TECFLUID

Level Switch for Solids and Liquids Vibrating Fork Technique

Introduction

The LD – 60 is a level switch using the vibrating fork technique.

It is a robust and compact switch for measurement of liquids and solids. Some typ applications are:

- Pump control
- Tanks open and pressurized
- Tanks with agitation
- Open channel and pipe empty /full detection
- Distillation columns
- Evaporators
- Chemical dosing tanks

Benefits

- No moving parts.
- Not affected by temperatures or press changes.
- Suitable for liquids with viscosity up 10,000cSt.
- Minimum density 0.6 kg/l.
- Detection of solids (powders).
- Corrosion resistant materials.
- Maintenance free.
- Integral electronics.
- Selection of normally open or normally clos operation.
- LED status indication (bicolor).
- Function test with external magnet.
- Connections:
  Thread   GAS / NPT
  Flange   DIN / ANSI
  Sanitary   Clamp Naue, DIN 11851
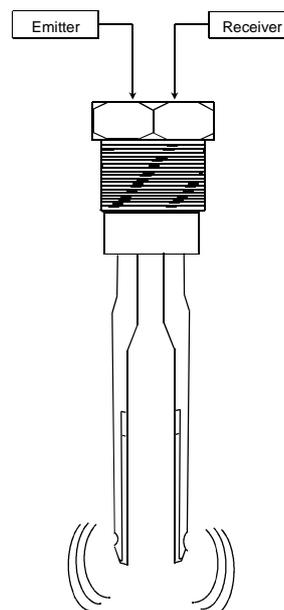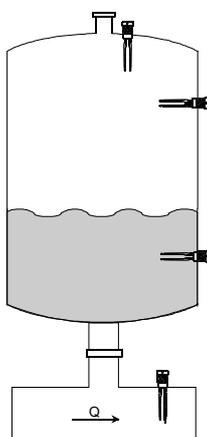- Wide range of sensor lengths.

Principle of Operation

The Series LD – 60 is a level switch using the vibrating fork technique. An electronically controlled piezo-electric system vibrates the fork at its natural frequency.

The change of frequency in the presence of a liquid, or of the amplitude in the presence of a solid, is detected and controls the change in the state of the output switch.
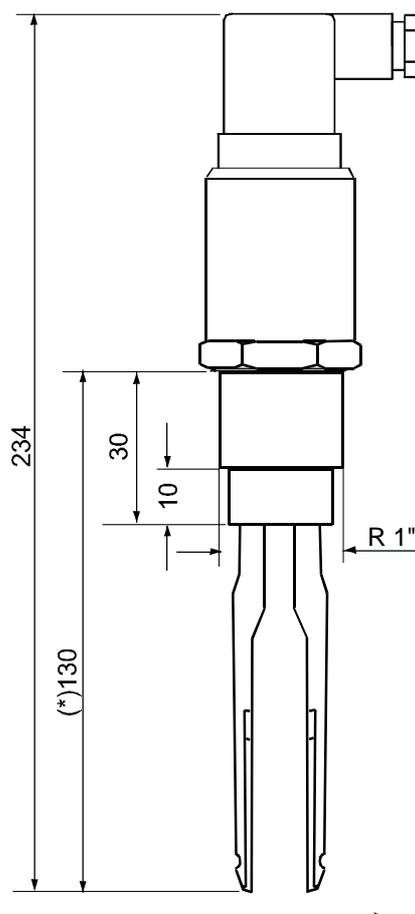
Technical Data

- Hysteresis: $\pm$ 2 mm (H_2O)

- Response Time: >1 sec

- Materials: AISI – 316 L
  On request Hastelloy C, etc

- Connections: 1" Thread GAS / NPT

- Temperature Limits:
  Ambient -20° C to +70° C
  Fluid Temp -30° C to +115° C
  On request   + 150° C

- Pressure Limits:
  Thread (BSP / NPT)   16 bar
  Flange (DIN, ANSI, JIS)   PN-16…PN-100
  On request up to 400 bar

- Power Supply:
  2 wires: 24   250 V ac. Load (max) 350 mA
  3 wires: 10   55 V dc. Load (max) 350 mA

- Load: 6 mA ar rest

- Status indication by 2 colour LED

- Connections:
  IP 65, DIN 43650 – A

- Sensor length:
  130 to 6,000 mm
  Others on request

Common points of detection

Emitter   Receiver

Dimensions

234
30
10
R 1"
(*)130

Weight 0.3 kg
(*) Standard length