



Case Study:

Pump Monitoring and Control



Industry
WATER & WASTEWATER

APPLICATION CHALLENGE:

Since its inception, a water treatment facility has used mechanical switches on its pumps for high and low-pressure alarms and shutdown. The user was starting to experience some operational and maintenance challenges from the pump instrumentation:

1. **High frequency of false alarms** indicating abnormal pressure, disrupting the operation of the pumps which led to unnecessary operational downtime of the facility.
2. **Lack of visibility** regarding pump process data, as the mechanical switches could not relay information like pump inlet/outlet pressures. It was difficult for the maintenance team to know if the switches were functioning properly.
3. **Cost:** The water treatment facility budgeted a plan to upgrade these mechanical switches to transmitters, but the device cost of transmitters exceeded their budget.



EXCELA™



SOLUTION:

UE's Excela electronic switches. Here are several features and benefits of the Excela that solved the user's challenges:

1. **Integrated trip filter:** The Excela reduced the occurrence of spurious trips on pumps and increased operational uptime of the facility.
2. **Integrated display with maximum/minimum values recorded:** Operator can verify pump pressure and track extreme values of pump pressure abnormalities.
3. **Device self-diagnostics:** Error codes related to possible causes let the operator know when device is malfunctioning and why.
4. **Budget:** Operator gets the affordability of a switch and the maintenance/operational efficiency of a transmitter



Electronic switch mounted on pump systems in a water facility



Affordability



Operational Visibility



Increased Uptime

