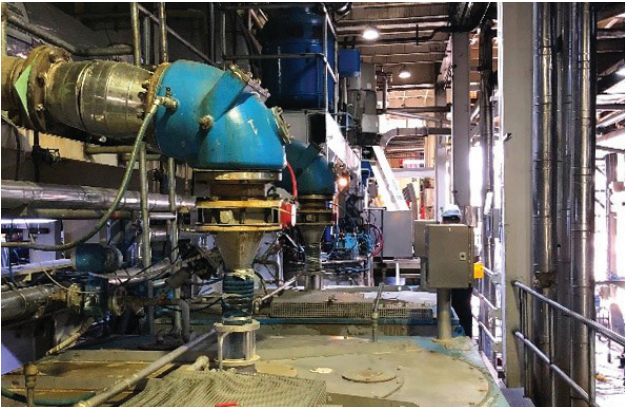


# Case Study: Centrifuge Control



## APPLICATION CHALLENGE:

The instrumentation department of a major sugar producer in Colombia was having recurring issues with the mechanical switches that were installed on the centrifuges:

1. The switches were occasionally subjected to pressure spikes on the centrifuges which damaged the sensors.
2. Mechanical pressure gauges were unable to store any process information including magnitude and frequency of the pressure spikes.
3. After overpressure situations, the operators could not determine if the mechanical switches were functioning properly as the devices were unable to report their health.



Excelsa installed on a water injector line of a centrifuge



Affordability



Operational Visibility



Ease of use



EXCELA™



## SOLUTION:

The mechanical switches on the centrifuges were replaced with UE's Excelsa electronic switches. Each Excelsa switch was installed along the centrifuge's water injector line to ensure that the water was injected into the drum at 90 psi. When the pressure falls below the 90 psi setpoint, the Excelsa shuts down the centrifuge system via the programmable logic controller (PLC). The centrifuge is reactivated once the water pressure is restored.

The Excelsa was selected for the following reasons:

1. The Excelsa provides the customer with operational visibility with its embedded device diagnostics. It informs the operator that it is functioning properly (health diagnostics through the LCD display), as well as basic process statistics (trip point counter, max/min process values).
2. Excelsa's large display allows for easy pressure reading and local programming of setpoints and deadband.
3. The Excelsa is more affordable than transmitters. The Excelsa electronic switch can also be wired directly to the 24VDC PLC system with existing wiring infrastructure, saving installation cost.



Individual centrifuge with the Excelsa (circled)

