**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 20v2
- 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.
Turbi-Tech 2000LA
Suspended Solids Sensor

PRODUCT DATASHEET

Physical
Dimensions
80 mm diameter x 540 mm long
Weight
2.2 kg (inc. 10 metres of cable)
Protection Class
IP68
Enclosure Material
Black Acetal Co-Polymer
Cable Entries
Integral Cable Gland
Wetted Parts
Black Acetal, 316 Stainless Steel, Glass
Seal Material
Polyurethane and Nitrile (Viton option)
Cable Type
6 core, 9mm O/D Polyurethane Coated
Cable Length
10 metres standard, 100 metres maximum
Service Requirement
Automatic Self Cleaning
Seal Service every 3500 cleans (application dependent)

Environmental Data
Operating Temperature
0 to 50°C
Storage Temperature
-20 to 60°C
Location
Indoor/Outdoor

Electrical
Power Supply
12VDC from 7200 Monitor
Interface to Monitor
Type
PWM Digital Signal

Measurement
Accuracy
Better than +/-5% FSD on real sample
Resolution
Dependent on range setting, typically +/-2%
Repeatability
Better than +/-1% FSD on real sample
Measurement Principle
Light Absorption
Wavelength/Frequency
860 nm Infrared
Response Time
0.5 seconds - damping provided by monitor
Pressure Rating (Depth)
10 mWC
Flow Rate
Not affected by flowrate, avoid dead spots and extreme turbulence
Maximum Range
0 - 20,000 mg/l
Minimum Range
0 - 4,000 mg/l
Measuring range will depend on the nature of the sample being monitored

Mounting
Installation Type
Dip, Flowcell or Stilling Tube
Mounting Shaft
0.5 to 3 metres in 0.5 metre increments
Handrail Attachment
Part Numbers 160000 + 160080
Stilling Tube
Available

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