

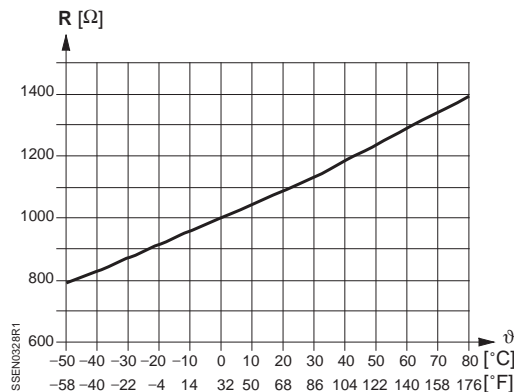
## QAE22.2

### Immersion Temperature Sensor

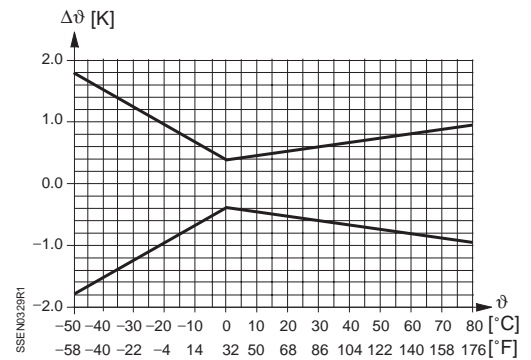


<b>Description</b>	Immersion sensor for measuring water temperature in pipes and tanks.
<b>Application</b>	Water temperature measurement for the following: <ul style="list-style-type: none"> <li>• Controlling or limiting flow temperature.</li> <li>• Limiting return temperature.</li> <li>• Controlling domestic water temperature.</li> </ul>
<b>Product Number</b>	QAE22.2 Temperature sensor with a maximum immersion stem length of 5 inches (130 mm); includes a compression ferrule union with a threaded sleeve.

**Function** The sensor measures the medium temperature in the solar panel with its nickel element and communicates it to a controller. The resistance value of the element changes as a function of the temperature. It is delivered



**Characteristic**



**Accuracy**

<b>Mechanical Design</b>	The sensor consists of the following components: <ul style="list-style-type: none"> <li>• Two-sectional plastic housing comprised of base with connection terminals and removable cover (snap-on design).</li> <li>• Immersion rod with LG-Ni 1000 sensing element.</li> <li>• Compression ferrule union with threaded sleeve.</li> </ul>
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## Specifications

Measuring range	-22°F to 266°F (-30°C to 130°C)
Sensing element	LG-Ni Ni 1000 Ω at 32°F (0°C)
Time constant without well	Approximately eight seconds
Permissible ambient temperature	
Operation	
Temperature	23°F to 122°F (-5°C to 50°C)
Humidity	5 to 95% rh
Transportation	
Temperature	-13°F to 158°F (-25°C to 70°C)
Humidity	<95% rh
Electrical connections	Screw terminals (interchangeable)
Cable entry gland	Conduit connector (P/N 544-023)
Permissible cable length	See controller datasheet
Weight without well	0.39 lb. (0.178 kg)

## Installation

Depending on use, locate the sensor as follows:

- *For flow temperature control*
  - In the heating flow:
    - Directly after the pump, if the pump is mounted in the flow.
    - 5 to 6 feet (1.5 to 2 m) after the mixing valve, if the pump is mounted in the return.
- *For limitation of the return temperature*
  - In the return pipe where the sensor can correctly measure the temperature to be limited. The water must be well-mixed where the sensor is located.

The sensor should be installed in an elbow so that the well points into the direction of flow. The immersion length must be a minimum of 1.97 inches (50 mm).

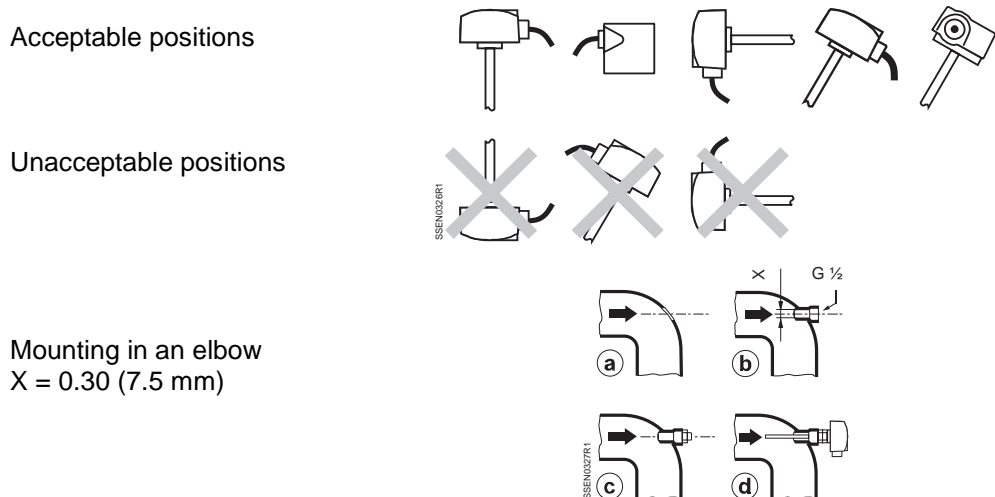
Do not insulate the sensor.

Before mounting the sensor, a threaded fitting or T-piece must be welded in the pipe.

Mount so that the cable does not enter from the top.

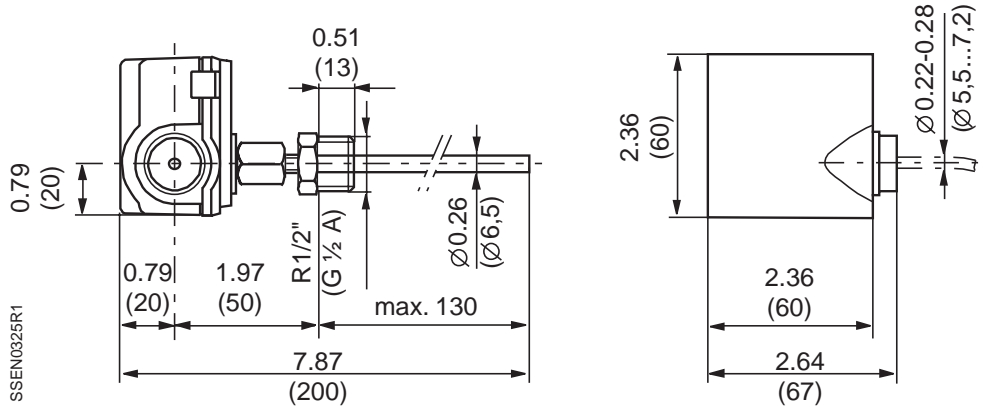
Installation instructions are printed on the packaging.

## Mounting Positions



**Figure 1. Mounting Positions.**

**Dimensions**



**Figure 2. Dimensions in Inches (Millimeters).**

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