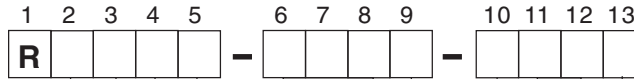
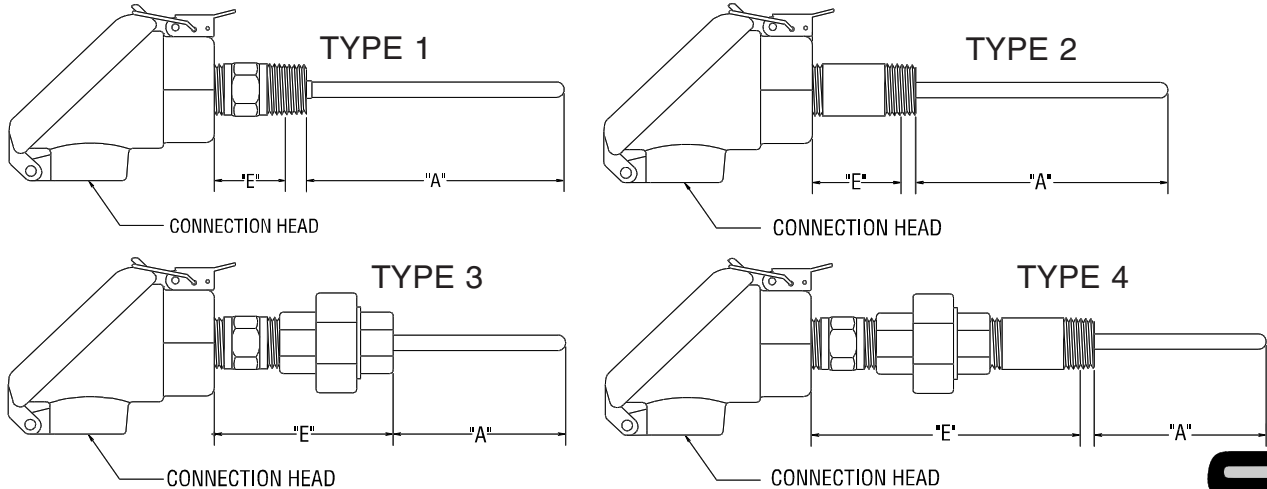


RTD'S for THERMOWELLS



CONNECTION HEAD TYPE	
SNAP-COVER STYLES	
T = Cast Aluminum	
V = White Polypropylene	
4 = DIN "B" Size Aluminum	
SCREW-COVER STYLES	
W= Explosion Proof*	
1 = Cast Aluminum	
2 = Cast Iron	
5 = White Polypropylene	
8 = Stainless Steel (T-316)	

SHEATH LENGTH ("A" Fractional)	
A = None	J = 3/8"
C = 1/8"	L = 1/2"
E = 3/16"	Q = 3/4"
G = 1/4"	

SHEATH LENGTH ("A")	
Whole Inches: Example 04 = 4 Inches	

SHEATH DIAMETER (Inch)	
K = .250" (1/4")	
N = .375" (3/8")	

ELEMENT TYPE			
Resistance @ 0°C	2 Wire	3 Wire	4 Wire
Platinum 100Ω Single	A	B	C
Platinum 100Ω Dual	D	E	N/A
Platinum 500Ω Single	F	G	H
Platinum 1000Ω Single	K	L	M

EXTENSION MATERIAL		Code
Steel / Malleable Iron		D
304 Stainless Steel		T
316 Stainless Steel		W

ACCURACY & TEMPERATURE COEFFICIENT		
Accuracy @ 0°C	Din.00385	Jis.00392
Class B (.12%)	G	H
Class A (.06%)	J	K
1/3rd (.04%)	M	N
1/10th (.01%)	Q	N/A

CONFIGURATION**		Type	"E"- Extension Length (Inches)
Head with hex nipple		1	01
Head with pipe nipple only		2	02, 03, 04, 06
Head with hex nipple & union		3	03
Head with hex nipple/union/nipple		4	04, 05, 06

TEMPERATURE RANGE	
-50 to +200° C	L
-50 to +450° C	M
-200 to +650° C	H

**All are 1/2" NPT thread size and nominal length.

NOTES: All elements are spring loaded to ensure positive contact in the thermowell.
Sheath material is 316 SST regardless of well material.

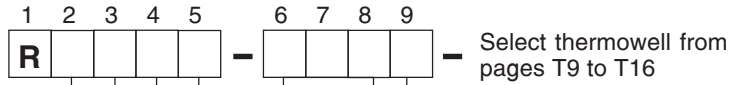
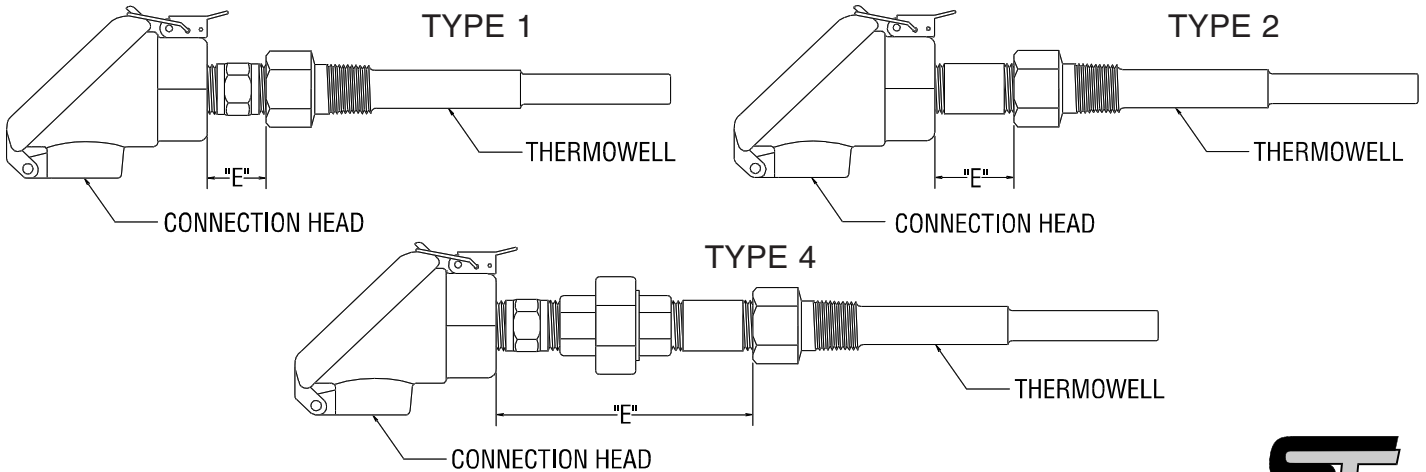
* Explosion Proof Head Meets the Following Location Classifications:



CLASS I, DIV I GROUPS B, C AND D
CLASS II, DIV I GROUPS E, F AND G
(316SST version also meets NEMA 4X or IP66)

* Ex Rating available upon request (Excd IIC ATEX II 2G)

RTD'S with THERMOWELLS



CONNECTION HEAD TYPE

SNAP-COVER STYLES

- T = Cast Aluminum
- V = White Polypropylene
- 4 = DIN "B" Size Aluminum

SCREW-COVER STYLES

- W = Explosion Proof*
- 1 = Cast Aluminum
- 2 = Cast Iron
- 5 = White Polypropylene
- 8 = Stainless Steel (T-316)

EXTENSION MATERIAL	Code
Steel / Malleable Iron	D
304 Stainless Steel	T
316 Stainless Steel	W

CONFIGURATION**	Type	"E"- Extension Length (Inches)
	Head with hex nipple	1
Head with pipe nipple only	2	02, 03, 04, 06
Head with hex nipple/union/nipple	4	04, 05, 06

**All are 1/2" NPT thread size and nominal length

ELEMENT TYPE

Resistance @ 0°C	2 Wire	3 Wire	4 Wire
Platinum 100Ω Single	A	B	C
Platinum 100Ω Dual	D	E	N/A
Platinum 500Ω Single	F	G	H
Platinum 1000Ω Single	K	L	M

ACCURACY & TEMPERATURE COEFFICIENT

Accuracy @ 0°C	Din.00385	Jis.00392
Class B (.12%)	G	H
Class A (.06%)	J	K
1/3rd (.04%)	M	N
1/10th (.01%)	Q	N/A

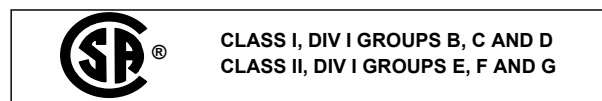
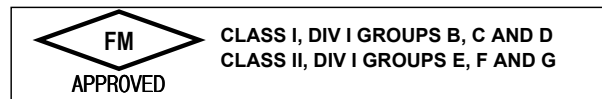
TEMPERATURE RANGE

-50 to +200° C	L
-50 to +450° C	M
-200 to +650° C	H

NOTES: All elements are spring loaded to ensure positive contact in the thermowell.
Sheath material is 316 SST regardless of well material.

Explosion Proof Head Meets the Following Location Classifications:

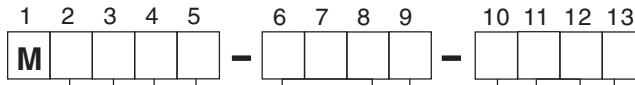
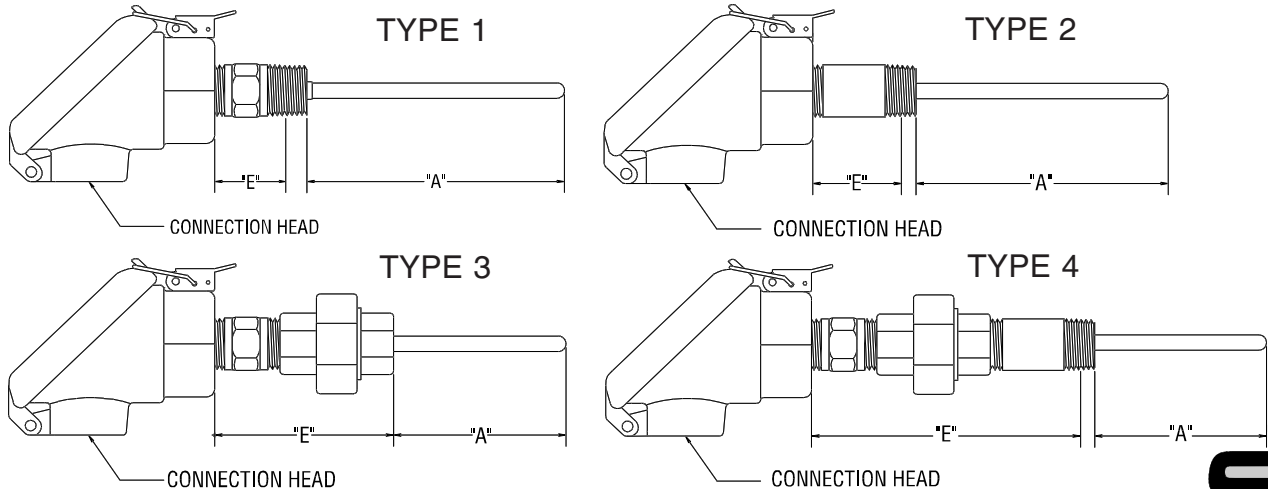
(316SST version also meets NEMA 4X or IP66)



* Ex Rating available upon request



THERMOCOUPLES for THERMOWELLS



CONNECTION HEAD TYPE

SNAP-COVER STYLES

- T = Cast Aluminum
- V = Black Polypropylene
- 4 = DIN "B" Size Aluminum

SCREW-COVER STYLES

- W = Explosion Proof*
- 1 = Cast Aluminum
- 2 = Cast Iron
- 5 = White Polypropylene
- 8 = Stainless Steel (T-304)

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded
- U = Ungrounded

SHEATH LENGTH ("A" Fractional)

- A = None
- C = 1/8"
- E = 3/16"
- G = 1/4"
- J = 3/8"
- L = 1/2"
- Q = 3/4"

SHEATH LENGTH ("A")

Whole Inches: Example 04 = 4 Inches

SHEATH DIAMETER (Inch)

- K = .250" (1/4")
- N = .375" (3/8")

EXTENSION MATERIAL

Material	Code
Steel / Malleable Iron	D
304 Stainless Steel	T
316 Stainless Steel	W

CONFIGURATION**

Configuration	Type	"E"- Extension Length (Inches)
Head with hex nipple	1	01
Head with pipe nipple only	2	02, 03, 04, 06
Head with hex nipple & union	3	03
Head with hex nipple/union/nipple	4	04, 05, 06

**All are 1/2" NPT thread size and nominal length.

NOTES: All elements are spring loaded to ensure positive contact in the thermowell.
Sheath material is 316 SST regardless of well material.

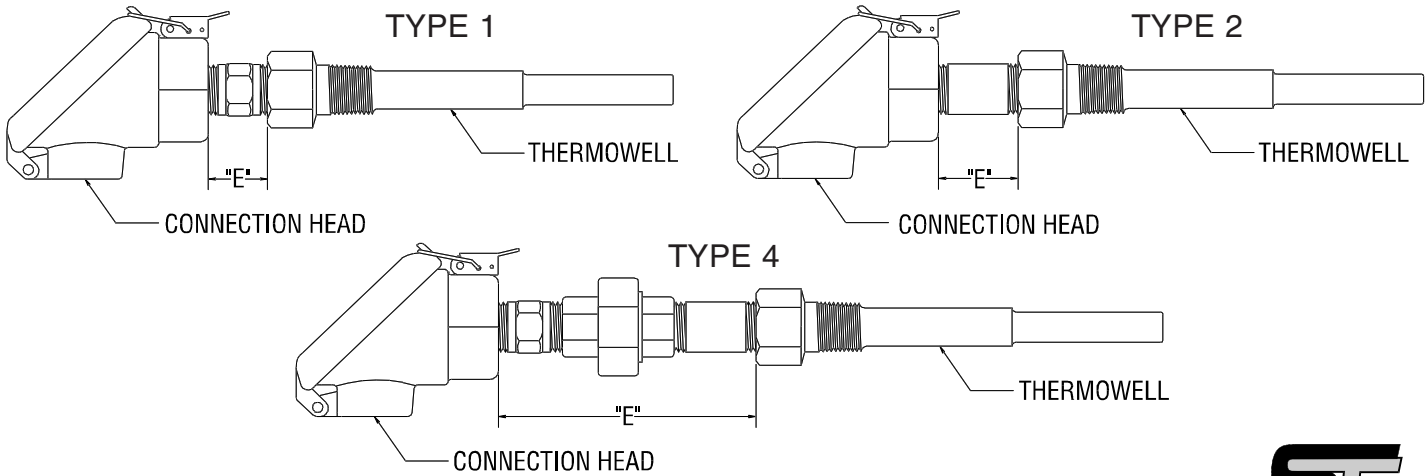
* Explosion Proof Head Meets the Following Location Classifications:



CLASS I, DIV I GROUPS B, C AND D
CLASS II, DIV I GROUPS E, F AND G
(316SST version also meets NEMA 4X or IP66)

* Ex Rating available upon request (Eexd IIC ATEX II 2G)

THERMOCOUPLES with THERMOWELLS



1 2 3 4 5 - 6 7 8 9 - Select thermowell from pages T9 to T16

CONNECTION HEAD TYPE

SNAP-COVER STYLES

- T = Cast Aluminum
- V = Black Polypropylene
- 4 = DIN "B" Size Aluminum

SCREW-COVER STYLES

- W = Explosion Proof*
- 1 = Cast Aluminum
- 2 = Cast Iron
- 5 = White Polypropylene
- 8 = Stainless Steel (T-304)

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded
- U = Ungrounded

EXTENSION MATERIAL	Code
Steel / Malleable Iron	D
304 Stainless Steel	T
316 Stainless Steel	W

CONFIGURATION**

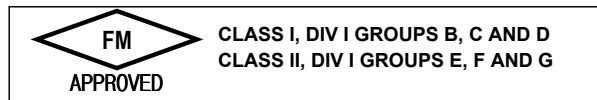
	"E"- Extension Length Code	
	Type	Code
Head with hex nipple (1" ext. only)	1	01
Head with pipe nipple only	2	02, 03, 04, 06
Head with hex nipple/union/nipple	4	04, 05, 06

**All are 1/2" NPT thread size and nominal length

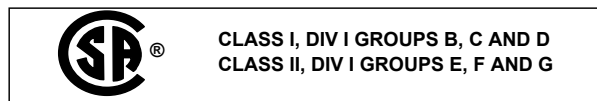
NOTES: All elements are spring loaded to ensure positive contact in the thermowell.
Sheath material is 316 SST regardless of well material.

Explosion Proof Head Meets the Following Location Classifications:

(316SST version also meets NEMA 4X or IP66)



CLASS I, DIV I GROUPS B, C AND D
CLASS II, DIV I GROUPS E, F AND G



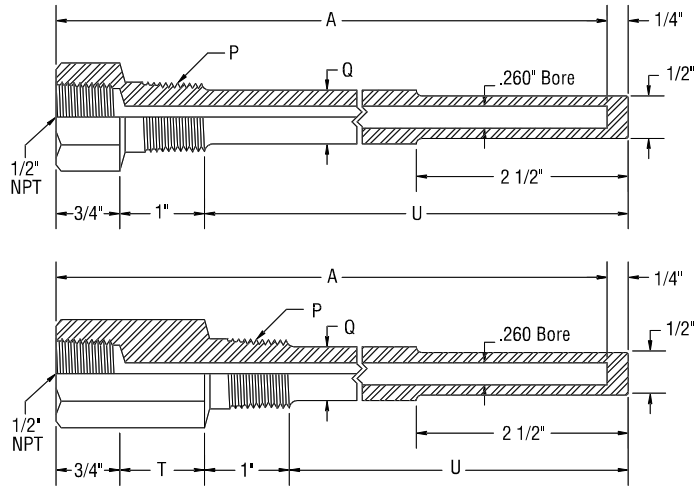
CLASS I, DIV I GROUPS B, C AND D
CLASS II, DIV I GROUPS E, F AND G

* Ex Rating available upon request

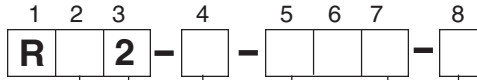


Eexd IIC ATEX II 2G

STANDARD THREADED THERMOWELLS



FOR 1/4" DIAMETER ELEMENTS - STEPPED STEM



WELL LAG

0 = Non-lagging
L = Lagging

WELL BORE

2 = .260 Bore for 1/4" OD Elements

PROCESS CONNECTION

5 = 1/2" NPT Process Connection
7 = 3/4" NPT Process Connection
1 = 1" NPT Process Connection

WELL MATERIAL

A = Brass
D = C-1018 Carbon Steel
T = 304 SST
W = 316 SST

Consult sales for other materials and coating finishes

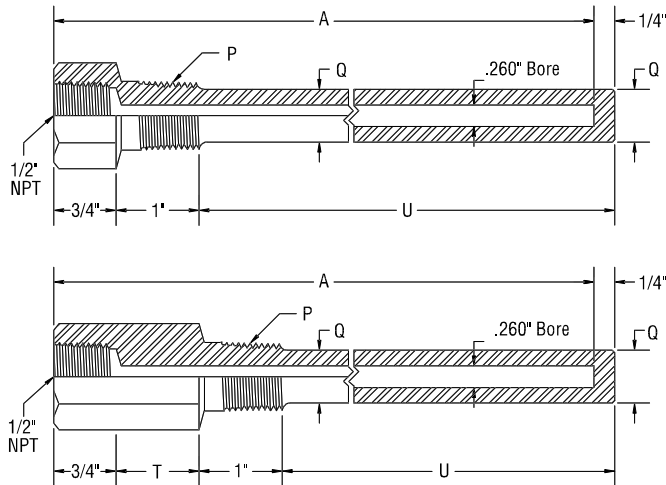
INSERTION LENGTH

By Half Inch Example 045 = 4 1/2"

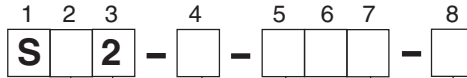
EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
1/2" NPT	R02-5-045	6	4 1/2	5/8
	R02-5-075	9	7 1/2	5/8
	R02-5-105	12	10 1/2	5/8
	R02-5-135	15	13 1/2	5/8
	R02-5-165	18	16 1/2	5/8
R02-5-225	24	22 1/2	5/8	
3/4" NPT	R02-7-045	6	4 1/2	3/4
	R02-7-075	9	7 1/2	3/4
	R02-7-105	12	10 1/2	3/4
	R02-7-135	15	13 1/2	3/4
	R02-7-165	18	16 1/2	3/4
R02-7-225	24	22 1/2	3/4	
1" NPT	R02-1-045	6	4 1/2	7/8
	R02-1-075	9	7 1/2	7/8
	R02-1-105	12	10 1/2	7/8
	R02-1-135	15	13 1/2	7/8
	R02-1-165	18	16 1/2	7/8
R02-1-225	24	22 1/2	7/8	

EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	LAG EXT. T	SHANK DIA. Q
1/2" NPT	RL2-5-045	9	4 1/2	3	5/8
	RL2-5-075	12	7 1/2	3	5/8
	RL2-5-105	15	10 1/2	3	5/8
	RL2-5-135	18	13 1/2	3	5/8
	RL2-5-195	24	19 1/2	3	5/8
3/4" NPT	RL2-7-045	9	4 1/2	3	3/4
	RL2-7-075	12	7 1/2	3	3/4
	RL2-7-105	15	10 1/2	3	3/4
	RL2-7-135	18	13 1/2	3	3/4
	RL2-7-195	24	19 1/2	3	3/4
1" NPT	RL2-1-045	9	4 1/2	3	7/8
	RL2-1-075	12	7 1/2	3	7/8
	RL2-1-105	15	10 1/2	3	7/8
	RL2-1-135	18	13 1/2	3	7/8
RL2-1-195	24	19 1/2	3	7/8	

STANDARD THREADED THERMOWELLS



FOR 1/4" DIAMETER ELEMENTS - STRAIGHT STEM



WELL LAG

0 = Non-lagging
L = Lagging

WELL BORE

2 = .260 Bore for 1/4" OD Elements

PROCESS CONNECTION

5 = 1/2" NPT Process Connection
7 = 3/4" NPT Process Connection
1 = 1" NPT Process Connection

WELL MATERIAL

A = Brass
D = C-1018 Carbon Steel
T = 304 SST
W = 316 SST

Consult sales for other materials and coating finishes

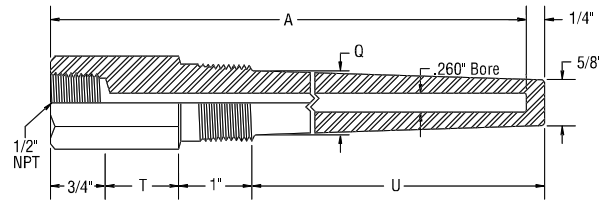
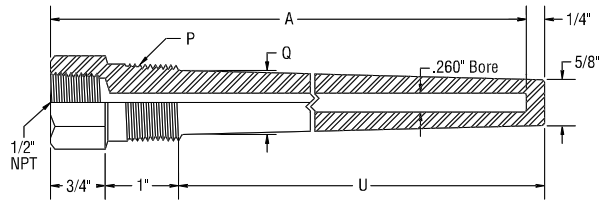
INSERTION LENGTH

By Half Inch Example 045 = 4 1/2"

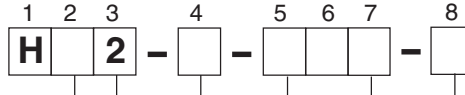
EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
1/2" NPT	S02-5-025	4	2 1/2	1/2
	S02-5-045	6	4 1/2	5/8
	S02-5-075	9	7 1/2	5/8
	S02-5-105	12	10 1/2	5/8
	S02-5-135	15	13 1/2	5/8
	S02-5-165	18	16 1/2	5/8
3/4" NPT	S02-5-225	24	22 1/2	5/8
	S02-7-025	4	2 1/2	1/2
	S02-7-045	6	4 1/2	3/4
	S02-7-075	9	7 1/2	3/4
	S02-7-105	12	10 1/2	3/4
	S02-7-135	15	13 1/2	3/4
1" NPT	S02-7-165	18	16 1/2	3/4
	S02-7-225	24	22 1/2	3/4
	S02-1-025	4	2 1/2	3/4
	S02-1-045	6	4 1/2	7/8
	S02-1-075	9	7 1/2	7/8
	S02-1-105	12	10 1/2	7/8
1" NPT	S02-1-135	15	13 1/2	7/8
	S02-1-165	18	16 1/2	7/8
	S02-1-225	24	22 1/2	7/8

EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	LAG EXT. T	SHANK DIA. Q
1/2" NPT	SL2-5-025	6	2 1/2	2	1/2
	SL2-5-045	9	4 1/2	3	5/8
	SL2-5-075	12	7 1/2	3	5/8
	SL2-5-105	15	10 1/2	3	5/8
	SL2-5-135	18	13 1/2	3	5/8
	SL2-5-195	24	19 1/2	3	5/8
3/4" NPT	SL2-7-025	6	2 1/2	2	1/2
	SL2-7-045	9	4 1/2	3	3/4
	SL2-7-075	12	7 1/2	3	3/4
	SL2-7-105	15	10 1/2	3	3/4
	SL2-7-135	18	13 1/2	3	3/4
	SL2-7-195	24	19 1/2	3	3/4
1" NPT	SL2-1-025	6	2 1/2	2	3/4
	SL2-1-045	9	4 1/2	3	7/8
	SL2-1-075	12	7 1/2	3	7/8
	SL2-1-105	15	10 1/2	3	7/8
	SL2-1-135	18	13 1/2	3	7/8
	SL2-1-195	24	19 1/2	3	7/8

HEAVY DUTY THREADED THERMOWELLS



FOR 1/4" DIAMETER ELEMENTS - TAPERED STEM



WELL LAG

0 = Non-lagging
L = Lagging

WELL BORE

2 = .260 Bore for 1/4" OD Elements

PROCESS CONNECTION

5 = 1/2" NPT Process Connection
7 = 3/4" NPT Process Connection
1 = 1" NPT Process Connection

WELL MATERIAL

A = Brass
D = C-1018 Carbon Steel
T = 304 SST
W = 316 SST

Consult sales for other materials and coating finishes

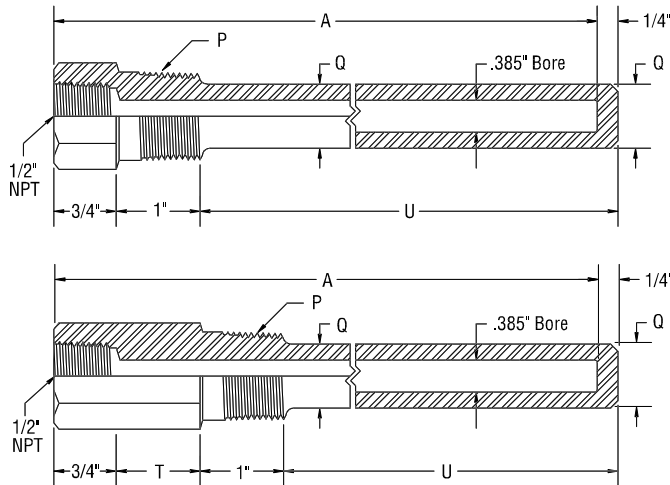
INSERTION LENGTH

By Half Inch Example 045 = 4 1/2"

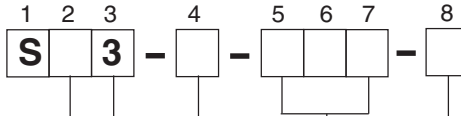
EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
3/4" NPT	H02-7-025	4	2 1/2	7/8
	H02-7-045	6	4 1/2	7/8
	H02-7-075	9	7 1/2	7/8
	H02-7-105	12	10 1/2	7/8
	H02-7-135	15	13 1/2	7/8
	H02-7-165	18	16 1/2	7/8
	H02-7-225	24	22 1/2	7/8
1" NPT	H02-1-025	4	2 1/2	1-1/16
	H02-1-045	6	4 1/2	1-1/16
	H02-1-075	9	7 1/2	1-1/16
	H02-1-105	12	10 1/2	1-1/16
	H02-1-135	15	13 1/2	1-1/16
	H02-1-165	18	16 1/2	1-1/16
	H02-1-225	24	22 1/2	1-1/16

EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	LAG EXT. T	SHANK DIA. Q
3/4" NPT	HL2-7-025	6	2 1/2	2	7/8
	HL2-7-045	9	4 1/2	3	7/8
	HL2-7-075	12	7 1/2	3	7/8
	HL2-7-105	15	10 1/2	3	7/8
	HL2-7-135	18	13 1/2	3	7/8
	HL2-7-195	24	19 1/2	3	7/8
	1" NPT	HL2-1-025	6	2 1/2	2
HL2-1-045		9	4 1/2	3	1-1/16
HL2-1-075		12	7 1/2	3	1-1/16
HL2-1-105		15	10 1/2	3	1-1/16
HL2-1-135		18	13 1/2	3	1-1/16
HL2-1-195		24	19 1/2	3	1-1/16

STANDARD THREADED THERMOWELLS



FOR 3/8" DIAMETER ELEMENTS - STRAIGHT STEM



WELL LAG

0 = Non-lagging
L = Lagging

WELL BORE

3 = .390 Bore for 3/8" OD Elements

PROCESS CONNECTION

5 = 1/2" NPT Process Connection
7 = 3/4" NPT Process Connection
1 = 1" NPT Process Connection

WELL MATERIAL

A = Brass
D = C-1018 Carbon Steel
T = 304 SST
W = 316 SST

Consult sales for other materials and coating finishes

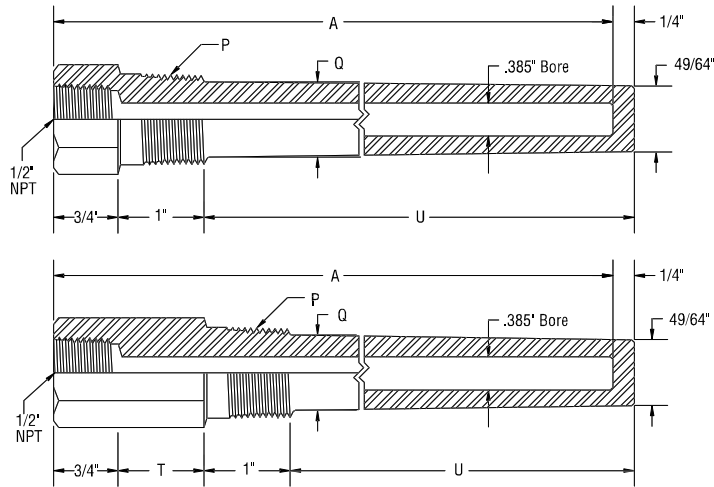
INSERTION LENGTH

By Half Inch Example 045 = 4 1/2"

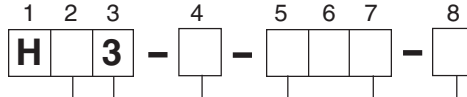
EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
3/4" NPT	S03-7-025	4	2 1/2	49/64
	S03-7-045	6	4 1/2	49/64
	S03-7-075	9	7 1/2	49/64
	S03-7-105	12	10 1/2	49/64
	S03-7-135	15	13 1/2	49/64
	S03-7-165	18	16 1/2	49/64
	S03-7-225	24	22 1/2	49/64
1" NPT	S03-1-025	4	2 1/2	7/8
	S03-1-045	6	4 1/2	7/8
	S03-1-075	9	7 1/2	7/8
	S03-1-105	12	10 1/2	7/8
	S03-1-135	15	13 1/2	7/8
	S03-1-165	18	16 1/2	7/8
	S03-1-225	24	22 1/2	7/8

EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	LAG EXT. T	SHANK DIA. Q
3/4" NPT	SL3-7-025	6	2 1/2	2	49/64
	SL3-7-045	9	4 1/2	3	49/64
	SL3-7-075	12	7 1/2	3	49/64
	SL3-7-105	15	10 1/2	3	49/64
	SL3-7-135	18	13 1/2	3	49/64
	SL3-7-195	24	19 1/2	3	49/64
	1" NPT	SL3-1-025	6	2 1/2	2
SL3-1-045		9	4 1/2	3	7/8
SL3-1-075		12	7 1/2	3	7/8
SL3-1-105		15	10 1/2	3	7/8
SL3-1-135		18	13 1/2	3	7/8
SL3-1-195		24	19 1/2	3	7/8

HEAVY DUTY THREADED THERMOWELLS



FOR 3/8" DIAMETER ELEMENTS - TAPERED STEM



WELL LAG

- 0 = Non-lagging
- L = Lagging

WELL BORE

- 3 = .390 Bore for 3/8" OD Elements

PROCESS CONNECTION

- 5 = 1/2" NPT Process Connection
- 7 = 3/4" NPT Process Connection
- 1 = 1" NPT Process Connection

WELL MATERIAL

- A = Brass
- D = C-1018 Carbon Steel
- T = 304 SST
- W = 316 SST

Consult sales for other materials and coating finishes

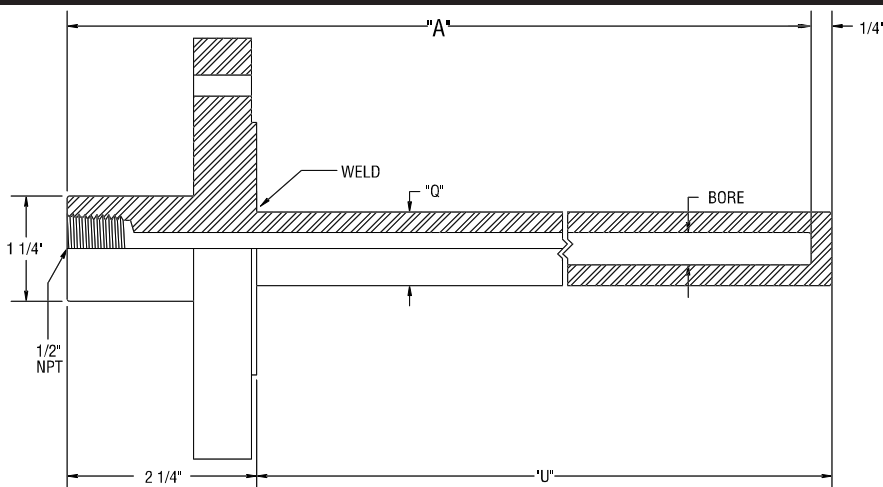
INSERTION LENGTH

By Half Inch Example 045 = 4 1/2"

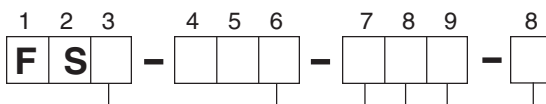
EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
3/4" NPT	H03-7-025	4	2 1/2	7/8
	H03-7-045	6	4 1/2	7/8
	H03-7-075	9	7 1/2	7/8
	H03-7-105	12	10 1/2	7/8
	H03-7-135	15	13 1/2	7/8
	H03-7-165	18	16 1/2	7/8
	H03-7-225	24	22 1/2	7/8
1" NPT	H03-1-025	4	2 1/2	1-1/16
	H03-1-045	6	4 1/2	1-1/16
	H03-1-075	9	7 1/2	1-1/16
	H03-1-105	12	10 1/2	1-1/16
	H03-1-135	15	13 1/2	1-1/16
	H03-1-165	18	16 1/2	1-1/16
	H03-1-225	24	22 1/2	1-1/16

EXTERNAL THREADED P	ORDER CODE	STEM LGTH. A	INSERT. LGTH. U	LAG EXT. T	SHANK DIA. Q
3/4" NPT	HL3-7-025	6	2 1/2	2	7/8
	HL3-7-045	9	4 1/2	3	7/8
	HL3-7-075	12	7 1/2	3	7/8
	HL3-7-105	15	10 1/2	3	7/8
	HL3-7-135	18	13 1/2	3	7/8
	HL3-7-195	24	19 1/2	3	7/8
1" NPT	HL3-1-025	6	2 1/2	2	1-1/16
	HL3-1-045	9	4 1/2	3	1-1/16
	HL3-1-075	12	7 1/2	3	1-1/16
	HL3-1-105	15	10 1/2	3	1-1/16
	HL3-1-135	18	13 1/2	3	1-1/16
	HL3-1-195	24	19 1/2	3	1-1/16

STANDARD DUTY FLANGED THERMOWELLS



FOR 1/4" AND 3/8" DIAMETER ELEMENTS



1/4" Elements (.260" bore)

ORDER CODE	ELEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
FS2-020	4	2	3/4
FS2-040	6	4	3/4
FS2-070	9	7	3/4
FS2-100	12	10	3/4
FS2-130	15	13	3/4
FS2-160	18	16	3/4
FS2-220	24	22	3/4

3/8" Elements (.390" bore)

ORDER CODE	ELEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
FS3-020	4	2	7/8
FS3-040	6	4	7/8
FS3-070	9	7	7/8
FS3-100	12	10	7/8
FS3-130	15	13	7/8
FS3-160	18	16	7/8
FS3-220	24	22	7/8

WELL MATERIAL

A = Brass
 D = C-1018 Carbon Steel
 T = 304 SST
 W = 316 SST

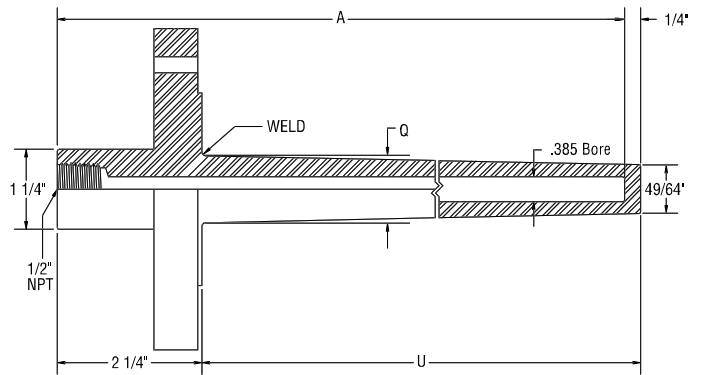
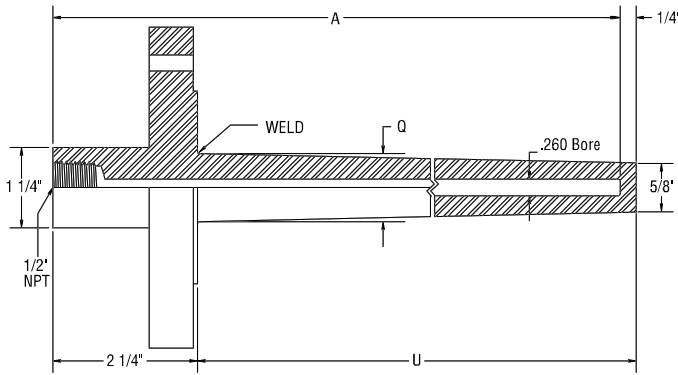
Consult sales for other materials and coating finishes

Code	Flange Type
R	Raised Face
F	Flat Face
J	Ring Joint

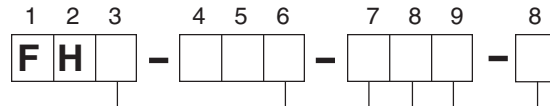
Code	Rating (lbs.)
1	150
2	300
3	600
4	900
5	1500
6	2500

Code	Flange Size (Inch)
A	3/4
B	1
C	1 1/2
D	2
E	3

HEAVY DUTY FLANGED THERMOWELLS



FOR 1/4" AND 3/8" DIAMETER ELEMENTS



1/4" Elements (.260" bore)

ORDER CODE	ELEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
FH2-020	4	2	1" flange & smaller Q=7/8"
FH2-040	6	4	
FH2-070	9	7	
FH2-100	12	10	1-1/2" flange & larger Q=1-1/16"
FH2-130	15	13	
FH2-160	18	16	
FH2-220	24	22	

3/8" Elements (.390" bore)

ORDER CODE	ELEM LGTH. A	INSERT. LGTH. U	SHANK DIA. Q
FH3-020	4	2	1" flange & smaller Q=7/8"
FH3-040	6	4	
FH3-070	9	7	
FH3-100	12	10	1-1/2" flange & larger Q=1-1/16"
FH3-130	15	13	
FH3-160	18	16	
FH3-220	24	22	

WELL MATERIAL

A = Brass
D = C-1018 Carbon Steel
T = 304 SST
W = 316 SST

Consult sales for other materials and coating finishes

Code	Rating (lbs.)
R	Raised Face
F	Flat Face
J	Ring Joint

Code	Rating (lbs.)
1	150
2	300
3	600
4	900
5	1500
6	2500

Code	Flange Size (Inch)
A	3/4
B	1
C	1 1/2
D	2
E	3

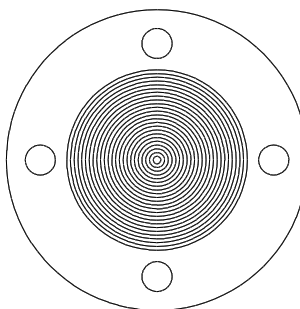
ANSI FLANGE DIMENSIONS

150 lb. STANDARD

Nom. Pipe Size	Outside Diam. Flange	Flange Thickness	Drill Template		
			No. Holes	Diam. Bolts	Bolt Circle
1/2	3-1/2	7/16	4	1/2	2-3/8
3/4	3-7/8	1/2	4	1/2	2-3/4
1	4-1/4	9/16	4	1/2	3-1/8
1-1/4	4-5/8	5/8	4	1/2	3-1/2
1-1/2	5	11/16	4	1/2	3-7/8
2	6	3/4	4	5/8	4-3/4
2-1/2	7	7/8	4	5/8	5-1/2
3	7-1/2	15/16	4	5/8	6
3-1/2	8-1/2	15/16	8	5/8	7
4	9	15/16	8	5/8	7-1/2
5	10	15/16	8	3/4	8-1/2
6	11	1	8	3/4	9-1/2
8	13-1/2	1-1/8	8	3/4	11-3/4
10	16	1-3/16	12	7/8	14-1/4
12	19	1-1/4	12	7/8	17

300 lb. STANDARD

Nom. Pipe Size	Outside Diam. Flange	Flange Thickness	Drill Template		
			No. Holes	Diam. Bolts	Bolt Circle
1/2	3-3/4	9/16	4	1/2	2-5/8
3/4	4-5/8	5/8	4	5/8	3-1/4
1	4-7/8	11/16	4	5/8	3-1/2
1-1/4	5-1/4	3/4	4	5/8	3-7/8
1-1/2	6-1/8	13/16	4	3/4	4-1/2
2	6-1/2	7/8	8	5/8	5
2-1/2	7-1/2	1	8	3/4	5-7/8
3	8-1/4	1-1/8	8	3/4	6-5/8
3-1/2	9	1-3/16	8	3/4	7-1/4
4	10	1-1/4	8	3/4	7-7/8
5	11	1-3/8	8	3/4	9-1/4
6	12-1/2	1-7/16	12	3/4	10-5/8
8	15	1-5/8	12	7/8	13
10	17-1/2	1-7/8	16	1	15-1/4
12	20-1/2	2	16	1-1/8	17-3/4



600 lb. STANDARD

Nom. Pipe Size	Outside Diam. Flange	Flange Thickness	Drill Template		
			No. Holes	Diam. Bolts	Bolt Circle
1/2	3-3/4	9/16	4	5/8	2-5/8
3/4	4-5/8	5/8	4	3/4	3-1/4
1	4-7/8	11/16	4	3/4	3-1/2
1-1/4	5-1/4	13/16	4	3/4	3-7/8
1-1/2	6-1/8	7/8	4	7/8	4-1/2
2	6-1/2	1	8	3/4	5
2-1/2	7-1/2	1-1/8	8	7/8	5-7/8
3	8-1/4	1-1/4	8	7/8	6-5/8
3-1/2	9	1-3/8	8	1	7-1/4
4	10-7/5	1-1/2	8	1	8-1/2
5	13	1-3/4	8	1-1/8	10-1/2
6	14	1-7/8	12	1-1/8	11-1/2
8	16-1/2	2-3/16	12	1-1/4	13-3/4
10	20	2-1/2	16	1-3/8	17
12	22	2-5/8	20	1-3/8	19-1/4

900 lb. STANDARD

Nom. Pipe Size	Outside Diam. Flange	Flange Thickness	Drill Template		
			No. Holes	Diam. Bolts	Bolt Circle
1/2	4-3/4	7/8	4	7/8	3-1/4
3/4	5-1/8	1	4	7/8	3-1/2
1	5-7/8	1-1/8	4	1	4
1-1/4	6-1/4	1-1/8	4	1	4-3/8
1-1/2	7	1-1/4	4	1-1/8	4-7/8
2	8-1/2	1-1/2	8	1	6-1/2
2-1/2	9-5/8	1-5/8	8	1-1/8	7-1/2
3	9-1/2	1-1/2	8	1	7-1/2
4	11-1/2	1-3/4	8	1-1/4	9-1/4
5	13-3/4	2	8	1-3/8	11
6	15	2-3/16	12	1-1/4	12-1/2
8	18-1/2	2-1/2	12	1-1/2	15-1/2
10	21-1/2	2-3/4	16	1-1/2	18-1/2
12	24	3-1/8	20	1-1/2	21