

Tip Sensitive for Improved Accuracy

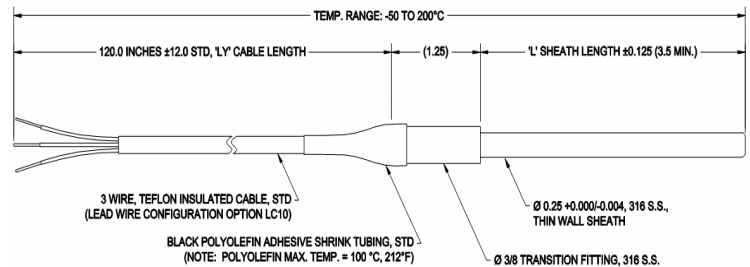
APPLICATION

Process temperature in a small diameter line (1.5") was being measured with a standard 1/4" diameter RTD and an elbow style thermowell. The bore diameter of the well was .305" with a 2.5" immersion. That combination provided a measurement accuracy that was off by well over 2°C. That was not acceptable for a measurement that required ±0.5°C or better.

CHALLENGE

The elbow style thermowell (brand X) was not designed correctly to provide an accurate reading with a standard RTD. Because the piping system was not easily modified, the existing thermowells had to be used. Replacing them with a suitable design would involve cutting and welding both of which would require the whole system to be cleaned at enormous cost. A new sensor that would work with the existing thermowells to provide the required accuracy was the preferred solution.

18944



18944	PART NUMBER	
	SHEATH LENGTH 'L'	
	-070	7.0 INCHES
	-120	12.0 INCHES
-L	SPECIFY 'L' LENGTH IN INCHES	
18944		



Tip Sensitive RTD

SOLUTION

Model 18944 was designed to replace the existing sensor and provide a measurement accuracy that would meet the process requirements. Burns engineers designed the sensor to minimize stem conduction and maximize tip sensitivity.

This is also an excellent style sensor to use for short immersion length applications that do not use a thermowell. Nearly any style sensor can be adapted to use the special design.