

Tripple Element RTD for Multi Peripheral Input

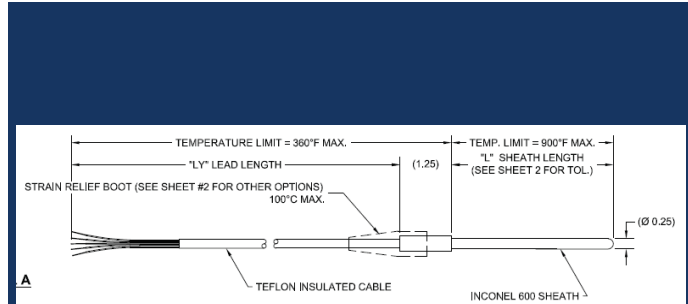
Case A131104

Application

Chart recorder, local indicator, and controller all from the same temperature measurement point in your process? I am starting to hear this more and more. Minimizing the number of holes in the process lessens the chance of a leak or entry point for contaminants you don't want in the product. The need is for a triple element sensor to replace existing single or dual element sensors. One sensing element is required for each measurement device and packing three into one probe would solve the problem.

Challenge

Most RTDs are made in 1/4" diameter and there's only so much room inside for sensing elements and wires. Packing more stuff in an already crowded space can lead to durability and performance issues unless it's done correctly. In addition to supporting the sensing elements, the moisture seal needs to be maintained where the 9 lead wires exit the sensor housing. All those wires do not leave much room for an effective moisture seal.



Triple Element RTD

Solution

Engineers at Burns developed a packaging method for three sensing elements potted in a 1/4" diameter tube same as the original single and dual element sensors. This allows for seamless integration into existing thermowells and connection to signal conditioning equipment. The sensor package can be adapted to all the process and instrument connection styles to easily upgrade any existing temperature measurement point to three-device capability.