

Suspended Solids Sensor Submersible Design



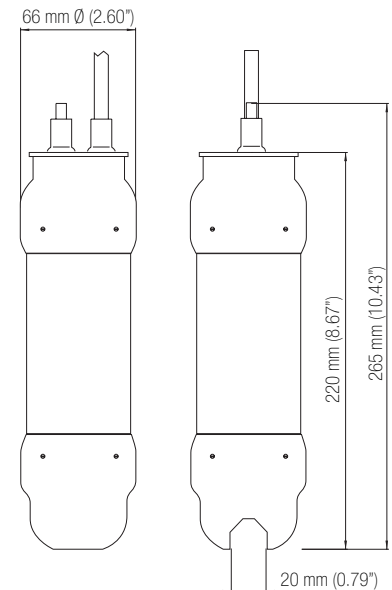
- Wide application range
 - Monitors suspended solids in raw sewage, primary clarifier effluent, MLSS, RAS, filtrate, sewer losses, etc
- Stable measuring principle
 - Built-in temperature compensation loop
 - Measurement by NIR-light
- Low maintenance
 - Durable stainless steel sensor head
 - Wide 20 mm (3/4") measuring gap
 - Flushing system with no moving parts
- Easy to use
 - Calibration with lab test in mg/l (ppm)

The ITX 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 pbe42/505 sample points. An automatic cleaning system with built-in flushing nozzles ensures accurate measurements with little maintenance.

Technical Specifications

Material	SIS2343 (316SS)	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	1.6 kg (3.5 lbs)	
Cable	10 m (33 ft)	The cable is made of Hytel and is highly resistant to aggressive materials and fluids.
Enclosure	IP 68 (NEMA 6)	
Process temp.	0 - +60°C (32 - 140°F)	
Interface	RS485 Fieldbus (option)	All data is stored in the intelligent sensor, this means that it can be pre-calibrated in the factory in Stockholm.
Measuring Principle	Straight transmission 20 mm measuring line	The detected measuring signal is inversely logarithmical proportional to the consistency or suspended solids. Particals will not be stucked. Lens in glass.
Measuring range	Min 0 - 100 mg/l (ppm) Max 0 - 20 000 mg/l (ppm)	
	GaAs, Diode 800 nm	ITX measures transmitted light which facilitates a zero-point calibration. At 800 nm no colours can be seen which eliminates a source of error.
Mounting	In liquid	Immersion of sensor in liquid, see accessories for alternatives.
Cleaning	Air or water	Flush pressure max 6 bar (87 psig). For air 2 bar (29 psig) is usually sufficient.
Flushing hose	1/4" pvc, 10 m (33 ft)	
Accessories:		Telescopic rod, 4 m, incl. transmitter holding. Aluminium mounting plate. Solenoid valve for flushing. Mounting bracket.



ITX

BB2 Control Box All our sensors in the X-series can be combined and connected to a Control Box; BB2. The BB2 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.

It can support up to four sensors for 4 - 20 mA or Profibus DP output signals. Relay outputs in the 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 leaflet for BB2.



Cerlic Controls AB

P.O. Box 5084, 141 05 Kungens Kurva, Sweden, Tel +46 8 501 694 00, Fax +46 8 501 694 29
info@cerlic.se • www.cerlic.com

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