

Soli-Tech 20 Sensor



Sludge Blanket,
 Suspended Solids and
 Turbidity Sensor

— INDUSTRIES

- Sewage Treatment
- Industrial Waste Water
- Paper and Pulp
- Mine and Quarry Water
- Food and Beverage Effluent

— APPLICATIONS

- Final Settlement Tanks
- Primary Settlement Tanks
- Humus Tanks
- Clarifiers
- Sludge Thickeners

— FEATURES

- Low Cost
- Simple Maintenance
- Wide Range of Applications
- High Sensitivity
- Easy Installation

— BENEFITS

- Warning of Pollution Problem
- Improved Sludge Blanket Consistency
- Reduction of Tanker Costs
- Automatic Tank Desludging
- Warning of Consent Failure

The Soli-Tech 20 sensor is designed for the measurement of suspended solids, sludge density, or turbidity in a wide range of applications, including sludge blanket detection, activated sludge and final effluent.

When monitoring the Sludge Blanket Level in settlement tanks, it is important to ensure that the instrument is sensitive enough to detect low density solids before 'carry-over' to the next process stage. Thus ensuring that potential pollution events are highlighted before they occur. The infrared absorption principle is ideal for this application and has proved to be highly reliable and cost effective.

The Soli-Tech 20 is equally applicable to the measurement of Suspended Solids or Turbidity providing a low cost option, and can easily be cleaned using a soft cloth.

Installation is straightforward and can be carried out without special tools, and in most cases Partech's mounting brackets can simply be attached to local handrails. In Sludge Blanket Detection the sensor is simply hung from the cable using a standard mounting bracket. This allows immediate access for cleaning without the need for mounting shafts. In applications where the sensor is to be placed in a flow, a mounting shaft can be added to the sensor and a range of mounting brackets are available to suit most applications.

DATA

General Specifications

Operation Voltage:	12VDC (Supplied by Monitor)
Cable Type	4 core, loosely twisted, Polyurethane Coated.
Standard Cable Length	10 metres
Maximum Cable Length	100 metres
EMC	EN 50081-1, EN 50082-1
Maximum Pressure	10 Bar
Operating Temperature Range	-10 to 60°C
Environmental Rating	IP68
Wetted Materials	316 Stainless Steel, Acetyl Co-Polymer, Nitrile 'O' Rings, Glass
Weight	1 Kg (without mounting shaft or bracket)
Dimensions	Length 260mm, Diameter 76mm (without mounting shaft or bracket)

Measurement

Light Source	Infrared LED, 880nm
Measuring Principle	Light absorption, 20 mm nominal gap
Linearity	±2% FSD (Linearised by Monitor)
Accuracy	±5% FSD (Actual Sample)
Repeatability	±1% FSD

Ranges*

Version	Minimum Range	Maximum Range
Soli-Tech 20 Sensor - Range 0-200	0-20	0-200
Soli-Tech 20 Sensor - Range 0-1500	0-150	0-1,500
Soli-Tech 20 Sensor - Range 0-10000	0-1,000	0-10,000
Soli-Tech 20 Sensor - Range 0-30000	0-3,000	0-30,000

* All statements regarding range are based on the typical solids found on a sewage treatment works



Typical Applications

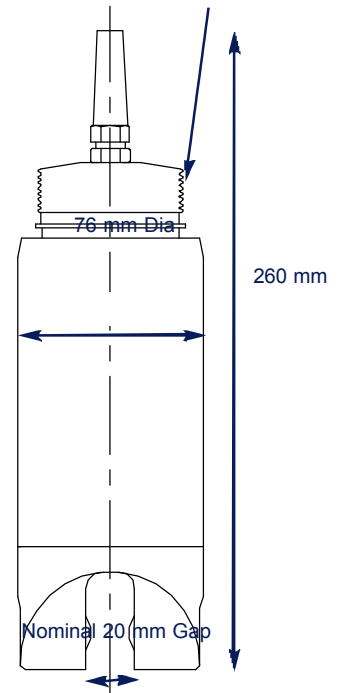
2" BSPP Thread

Sludge Blanket or Interface Detection

Sewage Treatment, Final Settlement Tank	Range 0-1500
Water Treatment, Clarifier	Range 0-1,500
Sewage Treatment, Primary Settlement Tanks	Range 0-10,000
Water Treatment, Sludge Thickeners	Range 0-10,000
Sewage Treatment, Sludge Thickeners	Range 0-30,000

Suspended Solids

Final Effluent Suspended Solids or Turbidity	Range 0-200
Mixed Liquor Suspended Solids	Range 0-10,000



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ORDERING INFORMATION

Part Number	Description
179090	Soli-Tech 20 Sensor - Range 0-200
179100	Soli-Tech 20 Sensor - Range 0-200, for ASLD 2200
179110	Soli-Tech 20 Sensor - Range 0-1500
179120	Soli-Tech 20 Sensor - Range 0-1500, for ASLD 2200
179130	Soli-Tech 20 Sensor - Range 0-10000
179140	Soli-Tech 20 Sensor - Range 0-10000, for ASLD 2200
179150	Soli-Tech 20 Sensor - Range 0-30000
179160	Soli-Tech 20 Sensor - Range 0-30000, for ASLD 2200
171290	Mounting Bracket for Soli-Tech 20 Sensor to Handrail

Other mounting equipment is available, contact your Partech representative for details



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