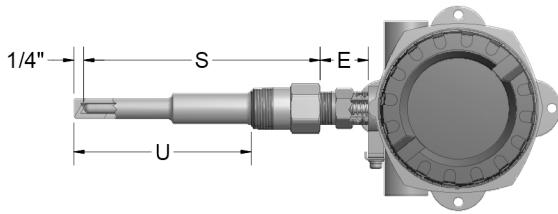


Explosion-Proof RTD Assemblies with Thermowells are made for use in U.S. and Canadian hazardous areas. They are designed to extinguish flames inside the device, eliminating the potential for ignition of flammable mixtures in the surrounding atmosphere. FM and CSA certified assemblies, dependent on connection head type, meet XP Class I Division I & II; Groups A, B, C, D; DIP Class II Division I; Groups E, F, G; Class III; Type 4/4X. The required thermowell is available in standard, heavy-duty, and flanged constructions. The assemblies feature 316 stainless steel sheaths. They are available with aluminum or stainless steel explosion-proof connection heads.



| | | | | | | | | | |
|------------------------------|-----------|----------------|-----------|----------|--|-----------|------------|----------------------------|--|
| Example Order Number: | 1-0 | 2-0 | 2-1 | 2-2 | 3-0 | 4-0 | 5-0 | 5-1 | 5-2 |
| | XP | R1T185L | 48 | 3 | Select Thermowell Part # from Thermowell Section | SC | 8HN | 75T-642B , I | Select Type and Range from back of Section |

1-0 Agency Approval

| CODE | DESCRIPTION |
|------|---|
| XP | FM/CSA explosion-proof-certified assembly |

2-0 100 Ω Platinum RTD Elements $\alpha = 0.003\ 85\ ^\circ\text{C}^{-1}$

| CODE | TOLERANCE ^[1] | TEMP. RANGE |
|---------|--------------------------|-------------------------------|
| SINGLE | DUPLEX | |
| R1T185L | R1T285L | Grade B (-200 to 200) °C |
| R5T185L | R5T285L | (1/5) Class B (-30 to 150) °C |
| RBF185L | RBF285L | Class B (-50 to 200) °C |
| RAF185L | RAF285L | Class A (-30 to 200) °C |
| R1T185H | R1T285H | Grade B (-200 to 600) °C |
| RAT185H | RAT285H | Class A (-100 to 450) °C |

[1] Refer to RTD tolerance information in the General Information section for calculations to determine specific tolerance at temperature.

2-1 Sheath Diameters 316 SS

| CODE | DIAMETERS (inches) |
|------|--------------------|
| 48 | 1/4 |

2-2 Element Connection

| CODE | DESCRIPTION |
|------------------|-------------|
| 2 | 2-wire |
| 3 | 3-wire |
| 4 ^[1] | 4-wire |

[1] Not available in duplex or with 440 Series Transmitter

3-0 Thermowell

Select thermowell part number from Thermowell Section.

5-1 Head Terminations

| CODE | DESCRIPTION |
|-----------|---|
| 74 | DIN form B aluminum explosion-proof head |
| 75T-642B | (4 to 20) mA HART® Field Transmitter with aluminum explosion-proof housing |
| 76T82-D10 | (4 to 20) mA dual input HART® Field Transmitter with digital display and explosion-proof aluminum housing |
| 77T-662C | (4 to 20) mA HART® Field Transmitter with dual cavity explosion-proof aluminum housing |
| 93 | Aluminum explosion-proof head |
| 94 | 316L stainless steel explosion-proof head |

5-2 Options

| | |
|----------------------|--|
| SB | 1/2" NPT conduit reducer bushing |
| I | Stainless steel tag |
| T-440 ^[1] | (4 to 20) mA head-mounted transmitter |
| T-441 | (4 to 20) mA isolated head-mounted transmitter |
| T-442 | (4 to 20) mA HART® isolated head-mounted transmitter |
| T82-00 | (4 to 20) mA dual input, isolated HART® head-mounted transmitter |

See transmitter ordering information in back of section.

[1] Not available with option 74.

5-0 Head Mounting Fittings

| CODE | DESCRIPTION | CODE | DESCRIPTION |
|-----------------------|--|-----------------------|--|
| STEEL FITTINGS | | 316SS FITTINGS | |
| 6HN | 1/2" x 1/2" NPT hex nipple 1" length | 8HN | 1/2" x 1/2" NPT hex nipple 1" length |
| 6PN_ | 1/2" NPT pipe nipple (specify "E" length in inches) | 8PN | 1/2" NPT pipe nipple (specify "E" length in inches) |
| 6XU_ | 1/2" NPT union/nipple (specify "E" length in inches) | 8XU_ | 1/2" NPT union/nipple (specify "E" length in inches) |

[1] 3 1/2" Minimum length required. Maximum allowable "E" length is 9"

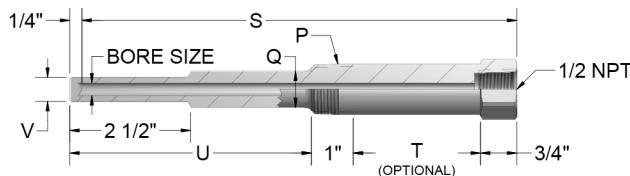
4-0 Element Options

| CODE | DESCRIPTION |
|-------------------|---------------------------------------|
| SL ^[1] | Spring-loaded element |
| SC | Self-contained, spring-loaded element |

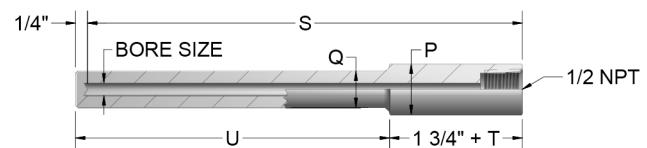
[1] Not available with option 75T, 76T, or 77T

The drilled thermowells listed below are those most commonly found in process applications. Other types and styles are listed later in this section. The thermowells listed below are available as separate component wells and can be ordered by the code numbers listed below. They can also be ordered as a part of a complete sensor assembly. Consult factory for wells with different mounting threads, lengths, and materials.

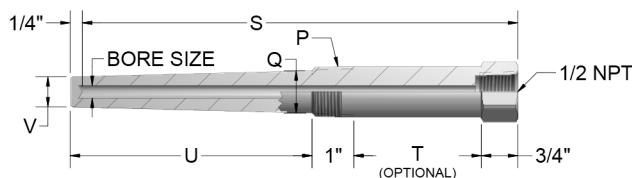
STANDARD-DUTY WELLS



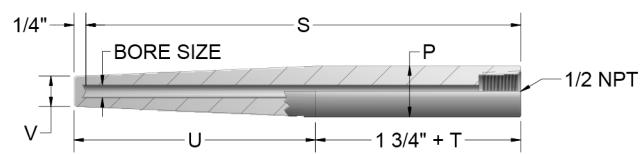
STRAIGHT-SHANK, SOCKET-WELD



HEAVY-DUTY WELLS



WELD-IN WELLS



ORDER CODES

Example Order Number:

1-0 1-1 1-2 1-3 1-4 1-5 1-6
S 4 D 06 08 T2 S

1-0 Well Type

| CODE | DESCRIPTION |
|------|------------------------------|
| S | Standard-duty threaded (NPT) |
| H | Heavy-duty threaded (NPT) |
| SW | Straight-shank, socket-weld |
| WI | Weld-in |

1-1 Bore Size

| CODE | DESCRIPTION |
|------|-----------------|
| 4 | 0.260 Dia. Bore |

1-2 Pipe Size "P"

| CODE | DESCRIPTION |
|------|--------------------------|
| C | 1/2" Pipe ^[1] |
| D | 3/4" Pipe |
| E | 1" Pipe |

[1] Only available with well type S or H

1-3 Length Dimensions (inches)

| CODE | "S" DIMENSIONS | "U" DIMENSIONS | |
|------|----------------|----------------|-------------------|
| | | NO LAG | WITH STANDARD LAG |
| 04 | 4 | 2(1/2) | N/A |
| 06 | 6 | 4(1/2) | 2(1/2) |
| 09 | 9 | 7(1/2) | 4(1/2) |
| 12 | 12 | 10(1/2) | 7(1/2) |
| 15 | 15 | 13(1/2) | 10(1/2) |
| 18 | 18 | 16(1/2) | 13(1/2) |
| 24 | 24 | 22(1/2) | 19(1/2) |

1-6 Well Options

| CODE | DESCRIPTION |
|------|--|
| C8 | 316 stainless steel well cap and chain |
| C22 | Brass well cap and chain |
| S | Customer specified part number marked on the thermowell - (10 digit maximum) |

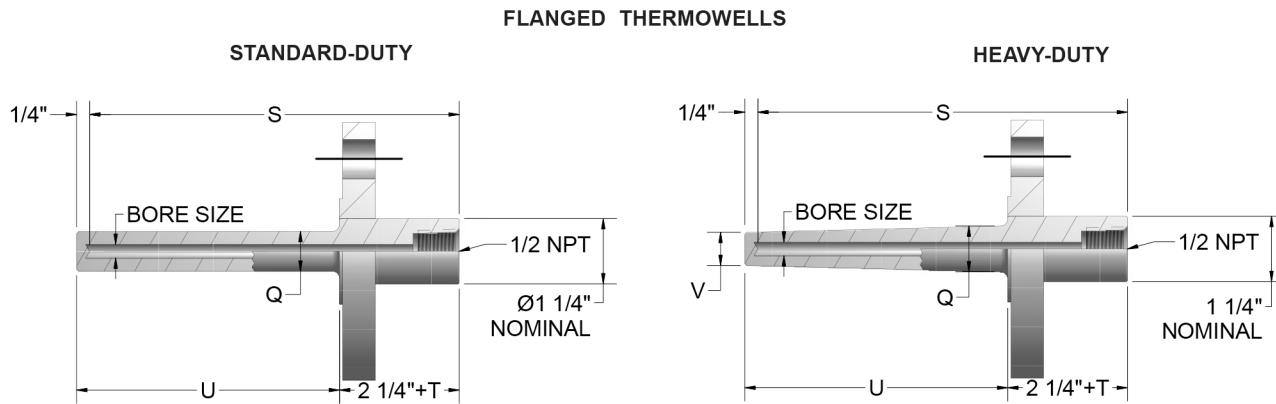
1-5 Optional "T" Lag Dimension

| CODE | DESCRIPTION |
|------|---|
| | Leave blank if No Lag is required |
| T2 | 2" Lag standard on 6" well |
| T3 | 3" Lag standard on 9, 12, 15, 18, 24" wells |
| T— | Special Lag specify "T" dimension in inches |

1-4 Material

| CODE | DESCRIPTION |
|------|---------------------|
| 08 | 316 stainless steel |
| 09 | 304 stainless steel |

The flanged thermowells described on this page are those commonly found in most process applications. These wells are supplied as standard- or heavy-duty with raised-faced flanges. Other types and styles are listed later in this section. Consult factory for wells with different flange sides, lengths, and materials.



ORDER CODES

Example Order Number:

1-0 1-1 1-2 1-3 1-4 1-5 1-6 1-7 1-8
SF 4 15 R 3 12 08 T2 C8

1-0 Well Type

| CODE | DESCRIPTION |
|------|-----------------------|
| SF | Standard-duty flanged |
| HF | Heavy-duty flanged |

1-1 Bore Size

| CODE | DESCRIPTION |
|------|-------------|
| 4 | 0.260 Bore |

1-2 Flange Size

| CODE | DESCRIPTION |
|------|-------------|
| 10 | 1" |
| 15 | 1 1/2" |
| 20 | 2" |

1-3 Flange Type

| CODE | DESCRIPTION |
|------|-------------|
| R | Raised face |

1-4 Pressure Rating

| CODE | DESCRIPTION |
|------|-------------|
| 1 | 150 class |
| 3 | 300 class |

1-8 Well Options

| CODE | DESCRIPTION |
|------|--|
| C8 | 316 stainless steel well cap and chain |
| C22 | Brass well cap and chain |
| S | Customer specified part number marked on thermowell (10 digit maximum) |

1-7 Optional "T" Lag Dimension

| CODE | DESCRIPTION |
|------|-----------------------------------|
| | Leave blank if no lag is required |
| T__ | Specify "T" dimension in inches |

1-6 Well Material

| CODE | DESCRIPTION |
|------|---------------------|
| 08 | 316 Stainless steel |
| 09 | 304 Stainless steel |

1-5 Well Length (inches)

| CODE | DESCRIPTION | "S" DIMENSION | "U" DIMENSION |
|------|-------------|---------------|---------------|
| 06 | | 6 | 4 |
| 09 | | 9 | 7 |
| 12 | | 12 | 10 |
| 15 | | 15 | 13 |
| 18 | | 18 | 16 |
| 24 | | 24 | 22 |