

Loop Powered Indicator Augments Dial Thermometer

APPLICATION



A ethanol manufacturer uses temperature measurements for many critical processes throughout the plant. In most cases, there are dual temperature measurements in place. There is an RTD temperature transmitter which sends a control signal to the DCS (Distributed Control System) and a bi-metal thermometer as a local temperature indication. They each serve their purpose and function well.

However, like all instruments, temperature sensors are susceptible to drift and error over time. Measurement errors can cause quality problems for that process. Early detection of a control issue can save a considerable amount of time and money.

CHALLENGE



Often times, an operator in the field will notice a temperature reading on a thermometer and will question if the indicated temperature is correct. The field operator would need radio the DCS operator to check the RTD reading for that point. Since the temperature measurement of the RTD is not conveniently accessible by the field operator more often than not the temperature reading is accepted without question.

Processes that are highly dependent on accurate temperature control may run undetected until quality problems have occurred. If local indication of the RTD temperature measurement was available, a simple cross check could alert operators to potential measurement errors and would occur more frequently if it was easily performed at a glance.

HD20P



▶ Loop Powered LED Temperature Indicator in Plastic Enclosure

SOLUTION



The solution was to have local indication of the RTD temperature reading. However, they did not want to replace all their existing transmitters with indicating transmitters. They did not like the idea of obsoleting their entire transmitter inventory.

The HD20P loop powered indicator was the right product for this application. The HD20P offered a highly visible temperature reading in a compact connection head and the plant could use all of their existing transmitters. The transmitters simply get mounted in the indicator housing and connect to the same analog loop. There is no question now whether the temperature is correct or not as it can be quickly compared to the other temperature reading.