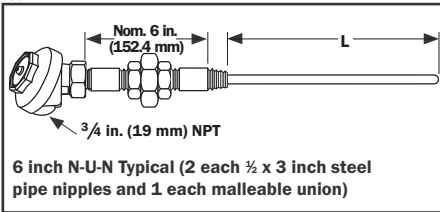


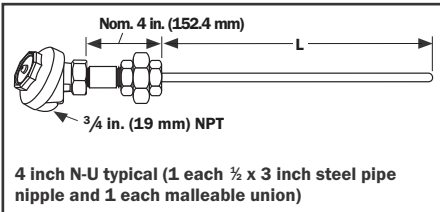
# Thermocouples For Use with Thermowells

Style AT

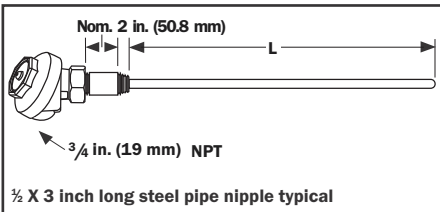
**Type 1**



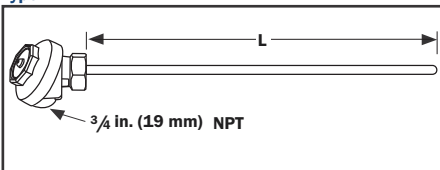
**Type 2**



**Type 3**



**Type 4**



**Note:** For a complete sensor, add thermowell part number to the 15-digit AT part number. For sheath length use "AR" (as required) and factory will determine correct length. See thermowell section.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
A T J 0 0

**3. Sheath O.D. (inch)**

J = 0.250

**4. Connection Head**

- C = Polypropylene (1/2 inch NPT thermocouple opening only)
- D = Small cast iron
- E = Small aluminum
- H = Explosion proof (1/2 inch NPT and 3/4 inch NPT thermocouple opening only)

**5. Cold End Configuration**

- 1 = Type 1, six inch nipple-union-nipple
- 2 = Type 2, four inch nipple-union
- 3 = Type 3, three inch nipple
- 4 = Type 4, no extensions

Note: Steel nipple and unions are standard.

**6. Enter "0"**

**7. Sheath Material**

- A = 304 SS
- F = 316 SS
- Q = Alloy 600 (Type K)

**8-9. Sheath Length "L" (whole inch)**

Available lengths: 01 to 99, over 99 consult factory

**10. Sheath Length "L" (fractional inch)**

- 0 = Not required, complete assembly
- 1 = 1/8      3 = 3/8      5 = 5/8      7 = 7/8
- 2 = 1/4      4 = 1/2      6 = 3/4

**11. Junction**

	Grounded	Ungrounded
Single	G	U
Dual, isolated	—	W

**12. Calibration**

	E	J	K	N	T
Standard limits	E	J	K	N	T
Special limits	2	3	4	—	8

**13. Enter "0"**

**14. Spring-Loading**

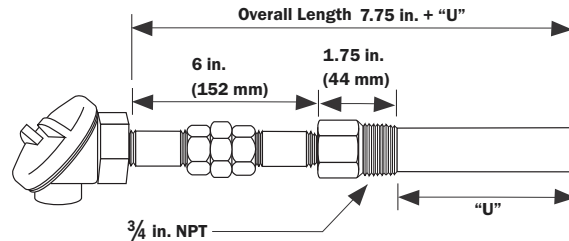
- Y = Yes
- N = No

**15. Special Requirements**

- 0 = None
- X = Special requirements, consult factory

# Thermocouples For Use with Thermowells

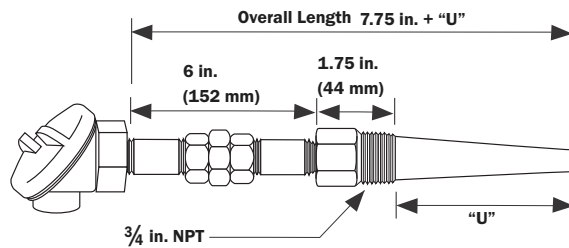
Style AT



### Straight Well

Standard sensors come with 316 SS straight well, nipple-union-nipple, 0.250 inch diameter spring loaded element, small aluminum connection head and ungrounded junction.

Calibration	"U"		Overall Length		Part Number
	in.	(mm)	in.	(mm)	
J	2.5	(64)	10.25	261	ATJE1SF024UJ0Y0
	4.5	(114)	12.25	312	ATJE1SF044UJ0Y0
	7.5	(191)	15.25	388	ATJE1SF074UJ0Y0
	10.5	(267)	18.25	465	ATJE1SF104UJ0Y0
K	2.5	(64)	10.25	261	ATJE1SF024UK0Y0
	4.5	(114)	12.25	312	ATJE1SF044UK0Y0
	7.5	(191)	15.25	388	ATJE1SF074UK0Y0
	10.5	(267)	18.25	465	ATJE1SF104UK0Y0



### Tapered Well

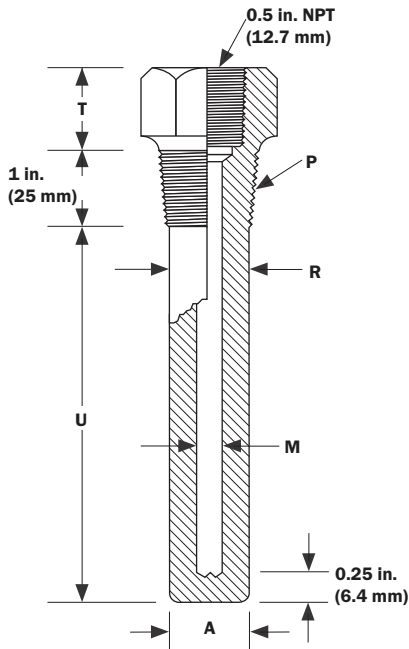
Standard sensors come with 316 SS tapered well, nipple-union-nipple, 0.250 inch diameter spring loaded element, small aluminum connection head and ungrounded junction.

Calibration	"U"		Overall Length		Part Number
	in.	(mm)	in.	(mm)	
J	2.5	(64)	10.25	261	ATJE1TF024UJ0Y0
	4.5	(114)	12.25	312	ATJE1TF044UJ0Y0
	7.5	(191)	15.25	388	ATJE1TF074UJ0Y0
	10.5	(267)	18.25	465	ATJE1TF104UJ0Y0
K	2.5	(64)	10.25	261	ATJE1TF024UK0Y0
	4.5	(114)	12.25	312	ATJE1TF044UK0Y0
	7.5	(191)	15.25	388	ATJE1TF074UK0Y0
	10.5	(267)	18.25	465	ATJE1TF104UK0Y0



# Thermowells - Threaded Type–Straight

Style TTS



**Standard Bore Size:** 0.260 inch

**Standard Materials:** 304 SS, 316 SS, Monel®, Hastelloy C®

**Typical Dimensions**

Process Conn. NPT P in.	A in.	R in.	T in.
1	49/64	49/64	3/4
3/4	49/64	49/64	3/4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
T T S

**2. Thermowell Style**

T = Threaded

**3. Stem Configuration**

S = Straight

**4-5. "U" Dimension (inches)**

Whole inches: 00 to 99

**6. "U" Dimension (fractional inch)**

- 0 = 0            4 = 1/2
- 1 = 1/8        5 = 5/8
- 2 = 1/4        6 = 3/4
- 3 = 3/8        7 = 7/8

**7. Thermowell Material**

- A = 304 SS
- C = 316 SS
- H = Monel®
- M = Hastelloy C-276®
- X = Other

**8. Process Connection Size "P" (inch)**

- D = 3/4 NPT
- E = 1 NPT
- X = Other

**9. Flange Rating**

0 = No flange

**10. Flange Face Type**

0 = No flange

**11. Flange Material**

0 = No flange

**12. Lag "T" (inches)**

Whole inches: 0 to 9

**13. Lag "T" (fractional inch)**

- 0 = 0            4 = 1/2
- 1 = 1/8        5 = 5/8
- 2 = 1/4        6 = 3/4 Industry Standard
- 3 = 3/8        7 = 7/8

**14. Bore Diameter "M" (inch)**

- A = 0.260
- B = 0.385
- X = Other

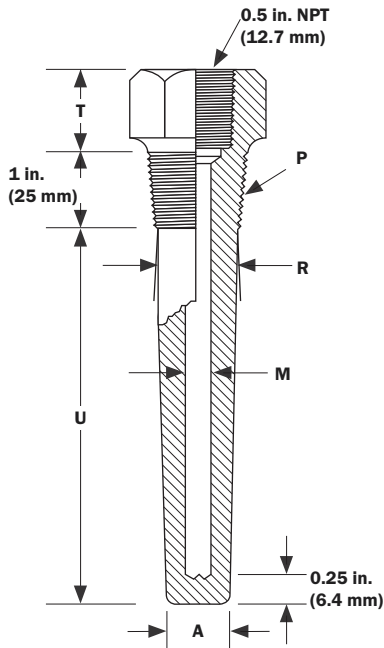
**15. Special Options**

- 0 = None
- X = Special requirements, consult factory



# Thermowells - Threaded Type-Tapered

Style TTT



**Standard Bore Size:** 0.260 inch

**Standard Materials:** 304 SS, 316 SS, Monel®, Hastelloy C®

**Typical Dimensions**

Process Conn. NPT P in.	A in.	M in.	R in.	T in.
1	49/64	0.385	1 7/16	3/4
3/4	49/64	0.385	7/8	3/4
1	5/8	0.260	1 7/16	3/4
3/4	5/8	0.260	7/8	3/4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
T T T

**2. Thermowell Style**

T = Threaded

**3. Stem Configuration**

T = Standard taper

**4-5. "U" Dimension (inches)**

Whole inches: 00 to 99

**6. "U" Dimension (fractional inch)**

0 = 0            4 = 1/2  
1 = 1/8          5 = 5/8  
2 = 1/4          6 = 3/4  
3 = 3/8          7 = 7/8

**7. Thermowell Material**

A = 304 SS  
C = 316 SS  
H = Monel®  
M = Hastelloy C-276®  
X = Other

**8. Process Connection Size "P" (inch)**

D = 3/4 NPT  
E = 1 NPT  
X = Other

**9. Flange Rating**

0 = No flange

**10. Flange Face Type**

0 = No flange

**11. Flange Material**

0 = No flange

**12. Lag "T" (inches)**

Whole inches: 0 to 9

**13. Lag "T" (fractional inch)**

0 = 0            4 = 1/2  
1 = 1/8          5 = 5/8  
2 = 1/4          6 = 3/4 Industry Standard  
3 = 3/8          7 = 7/8

**14. Bore Diameter "M" (inch)**

A = 0.260  
B = 0.385  
X = Other

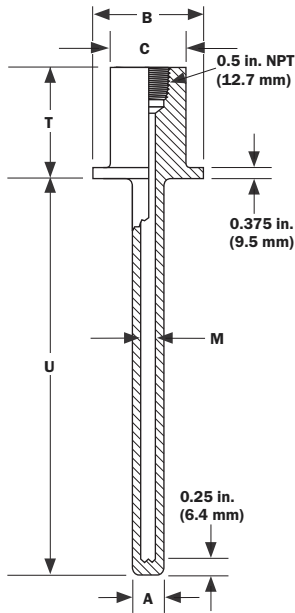
**15. Special Options**

0 = None  
X = Special requirements, consult factory

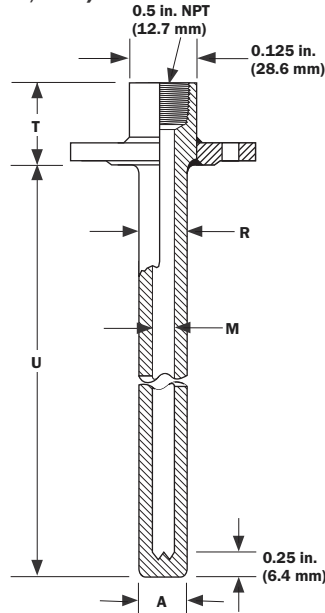


## Other Available Thermowells

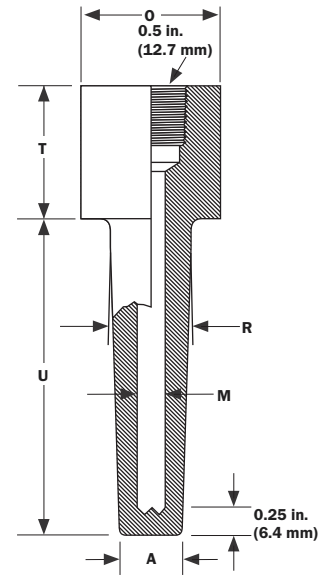
**Van Stone Type (TVS)**



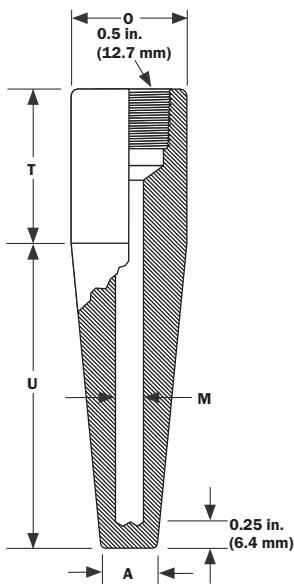
**Welded Flange Well (TFS, TFT)**



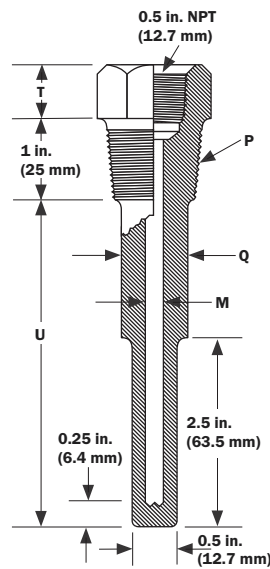
**Socket Weld Type (TST)**



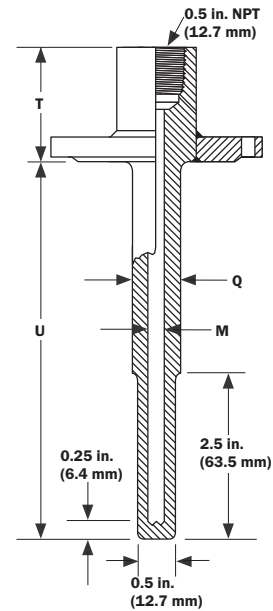
**Weld-In Type (TWT)**



**Bimetallic Thermometer Wells-Threaded Type (TBD)**



**Bimetallic Thermometer Well-Flanged Type (TFD)**



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