Vibrating Rod for Sediment Level Detection

Detects Solids under a Liquid

The BinMaster vibrating rod for sediment level detection is specially designed to detect solid material that has settled in a tank containing liquids. It is used to detect when a layer of solid material reaches a specific level in a tank. The vibrating rod will vibrate in water and will stop vibrating when the solid material reaches the level of the probe. When wired to a horn or alarm panel, personnel can be alerted when the sediment has reached the probe and the sediment needs to be removed from the tank.

The BinMaster vibrating rod for sediment level detection comes in two different models. The VR-21 SED is the standard model with a 7.37" insertion length and is recommended for use on the tank wall. The VR-41 SED model is a rigid extended vibrating rod for top mounting applications and is custom made with extensions from 13" up to 13' long, dependent on the needs of the application.

Alerts to High Sediment Level

The VR-21 SED and VR-41 SED are commonly used in the water and wastewater industry where the sensor is used to detect the level of salt, lime, chemicals, silt and sediment that has settled in tanks at water treatment plants. The VR-21 and VR-41 SED can also be used for other applications in food and beverage manufacturing, chemical or metal processing, pulp and paper making, and at mining operations. Applications include measuring sediment in brine tanks or soak tanks, detecting sand or silt that has settled in tanks at quarries or mines, timely removal of sand and dirt at pumping stations or measuring manure or compost that has settled in refuse vessels. Alternative uses include detecting the level of materials such as ash, carbon, lime, silt and mud once they have settled under water.

Another common use for the VR-21 SED and VR-41 SED is to detect coarse and fine sediment in tanks at hydroelectric power stations. It is important that the sediment does not reach the turbines and interfere with their operation and potentially damage them. Preventing sediment from reaching the level of the turbines extends the service life of the turbines by allowing the settled debris to be removed automatically before it interferes with their operation. Removing sediment from the tank only when it reaches a high level reduces the need for cyclical flushing and triggers an automatic cleaning only when it is needed, allowing for optimal utilization of the turbine.

Vibrating Rod SED

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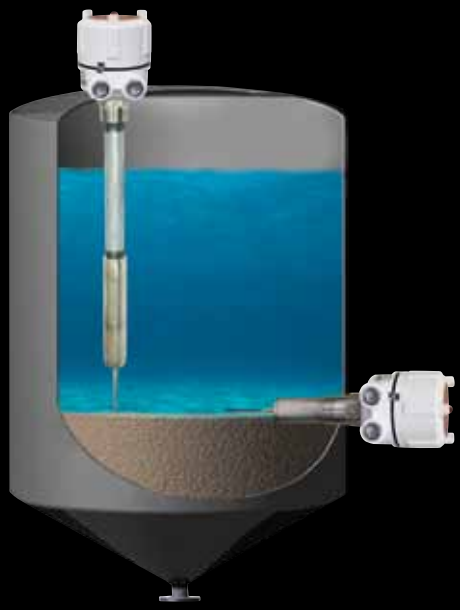
Standard and Extended Length Models

The VR-21 SED is BinMaster's standard piezoelectric-driven, vibration-type point level switch, which has an insertion length of 7.37'. Although more commonly used in side-mounting applications, it is suitable for both top and side mounting applications and is ideal for a wide variety of industries. The VR-41 SED is intended for top mounting locations and is available in custom lengths from 13" up to 13'. A rigid one-inch pipe extension is available in galvanized or stainless steel dependent on the material application.

Unique Single-Blade Design

The VR-21 SED and VR-41 SED feature a unique single-rod probe design with a sword-shaped blade that allows material to easily flow by the sensor and settle on the bottom of the tank.

These vibrating rods are easy to install, mounting in the vessel via a standard 1-1/2" NPT mounting socket and require no calibration. Both models feature an enclosure with dual conduit entries and convenient screw-off cover for easy access to electronic components. Other features include a switch selectable high/low fail-safe, and an auto sensing power supply which can accommodate 20 – 250 volts AC/DC. Remote electronics via a point level alarm panel are available to alert to bin levels for up to 24 individual vibrating rods.



Industries Using Sediment Level Detectors

- **Water & Wastewater Treatment**
- **Chemical Processing**
- **Hydroelectric Power Plants**
- **Mining & Metal Processing**
- **Food & Beverage Manufacturing**
- **Pumping Stations**
- **Pulp & Paper Manufacturing**

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