

# LEVEL APPLICATION



Application

The Opportunity

The Benefit

## 1100 Series Magnetic Level Indicator

### Boiler Feedwater Heaters

Boiler feedwater heater systems are essential for every power plant but modern plant designs can especially push the limits of typical feedwater instrumentation. These feedwater systems must be closely monitored because precise preheating of the condensate and makeup water is critical to maintaining plant efficiency standards. Exacting control requirements, low visibility of condensate levels, and fluctuation of water densities have pushed customers worldwide to seek out new ways to tackle these issues.

The SOR® 1100 series magnetic level indicator solves many of the problems that have historically plagued operators. In many older designs, level control consists of an armored sight glass level gauge and perhaps a low level switch for alarm. However, sight glass gauges can be difficult to read under typical operating conditions and can be quite expensive to maintain. Many plants worldwide have found that magnetic level indicators like the 1100 series can be a better solution for visual level indication. Since the SOR 1100 series completely isolates the process chamber from the indicator, the risk of breakage is completely eliminated and discoloration due to heat is minimized.



The 1100 series can be designed to incorporate either a magnetostrictive or guided wave radar level transmitter. These transmitters can provide the precise control necessary for modern feedwater heater designs and send a 4-20 mA signal to the DCS for monitoring. The magnetostrictive transmitter can even be mounted directly to the outside of the 1100 series further reducing the need for additional chambers and minimizing the effect from extreme temperatures.

In addition, SOR can provide the 1100 series magnetic level indicator with thermowells and thermocouples for accurate measurement of condensate temperatures. Temperature

fluctuations can have an effect on float buoyancy and thus on measured liquid levels. A thermowell and thermocouple system from SOR can help operators compensate for this natural phenomenon.

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