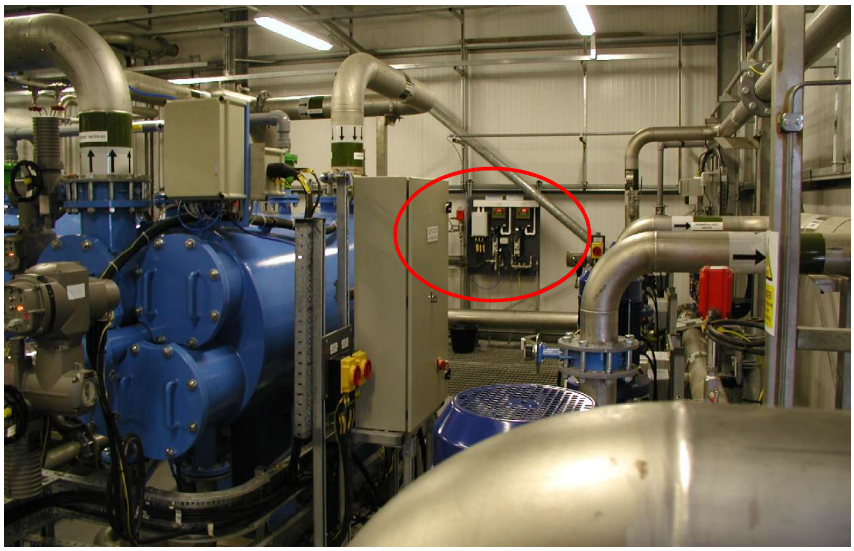
WaterWatch2310 Sensor – Low Range Turbidity



Partech Instruments is a specialist company providing analysers and instruments for monitoring and control in; wastewater, raw water, industrial effluent and surface water applications.

Whatever the application and whatever the location, Partech will supply an effective and efficient service and a support package tailored to suit the customer

The reliable measurement of Turbidity, especially at very low levels requires sensor a capable of maintaining it's performance over extended periods of time. The WaterWatch2310 Sensor has been designed with this in mind, and features an automatic self cleaning mechanism It can also be equipped with a sample presence detector and a de-bubbler if required.

By making this measurement reliably and accurately operators can use the Turbidity information to control the water treatment process efficiently and effectively. A well controlled water treatment process will reduce the risks of hazards such as Cryptosporidium and will use dosing chemicals effectively.

The WaterWatch2310 is equally effective at monitoring Filtered Water, Clarifier Supernatant, Filter Backwash and Final Water. In backwash monitoring the Turbidity measurement is used to keep the amount of wash water used to a minimum. In Final Water monitoring any increase in Turbidity indicates that the treatment process is not operating correctly and the drinking water supply could be effected by unacceptable taste, odour or colour.

When combined with the WaterWatch2300 Monitor the measurement of Turbidity is straightforward and trouble free. Options such as built in data logging allow the user to record Turbidity trends even when a site is not equipped with computerised control systems.

The WaterWatch2310 Sensor has been designed to provide exceptionally low stray light interference which enables a true zero to be set and ensures accurate, reliable results below 0.1 NTU. This coupled with stable electronics means a virtual lifetime zero giving long term performance with minimum maintenance.

The sensors are offered with an automatic cleaning system that prevents false high readings caused by fouling of the optical surfaces.

Solid Reference Cells are recommended with most systems to provide an easy and repeatable method of verifying the function of the unit. The reference cells are highly stable and not effected by light, temperature or aging. This avoids the time consuming and problematic use of wet calibration standards.

The measurement system complies with the requirements of IS07027.

Associated Products

- WaterWatch2300 Monitor
- WaterWatch2600 Monitor
- Solid Reference Cells

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Part Numbers

200880	WaterWatch2310 Turbidity Flowcell, 0-5 NTU
200890	WaterWatch2310 Turbidity Flowcell, 0-5 NTU with Autoclean
200900	WaterWatch2310 Turbidity Flowcell, 0-500 NTU
200910	WaterWatch2310 Turbidity Flowcell, 0-500 NTU with Autoclean
201020	Solid Reference Cell for WaterWatch2310, 2.00 NTU
201030	Solid Reference Cell for WaterWatch2310, 75 NTU
201040	Solid Reference Cell for WaterWatch2310, 125 NTU
201040	Solid Reference Cell for WaterWatch2310, 250 NTU

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Physical	
Weight	4.5 kg (inc 1 metre of cable)
Dimensions (h x w x d)	440 x 225 x 225 mm
Enclosure Rating	IP68
Enclosure Material	Black Acetal Co-Polymer
Cable Entries	Integral Cable Gland
Process Connections	Inlet and Bypass ½" BSP with 12 mm Hosetail fitted
	Outlet 1/4" BSP with 8 mm Hosetail fitted
Wetted Parts	Black Acetal, Glass, Stainless Steel and PVC Connectors
Seal Material	Nitrile
Cable Type	3 x 4 Core Polyurethane Coated Cables
Cable Length	1 metres standard, 5 metres maximum
Cleaning Frequency	User selectable from 10 seconds to 99 hours
Service Requirement	Automatic Self Cleaning
Environmental Data	
Operating Temperature	0 to 50°C
Storage Temperature	-20 to 60°C
Location	Indoor or in protective enclosure
Power Supply	
Voltage	12VDC from WaterWatch2300 Monitor
Interface to Monitor	
Type	mVolt Signal
Measurement Characteristics	
Accuracy	+/- 2% FSD up to 100 NTU
	+/- 5% FSD from 100 to 500 NTU
Sensitivity	Better than 0.02 NTU
Repeatability	+/-1% FSD
Sensor Stability	Better than 6 months between calibration
Measurement Principle	Light Scatter – ISO 7027 Compliant
Response Time	Typically 90% step change in 2 minutes at 1 l/min
Pressure Rating (Depth)	3 Bar
Flow Rate	0.5 to 5 l/min
Maximum Range	0 – 500 NTU
Minimum Range	0 – 5 NTU
Software	
Remote Programming	No
Mounting	
Installation Type	Flowcell
Approvals	
EMC	EN50082-1 (1994) Residential, Commercial, Light Industry
EMC Directive	89/336/EEC
Low Voltage Directive	73/23/EEC

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