

## Liquid Immersion Temperature Sensors Component Kit

### Product Description

The Component Kit is designed for installation into a 2-1/2-inch, 4-inch, or 6-inch well (well not included). The sensor in the kit provides a temperature input to a controller.

### Contents

Description	Quantity
Pulling elbow	1
Sensor	1
Sensor support tubes	3
Spring	1
Spring retaining washer	1
Wire nuts	2

### Product Numbers

AQE2012	Pt 1000Ω, (385α)
AQE2020	Nickel 1KΩ, Siemens
AQE2030	NTC 10KΩ Type 2
AQE2032	NTC 10KΩ Type 3
536-777-RK	NTC100KΩ NTC
544-577-RK	Pt 1000Ω, (375α)

### Required Tools

- Medium flat-blade screwdriver
- 1-1/4-inch open end wrench or equivalent adjustable wrench
- Pliers or channel-locks
- Wire stripper
- Dow Corning #340 (or similar) thermal compound

### Expected Installation Time

28 minutes

### Prerequisites

- Read these instructions before beginning.
- The immersion well(s) must be previously installed and field wiring pulled to a termination point near the well.

### Installation

#### Installing a sensor assembly into a well

1. Disconnect one of the leads of the field wiring from the termination board or block at the controller.
2. Uncoil the sensor leads and remove the plug from the well.
3. Select the appropriate length sensor support tube for the well being serviced.
4. Assemble the spring and spring retaining washer onto the sensor support tube and pass the lead wires of the sensor through the tube. See Figure 1.

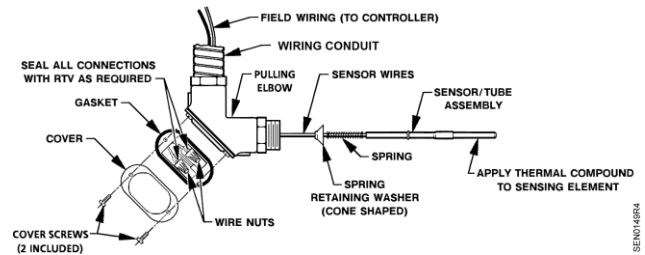


Figure 1. Sensor Assembly.

**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

5. Coat the sensor with thermal compound and insert the assembly into the well.
6. Install the pulling elbow:
  - a. Remove the cover and gasket from the pulling elbow.
  - b. Wrap the treads of the pulling elbow with Teflon<sup>®</sup> tape or equivalent.
  - c. Thread the sensor leads through the external thread end of the pulling elbow and out through the cover opening.
  - d. Screw the pulling elbow into the well.

- e. Install wiring conduit, flex or rigid, between the field utility box and the pulling elbow.
- f. Run field wiring through the conduit to the pulling elbow and connect the field wiring to the sensor leads using the wire nuts provided.

**NOTE:** In applications where condensate may accumulate (chillers, low temperature sensing, etc.), seal all wire nut connections with RTV (part number 535-495), ordered separately.

- g. Reinstall the gasket and cover onto the pulling elbow.

- 7. Reconnect the wiring lead disconnected in Step 1.

The installation is now complete

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