TurbiTechw^2 LR Sensor

Turbidity Sensor

PRODUCT DATASHEET

APPLICATIONS

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

MEAUSREMENT PRINCPLE

90° Light Scatter
Wavelength 860nm
ISO 7027 Compliant

FEATURES

Dry Secondary Standard
Ultra Low Back Scatter
Auto-Clean Sensor

ACCESSORIES

De-Bubbler

COMPATIBLE MONITOR

7300w^2 Monitor

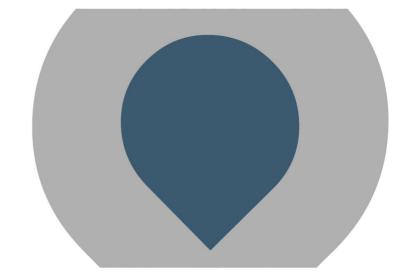The TurbiTechw^2 LR Sensor has been specifically designed to monitor final treated, portable and filter water. The sensor is extremely sensitive and is capable of discriminating changes in Turbidity of less than 0.1 FTU. The 90° light scatter monitoring technique makes the sensor sensitive to a wide 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.
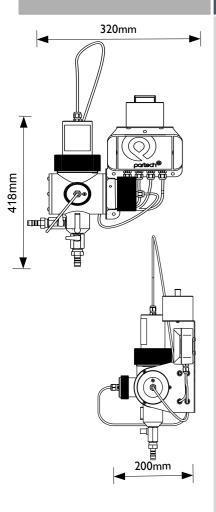
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320mm

418mm

200mm

Physical

Weight	4.5 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, Nitrile
Process Connections	Inlet and Drain: ½" BSP with 12 mm Hosetail
	Outlet: ¼" BSP with 8 mm Hosetail
Cable Type	4 Core, 2 Twisted Pair, 5mm O/D Polyurethane Coated
Cable Length	10 metres standard, 100 metres maximum
Service Requirement	Annual wiper blade replacement (application dependent)

Environmental Data

Operating Temperature	0 to 50°C
Storage Temperature	-20 to 60°C

Interface to Monitor

Power Supply	12VDC from Monitor
Type	ModTech - RS485

Measurement

Range	Low Range 0-30NTU, High Range 0-500NTU
Accuracy	+/-2% of reading or 0.1NTU (High Range)/0.02NTU (Low Range)
Resolution	+/-2%
Display Resolution	0.0001 NTU from 0.0000 to 9.9999 NTU
	0.001 NTU from 10.000 to 49.999 NTU
	0.01 NTU from 50.00 to 500.00 NTU
Repeatability	Better than +/-1% FSD on real sample
Measurement Principle	90° Light Scatter, ISO7027 Compliant
Wavelength/Frequency	860nm
Pressure Rating (Depth)	2 Bar/30psi
Flow Rate	0.5 l/min to 5 l/min

For the purposes of this document 1NTU =1FTU =1FNU

Mounting

Installation Type	Wall or Surface

Order Codes

Part No	Description
225125	TurbiTechw² LR Sensor (Infrared Type) (Range: 0-30 FTU, Cable Length: 5 metres) includes Dry Calibration Standard
227386	TurbiTechw² LR Sensor (Infrared Type) (Range: 0-500 FTU, Cable Length: 5 metres) includes Dry Calibration Standard

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