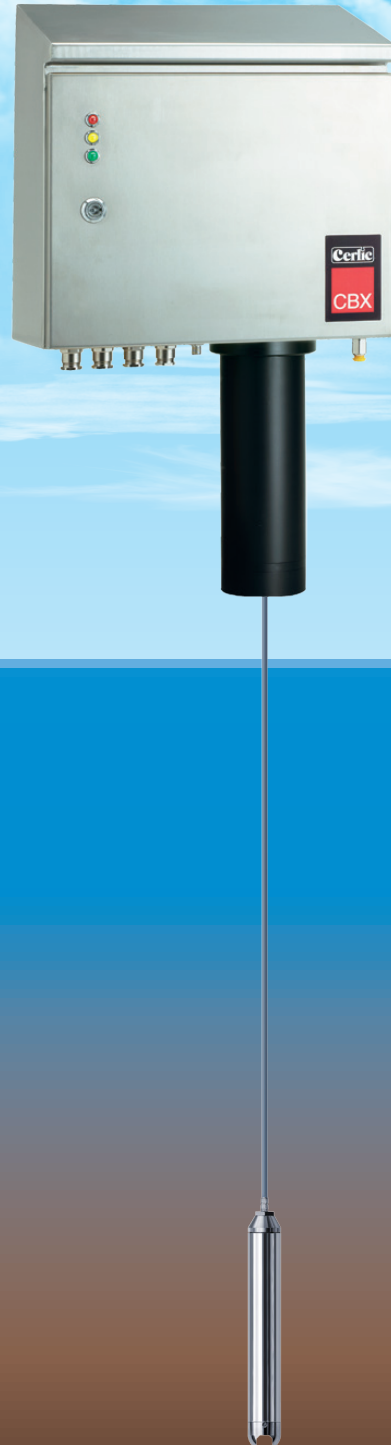


# SLUDGE BLANKET MEASUREMENT

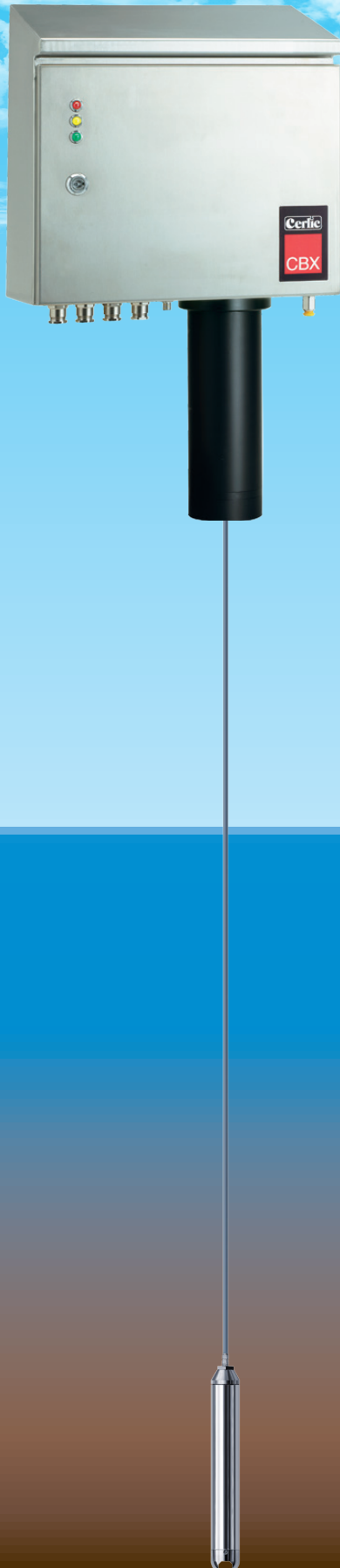
Handheld or Stationary



*See the sludge level*

 **Cerlic**  
for cleaner water

# LET CERLIC HELP TO ME



## BETTER PROCESS CONTROL OF CLARIFIERS

- Early warning of settling problems in the clarifier
- Measures Both Blanket and Fluff levels for better control of clarifier
- Prevention of sludge wash out alleviates effluent TSS problems
- Blanket can be more accurately controlled which gives more consistent RAS concentrations
- Higher and more consistent RAS/WAS concentrations helps thickeners operate more effectively.
- Real time measurement, 24 hours per day, 365 days a year

## SLUDGE BLANKET METER - CBX

Cerlic CBX is a reliable stationary Sludge Blanket Meter that measures suspended solids in liquids. The near infrared optical measuring head is lowered into the clarifier or thickener. It will continuously measure suspended solids concentration versus liquid depth. The CBX has up to two solids concentration settings and outputs for sludge blanket and fluff levels which makes the CBX unique in the market place. Rising fluff is the cause of sludge wash outs resulting in increased phosphorus and other nutrients concentrations in the effluent. The Cerlic CBX Sludge Blanket Meter supplies an accurate and repeatable measurement of the sludge blanket and fluff levels defined by solids concentration, second to no other measuring method in the market at this time.



The **CBX Sludge Blanket Meter** is housed in a stainless steel enclosure with built in fan and heater which makes the CBX suitable for outdoor mounting even in cold climates down to  $-20^{\circ}\text{C}/-4^{\circ}\text{F}$ . The optical suspended solids sensor is equipped with an 11 meter (36 ft) cable and a new innovative inductive non contact power supply to the sensor. Automatic water flushing of the sensor and cable is standard. The CBX is connected to the Cerlic C-tron control box that has mA outputs for blanket and fluff levels. Sludge Profile is also available as an option.

## SLUDGE PROFILE

By lowering an optical suspended solids sensor working with transmission of NIR-light, both solids concentration and depth are measured. This allows you to see the profile of the sludge versus depth and how the amount of suspended solids varies in the clear zone. Thus allowing

# MEASURE YOUR BLANKETS

## OPTIMIZATION OF THICKENERS

- Higher and more consistent sludge concentrations will have a positive impact on the following treatment processes
- Increased sludge concentration means less volume to process
- Better supernatant quality decreases internal recirculation and reduces biological process upsets
- Lower energy costs for heating of digesters and increased gas production
- Less sludge volume reduces hauling costs

## MULTITRACKER

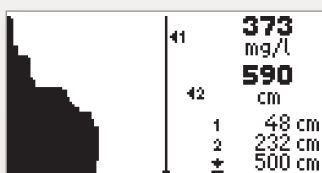
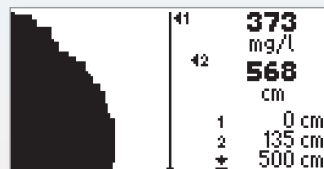
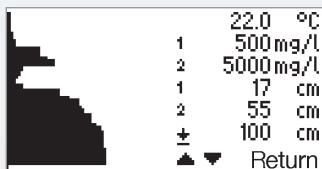
The Cerlic MultiTracker is a new generation of handheld units with different sensors for measuring different parameters.

The MultiTracker with the sensor for sludge blanket measurement has a unique measuring principle which is the most accurate and repeatable on the market. In order to detect sludge blanket and fluff levels two concentrations of suspended solids can be programmed. When each level is detected, the depth from the surface or height of the sludge is presented on the screen. Simultaneously an acoustic signal, as well as a vibration, is generated. The concentration and depth can also be presented as a profile on the graphic display. See examples below.

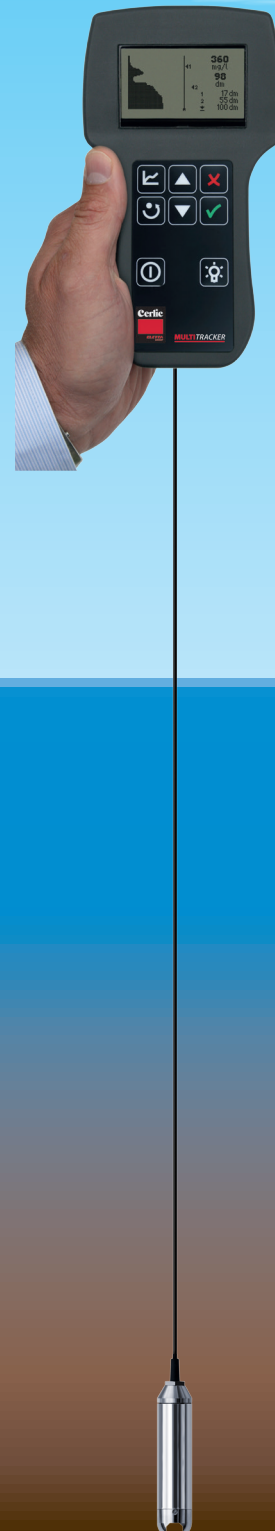
The sensors connects easily to the instrument via a plug-in contact. Up to 250 measurements may be stored in the built-in log. To the same plug-in contact as the sensor, a computer cable may be connected. The log can now easily be transferred to a computer and be handled via Cerlic Tracker Talk or MS Excel. The built-in log enables a follow up of long time process changes of the sludge properties.

Flexible - choice of sensors for; SS, DO, ODO & BT.

## EXAMPLES HOW SLUDGE PROFILES MAY VARY:



the operator to control the process by means of sludge mass balance and indicates the settling abilities of the sludge, sludge volume index (SVI). It is also possible to calculate the total mass of sludge in a process in conjunction with Cerlic's MLSS & RAS sensors.



# ABOUT CERLIC

Cerlic develops, manufactures and markets instruments for on-line measurement and monitoring of process parameters. The target business areas are primarily wastewater treatment plants, pulp and paper mills and other process industries. Our line of instruments is characterized by a high degree of quality, functionality and user-friendliness.

Cerlic Controls was founded 1977. Our knowledge and experience of processes and applications combined with our rugged measuring instruments provides customers with reliable and continuous on-line information as well as enhanced knowledge about plant processes. Factory calibrated sensors allow for immediate measuring after installation. Easy operation and minimal maintenance separates Cerlic from the competition.

Since 2005 Cerlic is a subsidiary of the Eletta Group, a global organisation with its base in Sweden. Subsidiaries in Asia, Europe, North America, plus a world wide distributor network ensures sales and service support.

## **PROCESS SECURITY:**

Sludge blanket and fluff level monitoring will effectively help prevent sludge wash out. Operators can more effectively meet the high quality demands on final effluent. Better quality of 2nd clarifier effluent or supernatant will decrease internal load and reduce the risk of process upsets.

## **ENERGY CONSERVATION:**

Higher TS-levels from thickeners will reduce energy cost for heating of digesters and decrease pumping volumes. Longer retention time in digesters will increase the bio gas production. Less sludge volumes gives lower cost for transportation

## **FUNCTIONALITY:**

True sludge blanket and profiling gives indication of upsets in thickeners, clarifiers and SBR reactors. The CBX stationary blanket meter has built in cleaning to minimize manual maintenance