

VISIBILITY MEASUREMENTS

When taking samples from water bottoms it is important that the sample is representative. In order to gain a proper insight in the structure of the water bed a sample will have to be taken of all layers.

If the certainty is desired that all layers of sediment, including the so called 'thick water layer', are sampled, then it is important to determine at which depth this layer begins.

The 'thick water layer' is a layer of sediment of which the density only marginally exceeds that of water. Characteristic for 'thick water' is the high grade of turbidity relative to the water. It is therefore possible to determine the depth optically. Also during the sampling procedure checking may be desirable.

Also for the determination of the position of the different layers of sedimentation (for instance in relation to sampling) in settlingbasins, this optical method can be used.

13.49 Sludge blanket detector

The microprocessor controlled sludge blanket detector determines the degree of turbidity of fluids by means of the transmission method with a light source and photocell.

The less red light reaches the photocell the more turbid the fluid is.

The sludge blanket detector is available complete with sensor, cable, a weather resistant carry holster with shoulder strap and battery charger.

The robust sensor has a sensitivity of between 0 and 5000 ppm.

The graphic display has a resolution of 20 blocks divided over three colors in order to quickly read the degree of turbidity of the layer the probe penetrates at that moment.

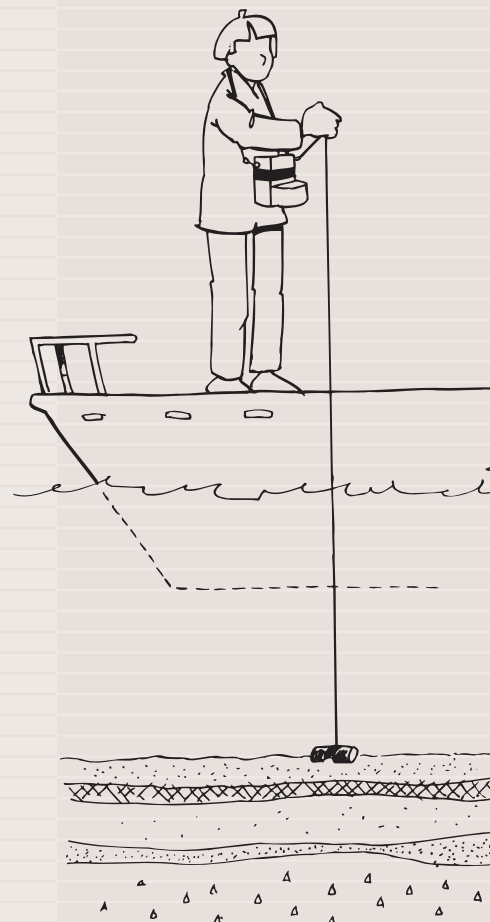
If the turbid water layers are reached an audio signal can be heard.

This audio signal is pulsing in less turbid water and continuous in very turbid water.



P1.48
Parts List
Pg 325

Determination of the depth position of the most recent layer of sediment.

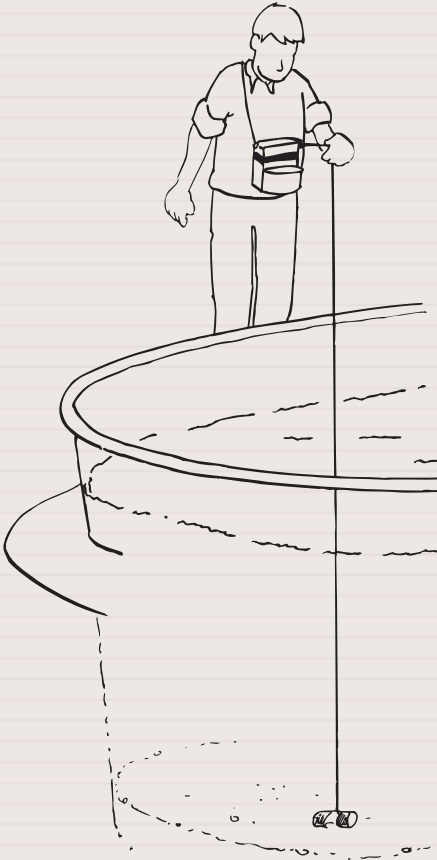


Sludge blanket detector with sensor, battery charger and carry holster



P1.48
Parts List
Pg 325

Determination of the position of various layers of sedimentation in a settling-basin.



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The meter has also been fitted with a "low battery" indicator.

The cable has a marking every 50 cm in order to determine the depth. The standard cable length is 7 meter (can be extended optionally up to 50 meter).

Advantages

- ❑ Ergonomic design, light weight and compact.
- ❑ Measuring results directly available.
- ❑ Clear graphic display.
- ❑ Integrated audio signal.
- ❑ Easy to use.
- ❑ Accurate determination of the position of various layers.
- ❑ Low power consumption.

Applications

- ❑ The determination of the depth of various layers of sediment before and during the sampling procedure of water bottoms.
- ❑ Determination of the position of various layers of sedimentation in settling-basins or tanks.

13.50 Visibility disc according to Secchi

The visibility disc according to Secchi is a simple, although not very accurate, means of determining the visibility depth.

The visibility disc is lowered into the water with a wire. When the disc is no longer visible in the water, a reading of the depth is made by means of the marks on the rope. The disc is lowered another 0.5 meter and is pulled up slowly.

The second reading is done when the disc becomes discernible.

By taking the arithmetic mean from both readings the visibility depth is determined.



Graphic display



Probe with lightsource and sensor



Visibility disc according to Secchi