

ROTOR INTERFERENCE DETECTION – RID

The Rotor Interference Detection (RID) system has been designed to monitor rotor to housing contact, especially useful for process systems with a high hygienic requirement. The RID can be installed to minimise damage to the rotary valve and warn of possible contamination of the conveyed product in the unlikely instance of the rotor fouling the valve body or end covers.

DMN valves are produced with the highest accuracy and rotor movement is not likely to occur. However, should the rotor

come into contact with the casing due to foreign objects passing through the valve, bearing failure, operator misuse or expansion of the material of construction due to an excessive temperature, the RID unit will ensure that an alarm is generated.



Specifications

- ▶ Special control unit of DMN-WESTINGHOUSE design
- ▶ Settings can be modified to suit application
- ▶ Contamination alarm feature
- ▶ Can be retrofitted to existing valves
- ▶ Dedicated software

Product Information

The direct drive execution is isolated by the coupling which has a plastic spider.

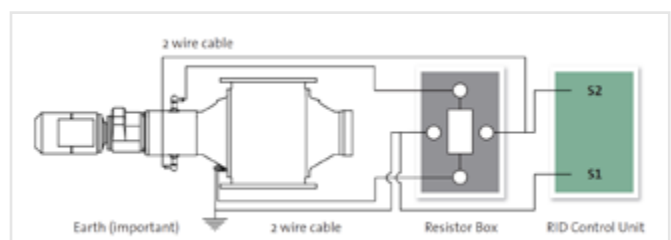
By isolating the rotor from the body and end covers, the electrical resistance can be monitored. This monitoring is done with a dedicated DMN control unit. The contact points for electrical connection are at the drive end and on the end cover / body. As a result of this user friendly design, no further disassembly is required when the valve is opened for cleaning or further inspection. When a change in resistance takes place, be it from a direct metal to metal contact or product build up, either a direct alarm or contamination alarm can be generated.

The heart of the RID system is the dedicated DMN control unit. The rotor is insulated from the rest of the valve by using high quality electrically insulated hybrid bearings.

The second generation RID control unit offers a very flexible method of controlling both direct metal to metal contact, as well as contamination caused by product build up. It can also be used to upgrade first generation RID control units.

Application

The RID is suitable for application with



Standard measuring circuit RID
S1 to body / S2 to rotor