



SoliTech IR Sensors (Suspended Solids Sensors)

The SoliTech Infrared (IR) Sensors measure total suspended solids, sludge density and turbidity by producing an infrared signal that is reduced by the thickness of the sludge, making them ideal for a range of applications including mixed liquor suspended solids, total suspended solids and sludge blanket detection.

The sensors provide a robust and accurate method of TSS detection. The machined housing provides excellent resistance to impact, temperature and chemical attack. The only maintenance required is periodic cleaning of the optical surfaces.

SoliTech IR Sensors come in four ranges to maximize accuracy across multiple wastewater applications. With portable and fixed-installation options, SoliTech IR Sensors provide a complete solution.

Take manual measurements with the 750 Portable Monitor.

Connect the sensors to a 750 Portable Monitor via a high-quality IP68 connector for instant suspended solids, turbidity and sludge density spot-check readings.

Connect to the 7300 Monitor for continuous sludge blanket detection.

SoliTech IR Sensors are also available with a stripped-and-tinned cable termination to connect to the 7300 Monitor for continuous sludge blanket level monitoring, with easy transmission to a control system and a simple radio integration if needed. The system can be mounted outdoors on the settlement tank bridge using an IP65-rated enclosure.

FEATURES

- Low-contamination design
- Enhanced reliability
- Simple operation
- Low cost of ownership
- High sensitivity

COMPATIBLE MONITORS

- 750 Portable Monitor
- 7300 Monitor



Applications:

- Suspended Solids Monitoring
- Mixed Liquor (MLSS)
- Aeration Basin
- Oxidation Ditch
- Returned Activated Sludge
- Surplus Activated Sludge
- Final Effluent Suspended Solids
- Sludge Blanket Level
- Filter Breakthrough Monitoring
- Activated Sludge

PHYSICAL		SoliTech Sensor	
DIMENSIONS	95 x 25 mm (3.7 in x .98 in) (H x D)	CABLE TYPE	4 core, 2 twisted pair 5 mm (.20 in) O/D Polyurethane Coated
WEIGHT	0.7 kg (1.5 lb) inc 5 m (16 ft) of cable	CABLE LENGTH	10 m (33 ft) standard, 100 m (328 ft) maximum
NOMINAL GAP SIZE	0-200 mg/l Range: 100 mm (optical path) 0-1,500 mg/l Range: 40 mm (optical path) 0-10,000 mg/l Range: 15 mm (optical path) 0-30,000 mg/l Range: 8 mm (optical path)	OPERATING TEMPERATURE	0 to 50°C (32F to 122F)
		PROTECTION CLASS	IP68

MEASUREMENT

MEASUREMENT PRINCIPLE	Light Absorption
WAVELENGTH	950 nm
UNITS	mg/l, g/l %, NTU, FTU, FNU, FAU

STANDARD SENSORS	SETPOINT	TYPICAL APPLICATIONS	RANGE	LIMIT OF DETECTION	MINIMUM OPERATING RANGE	ACCURACY
IR8 Sensor	5% to 95% of range	Sewage Treatment Thickeners	0 - 30,000 mg/l	150 mg/l	0 - 3000 mg/l	±5% of measured value or ±150 mg/l whichever is greater
IR15 Sensor	5% to 95% of range	Water Treatment Sludge Thickeners Sewage Treatment Primary Tanks	0 - 10,000 mg/l	50 mg/l	0 - 1000 mg/l	±5% of measured value or ±50 mg/l whichever is greater
IR40 Sensor	5% to 95% of range	Water Treatment Clarifiers Sewage Treatment Final Settlement Humus Tanks	0 - 1,500 mg/l	7.5 mg/l	0 - 150 mg/l	±5% of measured value or ±7.5 mg/l whichever is greater
IR100 Sensor	5% to 95% of range	Water Treatment	0 - 200 mg/l	1 mg/l	0 - 20 mg/l	±5% of measured value or ±1 mg/l whichever is greater
WARRANTY	2 years					

NOTE: SENSOR RANGES AND DETECTION POINTS ARE APPROXIMATE AND DEPEND ON THE SITE-SPECIFIC NATURE OF THE TREATMENT PROCESS.

