

APPLICATION NOTE 060506B: PULP & PAPER DIGESTER TANK
Pulp & Paper

Application: Overflow Protection, White Liquor in a Digester

Product used: Kayden 800 Series Flow – Level – Interface – Temperature Switch



Description: Reliable and repeatable level control in the white liquor tank is critical in order to avoid overflows and/or contamination of the process upstream or downstream.

Problem: The combination of the process media and plant conditions cause instrument malfunctions and maintenance problems. For a level switch to perform well in this application it must resist failures caused by:

- corrosion and / or “sludging” damage to the sensor
- temperature extremes - depending upon location and operation the instrument will see high temperatures (including steam)
- water contamination - feed water and cooling water often contains sediment and high mineral content
- electromagnetic interference
- difficult and/or controlled access points limit monitoring and daily maintenance

Solution: The **Kayden CLASSIC 800 SERIES Thermal Dispersion Flow, Level, Interface, Temperature Switch** is used to provide the critical control for level in the white liquor tank. The switch may be set to activate or deactivate the pump or feed valve using either of the independent relay contacts or the 4-20mA analog output.

Although often overlooked in LEVEL applications in favor of more complicated and expensive technologies, Kayden thermal dispersion switches provide **digital repeatability** and **fast response** in a rugged package that is not bothered by coating on the probe and will not drift, seize, or ever require calibration.

Easy, front panel controls and display make set up fast and easy. Unlike float, paddle or gap switches Kayden switches feature all-welded sensors, no-moving-parts design, true digital electronics *with auto-diagnostic functions*, two independent relay timers, a bypass timer for auto pump restart, simultaneous process temperature monitor and a *4-20mA analog output corresponding to the process level (flow)*.