



TurbiTechw² LS

Suspended Solids and Turbidity Sensor

PRODUCT DATASHEET

APPLICATIONS

Final Effluent Turbidity
Final Effluent Solids
Inlet Solids
Primary Settled Sewage
Surface Water

MEASUREMENT PRINCIPAL

90° Light Scatter
ISO 7027 Compliant

FEATURES

Fully automatic Self Cleaning
Flexible Mounting System
Large Optical Surface

BENEFITS

Automated Aeration Control
Low Cost of Ownership

COMPATIBLE MONITOR

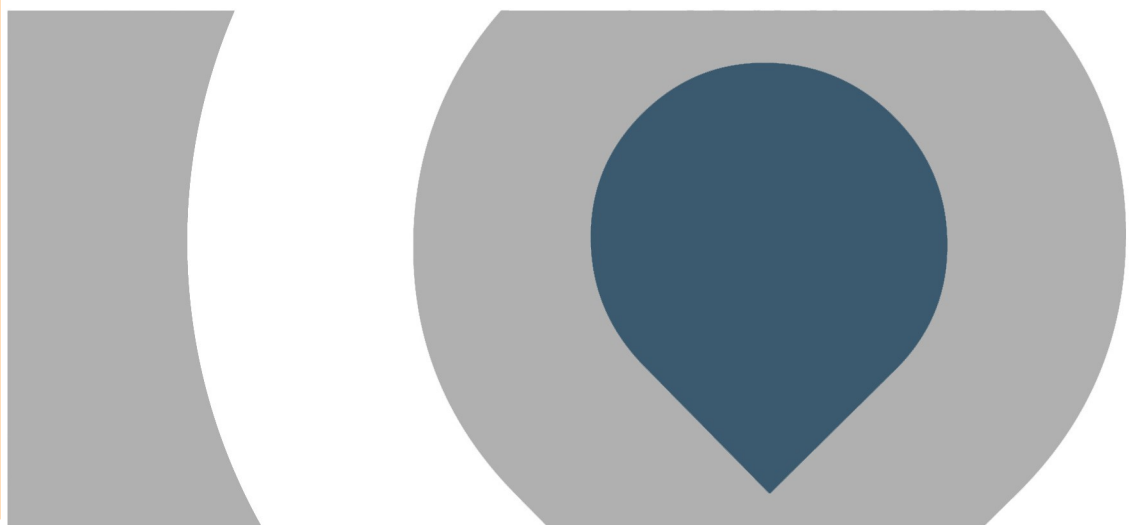
7300w² Monitor



The TurbiTechw² LS Sensor is designed to monitor the levels of Suspended Solids or Turbidity typically found in Final Effluent from municipal and industrial wastewater treatment plants. It is also capable of monitoring solids in the intake to both effluent and drinking water treatment processes. The normal operating range is between 0 - 50 and 0 - 500 FTU, a version of the sensor is available that extends the range to 0-1,000 FTU.

Monitoring of these key parameters requires sensors that are reliable and accurate, the TurbiTechw² LS fills this requirement perfectly. The large optical surfaces and sample volume ensure that the information provided by the sensor is both representative of the process and tolerant of fouling. 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 TurbiTechw² LS Sensor employs infrared light at 860 nm using the 90° Light Scatter principle in accordance with ISO7027 (2000). The cleaning process is automatically initiated by the 7300w² 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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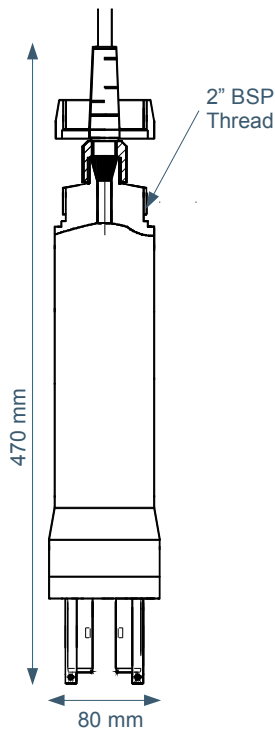




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Order Codes

Part No	Description
223510	TurbiTechw ² LS Sensor (Range: 0-50 to 0-500 FTU, Cable Length: 10 metres, Nitrile Seals)
223875	TurbiTechw ² LS Sensor (Range: 0-50 to 0-500 FTU, Cable Length: 20 metres, Nitrile Seals)
223876	TurbiTechw ² LS Sensor (Range: 0-50 to 0-500 FTU, Cable Length: 10 metres, Viton Seals)
223877	TurbiTechw ² LS Sensor (Range: 0-50 to 0-500 FTU, Cable Length: 20 metres, Viton Seals)

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

Physical

Dimensions	80 mm diameter x 470 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	4 core, 2 Twisted Pair, 5mm 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	12 VDC from Monitor
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Interface to Monitor

Type	RS485
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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	90° Light Scatter, ISO 7027 compliant
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 – 500 FTU, extended range 0-1,000 FTU available
Minimum Range	0 – 50 FTU
	Suspended Solids measuring range will depend on the nature of the sample being monitored.
	Typically Maximum 0 – 500 mg/l Minimum 0 – 50 mg/l

Mounting

Installation Type	Dip, or Open Flowcell
Mounting Shaft	0.5 to 3 metres in 0.5 metre increments
Handrail Attachment	See Document I32258DS for options

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