



SoliTechw² IL Sensor

Sludge Density and Suspended Solids Sensor

PRODUCT DATASHEET

APPLICATIONS

Primary and Final Settlement
Sludge Thickening and Dewatering
Sludge Import and Export
RAS Control

MEASUREMENT PRINCIPAL

Sapphire Optical Window
180° Back Scatter
Infrared 960 nm

FEATURES

Ball Valve Mounting to allow removal
under pressure
Can be installed in existing pipework
Insensitive to Entrained Air

BENEFITS

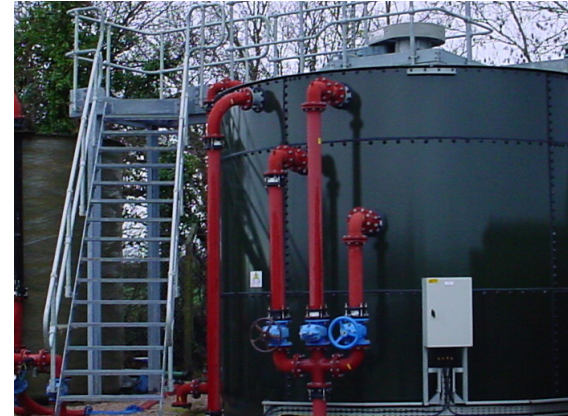
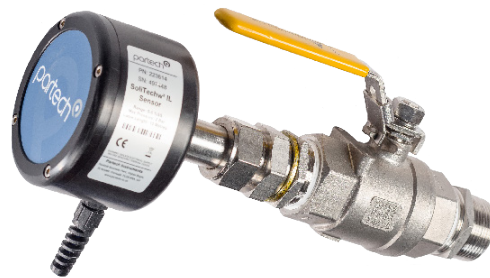
Reduced sludge transportation costs
Allows fully automatic tank de-sludging
Improved sludge treatment

COMPATIBLE MONITOR

7300w² Monitor

ALTERNATIVE SENSOR

TurbiTechw² LA
TurbiTechw² HR



The SoliTechw² IL Sensor provides reliable and repeatable, continuous in-line measurement of sludge density, suspended solids and turbidity. The sensor is installed through a mounting boss onto any pipeline that is larger than 65 mm diameter, the sensing element is positioned flush with the inside wall of the pipe. This ensures that the optical surface is kept clean by the flow passing the sensor and that the sensor does not cause an obstruction to the flow. The optical element has a sapphire window, this offers excellent resistance to fouling and to damage caused by abrasion from particles in the flow.

The sensor is suitable for a variety of applications including the auto de-sludging of primary and final settlement tanks, where reliable sludge density measurement ensures that downstream treatment processes can operate at their optimum level. When detecting turbidity the sensor can give immediate warning of a filter failure or of contamination of a process by suspended particles. The sensor is also well suited to the monitoring of sludge at tanker intake points, giving an excellent indicator of the strength of the incoming liquor allowing both process adjustments and the charges to be applied to the tanker operator.

The sensor uses infrared back-scatter at 960 nm, the light is transmitted and received through a lens that is optically split. The infrared measurement principle allows the sensor to work in applications where entrained air prevents the use of ultrasonic sensors.

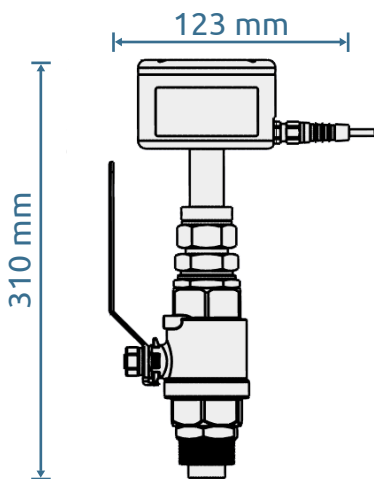
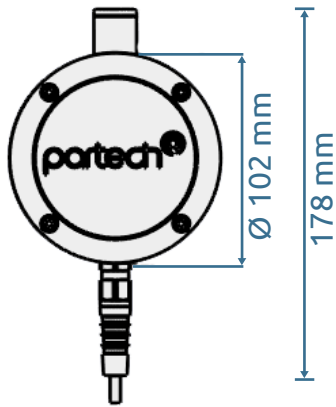
Call us on + 44(0) 1726 879800 www.partech.co.uk



SoliTechw² IL Sensor

Sludge Density and Suspended Solids Sensor

PRODUCT SPECIFICATION



Order Codes

Part No	Description
223614	SoliTechw ² IL Sensor (Range: 0-50,000 mg/l, Cable Length: 10 metres)
223890	SoliTechw ² IL Sensor (Range: 0-50,000 mg/l, Cable Length: 20 metres)

Publication No: 223614DS-Iss14

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

Physical

Dimensions
Weight
Enclosure Rating

Enclosure Material
Cable Entries
Wetted Parts
Cable Type
Cable Length
Service Requirement

310 mm long
3.9 kg (inc 10 metres of cable and ball valve)
Sensor Body: IP65
Optical Housing: IP68
Black Acetal Co-Polymer
Integral Cable via Cable Gland
316 Stainless Steel, Sapphire
4 Core, 2 Twisted Pair, 5 mm O/D Polyurethane Coated
10 metres standard, 100 metres maximum
No routine servicing
Will require manual cleaning frequency application dependent

Environmental Data

Operating Temperature

0 - 60°C

Interface to Monitor

Power Supply
Sensor Output

12VDC from 7300w² Monitor
ModTechw², RS485

Measurement

Ranges
Accuracy
Limit of Detection
Minimum Operating Range
Measurement Principle
Wavelength
Pressure Rating
Flow Rate

0 - 50,000 mg/l
±5% of reading or ±250 mg/l whichever is greater
250 mg/l
0 - 5,000 mg/l
Back Scatter
960 nm Infrared
2 Bar
Not affected by flowrate, sample should be mixed avoiding laminar flow

Mounting

Installation Type

Process connection
Minimum Line size

In-Line via Mounting Boss, alternatively a flanged pipe section can be provided
1 1/4" BSP Male thread
65 mm

Call us on + 44(0) 1726 879800 www.partech.co.uk



Address: Rockhill Business Park, Higher Bugle, St Austell, Cornwall PL26 8RA, UK E: info@partech.co.uk