

Tip Sensitive RTD for Surface Temperature

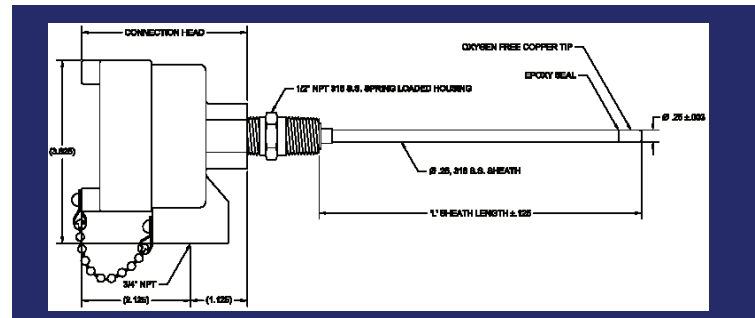
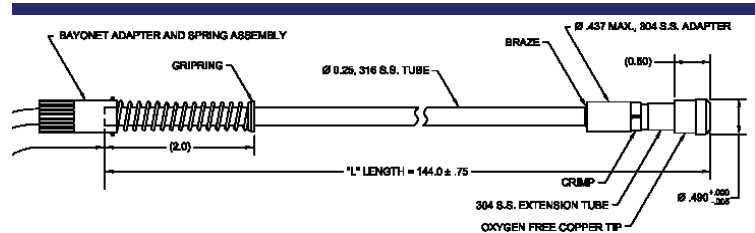
APPLICATION

Many processes require measurement of surface temperature at a specific point and while remaining isolated from ambient conditions. Some examples are: bearing housing, pipe temperature, and shallow immersion in a fluid.



CHALLENGE

Sensing element must have a fast response time, maintain contact with the surface and measure only the temperature located at the tip. The probe must also be mounted in such a way that it remains in firm contact to optimize heat transfer. Minimizing the affects of the outside environment is essential to accurately measuring the surface temperature.



Description

SOLUTION

Burns' engineers have designed a variety of spring-loaded tip sensitive sensors that maintain pressure on the probe, thereby allowing the probe to be in constant contact with the surface. At the end of the probe is a copper tip that serves a dual role. Copper's excellent conductive properties allow the probe to respond quickly to any changes in temperature. This high conductivity also aids in isolating the sensing area. The sensing element is embedded in the copper tip which minimizes outside environmental influences.