

Bolt Mount RTD for Surface Temperature

▶ APPLICATION

As part of a temperature monitoring system an RTD was required on a cryogenic pump housing to keep track of any changes in temperature that might indicate an impending failure or a problem with the process.

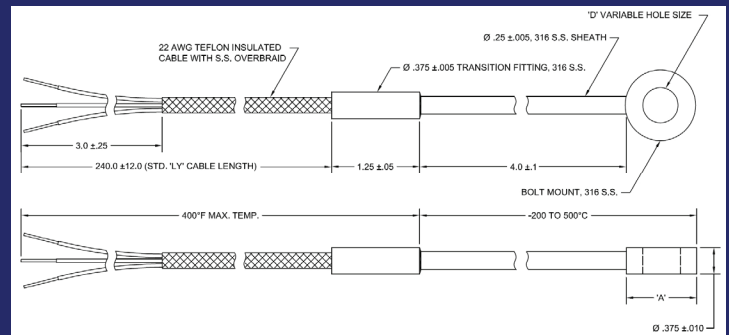


▶ CHALLENGE

Installation was the biggest hurdle for the location with moisture proofing a close second. Several ideas were discussed on how to mount a sensor to the pump housing. No modifications to the housing were possible and it was determined early on that adhesives and clamps would not be reliable solutions.



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Bolt Mount RTD

▶ SOLUTION

A custom RTD was designed utilizing a standard washer as the connection to an existing bolt. The sensing element sits in a counter-bore in the edge of the washer to provide durability and heat transfer to the sensor housing. A sensing element design was chosen that would survive the cold temperatures and provide long term stability, repeatability, and accuracy. Installation involves removing the existing bolt from the pump housing and reinstalling it through the sensor mounting washer.

If you have a challenging temperature measurement that needs a solution, give us a call at 800-328-3871.