

# ▶ Better knowledge about your sedimentation process



**KROHNE**

▶ measure the facts

## OPTISYS SLM 2100 – Optical measuring system for sedimentation profile measurement and continuous tracking of sludge blanket

OPTISYS SLM 2100 accurately and reliably measures the profile of your sedimentation tank using an optical sensor that travels through all layers of the tank by reading the concentration of suspended solids at different heights.

Not only can you obtain more information than with any other comparable ultrasonic device, but you can also gain better insight into your sedimentation process.



OPTISYS SLM 2100

## A clear view to the ground

OPTISYS SLM 2100 goes right down to the bottom of a tank and detects all sludge phases, supplying precise concentration and level measurements. Using the zone tracking function, a particular concentration (i. e. the sludge blanket) can be tracked and hence one specific „zone“ can be monitored, for instance, to control the pumps during sludge removal. You even have the option of recording a sludge profile, enabling you to detect sedimentation problems at an early stage and prevent sludge from being washed out to the next stage. An automatic change between two measuring modes allows high flexibility and even more information about your sedimentation process.

## Robust and reliable

OPTISYS SLM 2100 converts the measurement results into digital signals and transmits them using a reliable optical transfer system. The advantage of this system is that there are no contact problems and no wear from mechanical stress. Inductive coupling provides the sensor with a reliable power supply. The powder coated stainless steel housing in combination with the built-in heater and automatic spray cleaning of the sensor and cable make the OPTISYS SLM 2100 ideally suited for use in the harsh environment of wastewater treatment plants.

## Savings in subsequent stages

The resource-saving measuring system is available around the clock. An important effect of this is a higher suspended solids content in return and waste sludge through improved sedimentation process which provides better operation and energy savings in subsequent stages.

## Highlights:

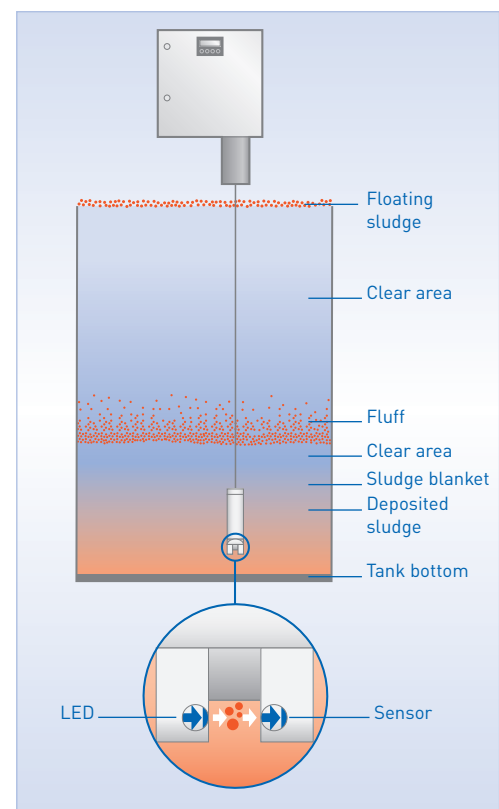
- Reliable measurement of the sedimentation profile as well as blanket and fluff levels
- Common operating and service concept with flow and level devices
- Continuous level measurement of sludge blanket (zone tracking)
- Automatic change between two measuring modes
- Direct measurement with an optical sensor
- Measuring range: 0.1...30 g/l; 0...10 m / 0...32.8 ft
- Powder coated stainless steel housing (IP 55)
- 2 x 4...20 mA current outputs
- Built-in heater, 2 x rake guard switches
- Low maintenance due to (optional) automatic flushing of sensor and cable after each measuring cycle
- 2x relays (as limit switch or status output)

## Contact

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## The measuring principle

Unlike the commonly used ultrasound level measurement, the KROHNE sedimentation profile and sludge blanket measuring system uses an optical sensor which travels through the media. As a result, it can directly measure the concentration of suspended solids at different heights. The measurement of the content of suspended solids is based on a light transmission method, which provides precise measurement results independent of the sludge colour. The direct measuring principle excludes incorrect measurements due to echo returns from walls or separating zones as well as signal damping by fluff or floating sludge.



## Optional automatic flushing of sensor



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