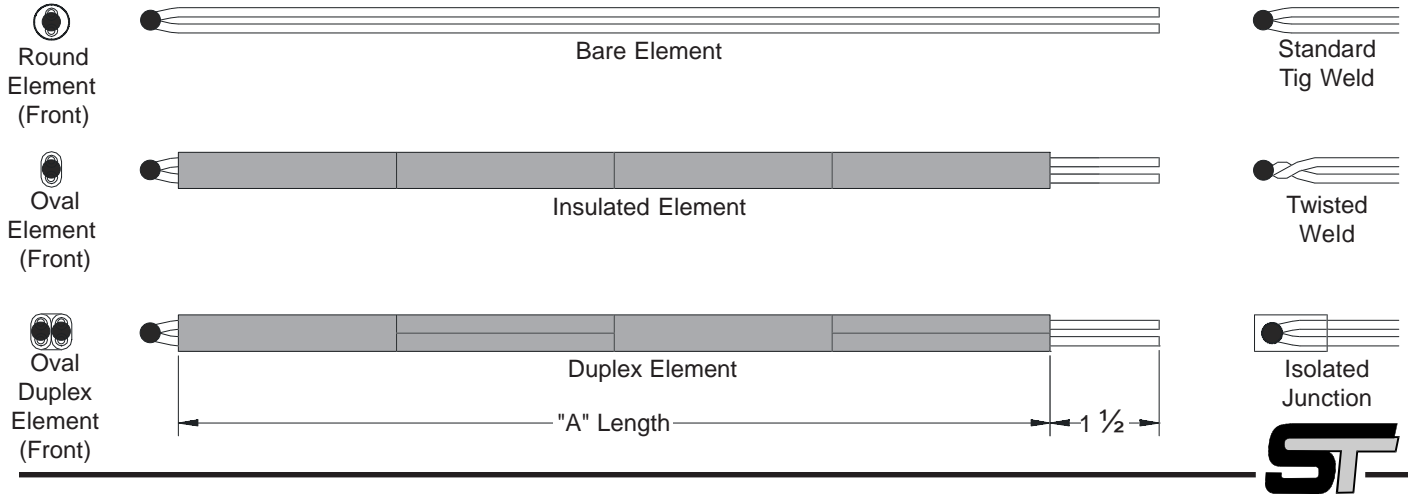


STRAIGHT BASE METAL THERMOCOUPLE ELEMENTS



SENSOR STYLE	
A	Straight Base Metal T/C

CALIBRATION	
J	Type "J"
K	Type "K"

TYPE/OPTION	
0	Single Element
4	Duplex Element

JUNCTION TYPE	
S	Standard Tig Weld
T	Twisted Weld
I	Isolated

ELEMENT LENGTH ("A")	
12	= 12 Inches
18	= 18 Inches
24	= 24 Inches
30	= 30 Inches
36	= 36 Inches
--	= Specify other lengths
Note: Actual cut length will be 1 1/2" longer than specified to allow for terminal connections.	

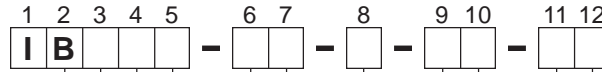
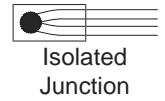
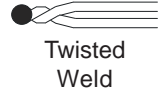
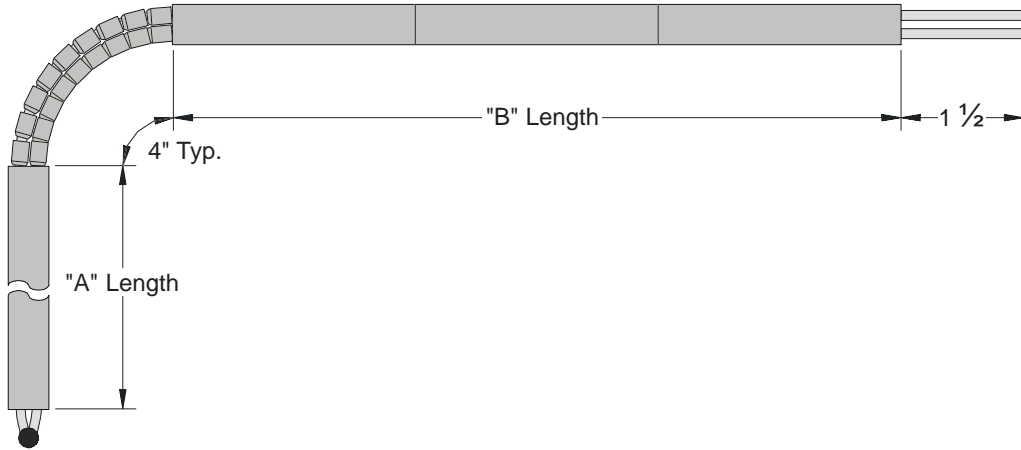
INSULATOR TYPE	
N	= None
R	= Round
O	= Oval

CONDUCTOR GAUGE	
14	= 14 AWG
11	= 11 AWG
08	= 8 AWG

ELEMENT INSULATION CHART				
Order Code	Insulation Description	Wire Gauge	Insulator Dimension	
			Single	Duplex
N	Bare Element	---	None Used	None Used
R	Round Ceramic	14 Ga.	.250 OD	.320 OD
		11 Ga.	.465 OD	---
		8 Ga.	.465 OD	---
O	Oval Ceramic	14 Ga.	.313 x .188	.436 x .436
		11 Ga.	.375 x .218	.436 x .436
		8 Ga.	.500 x .286	.572 x .572
SensorTec insulated elements are supplied with refractory insulators 2380° Deg F maximum temperature				

SensorTec's straight base metal thermocouple elements are available as both part of a complete Industrial Thermocouple Assembly or as a separate replacement element for existing assemblies. The replacement elements are available with or without ceramic insulators and other listed options.

ANGLED BASE METAL THERMOCOUPLE ELEMENTS



SENSOR STYLE	
B	= Angled Base Metal T/C
CALIBRATION	
J	= Type "J"
K	= Type "K"
TYPE/OPTION	
0	= Single Element
4	= Duplex Element
JUNCTION TYPE	
S	= Standard Tig Weld
T	= Twisted Weld
I	= Isolated

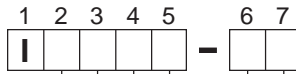
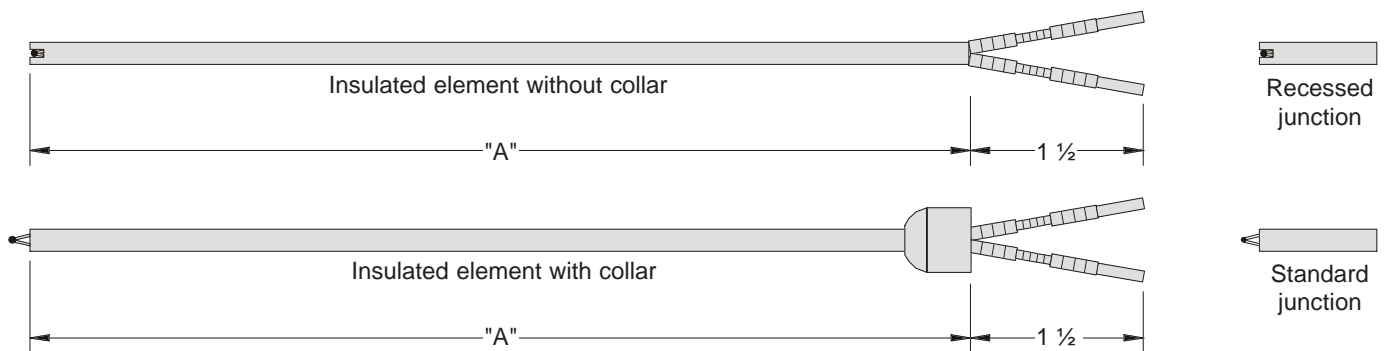
COLD LENGTH ("B")	
12	= 12 Inches
18	= 18 Inches
24	= 24 Inches
30	= 30 Inches
36	= 36 Inches
--	= Specify other lengths

HOT LENGTH ("A")	
12	= 12 Inches
18	= 18 Inches
24	= 24 Inches
30	= 30 Inches
36	= 36 Inches
--	= Specify other lengths

INSULATOR TYPE	
N	= None
R	= Round
O	= Oval

CONDUCTOR GAUGE	
14	= 14 AWG
11	= 11 AWG
08	= 8 AWG

NOBLE METAL THERMOCOUPLE ELEMENTS



SENSOR STYLE
C = Insulated Element w/ Collar
D = Insulated Element w/o Collar ¹

CALIBRATION
R = Type "R" Pt \ Pt & 13% Rh
S = Type "S" Pt \ Pt & 10% Rh
B = Type "B" Pt & 30% Rh \ Pt & 6% Rh
C = Type "C" Tg & 5% Rh \ Tg & 26% Rh

TYPE/OPTION
0 = Single Element
4 = Duplex Element

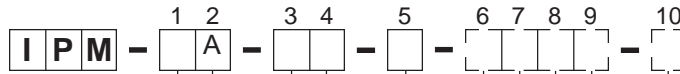
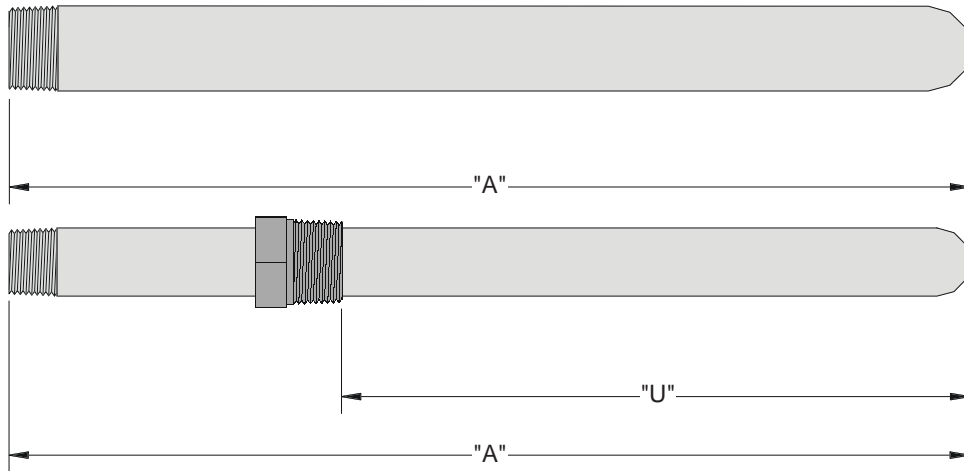
JUNCTION TYPE
S = Standard
I = Isolated\Recessed

ELEMENT LENGTH "A"
12 = 12 Inches
18 = 18 Inches
24 = 24 Inches
30 = 30 Inches
36 = 36 Inches
-- = Specify other lengths

STS's noble metal thermocouple elements are available as both, part of a complete high temperature Industrial Thermocouple Assembly or as separate replacement elements for existing assemblies. The replacement elements are constructed with high temperature alumina insulators.

¹ Style "ID" available only as Isolated\Recessed Junction

METAL PROTECTION TUBES



PROTECTION TUBE SIZE
B = 1/4" NPT Pipe
D = 1/2" NPT Pipe
E = 3/4" NPT Pipe
F = 1" NPT Pipe

PROTECTION TUBE TYPE
A = Schedule 40 - Standard

PROTECTION TUBE OPTIONS
F = adj. steel mounting flange

HOT LENGTH FOR BUSHING "U"
Length in whole inches ex 12 = 12 Inches

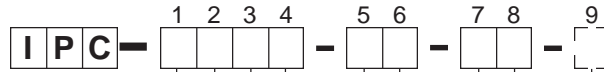
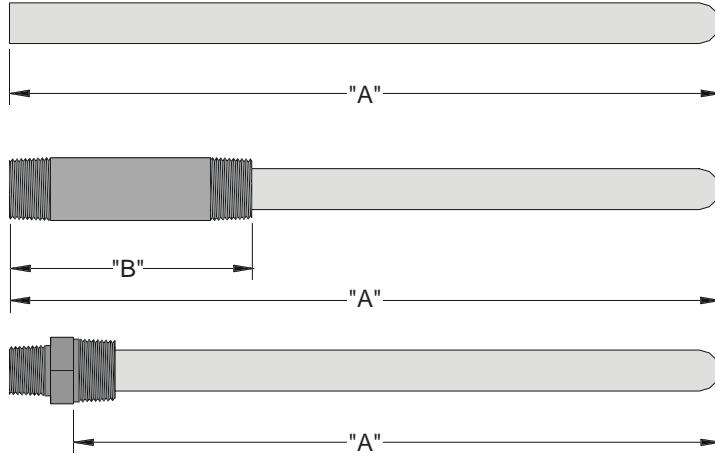
WELDED BUSHING MATERIAL
D = Carbon Steel
T = 304 SST
W = 316 SST

OPTIONAL WELDED BUSHING
D = 1/2" NPT Bushing
E = 3/4" NPT Bushing
F = 1" NPT Bushing
G = 1 1/4" NPT Bushing
H = 1 1/2" NPT Bushing
Note: Welded bushing must be at least one NPT size larger than protection tube size.

PROTECTION TUBE MATERIAL
D = Carbon Steel
K = Inconel 601
S = 446 SST
T = 304 SST
W = 316 SST

PROTECTION TUBE LENGTH "A"
Whole inches of tube

CERAMIC PROTECTION TUBES



MOUNTING FITTING TYPE
1 = None
2 = Pipe Nipple
3 = Hex Fitting

MOUNTING FITTING LENGTH "B"
For Pipe Nipple - length in inches ex. 4" nipple = 04
Mounting fitting types 1 & 3 = 00

MOUNTING FITTING MATERIAL
D = Carbon Steel
T = 304 SST
W = 316 SST
Mounting fitting type 1 = 0

OPTIONS
F = adj. steel mounting flange

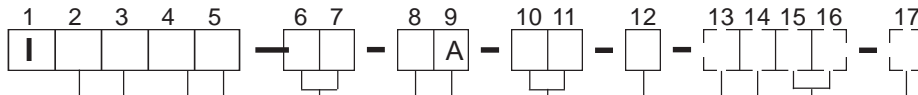
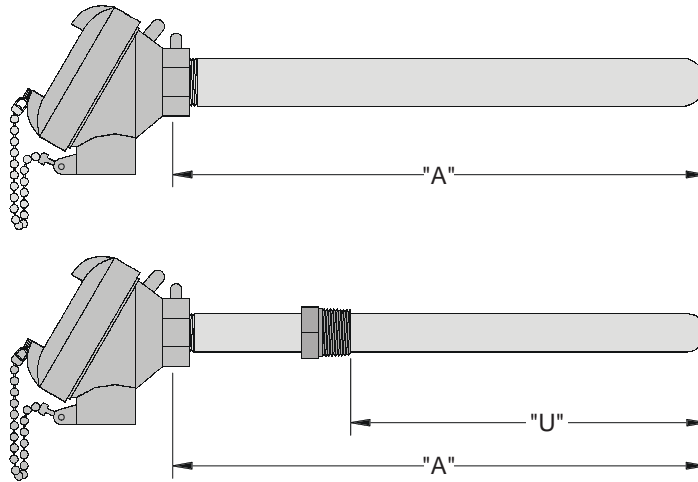
PROTECTION TUBE LENGTH "A"
Whole inches of tube

PROTECTION TUBE MATERIAL
A = Alumina
M = Mullite

PROTECTION TUBE SIZE
Single tube design
A = 1/4" ID x 3/8" OD
B = 7/16" ID x 11/16" OD
C = 1/2" ID x 3/4" OD
D = 3/4" ID x 1" OD
E = 1" ID x 1 1/4" OD
Dual tube design
F = 1/4" ID x 11/16" OD
See table below for dimensions

Tube Part#	Tube Size		Pipe Nipple Size	Hex Nipple	Hex Nipple
	ID	OD		Process	Termination
A	1/4"	3/8"	1/2" NPT	-	-
B	7/16"	11/16"	3/4" NPT	3/4" NPT	1/2" NPT
C	1/2"	3/4"	3/4" NPT	3/4" NPT	1/2" NPT
D	3/4"	1"	1 1/4" NPT	1 1/4" NPT	1" NPT
E	1"	1 1/4"	1 1/4" NPT	1 1/4" NPT	1" NPT
F	1/4"	11/16"	3/4" NPT	3/4" NPT	1/2" NPT

METAL PROTECTION TUBE ASSEMBLIES



SENSOR STYLE
Snap Cover style
 T = Cast Aluminum Weatherproof
 4 = Din "B" Size Aluminum WP
Screw Cover style
 1 = Cast Aluminum Weatherproof
 2 = Cast Iron Weatherproof
 8 = Stainless Steel Weatherproof
 W = Explosion Proof (Aluminum)

CALIBRATION
 J = Type "J"
 K = Type "K"

TYPE/OPTION
 0 = Single Element
 4 = Duplex Element

JUNCTION TYPE
 S = Standard Tig Weld
 T = Twisted Weld
 I = Isolated

CONDUCTOR GAUGE
 14 = 14 AWG
 11 = 11 AWG
 08 = 8 AWG

PROTECTION TUBE SIZE
 B = 1/4" NPT Pipe
 D = 1/2" NPT Pipe
 E = 3/4" NPT Pipe
 F = 1" NPT Pipe

PROTECTION TUBE TYPE
 A = Schedule 40 - Standard

PROTECTION TUBE OPTIONS
 F = Adj. Steel Mounting Flange
 G = Internal ground screw
 M = MgO Style Element
 (Industrial style standard)
 I = Stainless Steel Tag

HOT LENGTH FOR BUSHING
 Length in whole inches
 ex B = 12 INCHES

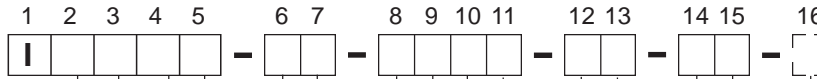
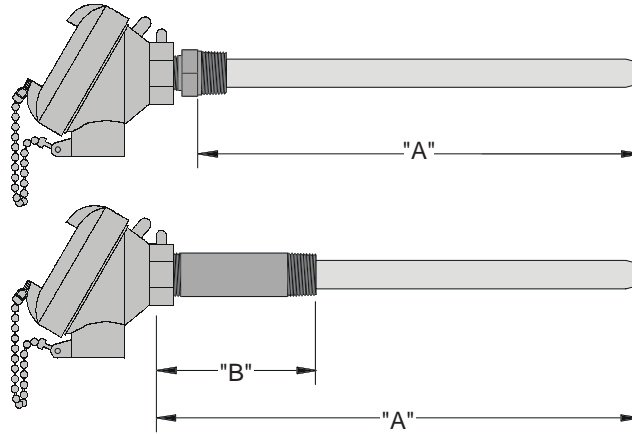
WELDED BUSHING MATERIAL
 D = Carbon Steel
 T = 304 SST
 W = 316 SST

OPTIONAL WELDED BUSHING
 D = 1/2" NPT Bushing
 E = 3/4" NPT Bushing
 F = 1" NPT Bushing
 G = 1 1/4" NPT Bushing
 H = 1 1/2" NPT Bushing
 Note: Welded bushing must be at least one NPT size larger than protection tube size.

PROTECTION TUBE MATERIAL
 D = Carbon Steel
 K = Inconel 601
 S = 446 SST
 T = 304 SST
 W = 316 SST

PROTECTION TUBE LENGTH
 Whole inches of tube

CERAMIC PROTECTION TUBE ASSEMBLIES



SENSOR STYLE	
Snap Cover style	
T	Cast Aluminum Weatherproof
4	Din "B" Size Aluminum WP
Screw Cover style	
1	Cast Aluminum Weatherproof
2	Cast Iron Weatherproof
8	Stainless Steel Weatherproof

CALIBRATION	
Base Metal	Available Gauge
K = Type "K"	8, 11, 14, 20 AWG
Noble Metal	Available Gauge
R = Type "R"	24 AWG, 26 AWG
S = Type "S"	24 AWG, 26 AWG
B = Type "B"	24 AWG

TYPE/OPTION
0 = Single Element
4 = Duplex Element

JUNCTION TYPE
S = Standard Tig Weld
T = Twisted Weld
I = Isolated

CONDUCTOR GAUGE
Select available gauge size for T/C from Calibration chart above example 8 AWG = 08

MOUNTING FITTING TYPE
2 = Pipe Nipple
3 = Hex Fitting

MOUNTING FITTING SIZE "B"
For Pipe Nipple - length in inches ex. 4" nipple = 04
Mounting fitting type 3 = 00

OPTIONS
G = Internal ground screw
F = Adjustable Steel Flange
I = Stainless Steel Tag

PROTECTION TUBE LENGTH "A"
Whole inches of tube

PROTECTION TUBE MATERIAL
A = Alumina (1870°C / 3400°F)
M = Mullite (1500°C / 2700°F)

PROTECTION TUBE SIZE
Single tube design
A = 1/4" ID x 3/8" OD
B = 7/16" ID x 11/16" OD
C = 1/2" ID x 3/4" OD
D = 3/4" ID x 1" OD
E = 1" ID x 1 1/4" OD
Dual tube design
F = 1/4" ID x 11/16" OD

MOUNTING FITTING MATERIAL
D = Carbon Steel
T = 304 SST
W = 316 SST

Tube Part#	Tube Size		Pipe Nipple Size	Hex Nipple	Hex Nipple
	ID	OD		Process	Termination
A	1/4"	3/8"	1/2" NPT	-	-
B	7/16"	11/16"	3/4" NPT	3/4" NPT	1/2" NPT
C	1/2"	3/4"	3/4" NPT	3/4" NPT	1/2" NPT
D	3/4"	1"	1 1/4" NPT	1 1/4" NPT	1" NPT
E	1"	1 1/4"	1 1/4" NPT	1 1/4" NPT	1" NPT
F	1/4"	11/16"	3/4" NPT	3/4" NPT	1/2" NPT