

## Dual Element and Dual Transmitter Assembly

### APPLICATION

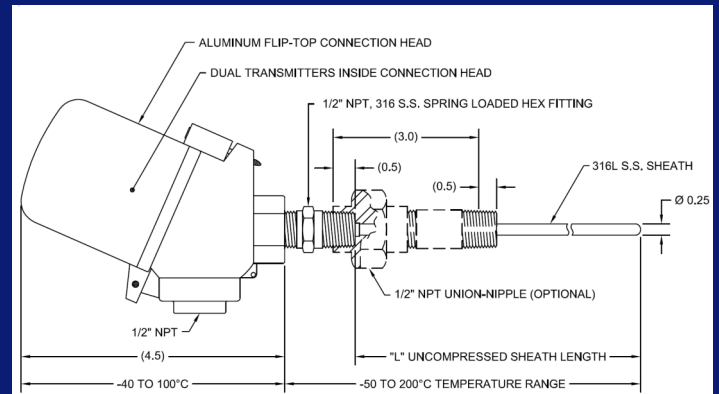
A mining company contacted us looking for a durable dual element RTD and a compact connection head that would house two transmitters, one for each sensing element. As you can imagine, a mine of any type is a rugged dirty place that is not friendly to electronics or sensitive equipment. Installation of the dual transmitter and RTD was in an existing thermowell on a liquid storage tank located outdoors.

### CHALLENGE

Customer desired a compact assembly due to space constraints around the mounting location and the transmitters had to be mounted locally because the control room was located well over 500 feet away. A transmitter provides a more robust signal for sending over long distances and signal conditioning.

An outdoor location requires waterproof protection for the RTD and transmitters along with UV protection. Corrosion protection was also needed not only from rain but for incidental contact with the chemicals used inside the storage tank.

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### Dual transmitter and RTD

### SOLUTION

A flip top enclosure with an extended cover was chosen to house the two transmitters. A Series 300L spring loaded heavy duty RTD was chosen to mate with the head and the customer thermowell. Both transmitters can be wired before or after installation

into the head and the flip top feature allows extra room for routing lead wires. The Series 300L sensor is designed to survive vibration and shock while maintaining a stable and repeatable output. Burns Model T51 or T55 DIN B size transmitters provide a robust 4 to 20 mA signal with  $\pm 0.05\%$  accuracy. Model T55 has HART communications.

