



# TurbiTechw<sup>2</sup> LR Sensor

## Turbidity Sensor

PRODUCT DATASHEET

### APPLICATIONS

Raw Water  
Final Water Monitoring  
Filtered Water  
Filter Backwash Control  
Clarifier Supernatant  
Process Control

### MEASUREMENT PRINCIPLE

90° Light Scatter

### FEATURES

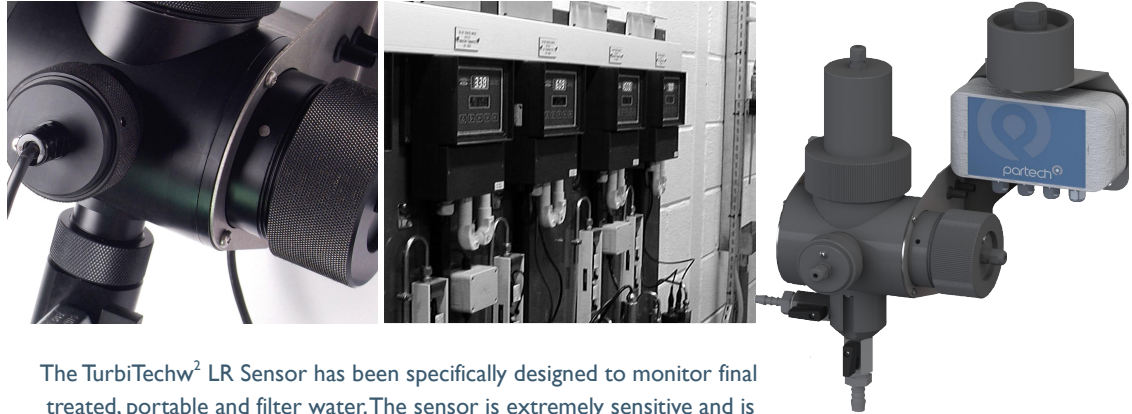
Dry Secondary Standard  
Ultra Low Back Scatter  
Auto-Clean Sensor

### ACCESSORIES

De-Bubbler

### COMPATIBLE MONITOR

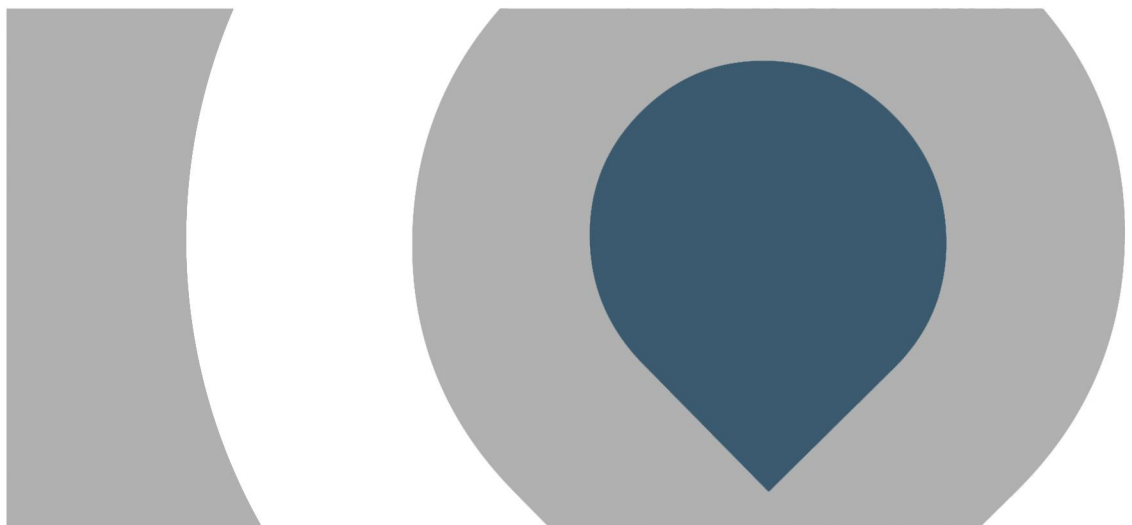
7300w<sup>2</sup> Monitor



The TurbiTechw<sup>2</sup> LR Sensor has been specifically designed to monitor final treated, portable and filter water. The sensor is extremely sensitive and is capable of discriminating changes in Turbidity of less than 0.1 FTU. The 90° light scatter monitoring technique makes the sensor sensitive to a wide range of particle sizes, from colloidal material through to larger particles and raw waters and the large mineral particles sometimes found in distribution samples.

The unique sensor design captures stray light which ensures an ultra stable zero point, this is combined with an automatic self-cleaning mechanism that prevent the build up of fouling within the sample chamber. The measurement system includes a self monitoring loop that compensates for changes in optical performance.

The sensor requires very little maintenance, with no special tools or training required. Calibration can be carried out against either a wet Turbidity standard or using the dry calibration reference cell that is supplied with every sensor. The reference cell provide an extremely easy, repeatable method of checking the performance of the sensor without the cost and inherent errors associated with chemical standards.



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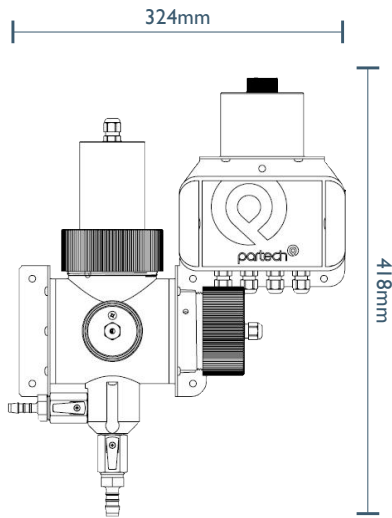
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## Turbidity Sensor

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### Physical

Dimensions  
Weight  
Protection Class  
Enclosure Material  
Cable Entries  
Wetted Parts  
Process Connections

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  
Response Time  
Pressure Rating (Depth)  
Flow Rate  
Low Range  
High Range

### Mounting

Installation Type

440 x 200 x 200 mm (HxWxD)  
4.5 kg (inc 10 metres of cable)  
IP68  
Black Acetal Co-Polymer  
Integral Cable Gland  
Black Acetal, 316 Stainless Steel, Glass  
Inlet and Drain: 1/2" BSP with 12 mm Hosetail  
Outlet: 1/4" BSP with 8 mm Hosetail  
Nitrile  
4 Core, 2 Twisted Pair, 5mm O/D Polyurethane Coated  
10 metres standard, 100 metres maximum  
Automatic Self Cleaning  
Wiper and Desiccant Replacement Yearly (application dependent)

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

12 VDC from Monitor

RS485

Better than +/-2% FSD on real sample  
+/-1% FSD or better (0.1 FTU for low range version)  
Better than +/-1% FSD on real sample  
90° Light Scatter  
90% of step change in 2 minutes at 1 l/min  
1 Bar  
0.5 l/min to 5 l/min  
0 – 5 to 0 – 30 FTU  
0 – 50 to 0 – 500 FTU  
It has been assumed that 1 NTU = 1 FTU for the purposes of this statement, please refer to Partech for further details

Wall or Surface  
See 224046DS

### Order Codes

#### Part No Description

223886 TurbiTechw<sup>2</sup> LR Sensor  
(Range: 0-5 to 0-30 FTU,  
Cable Length: 2 metres,  
Nitrile Wiper) c/w Dry  
Calibration Standard

223888 TurbiTechw<sup>2</sup> LR Sensor  
(Range: 0-50 to 0-500 FTU,  
Cable Length: 2 metres,  
Nitrile Wiper) c/w Dry  
Calibration Standard

Publication No: I32242DS-Iss05  
The company reserves the right to  
alter the specification without prior  
notice. E&OE

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