

DP120/130/140/150

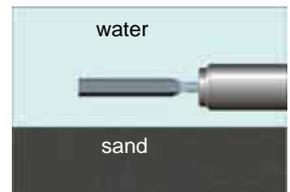
Special Model SEDIMENT

Instruction Manual

IMPORTANT: for safety reasons and for proper function of these instruments it is strongly recommended to carefully read this instruction manual before installation!

Application: The sediment detection in water is a special configuration of the DP120/130/140/150 level control instrument. It is designed to detect the level of solid material that has settled in water. A typical application is the detection of sand in front of pumping systems.

Function: A piezo system brings a rod to vibration on its resonance frequency. The vibrating system is tuned to work in water. If solid material covers the rod, it damps the vibration. An electronic circuit switches a binary output signal. When the rod gets uncovered, it starts vibrating again and the output switches back.



IMPORTANT: This manual only points out what has to be considered for the SEDIMENT model. It therefore is important to also read the instruction manual of the standard model of the DP120/130/140/150. Mounting, wiring and technical data do not differ from the standard model if not mentioned otherwise below.

SPECIAL INSTRUCTIONS FOR SPECIAL MODEL SEDIMENT

General: The special model SEDIMENT is tuned to work in water. It might happen, that it does not, or not properly work in air. To test the unit you have to put the vibrating blade into water. The special model SEDIMENT is not usable for the detection of liquids or solids in air. The blade of the unit has to have a distance to the container wall of at least 100 mm. If the blade gets closer, the vibration could be damped by reflections of the container wall.

Sensitivity: For this unit only the sensitivity settings B or C must be used, (see instruction manual of the standard model). The state depends on the weight of the settled material and the water/material-mixture.

- B: higher sensitivity: the vibration gets damped earlier than on pos. C. Depending on the density of the material the relay will switch already when the water/material-mixture on top of the settlement reaches the vibrating blade.
- C: lower sensitivity: the vibration gets damped later than on pos. B when the vibrating blade gets fully covered by the settled material.