



TurbiTechw² HR

High Range Suspended Solids Sensor

PRODUCT DATASHEET

APPLICATIONS

Membrane Batch Reactors
Mixed Liquor
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

7300w² Monitor

ALTERNATIVE SENSORS

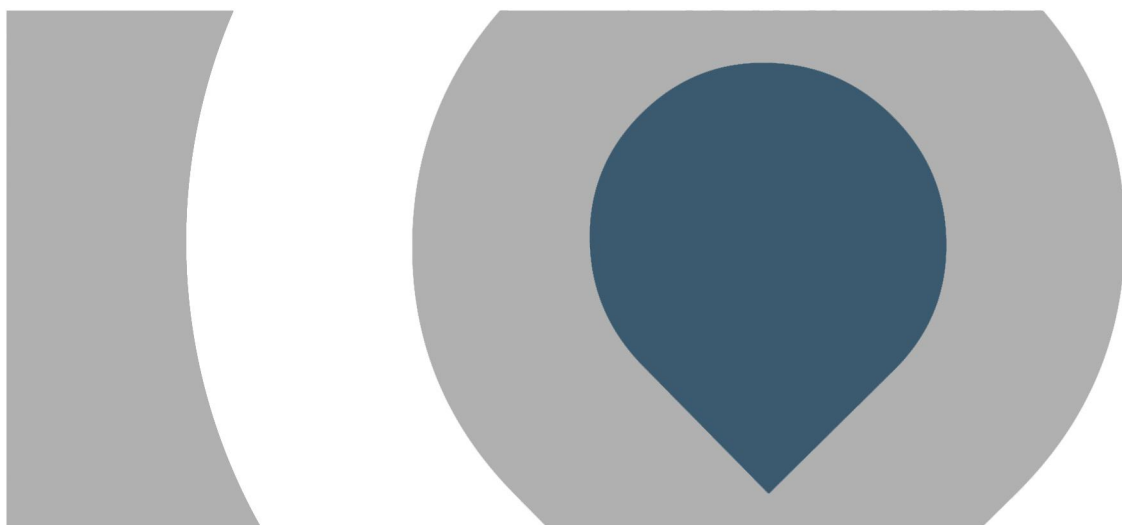
TurbiTechw² LA
SoliTechw² IL



The TurbiTechw² HR 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 TurbiTechw² HR 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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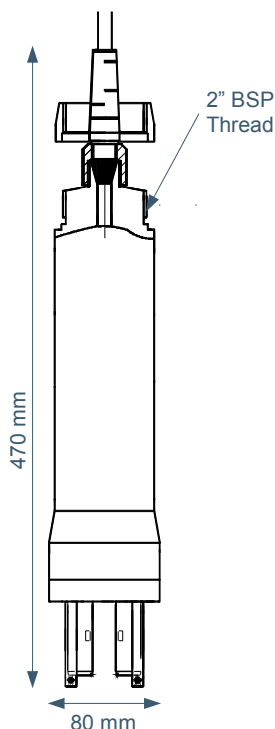




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Order Codes

Part No	Description
223882	TurbiTechw ² HR Sensor (Cable Length: 10 metres, Nitrile Seals)
223884	TurbiTechw ² HR Sensor (Cable Length: 20 metres, Nitrile Seals)
223883	TurbiTechw ² HR Sensor (Cable Length: 10 metres, Viton Seals)
223885	TurbiTechw ² HR Sensor (Cable Length: 20 metres, Viton Seals)

Publication No: I32240DS-Iss05
The company reserves the right to
alter the specification without prior
notice. E&OE

Physical

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

Environmental Data

Operating Temperature
Storage Temperature
Location

Interface to Monitor

Power Supply
Type

Measurement

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

Maximum Range
Minimum Range

Mounting

Installation Type
Mounting Shaft
Handrail Attachment

80 mm diameter x 470 mm long
2.2 kg (inc 10 metres of cable)
IP68
Black Acetal Co-Polymer
Integral Cable Gland
Black Acetal, 316 Stainless Steel, Glass
Polyurethane and Nitrile (Viton option)
4 core, 2 Twisted Pair, 5mm 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 Monitor
RS485

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

Dip
0.5 to 3 metres in 0.5 metre increments
See Documents I32577DS, 223980DS, and 224567DS for options

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