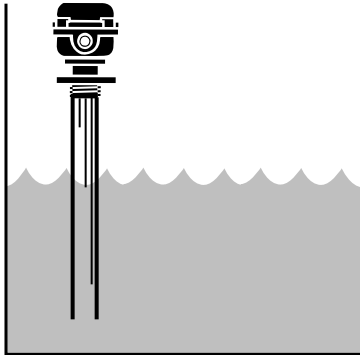
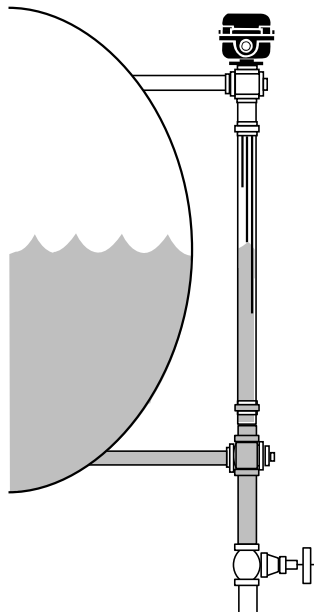


Remote Sensor Location

The location of the remote sensor is not limited to mounting on top of a tank. Depending on the application, it may be decided to mount the remote sensor in a stillwell or equalizing line. The following diagrams show typical locations for several applications.



Open tanks or vessels will probably require mounting the remote sensor on a stillwell to dampen the liquids' wave action. Use 3" or 4" perforated plastic drain pipe with a flange to thread connection at the top. The stillwell can rest on the bottom of the tank or be suspended and secured with brackets.



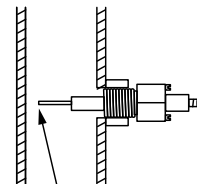
Mounting the remote sensor in an equalizing pipe is an alternative to top mounting. The equalizing pipe should be at least a 2" pipe and have a drain valve at the bottom for flushing.

Probe Installation

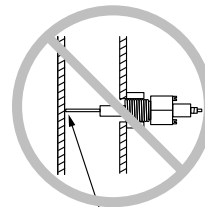
All boiler manufacturers designate the preferred (and sometimes secondary) location for installation of the probe on their boiler. They have determined that this location is above the minimum safe water level and provides the 1/4" clearance needed to ensure the probe is not grounded. Always install the probe in these locations, especially on a hot water boiler. If installed in other locations on a hot water boiler, this area could be prone to develop an air pocket.

Installation in piping external to the boiler on hot water systems has pitfalls. If the probe is too long and touches the wall of the pipe, the circuit is completed and the control "thinks" there is water in the system. If the water level drops below the level of the probe in this situation, the burner circuit will never be interrupted and a dry-fire could occur.

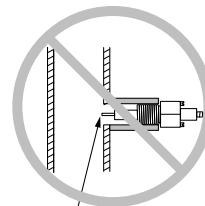
The most common problem with installation on hot water systems occurs when installing the probe in copper pipe. The sweat to thread adapters installed could result in the probe not being inserted in the pipe. An air pocket could develop or scale bridging could occur. While an air pocket causes nuisance shutdown of the boiler, scale bridging can result in a dry-fire if the water drops below the level of the probe. Always make sure at least 1/2 the length of the probe is in the run of the pipe to ensure proper operation.



Make sure tip of probe is in pipe with 1/4" clearance from wall of pipe.



If probe is installed too close to boiler wall, an electrical short could occur.



If probe is installed with extensions, an air pocket could develop shutting down the boiler. Debris could develop which can cause an electric short, rendering the low water cut-off ineffective.