



# Turbi-Tech 2000HR

## High Range Suspended Solids Sensor

PRODUCT DATASHEET

### APPLICATIONS

Membrane Batch Reactors  
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

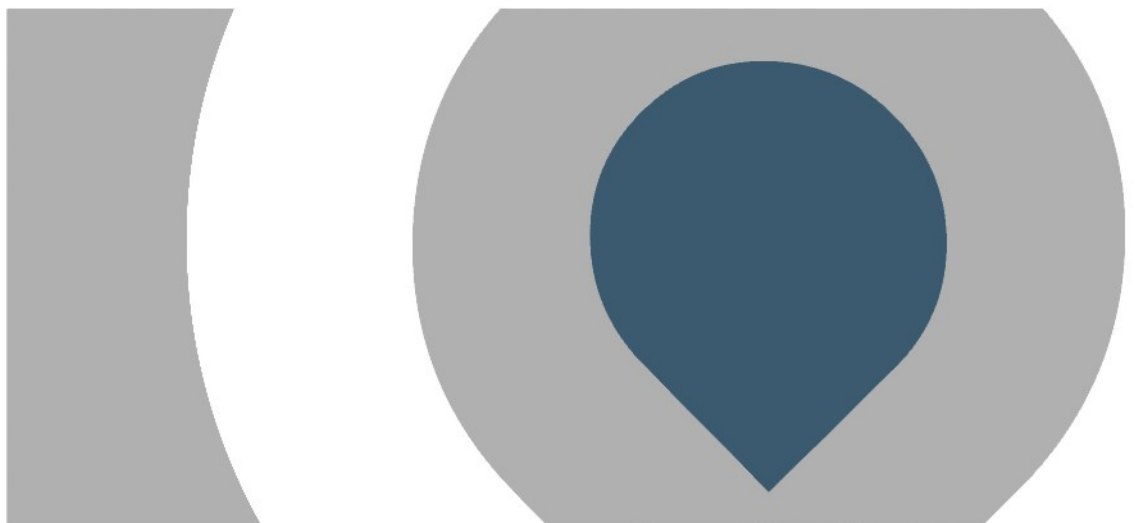
Turbi-Tech 2000LA  
Soli-Tech 20  
Infrared Sensors



The Turbi-Tech 2000HR Sensor has been specifically designed for use in wastewater treatment systems where high levels of suspended solids are desirable in the aeration phase. Membrane Batch reactors typically run with MLSS values in the region of 8,000 to 14,000 mg/l. MLSS concentrations promote numerous process benefits, including stable operation, complete nitrification, and reduced biosolids production reducing biological volume requirements (and associated footprint) to only 20–30 percent of conventional biological processes. Further, the membrane tanks provide extremely space efficient solids separation and do not require a clarifier in the system.

The Turbi-Tech 2000HR sensor is suitable for monitoring solids in higher ranges than the standard LA version of the sensor due to its shorter path length. 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.



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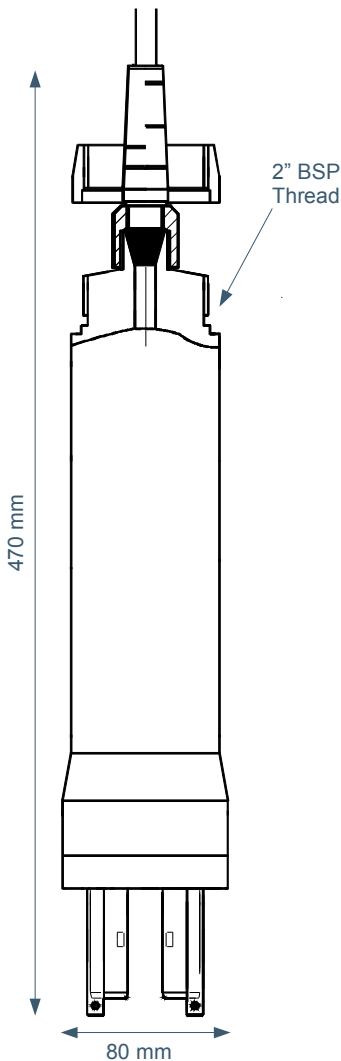




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## High Range Suspended Solids Sensor

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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 - 30,000 mg/l

0 - 10,000 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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