

Immersion Well Temperature Sensors

Product Description

The Immersion Well Temperature Sensor provides a temperature input to a controller. It threads into a coupling on a piping system.

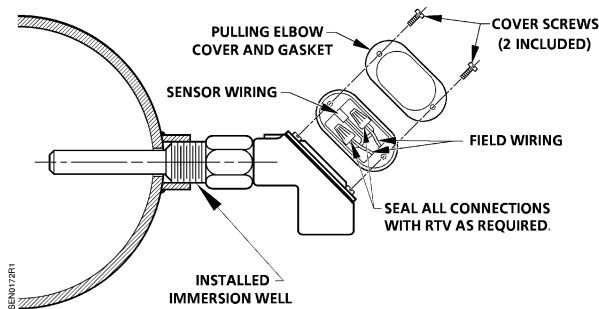


Figure 1. Immersion Sensor Installation.

NOTE: Acceptable wiring conduits are:

- Flexible conduit with liquid-tight conduit adapter
- EMT with liquid-tight conduit adapter
- Rigid NPT with thread sealant
- Rigid NPSM

Product Numbers

Product Number	Sensing Element
544-577-XX	1K Ω Platinum (375 α) RTD
536-777-XX	100K Ω NTC
XX	Insertion Length in Inches (mm)
25	2.5 (63.5)
40	4 (101.6)
60	6 (152.4)

Required Tools

- Power screwdriver with 1/4-inch (6 mm) hex extension or medium flat-blade screwdriver
- 1-1/4 inch (32 mm) open-end wrench or equivalent adjustable wrench
- Medium crescent wrench
- Pipe sealant
- Wire stripper

Expected Installation Time

3 hours

Item Number 129-518, Rev. CA

Prerequisites

- The appropriate field wiring within the maximum wiring run length for the individual field panel or equipment controller must be in place.

NOTE: All wiring must comply with National Electric Code (NEC) and local regulations.

- A 1/2-inch (13 mm) NPT mounting coupling must be installed in the piping system at the sensor location. Figures 1 and 2 show two types of installation in a pipe joint.

Instructions

NOTE: It is not recommended or necessary to separate the well and the pulling elbow to install the sensor assembly. The pulling elbow should only be removed to replace a damaged or defective sensing element.

1. Clean any dust away from the coupling for the well.
2. Apply pipe sealant to the threads of the well and insert the entire sensor assembly into the coupling.
3. Hand-tighten the sensor assembly. Finish tightening the assembly by using a 1-1/4 inch (32 mm) open-end wrench. Tighten the assembly until the outlet of the pulling elbow is aligned with the controller.
4. Pull the field wiring to the pulling elbow and connect the field wiring to the Sensing Element. See Figure 4.

NOTE: In applications where condensate may accumulate (chillers, low temperature sensing, etc.) seal all wire connections with RTV adhesive (ordered separately, P/N 535-495).

5. Connect the field wiring at the controller.

The installation is now complete.

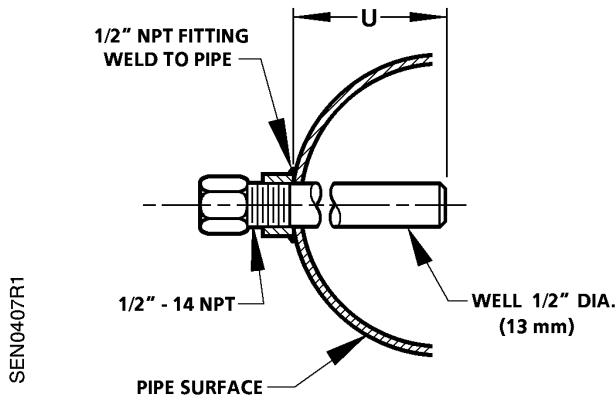


Figure 2. Pipe Surface Installation.

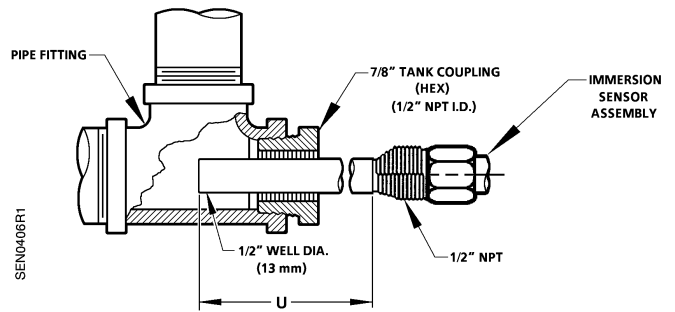


Figure 3. Pipe Joint Installation.

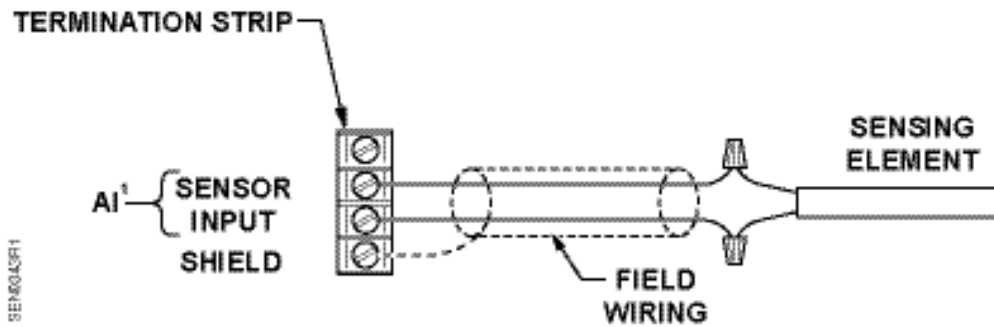


Figure 4. Wiring to a Controller.

- NOTE:**
1. Configure the analog input (AI) point for sensor input.
 2. Some Controllers may require a shield termination.
 3. For individual panel wiring details, see the appropriate hardware manual.

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