

Temperature Sensors For Use With STT 3000 Smart Temperature Transmitters and SMV 3000 Smart Multivariable Transmitters

Approval Bodies

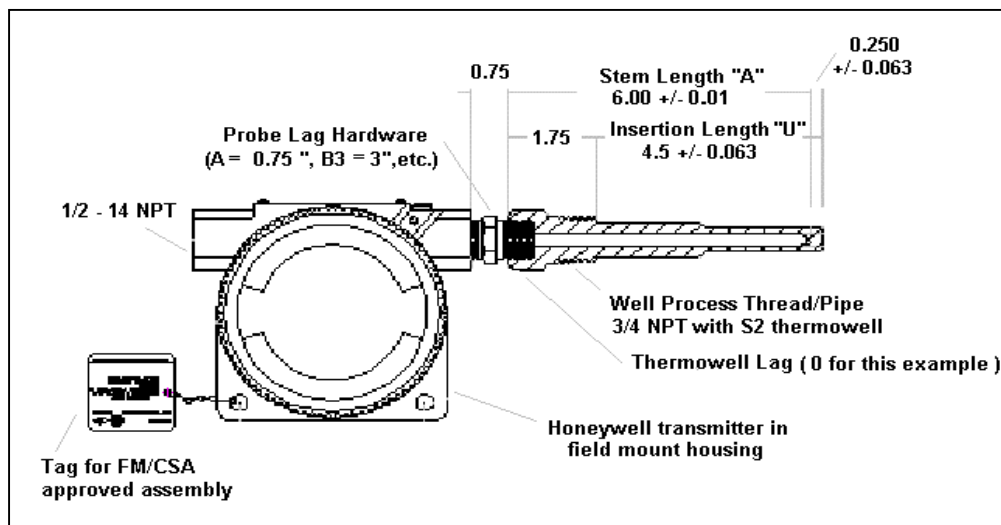
For FM or CSA explosion-proof approvals with Honeywell warranty, order the complete temperature assembly from Honeywell. For an approved assembly,

- Honeywell can mount an FM/CSA approved probe and thermowell integral to the approved temperature transmitter in a field mount housing [i.e. STT350-1-EP... F1C3]
- or the user can mount a FM/CSA approved assembly (explosion-proof probe, thermowell and connection head) remote from an approved Honeywell STT3000 or SMV3000 transmitter.

Caution: Probes and thermowells that are integrally mounted to transmitters by users in the field may void FM and CSA explosion-proof approvals and Honeywell warranty. Order all components from Honeywell to ensure approved assembly.

Example for choosing a model number and list price of temperature assembly

Customer requests an STT250 with HART protocol in an Aluminum housing to be mounted directly to a 100 Ohm Platinum RTD in an FM Explosion-Proof environment. Sensor is to be 3 wire with SS sheath. Threaded 316SS thermowell for 3/4" NPT customer pipe is to be inserted 4.5" into the process without a lag.



Transmitter Model #: STT25H-1-EN0-000-000-000-00-1J

Transmitter List Price:

Thermowell Model #: S2-6-4.5-0-C-X-X-X-100

Thermowell List Price:

Probe Model #: 2D-S-11-B-S-060-A3-S-6

Probe List Price:

From Price Page 13:STT-11 (34-44-16-03), choose the model number for the STT250 Smart Temperature Transmitter. Since the installation requires an Explosion-Proof approval, the valid selections are denoted by dots in the first availability column. Choose STT25H for HART communications and Table I 1 for the probe and thermowell to be mounted directly to the housing. For an Explosion-Proof Aluminum housing without an integral meter, choose EN0. You can choose transmitter configuration, tagging, manuals and certificates as part of the model number, if you wish. The approval code for FM Explosion-Proof applications is 1J (Group B-D).

Global Field Instruments Price Book

Page: TP -2U

Effective Date: Oct 1, 2002

Second, refer to Price Page 13:TP-12 to specify the thermowell. For a threaded well without lag to fit in a 3/4" NPT customer pipe, choose S2. To calculate the Stem Length, use the following formula:

For a Threaded or Socket Well, Stem Length [A] = Insertion [U] + Lag [T] + 1.5

For a Flanged Well, Stem Length [A] = Insertion [U] + 2

For a threaded well with a 4.5" insertion and no lag, the stem length is 6", which is the standard length. A 316SS thermowell can be ordered as code C. To price, refer to Table 2 for a 316SS well with a 6" stem length for \$46.

Now that the Stem Length is known, select the Probe model number. To use a probe with a thermowell, the probe must be spring-loaded. Thus, refer to Price page 13:TP-5 to choose 2D for a spring-loaded RTD probe to be assembled to the transmitter. Since the Stem Length for the probe and thermowell must match, specify 6" in the probe model number.

Specify the probe lag hardware to suitably match the transmitter to the probe. For instance, to consume a minimum amount of space, choose the standard Hex nipple for 3/4" distance between the thermowell and transmitter housing. For a process with high temperatures, choose longer lag hardware, such as B6, so the transmitter electronics are far from the heat. A rule of thumb - process temperature typically drops 100 degrees F per foot of ventilated 1/2" Stainless Steel pipe.

The Application Software Selection Guide is an extremely helpful tool for selecting model numbers and price. Obtain copies from Vicki Lane. For questions, consult Marketing Applications.

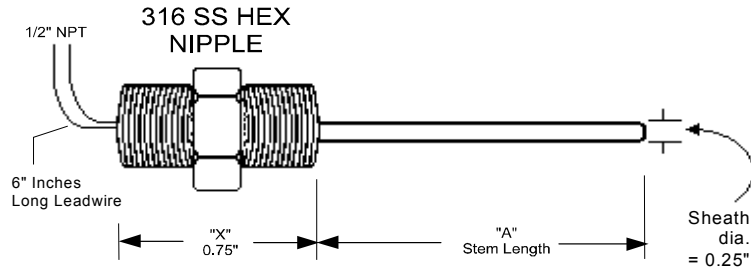
Model numbers and pricing for these common probes and thermowells are listed in the following pages. Many others, such as sanitary probes, are available by contacting Marketing Applications for a quotation.

PROBES

- 2B Explosion-Proof Rigid RTD probe - assembled to STT 3000 transmitter
- 2D Explosion-Proof Spring-loaded RTD probe - assembled to STT 3000 transmitter
- 22B Explosion-Proof Rigid RTD probe to be mounted remote from the transmitter
- 22D Explosion-Proof Spring-loaded RTD probe to be mounted remote from the transmitter
- 7B Explosion-Proof Rigid Thermocouple probe - assembled to STT 3000 transmitter
- 7D Explosion-Proof Spring-loaded Thermocouple probe - assembled to STT 3000 transmitter
- 78B4 Explosion-Proof Rigid Thermocouple probe to be mounted remote from the transmitter
- 78D4 Explosion-Proof Spring-loaded Thermocouple probe to be mounted remote from the transmitter

THERMOWELLS - for use with spring-loaded probes

- S Standard threaded well; no lag - stepped
- L Standard threaded well; with lag - stepped
- H Heavy duty threaded well; no lag - tapered
- T Heavy duty threaded well; with lag - tapered
- W Socket well - stepped
- F Flanged well - straight
- G Flanged well - tapered

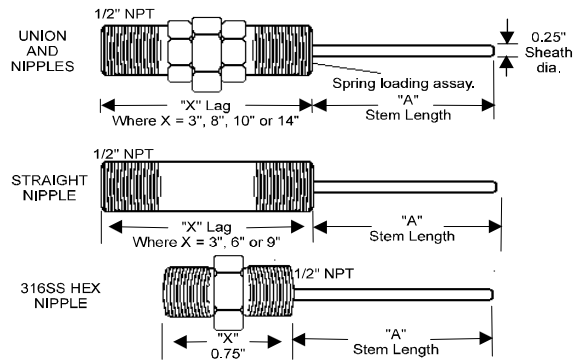
Models 2B, 3B, 22B, 23B, 7B and 78B4 - Rigid Probe

All Rigid Probes have 1/4" sheath diameters and utilize a 3/4" long 316SS Hex nipple with 1/2" NPT connection threads.

Standard Stem Length (A) is 6".

$3" \leq A \leq 24"$

[Dimensions in inches]

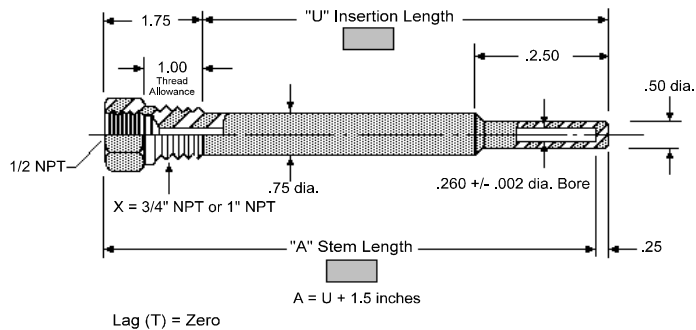
Models 2D, 3D, 22D, 23D, 7D and 78D4 Spring-Loaded Probe

All Spring-Loaded Probes have 1/4" sheath diameters and 1/2" NPT connection threads. Spring-Loaded Probes should be specified with 3/4" long Hex nipple unless lagging is needed. Standard Stem Length (A) is 6".

$3" \leq A \leq 24"$

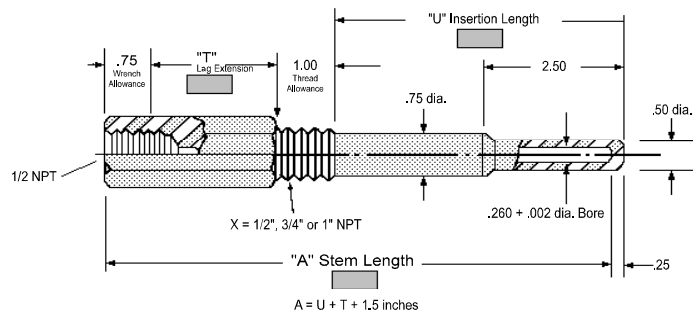
$A + X \leq 24"$ for FM approval

[Dimensions in inches]

Model SX - Standard Threaded Well; No Lag Extension - Stepped

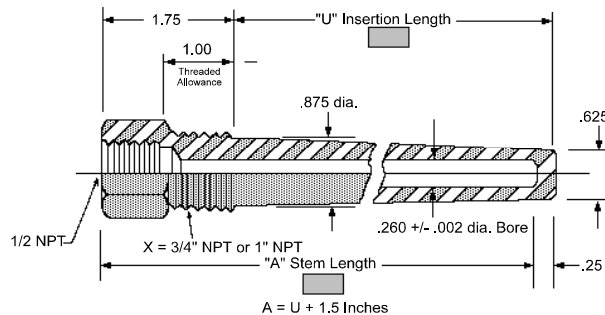
[Dimensions in inches]

**Model LX - Standard Threaded Well;
with Lag Extension - Stepped**



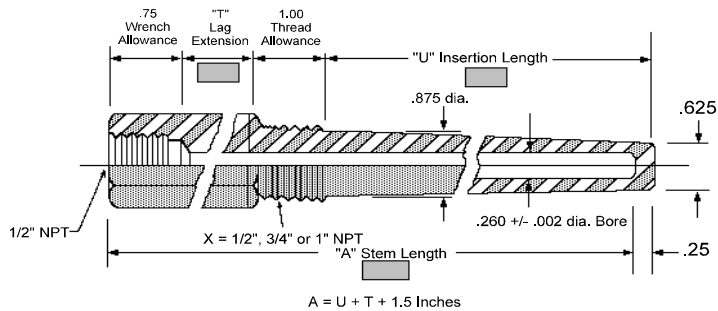
[Dimensions in inches]

**Model HX - Heavy Duty Threaded Well;
No Lag Extension - Tapered**

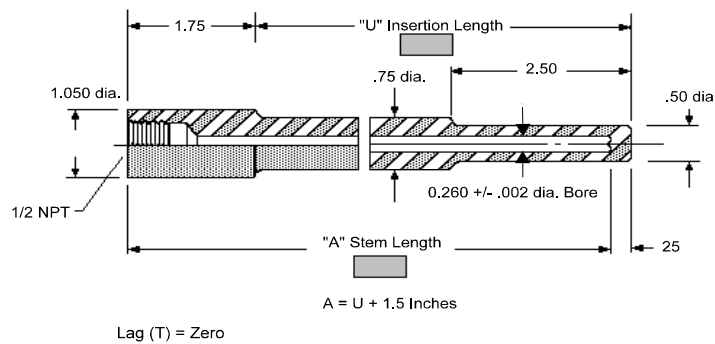


[Dimensions in inches]

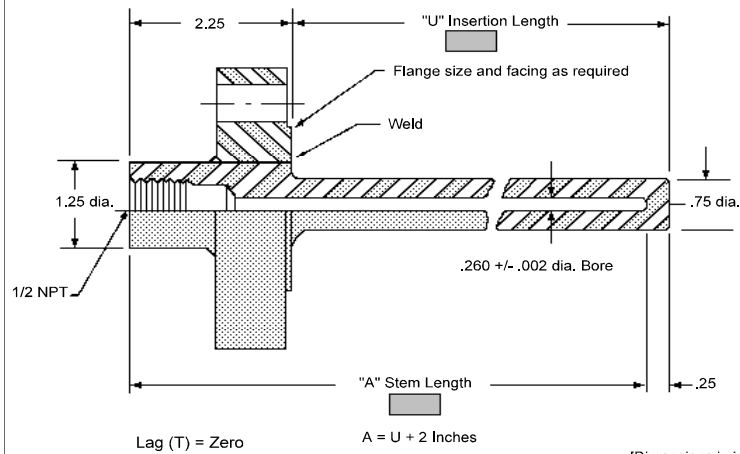
**Model TX - Heavy Duty Threaded Well;
with Lag Extension - Tapered**



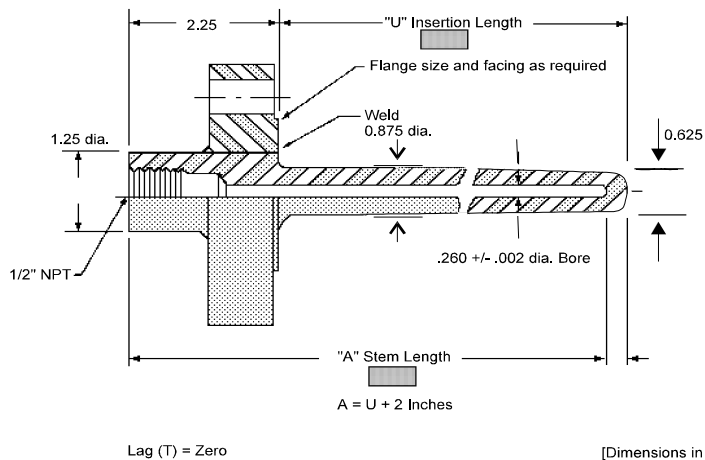
[Dimensions in inches]

Model WX - Socket Well - Stepped

[Dimensions in inches]

Model FM - Flanged Well; Straight

[Dimensions in inches]

Model GM - Flanged Well; Tapered

[Dimensions in inches]

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