



## Switch Valve Control

ValvTechnologies provides field proven solutions for severe service applications.

### The logic of the Switch Valve control

The switch valve has four possible positions where the valve may be stopped. This is the bypass, drum "A", drum "B" and an intermediate position between drum A and B. The function of the control panel is to:

- Move the valve to any of the four positions from wherever it is in the rotation with the push of a button or receipt of a control signal
- Stop the valve in any location with the push of a button or receipt of a control signal
- Individual pushbuttons for each of the position
- Provide Class 1, Div 2 safety protection
- Provide visual indication of the valve position



To provide this functionality, the automation house completely bypasses the limit switches in the device as received. The position of the valve is indicated and controlled two ways:

- First, the valve is provided with four sealed proximity switches. There is one per valve position and more can be added depending on customer requirement. When a button is pressed, or a control signal received, the valve moves to the new position until the proximity switch is "made", or a signal to stop or reverse is received.
- Second, if the "Stop" is received, the valve stops where ever it is located, or if the "reverse" is received, the valves returns to it's original position. As a double-check, the actuator has a counting function checking the number of motor rotations from one stop to the next. This is used to verify the position as indicated by the proximity switch.

This basic function can be modified to fit the needs of any facility. If a plant sends the exact requirement of the system, DCS used, etc. We can produce custom wiring diagrams for the individual coker unit.