

One Way to Make Field Calibration Easier

APPLICATION



Calibrating an RTD or checking the accuracy of a thermocouple can be a time consuming process. One customer wanted an easy way to remove a probe from a thermowell, place it in a controlled temperature bath, check the accuracy at a local indicator or controller, and reinstall, all without tools or disconnecting any wires.

CHALLENGE



At first thought this seemed like a difficult request to fill. Fortunately the answer lay with work that engineers at Burns had partly addressed many years ago. The remaining answer lay in a simple modification to the temperature probe and a nod to the Burns engineer that designed the #5 connection head with a large internal volume.

HD05P04TE6



Burns #5 Connection Head

SOLUTION



The Burns #5 connection head was designed many years ago for use in hazardous atmospheres. Part of that design incorporated a 1/4 turn twist lock feature for holding an RTD or thermocouple in a thermowell. This made installing or removing the probe without tools very easy. A simple modification to the probe, which can be done to any RTD or thermocouple, adds extended lead wires up to 10 feet long that remain coiled inside the head during normal process operation. When calibration time comes, unscrew the cover, give the twist lock fitting a 1/4 turn, and pull the probe from the thermowell. Place it in a calibration bath and verify the probe accuracy at the controller or local indicator. Shove it back in the well, coil the cable in the head, replace the cover and move on to the next. What could be easier? Call me if you have other ideas or need help with your temperature measurement challenge!

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