

Automatic Sludge Blanket Meter

Dual outputs - Blanket and Fluff depths



■ Accurate & reliable measurement of blanket and fluff depths

- Optical suspended solids sensor determines blanket depth as a function of concentration

■ Low maintenance

- Automatic flushing of cable and sensor

■ Optimize solids concentration from clarifiers and thickeners

- Maintain a constant sludge level
- Ensures pumping of solids rather than water
- Prevent clarifier washouts

■ Easy to calibrate

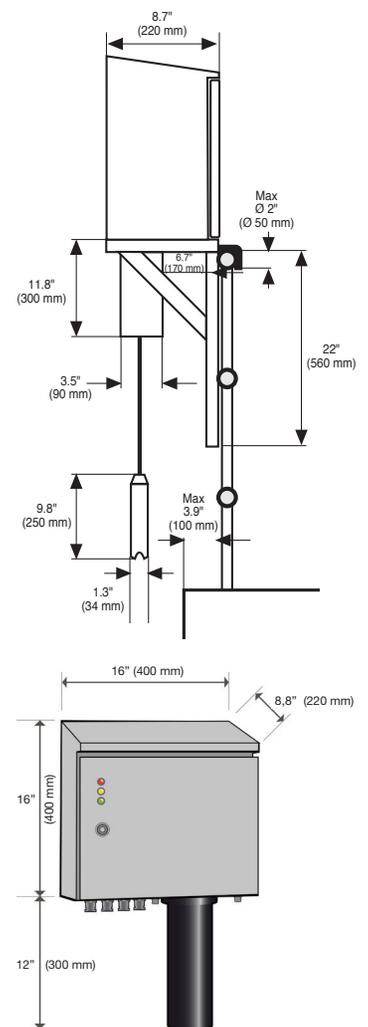
- Self-instructing menu

Cerlic CBX is a sludge blanket meter for reliable, repeatable and accurate measurement of blanket depth in clarifiers and thickeners. Measuring range is 0 - 33 ft (0 - 10 m). Total length of cable is 36 ft (11 m). Determination of sludge level in primary and secondary clarifiers will help avoid solids wash outs and allow for better solids inventory control. Blanket monitoring in a thickener is important in order to optimize the dry solids concentration, which means less water to the digester or dewatering equipment. Cerlic CBX detects

the blanket by means of a near infrared (NIR) suspended solids sensor, which travels through fluff layers until it finds the preset blanket solids concentration. CBX is supplied in a stainless steel housing with SS handrail mounting assembly for easy attachment to hand-rail. Automatic water flushing system of cable and sensor after each cycle. Built-in heater allows outdoor mounting even in cold climate. CBX uses BB1 control box which supports one CBX and has two 4-20 mA outputs or optional Profibus DP communication.

Technical specifications

Power Supply	115 V/60 Hz (230 V/50 Hz)
Power consumption	0.2 A, during measuring cycle 0.1 A, stand by 5 A, with heater
Flush water supply	¼" NPT, male
Flush water pressure	Min. 30 psi (2 bar) Max. 60 psi (4 bar)
Enclosure electronics	NEMA 4 (IP65)
Operating temp	23 - 122°F (-5 - +50°C) standard -4 - +122°F (-20 - +50°C) with jacket, option
Weight	55 lbs (25 kg) incl. mtg. brkt.
Dimensions w/housing	15.7" x 8.7" x 15.7" H x D x W (400 x 220 x 400 mm)
Communication	RS485 to BB1 Box
Inputs, limit switch	Limit switch, N/O, (supplied by Cerlic) (24 VDC voltage loop)
Measuring range	0-33 ft (0-10 m)
Cable	Shielded 4-wire polyurethane cable, length 36 ft (11 m)
Measuring principle	NIR optical Suspended Solids Sensor
Sensor Material	316SS, lenses BK7 glass
Mounting brackets	1 ½" handrail u-bolts as standard 4" & 6" angle handrails brkts as option
Sensor lowering speed	29.6'/minute (15 cm/s)



CBX

BB1/BB2 Control Box All our sensors in the X-series can be combined and connected to a Control Box; BB1/BB2. The Control Box is equipped with communication protocols for compatibility with a wide array of automation systems. The control boxes comes with two 4 - 20 mA outputs as standard.

BB1 support one sensor. BB2 can support up to four sensors with 4 - 20 mA or Profibus DP output signals. Relay outputs in the BB1/BB2 are used for high and low alarms or to provide a pulse for automatic cleaning of sensors. Further information may be found in our leaflets for BB1/BB2.

