

Rev. 03/03/06

When thermowells are too big to fit into small pipes, you can still measure water temperature by strapping a small, wired temperature probe to the pipe. BAPI recommends using the remote probe with FEP jacketed cable (pages A54-55 of the Temperature section) because of its moisture resistance and because of the higher temperatures encountered in this application.

There are two ways to mount the sensor to the pipe.

Figure 1 shows the probe strapped to the pipe with cable ties. Hose clamps may be used too.

Make sure the probe is securely touching the pipe before clipping the ends off the cable ties. Secure the sensor lead to the pipe for strain relief. Wrap insulation a minimum of 1/2 inch thick around the probe and 4 inches to either side of it. Polyester quilt batting, purchased at a craft store, makes a good insulation that won't make your skin itch. Preformed, molded rubber or fiberglass pipe insulation works well too. Spray foam insulation is another alternative. Any standard insulation material may be used. If necessary, protect the insulation with an over-wrap of tape.

Using BAPI's Foamback Insulator (as shown in Figure 2 below) is another easy way to mount and insulate the probe. The Foamback Insulator (page E9 of the Accessories section) is made from medical grade, closed cell foam, insuring that the probe is reading the pipe temperature, not the room temperature.

Clean and dry the pipe. Peel off the protective cover from the foamback's adhesive side and stick the probe to the adhesive. Stick the foamback/probe assembly to the pipe. Add cable ties or hose clamps to ensure that the sensor always stays attached to the pipe, avoiding costly callbacks.

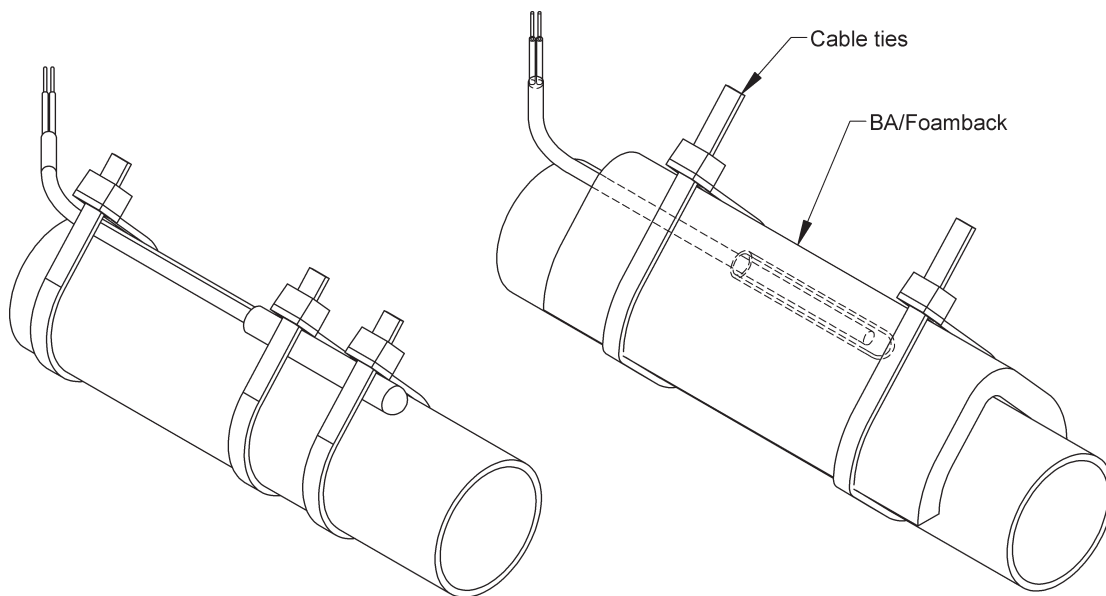


Figure 1: Remote probe with FEP jacketed cable strapped directly to pipe.

Figure 2: Remote probe with FEP jacketed cable applied beneath a FOAMBACK insulator.

NOTE: 1.25 inch diameter pipe shown, this technique may be used for any diameter pipe.