

SUSPENDED SOLIDS SENSOR SUBMERSIBLE DESIGN



■ Wide application range

- Monitor suspended solids in raw sewage, primary clarifier effl., MLSS, RAS, filtrate, centrate, backwash, sewer losses, etc.
- Measures up to 30,000 ppm (depending on type of solids)

■ Low maintenance

- Heavy duty stainless steel sensor head
- Wide 0.79" (20 mm) measuring gap
- Flushing system with no moving parts

■ Stable measuring principle

- Built-in LED compensation loop to alleviate frequent recalibration of sensor
- Temperature compensation loop
- Measurement by 880 nm NIR-light

■ Easy to use

- Self-instructing menu
- Calibration with lab test in ppm (mg/l)

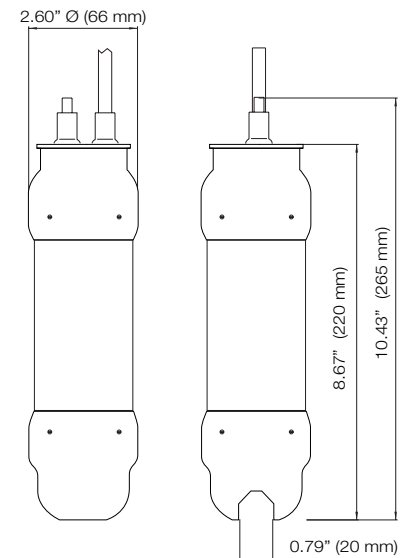
CERLIC TSS20

The TSS Suspended Solids Sensor is the ultimate tool for effective process control. The sensor is used for continuous measurement of suspended solids in aeration basins (MLSS), return sludge troughs, SBR-systems, raw sewage, primary clarifier effluent and sewer monitoring in industrial plants. The sensor is an integral part of controlling solids retention time (SRT) or sludge age. The measuring

principle is a single beam of pulsed NIR-light. The LED light source pulses at 880 nm and has a guaranteed life of at least three years. In each installation the meter is calibrated using actual lab tests for up to five sample points. An automatic cleaning system with built-in flushing nozzles ensures accurate measurements with little maintenance.

TECHNICAL SPECIFICATIONS

Material	316SS (SIS2343)	The sensor is manufactured in stainless steel which limits corrosion. The head of the sensor is designed to achieve the highest self-cleaning effect.
Weight	3.5 lbs (1.6 kg)	
Cable	33 ft (10 m)	Hytel cable that is highly resistant to aggressive liquids. Maximum extension cable length 250' (76 m).
Enclosure	NEMA 6 (IP 68)	
Process temp.	32 - 140°F (0 - +60°C)	
Measuring Principle	Straight transmission 0.79" (20 mm) measuring line	The detected measuring signal is inversely logarithmical proportional to the concentration of suspended solids. Particles will not stick to lenses.
Measuring range	Min 0 - 500 ppm (mg/l) Max 0 - 30 000 ppm (mg/l) GaAs, Diode, 880 nm	TSS measures transmitted light which facilitates a zero-point calibration. At 880 nm and not effected by dissolved colors which eliminates a source of error.
Resolution	± 1 ppm (mg/l)	
Accuracy	0.5%	Of Full Scale or chosen range.
Mounting	In liquid	Immersion of sensor in liquid, see accessories for alternatives.
Cleaning	Air or water	Flush pressure not to exceed 50 psig.
Flushing hose	8 x 6 mm (5/16")	Black pvc, 33' (10 m) long
Sealing	EPDM/Viton	
Accessories		Mounting bracket for handrail. Telescopic rod, 5 - 12 ft (1.5 - 4 m) incl. transmitter holder. Solenoid valve for flushing. Other mounting arrangements.



TSS20

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 the latest in communication protocols for compatibility with a wide array of automation systems. The Control Box comes with two 4 – 20 mA outputs as standard. BB1 support

one sensor and BB2 supports up to four sensors for 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 for sensors with that function. Further information can be found in our leaflets for BB1/BB2.