

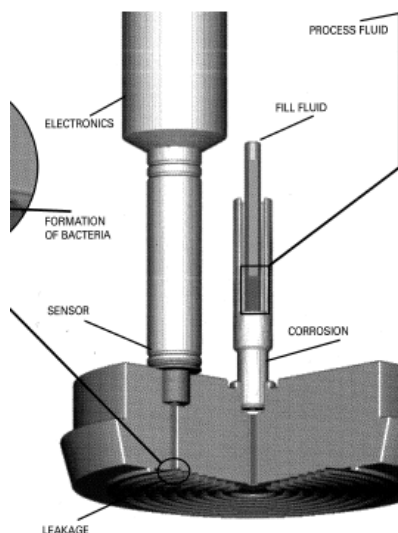
## INTRODUCTION

A leaking diaphragm is often detected too late, with harmful and costly consequences to the process or the environment. As a solution for this problem Badotherm has invented the Diaphragm Leakage Detection system for Diaphragm Seal Applications. The advantages of the DLD system are:

- Early alert: diaphragm leaks are discovered immediately after a leak occurs
- Cost-saving: instant action can be taken to avoid costly production contamination
- Environmental protection: harmful release of aggressive process fluids can be prevented
- Process protection: formation of bacteria is prevented

## PRINCIPLES DLD SYSTEM

When a diaphragm is damaged, the process medium will seep into the seal filling fluid, changing the conductivity of the fluid. This change in conductivity is detected by a built-in sensor, with an output to an alarm or any kind of output signal.



The DLD system is mainly designed for the food and beverage industry. There, a leak in the diaphragm can lead to unwanted formation of bacteria, caused by the residues in the Diaphragm Seal system. The DLD system is of course also suitable in the chemical and petrochemical industry to avoid wastage and environmental dam-

age by a leaking diaphragm. The DLD system can restrict the damage by an early detection of the leakage.

## RANGE OF APPLICATION

The DLD system can be put on several Badotherm Diaphragm Seal system with a flanged or sanitary process connection larger than 1.5". The DLD is suitable for aggressive process media. Here, it is possible that less protected parts of the Diaphragm Seal system would be corroded, by the invasion of process fluid. This could lead to a dangerous and harmful release of process fluid.

## TECHNICAL SPECIFICATIONS

The DLD can be executed with EX proof head without electronics and with a sensitivity sensor < 1mΩ.

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