Industrial Thermocouple Assemblies

Thermo-Couple Products company offers thermowell assemblies in a wide variety of materials, lengths and diameters to meet your particular application conditions including: temperature, mechanical strength, corrosion, atmosphere, dry or liquid immersion; velocity of measured medium and length of service.

Included in our thermowell series are standardized wells of threaded, ANSI flanged, Van Stone and weld-in types.

Threaded wells are made in readily welded or brazed materials for installations requiring seal welding or brazing. The pipe thread provides the mechanical strength, the weld merely seals.

ANSI flanged wells consist of a bar-stock well which is permanently welded to a top quality flange. Standard construction uses primary "J" groove weld and a bevel groove secondary weld. Both welds are machined to produce a clean fillet. This double welded construction eliminates possibility of crevice corrosion since no open joints are exposed from either inside or outside the installation.

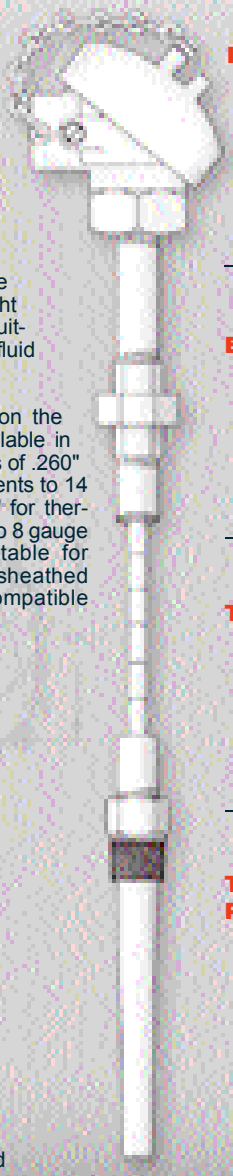
Socket weld types of wells can be installed easily by merely welding into place to form a clean and tight connection.

The insertion length "rule of thumb" of ten diameters is not always practical when installing thermowells. Care should be exercised to make certain that the sensitive tip is totally immersed into the medium being measured. Above all, be sure that the dead length — i.e. the length required to pass through walls, pipe fittings, etc. — is taken into account when choosing the necessary insertion length.

Our engineering staff is available to help you should you have further application questions.

Our tapered thermowells provide greater rigidity than straight shank styles. They are well-suited to applications of high fluid velocity.

The thermowells shown on the following pages are available in standard bore diameters of .260" for thermocouple elements to 14 gauge wire and .385" for thermocouple elements to 8 gauge wire. Both are suitable for use with metal sheathed elements of compatible diameters.



Head Assembly
Explosion-proof gasket screw-cover head in either cast aluminum or cast iron, with a simplex or duplex terminal block as required.

Extension Assembly
Nipples and union in 1/2" standard weight steel. Standard lengths are 4" and 6", with 3", 5", 7" and 8" also available.

Thermocouple Element
Available in all calibrations and junctions. Choice of insulated metallic sheath or ceramic insulated element.

Thermowell or Protection Tube
Assemblies are available with either Thermowells, Protection Tubes, or Uniwell Designs.

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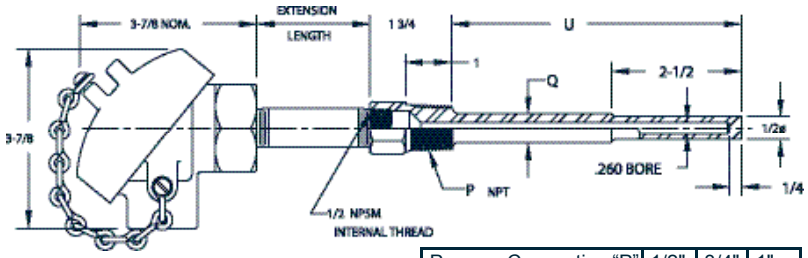
STANDARD THERMOWELL ASSEMBLY

Series 16000

- Thermowell has Step-Down Design
- Complete Thermocouple/ Thermowell Assembly
- Supplied with a Threaded Thermowell (.260" Bore)
- Explosion Proof Head is Standard



Process Connection "P"	1/2"	3/4"	1"
Diameter "Q"	5/8"	3/4"	7/8"

Example: Enter a selection for each item, please fax your inquiry to TCP.

16000- S - A - 2 - 6 - 3 - J - W2 - 3/4 - S - 10.5 - 0

16000- ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"
2.5	2-1/2"
4.5	4-1/2"
7.5	7-1/2"
10.5	10-1/2"
13.5	13-1/2"
16.5	16-1/2"
22.5	22-1/2"

For other lengths consult factory

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	PROCESS CONNECTION "P"
1/2	1/2" NPT
3/4	3/4" NPT
1	1" NPT

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

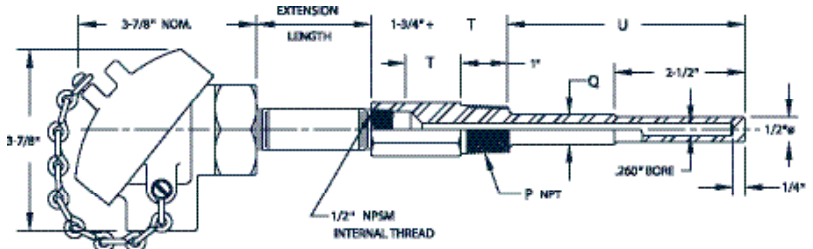
Metric Orders Welcome

Place an **mm** in the appropriate selection box: 100 **mm**

LAG THERMOWELL ASSEMBLY

Series 16100

- Complete Thermocouple/ Thermowell Assembly
- Supplied with a Threaded Thermowell (.260" Bore)
- Explosion Proof Head is Standard
- Supplied with Standard Lag Length



Process Connection "P"	1/2"	3/4"	1"
Diameter "Q"	5/8"	3/4"	7/8"

Enter a selection for each item, please fax your inquiry to TCP.

Example:

16100- S - A - 2 - 6 - 3 - J - W2 - 3/4 - S - 10.5 - 0

16100- ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"	
2.5	2-1/2"	T = 2"
4.5	4-1/2"	T = 3"
7.5	7-1/2"	
10.5	10-1/2"	
13.5	13-1/2"	
16.5	16-1/2"	
22.5	22-1/2"	

For other lengths consult factory

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	PROCESS CONNECTION "P"
1/2	1/2" NPT
3/4	3/4" NPT
1	1" NPT

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

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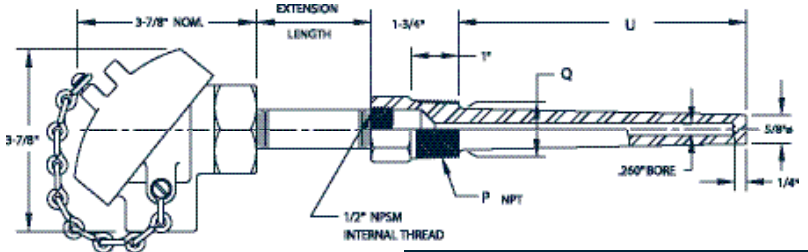
HEAVY DUTY THERMOWELL ASSEMBLY

Series 16200

- Tapered Design Provides Greater Rigidity than Straight Shank Design
- Explosion Proof Head is Standard
- Supplied with a Threaded Thermowell (.260" Bore)



Process Connection "P"	1/2"	3/4"	1"
Diameter "Q"	5/8"	7/8"	1-1/16"

Enter a selection for each item, please fax your inquiry to TCP.

Example:

16200- S - A - 2 - 6 - 3 - J - W2 - 3/4 - S - 10.5 - 0

16200- ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"
2.5	2-1/2"
4.5	4-1/2"
7.5	7-1/2"
10.5	10-1/2"
13.5	13-1/2"
16.5	16-1/2"
22.5	22-1/2"

For other lengths consult factory

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	PROCESS CONNECTION "P"
1/2	1/2" NPT
3/4	3/4" NPT
1	1" NPT

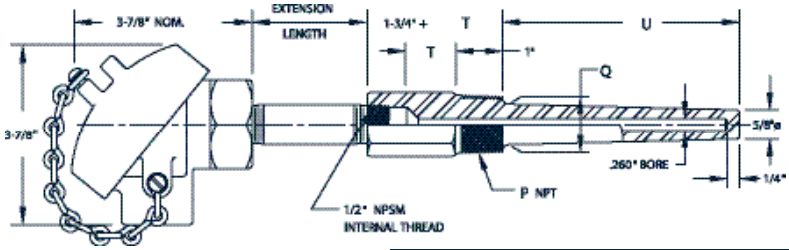
CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

HEAVY DUTY LAG THERMOWELL ASSEMBLY

Series 16250

- Supplied with a Threaded Thermowell (.260" Bore)
- Explosion Proof Head is Standard
- Supplied with Standard Lag Length



Process Connection "P"	1/2"	3/4"	1"
Diameter "Q"	5/8"	7/8"	1-1/16"

Enter a selection for each item, please fax your inquiry to TCP.

Example:

16250- S - A - 2 - 6 - 3 - J - W2 - 3/4 - S - 10.5 - 0

16250- ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"	
2.5	2-1/2"	T = 2"
4.5	4-1/2"	T = 3"
7.5	7-1/2"	
10.5	10-1/2"	
13.5	13-1/2"	
16.5	16-1/2"	
22.5	22-1/2"	

For other lengths consult factory

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	PROCESS CONNECTION "P"
1/2	1/2" NPT
3/4	3/4" NPT
1	1" NPT

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

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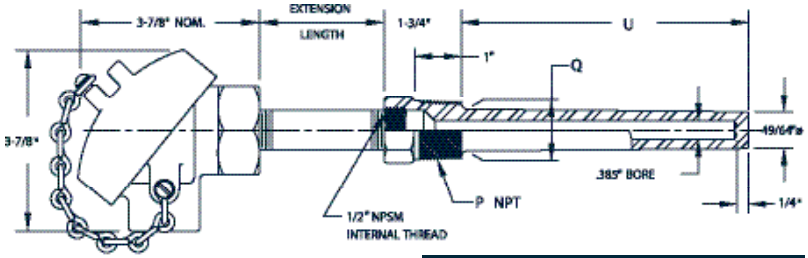
HEAVY DUTY THERMOWELL ASSEMBLY

Series 16300

- Tapered Design Provides Greater Rigidity than Straight Shank Design
- Explosion Proof Head is Standard
- Threaded Tapered Thermowell with .385" Bore



Process Connection "P"	3/4"	1"
Diameter "Q"	7/8"	1-1/16"

Enter a selection for each item, please fax your inquiry to TCP.

Example:

16300- S - A - 2 - 6 - 3 - J - W2 - 3/4 - S - 10.5 - 0

16300- ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"
2.5	2-1/2"
4.5	4-1/2"
7.5	7-1/2"
10.5	10-1/2"
13.5	13-1/2"
16.5	16-1/2"
22.5	22-1/2"

For other lengths consult factory

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	PROCESS CONNECTION "P"
3/4	3/4" NPT
1	1" NPT

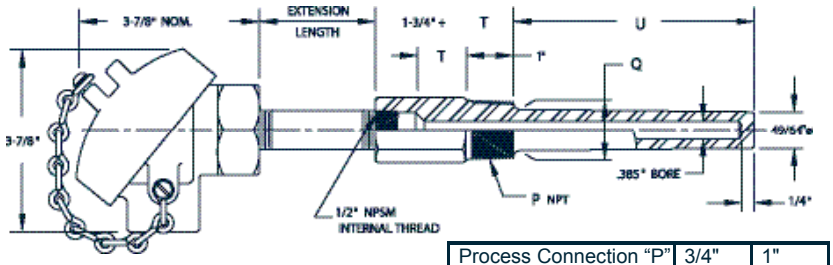
CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

HEAVY DUTY LAG THERMOWELL ASSEMBLY

Series 16350

- Threaded Tapered Thermowell with .385" Bore
- Explosion Proof Head is Standard
- Supplied with Standard Lag Length



Process Connection "P"	3/4"	1"
Diameter "Q"	7/8"	1-1/16"

Enter a selection for each item, please fax your inquiry to TCP.

Example:

16350- S - A - 2 - 6 - 3 - J - W2 - 3/4 - S - 10.5 - 0

16350- ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"	
2.5	2-1/2"	T = 2"
4.5	4-1/2"	T = 3"
7.5	7-1/2"	
10.5	10-1/2"	
13.5	13-1/2"	
16.5	16-1/2"	
22.5	22-1/2"	

For other lengths consult factory

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	PROCESS CONNECTION "P"
3/4	3/4" NPT
1	1" NPT

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

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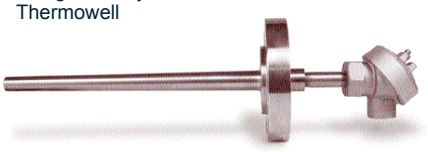
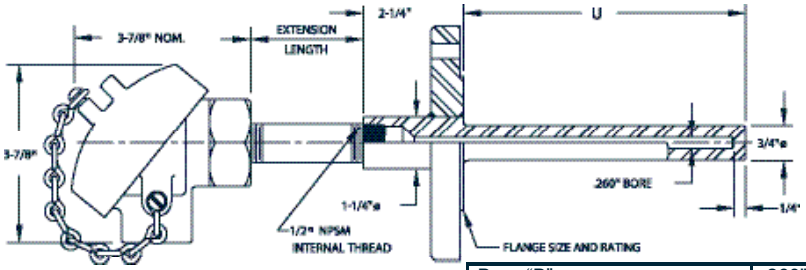
FLANGED THERMOWELL ASSEMBLY

Series 16700

- Complete Flanged Thermowell Assembly with .260" Bore
- Explosion Proof Head is Standard
- Flange is Fully Welded to Thermowell





Bore "B"	.260"
Diameter "Q"	3/4"

Enter a selection for each item, please fax your inquiry to TCP.

Example: 16700-S-A-2-6-3-J-W2-1-300-RF-C-10.5-0

16700-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"
2.5	2-1/2"
4.5	4-1/2"
7.5	7-1/2"
10.5	10-1/2"
13.5	13-1/2"
16.5	16-1/2"
22.5	22-1/2"

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	FLANGE FACE
RF	Raised Face
RTJ	Ring Type Joint

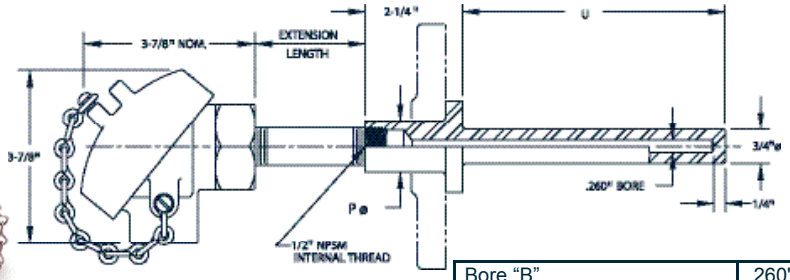
CODE	FLANGE RATING
150	150 lb.
300	300 lb.
600	600 lb.
900	900 lb.
1500	1500 lb.

CODE	FLANGE SIZE
1	1"
1.5	1-1/2"
2	2"

VAN STONE THERMOWELL ASSEMBLY

Series 16800

- Complete Flanged Thermowell Assembly with .260" Bore
- Explosion Proof Head is Standard
- Can Be Supplied with Lap Joint Flange



Bore "B"	.260"
Diameter "Q"	3/4"

Enter a selection for each item, please fax your inquiry to TCP.

Example:

16800- S - A - 2 - 6 - 3 - J - W2 - 1 - 0 - 0 - C - 10 - 0

16800- ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
2	Head and Nipple
4	Head and Nipple/Union/Nipple

CODE	EXTENSION LENGTH
2	2"
4	4"
6	6"

For other lengths consult factory

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	THERMOWELL INSERTION LENGTH "U"
2	2-"
4	4"
7	7"
10	10"
13	13"
16	16"
22	22"

CODE	THERMOWELL MATERIAL
C	304 Stainless Steel
H	316 Stainless Steel
M	Monel
S	Carbon Steel

For other material consult factory

CODE	FLANGE FACE
0	None
LJ	Lap Joint

CODE	FLANGE RATING
0	None
150	150 lb.
300	300 lb.

CODE	FLANGE SIZE
1	1"
1.5	1-1/2"

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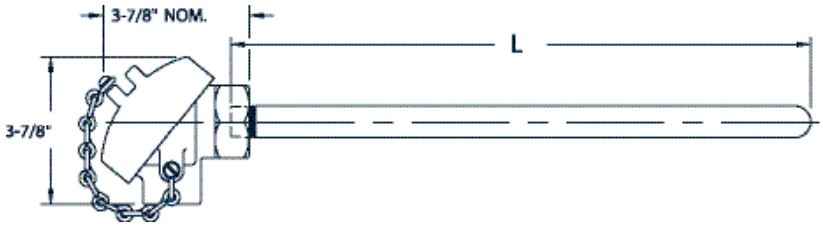
METAL PROTECTION TUBE ASSEMBLIES

Series 17010

- Plain Protection tube Assembly
- Ideal for Application Where Flow and Pressure Are Not a Major Concern
- Explosion Proof Head is Standard
- Cost is Generally Lower than Barstock Thermowells



Enter a selection for each item, please fax your inquiry to TCP.

Example:

17010 - S - A - 3 - 6 - 3 - J - W2 - C - 2 - 12 - 0 - 0

17010 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - 0 - [ ]

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
1	Head only
3	Head, Nipple and Union

CODE	EXTENSION LENGTH
0	Head only (Extension length is zero)
4	4" nipple and union
6	6" nipple and union

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan

For duplex calibrations please indicate double letters, example EE.

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	INSERTION LENGTH "U"
0	No insertion length

CODE	OVERALL PROTECTION TUBE LENGTH "L"
12	12"
18	18"
24	24"
30	30"
36	36"
48	48"

PROTECTION TUBE SIZE			
CODE	DIMENSIONS O.D.	DIMENSIONS I.D.	PIPE SIZE
1	.840	.546	1/2", SCH 80
2	.840	.622	1/2", SCH 40
3	1.050	.742	3/4", SCH 80
4	1.050	.824	3/4", SCH 40
5	1.315	.957	1", SCH 80
6	1.315	1.049	1", SCH 40

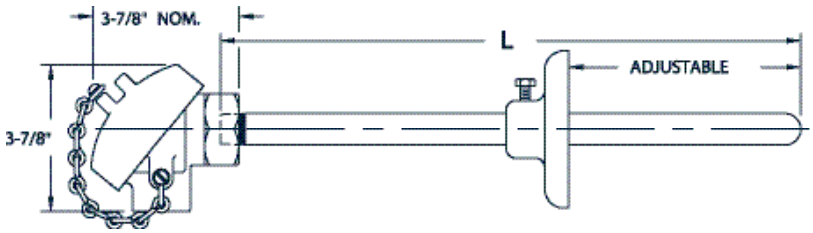
CODE	TUBE MATERIAL
A	Inconel
C	304 Stainless Steel
D	446 Stainless Steel
H	316 Stainless Steel
S	Carbon Steel

For more information, Consult the Selection Guide beginning on pg. 175

METAL PROTECTION TUBE ASSEMBLIES

Series 17020

- Adjustable Flange Mounting Assembly
- Ideal for Application Where Flow and Pressure Are Not a Major Concern
- Explosion Proof Head is Standard
- Cost is Generally Lower than Barstock Thermowells



Enter a selection for each item, please fax your inquiry to TCP.

Example:

17020- S - A - 3 - 6 - 3 - J - W2 - 15 - C - 2 - 12 - 0 - 0

17020- ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - ___ - 0 - ___

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
1	Head only
3	Head, Nipple and Union

CODE	EXTENSION LENGTH
0	Head only (Extension length is zero)
4	4" nipple and union
6	6" nipple and union

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan

For duplex calibrations please indicate double letters, example EE.

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	INSERTION LENGTH "U"
0	No insertion length

CODE	OVERALL PROTECTION TUBE LENGTH "L"
12	12"
18	18"
24	24"
30	30"
36	36"
48	48"

PROTECTION TUBE SIZE			
CODE	DIMENSIONS O.D.	DIMENSIONS I.D.	PIPE SIZE
1	.840	.546	1/2", SCH 80
2	.840	.622	1/2", SCH 40
3	1.050	.742	3/4", SCH 80
4	1.050	.824	3/4", SCH 40
5	1.315	.957	1", SCH 80
6	1.315	1.049	1", SCH 40

CODE	TUBE MATERIAL
A	Inconel
C	304 Stainless Steel
D	446 Stainless Steel
H	316 Stainless Steel
S	Carbon Steel

CODE	ADJUSTABLE FLANGE
0	None
15	Adjustable Flange

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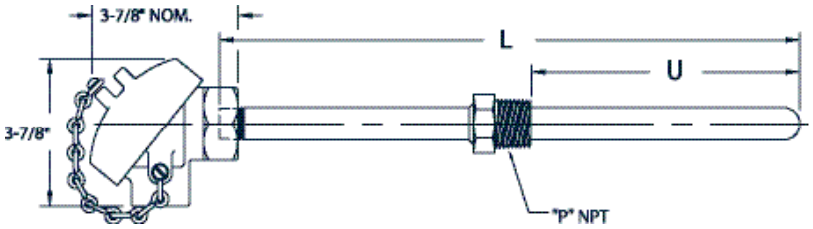
METAL PROTECTION TUBE ASSEMBLIES

Series 17030

- Fixed Bushing Protection Tube Assembly
- Ideal for Application Where Flow and Pressure Are Not a Major Concern
- Explosion Proof Head is Standard
- Cost is Generally Lower than Barstock Thermowells



Enter a selection for each item, please fax your inquiry to TCP.

Example:

17030- S - A - 3 - 6 - 3 - J - W2 - 3/4 - C - 2 - 18 - 14 - 0

17030- [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - **0** - [ ]

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
1	Head only
3	Head, Nipple and Union

CODE	EXTENSION LENGTH
0	Head only (Extension length is zero)
4	4" nipple and union
6	6" nipple and union

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan

For duplex calibrations please indicate double letters, example EE.

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

Code W2 is standard

For more information, Consult the Selection Guide beginning on pg. 175

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	INSERTION LENGTH "U"
Specify in inches	

CODE	OVERALL PROTECTION TUBE LENGTH "L"
12	12"
18	18"
24	24"
30	30"
36	36"
48	48"

PROTECTION TUBE SIZE			
CODE	DIMENSIONS O.D.	DIMENSIONS I.D.	PIPE SIZE
1	.840	.546	1/2", SCH 80
2	.840	.622	1/2", SCH 40
3	1.050	.742	3/4", SCH 80
4	1.050	.824	3/4", SCH 40
5	1.315	.957	1", SCH 80
6	1.315	1.049	1", SCH 40

CODE	TUBE MATERIAL
A	Inconel
C	304 Stainless Steel
D	446 Stainless Steel
H	316 Stainless Steel
S	Carbon Steel

CODE	BUSHING PIPE THREAD
3/4	3/4" NPT
1	1" NPT
1-1/4	1-1/4" NPT
1-1/2	1-1/2" NPT

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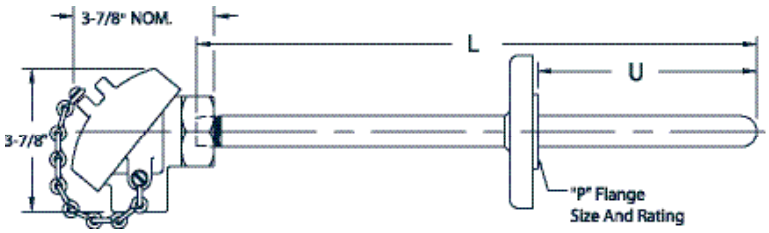
METAL PROTECTION TUBE ASSEMBLIES

Series 17040

- Fixed Flange Protection Tube Assembly
- Ideal for Application Where Flow and Pressure Are Not a Major Concern
- Explosion Proof Head is Standard
- Cost is Generally Lower than Barstock Thermowells



Enter a selection for each item, please fax your inquiry to TCP.

Example:

17040-	S	A	3	6	3	J	W2	1	150	RT	C	2	18	14	0

17040-															

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
1	Head only
3	Head, Nipple and Union

CODE	EXTENSION LENGTH
0	Head only (Extension length is zero)
4	4" nipple and union
6	6" nipple and union

CODE	ELEMENT
3	Simplex, with ceramic insulators
6	Simplex magnesium oxide insulated cable
7	Duplex, with ceramic insulators
8	Duplex, magnesium oxide insulated cable

Type 3 and 7 *(non-spring loaded)* are standard. Spring loading only available on Type 6 and 8.

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan

For duplex calibrations please indicate double letters, example EE.

CODE	JUNCTION STYLE
W2	Grounded Junction
W4	Ungrounded Junction

W2 is standard

CODE	FLANGE SIZE
1	1"
1.5	1.5"
2	2"

CODE	OTHER PERTINENT DATA
0	NONE
2	Spring Loaded
999	Special Request Consult Factory

CODE	INSERTION LENGTH "U"
	Specify in inches

CODE	OVERALL PROTECTION TUBE LENGTH "L"
12	12"
18	18"
24	24"
30	30"
36	36"
48	48"

PROTECTION TUBE SIZE			
CODE	DIMENSIONS O.D.	DIMENSIONS I.D.	PIPE SIZE
1	.840	.546	1/2", SCH 80
2	.840	.622	1/2", SCH 40
3	1.050	.742	3/4", SCH 80
4	1.050	.824	3/4", SCH 40
5	1.315	.957	1", SCH 80
6	1.315	1.049	1", SCH 40

CODE	TUBE MATERIAL
A	Inconel
C	304 Stainless Steel
D	446 Stainless Steel
H	316 Stainless Steel
S	Carbon Steel

CODE	FLANGE FACE
RT	Raised Face
RTJ	Ring Type Joint

CODE	FLANGE RATING
150	150 lb.
300	300 lb.

For other ratings consult factory

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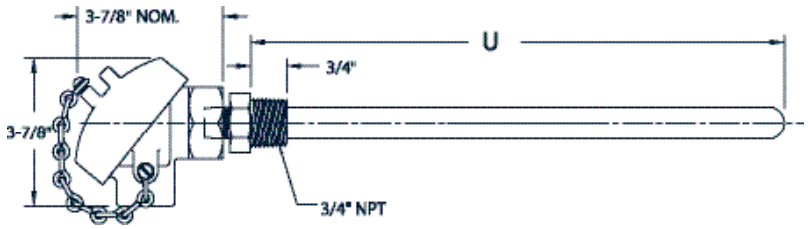
CERAMIC PROTECTION TUBE ASSEMBLIES

Series 17100

- Provides Better Protection in Hostile Environments than Metal Tubes
- Ceramic (2400˚F) or Alumina (3000˚F) Tubes are Offered
- For Use in Reducing and Oxidizing Atmospheres



Enter a selection for each item, please fax your inquiry to TCP.

Example: 17100-S-A-1-3-S-W4-N-C-18-0

17100-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]-[ ]

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
1	Head only

CODE	ELEMENT
3	Simplex, with ceramic insulators
7	Duplex, with ceramic insulators

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	INSERTION LENGTH "U"
	Specify in inches

CODE	TUBE MATERIAL
C	Ceramic (Mullite)
A	Alumina

PROTECTION TUBE SIZE		
CODE	DIMENSIONS	
	O.D.	I.D.
M	3/8"	1/4"
N	11/16"	7/16"

3/4" NPT mounting thread standard
For other series consult factory

CODE	JUNCTION STYLE
W4	Ungrounded Junction

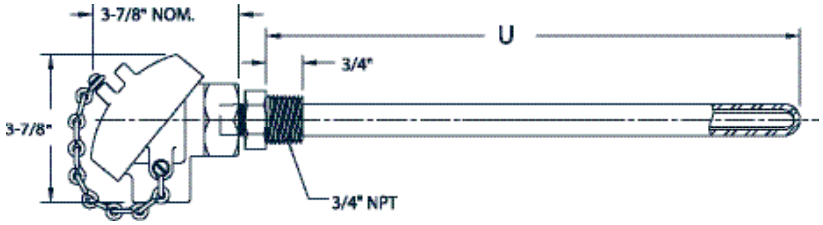
For more information, Consult the Selection Guide beginning on pg. 175

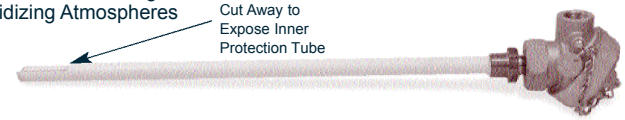
Metric Orders Welcome
Place an **mm** in the appropriate selection box: 100 **mm**

CERAMIC PROTECTION TUBE ASSEMBLIES

Series 17125

- This Series Offers Two Protection Tubes (One Inside the Other)
- Provides Better Protection in Hostile Environments than Metal Tubes
- Ceramic (2400˚F) or Alumina (3000˚F) Tubes are Offered
- For Use in Reducing and Oxidizing Atmospheres





Enter a selection for each item, please fax your inquiry to TCP.

Example:

17125- S - A - 1 - 3 - S - W4 - B - C - 18 - 0

17125- [ ] - [ ] - 1 - [ ] - [ ] - W4 - B - [ ] - [ ] - [ ]

CODE	ASSEMBLY STYLE
S	Simplex
D	Duplex

CODE	HEAD MATERIAL
A	Aluminum
F	Cast Iron

CODE	EXTENSION CONFIGURATION
1	Head only

CODE	ELEMENT
3	Simplex, with ceramic insulators
7	Duplex, with ceramic insulators

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

For duplex calibrations please indicate double letters, example EE.

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	INSERTION LENGTH "U"
	Specify in inches

CODE	TUBE MATERIAL
C	Ceramic (Mullite)
A	Alumina

PROTECTION TUBE SIZE	
CODE	DIMENSIONS
B	Outer Tube: 11/16" O.D. x 7/16" I.D Inner Tube: 3/8" O.D. x 1/4" O. D.

3/4" NPT mounting thread standard
For other series consult factory

CODE	JUNCTION STYLE
W4	Ungrounded Junction

For more information, Consult the Selection Guide beginning on pg. 175

Metric Orders Welcome

Place an **mm** in the appropriate selection box: 100 **mm**

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UNIWELL

Series 1900

- Low Cost Alternative to Thermowell Assemblies
- Conductors Protected from Environment by Dense - Pack MgO and 446 SS Heavy Wall Sheath
- Simplicity of Installation
- Lower Conduction Losses
- Long-Life, 14 Gauge Nominal Size Conductors
- Elimination of Spring-Loading

Enter a selection for each item, please fax your inquiry to TCP.

Example: 1900 | K | - | 12 | - | W2 | - | 446

1900 - [ ] - [ ] - [ ] - [ ]

CODE	WIRE CALIBRATION
K	Chromel/Alumel
J	Iron/Constantan
K is standard	

LENGTH "L"
Specify in inches 01 to 99.
For lengths over 99 inches consult factory

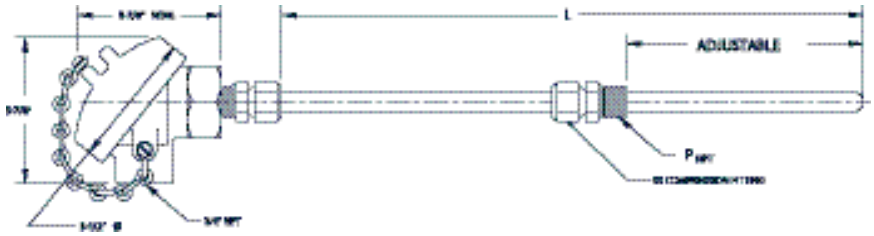
For more information, Consult the Selection Guide beginning on pg. 175

CODE	SHEATH MATERIAL
310	310 SS
446	446 SS
Code 446 is standard	

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
W3	Ungrounded Flat Tip
W4	Ungrounded Rounded Tip
Code W2 is standard	

Series 1910

- Compression Fitting is Provided on this Series
- Conductors Protected from Environment by Dense - Pack MgO and 446 SS Heavy Wall Sheath
- Simplicity of Installation
- Lower Conduction Losses
- Long-Life, 14 Gauge Nominal Size Conductors
- Elimination of Spring-Loading
- Low Cost Alternative to Thermowell Assemblies



Enter a selection for each item, please fax your inquiry to TCP.

Example: 1910 - | K | - | 12 | - | 1/2 | - | W2 | - | 446

1910 - [ ] - [ ] - [ ] - [ ] - [ ]

CODE	WIRE CALIBRATION
K	Chromel/Alumel
J	Iron/Constantan
Code K is standard	

LENGTH "L"
Specify in inches 01 to 99.
For lengths over 99 inches consult factory

CODE	PROCESS CONNECTION "P"
1/2	1/2" NPT
3/4	3/4" NPT
Code 1/2 is standard	

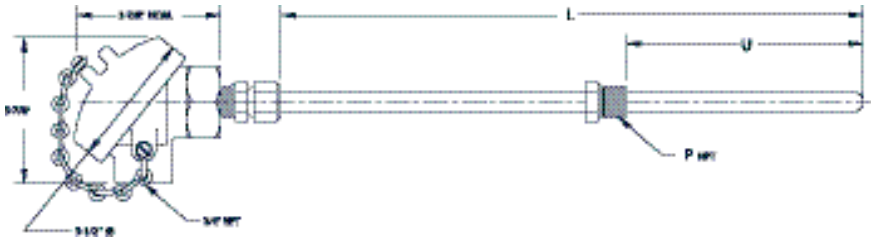
CODE	SHEATH MATERIAL
310	310 SS
446	446 SS
Code 446 is standard	

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
W3	Ungrounded Flat Tip
W4	Ungrounded Rounded Tip
Code W2 is standard	

UNIWELL

Series 1920

- Fixed Fitting is Provided on this Series
- Conductors Protected from Environment by Dense - Pack MgO and 446 SS Heavy Wall Sheath
- Simplicity of Installation
- Lower Conduction Losses
- Long-Life, 14 Gauge Nominal Size Conductors
- Elimination of Spring-Loading
- Low Cost Alternative to Thermowell Assemblies



Enter a selection for each item, please fax your inquiry to TCP.

Example: 1920	K	-	12	-	1/2	-	8	-	W2	-	446

1920 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

CODE	WIRE CALIBRATION
K	Chromel/Alumel
J	Iron/Constantan

Code K is standard

LENGTH "L"

Specify in inches 01 to 99.
For lengths over 99 inches consult factory

CODE	PROCESS CONNECTION "P"
1/2	1/2" NPT
3/4	3/4" NPT

Code 1/2 is standard

INSERTION LENGTH "U"

Specify in inches 01 to 99.
For lengths over 99 inches consult factory

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
W3	Ungrounded Flat Tip
W4	Ungrounded Rounded Tip

Code W2 is standard

CODE	SHEATH MATERIAL
310	310 SS
446	446 SS

Code 446 is standard

For more information, Consult the Selection Guide beginning on pg. 175

Metric Orders Welcome

Place an **mm** in the appropriate selection box: 100 **mm**

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UNIWELL

Series 1930

- Welded Flange Provided
- Conductors Protected from Environment by Dense - Pack MgO and 446 SS Heavy Wall Sheath
- Simplicity of Installation
- Lower Conduction Losses
- Long-Life, 14 Gauge Nominal Size Conductors
- Elimination of Spring-Loading
- Low Cost Alternative to Thermowell Assemblies

Enter a selection for each item, please fax your inquiry to TCP.

Example: 1930 - K - 12 - 8 - 1 - 150 - RF - W2 - 446

1930 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

CODE	WIRE CALIBRATION
K	Chromel/Alumel
J	Iron/Constantan
Code K is standard	

LENGTH "L"
Specify in inches 01 to 99. For lengths over 99 inches consult factory

INSERTION LENGTH "U"
Specify in inches 01 to 99. For lengths over 99 inches consult factory

CODE	FLANGE SIZE
1	1"
1.5	1.5"
2	2"

CODE	FLANGE RATING
150	150 lb.
300	300 lb.

CODE	SHEATH MATERIAL
310	310 SS
446	446 SS
Code 446 is standard	

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
W3	Ungrounded Flat Tip
W4	Ungrounded Rounded Tip
Code W2 is standard	

CODE	FLANGE FACE
RF	Raised Face
RTJ	Ring Type Joint

For more information, Consult the Selection Guide beginning on pg. 175

Metric Orders Welcome

Place an **mm** in the appropriate selection box: 100 **mm**