Sanitary RTD Probe for Tight Locations

Spring loaded RTD with Tri-Clamp instrument connection for installation into a sanitary style thermowell.

A separable sensor and thermowell assembly simplifies the replacement or calibration of the sensor because the piping does not need to be opened or drained of product. Thermowells are available in many more configurations and they add strength and durability to the measurement point. Generally replacement probes are less expensive and easier to calibrate in standard calibration blocks than a direct immersion style sensor.

The standard Model S65 probe was too long to fit into a thermowell because of nearby piping and supports. This was not discovered until it was too late to reroute the offending obstructions. Somehow the probe would have to bend to allow installation.

A Model S65 RTD sensor was designed to incorporate a segmented sheath that allowed installation into the existing thermowell.

The segments were sized at 2.5” each to easily fit between the obstruction and the thermowell while maintaining the spring loading feature that is important for maintaining thermal contact with the thermowell and minimizing the damaging effects of vibration. Each segment slides over a special insulated cable that provides enough stiffness for spring loading in the thermowell yet still bends easily when the segments are moved apart for installation.