for 1/4" Stem)	
TCXBSL22	16.30

Note: All prices are U.S. dollars

Note: all prices subject to change without notice.

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

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



TCXBLS22

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

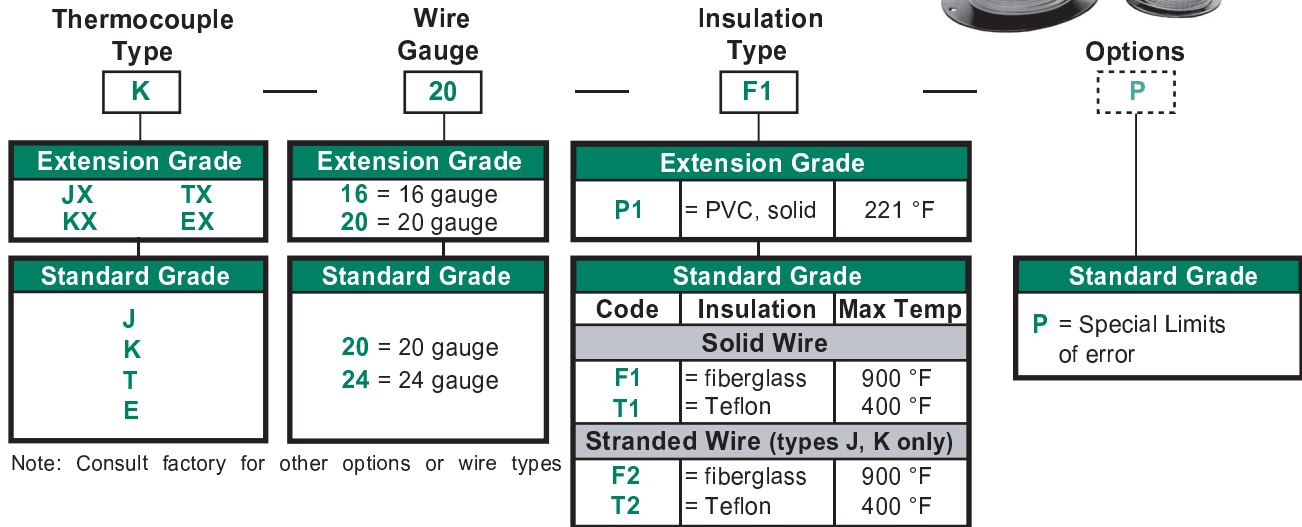
In-Head Transmitters



TCXT4-X = 4-20mA transmitter

TCXT4-R = 4-20mA Hart transmitter

Bulk Wire



Pricing

Call for Quote

Digital Thermometers

Thermistor Sensor

Thermocouples 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" (192x91x52.5mm)	7.6" x 3.9" x 2.1" (192x91x52.5mm)

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"

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"

How to Order

1. Specify Model #
2. Specify Probe.

Model # Probe
TM99A — **FRK4**

Digital Thermometers

Thermistor Sensor	
Model	Prices
TM99A	217.60
TC100A	274.40
Thermocouple Sensors	
Model	Prices
HI-9063	252.80
701K	122.40
Probes for Models: TM99A	
Model	Prices
1075	59.20
1052	96.80
4040	84.00
5005	115.00
2010	32.00
Probes for Models: HI-9063 & 701K	
Model	Prices
LPK5	52.80
XPK2	39.20
FRK4	81.60
HPK2	83.00
REK1	20.80
SPK1	102.40
LPKA	71.20
LPK12	96.80
MRK36	143.20
MRK48	156.80
MRK60	175.20

Note: All prices are U.S. dollars

Note: all prices subject to change without notice.