



Application Case Study

Product	T21 Thermal Differential Switch
Application	Seal Pots

The Application

Almost every chemical process uses seals to eliminate costly leaks. Modern chemical plants have many seal points that are accomplished with a simple gasket or an o-ring.

When the surfaces to be sealed move relative to one another, such as the shaft of a centrifugal pump, a dynamic seal design must be used to combat leakage problems. Common dynamic seals are the double and tandem designs that require a compatible sealing fluid known as the barrier fluid. External tank assemblies known as seal pots are commonly used as a source of clean, pressurized barrier fluid for double or tandem seal assemblies. These tanks, or seal pots, use either a high or low level switch.

The Solution

In a dead-ended system, the fluid is supplied to the seal chamber, providing the positive internal pressure on the seal to maintain lubrication. In other systems, the fluid may actually be circulated in a closed loop between the seal pot and the seal chamber.

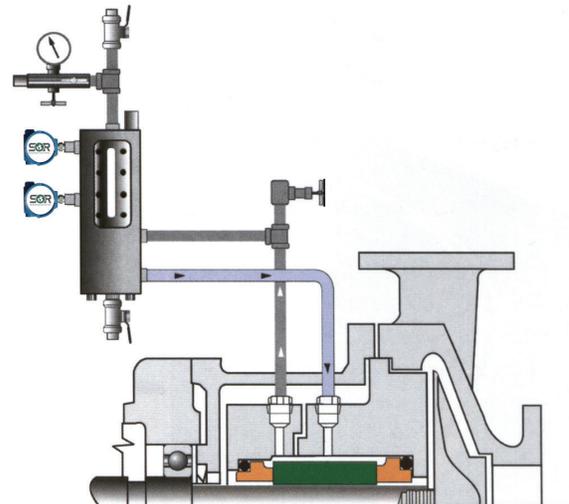
In both cases, the seal pot is pressurized and instruments monitor the fluid level. Fluid loss results in catastrophic failure of the seal, dangerous plant conditions and environmental hazards. Plant operators must rely on a low level switch to be aware if the fluid level ever drops too low, indicating a fluid loss problem. Additionally some applications may require a high level switch to indicate hazardous product leakage across the primary seal and into the seal chamber.



The Results

Outputs from these switches connect to alarm annunciators and/or plant control systems, initiating procedures for immediate corrective action. All pots use a pressure gauge, with some systems requiring a pressure switch to activate an alarm or shut down the pump for added safety.

The T21 is unaffected by foam, bubbles, vibration, density changes or pressure swings, viscosity changes or changing dielectric constant.



Ordering Information

Model Number T21-DL7D-CS-RR
EAC-8A-CS-2-RR
3/4" Process Connection
316SS Sensor
2" Insertion Length