



# Turbi-Tech 2000LA

## Suspended Solids Sensor

PRODUCT DATASHEET

### APPLICATIONS

Mixed Liquor  
Aeration Basin  
Oxidation Ditch  
Returned Activated Sludge  
Surplus Activated Sludge

### MEASUREMENT PRINCIPAL

Light Attenuation  
Wavelength 860 nm

### FEATURES

Fully automatic Self Cleaning  
Flexible Mounting System  
Large Optical Surface

### BENEFITS

Automated Aeration Control  
Low Cost of Ownership

### COMPATIBLE MONITOR

7200 Monitor

### ALTERNATIVE SENSORS

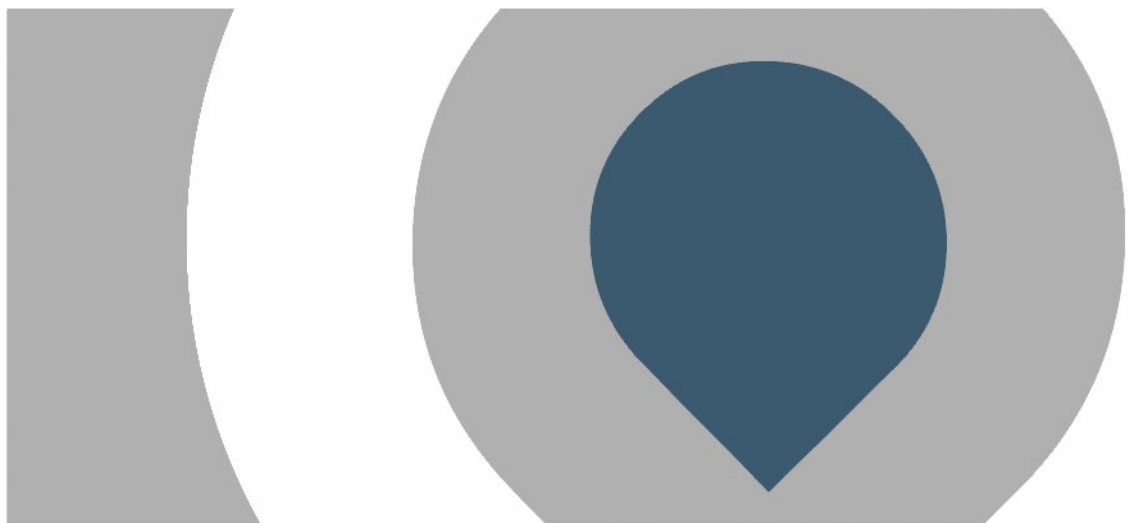
Turbi-Tech 2000HR  
Soli-Tech 20  
Infrared Sensors



The Turbi-Tech 2000LA Sensor has been designed for use in aeration systems typically monitoring Mixed Liquor Suspended Solids also known as Activated Sludge where solids are typically in the range of 1,500 to 3,500 mg/l. The sensor can also measure Returned Activated Sludge (R.A.S.), Surplus Activated Sludge (S.A.S.) and Suspended Solids or Turbidity in any higher range application.

The large optical surface and sample volume combine to ensure that the sensor is providing information that is reliable and representative of the solids present in the process. Deposits of fats and grease on the sensing area do not prevent the sensor from measuring unlike sensors with small optical surfaces. In addition the sensor incorporates a self cleaning mechanism that ensures that the optical surfaces are kept clean at all times, the cleaning system is designed to avoid problems with ragging and does not smear the optical system. The cleaning system ensures that manual intervention on a routine basis is not required, the sensor should simply be checked as part of general site housekeeping.

The Turbi-Tech 2000LA Sensor uses Infrared Light at 860 nm and operates using the Light Attenuation Principle. The cleaning mechanism is then sealed by 2 Nitrile 'H' Rings that finish the cleaning process. The Nitrile seals can be exchanged for Viton if the process media dictates. The cleaning process is automatically initiated by the 7200 Monitor at a user determined frequency. The cleaning process takes only 90 seconds, which means that the sensor is available for 99.5% of the time with a 5 hourly cleaning cycle.



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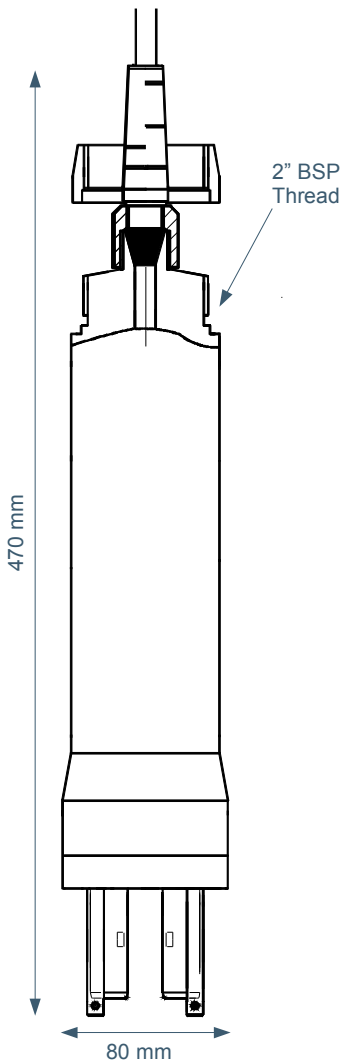




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## Suspended Solids Sensor

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### Physical

Weight  
Dimensions  
Enclosure Rating  
Enclosure Material  
Cable Entries  
Wetted Parts  
Seal Material  
Cable Type  
Cable Length  
Service Requirement

### Environmental Data

Operating Temperature  
Storage Temperature  
Location

### Power Supply

Voltage

### Interface to Monitor

Type

### Measurement

Accuracy  
Resolution  
Repeatability  
Measurement Principle  
Wavelength/Frequency  
Response Time  
Pressure Rating (Depth)  
Flow Rate

Maximum Range

Minimum Range

### Software

Remote Programming

### Mounting

Installation Type  
Mounting Shaft  
Handrail Attachment

2.2 kg (inc 10 metres of cable)  
80 mm diameter x 470 mm long  
IP68  
Black Acetal Co-Polymer  
Integral Cable Gland  
Black Acetal, 316 Stainless Steel, Glass  
Polyurethane and Nitrile (Viton option)  
6 core, 9mm O/D Polyurethane Coated  
10 metres standard, 100 metres maximum  
Automatic Self Cleaning  
Seal Service every 3500 cleans (application dependent)

0 to 50°C  
-20 to 60°C  
Indoor/Outdoor

12VDC from 7200 Monitor

PWM Digital Signal

Better than +/-5% FSD on real sample  
Dependent on range setting, typically +/-2%  
Better than +/-1% FSD on real sample  
Light Attenuation  
860 nm Infrared  
0.5 seconds - damping provided by monitor  
10 mWC  
Not affected by flowrate, avoid dead spots and extreme turbulence  
0 - 20,000 mg/l  
0 - 4,000 mg/l  
Measuring range will depend on the nature of the sample being monitored

No

Dip, Flowcell or Stilling Tube  
0.5 to 3 metres in 0.5 metre increments  
Part Numbers 160000 + 160080

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The company reserves the right to alter the specification without prior notice. E&OE

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