



SUSPENDED SOLIDS MONITOR

InsiteIG 1500



Single channel fixed site transmitter



Standard Solids sensor

Features:

- Near IR single path absorption sensor.
- Autocompensation for Temp & aging
- Automatic optional Air/liquid cleaning
- Optimal preprogrammed response curve
- Single/double/multiple channel and portable versions available
- Backlit LCD display
- Analogue and digital outputs + optional profibus
- Two sensor ranges
- Four mounting options

Benefits:

- Measurements are accurate regardless of
 - Sample Colour
 - Sample temperature

- Minimal maintenance & calibration
- Automatic error detection
- 2 yr Warranty

Applications:

- Activated sludge monitoring & control
- Final effluent monitoring
- Process monitoring
- River monitoring stations



Sensor variants for differing applications

SoISys: 1500 is a near infrared (880nm) optical absorption, Suspended Solids sensing system from InsiteIG, ideal for use in wastewater treatment works for the measurement of MLSS/RAS & final effluent quality.

The system combines advanced electronics with solid state sensing technology, giving a unique and unbeatable performance in its design applications. The absorption to solids look up curve is preprogrammed to give the best possible fit with all mixed liquors/return sludges and final effluents, only requiring infrequent zero and single point calibration.

Different sensor ranges & configurations are available to meet different applications, and optional air cleaning reduces maintenance to a minimum.

The 1500 is a single channel unit, double and multiple channel units are also available & accommodate DO, SS, pH and ORP in any combination.



System Specification

Operational Principle:	Based on single path optical absorption at near infrared (880nm)
Range:	0-30000mg/l SS, Low range : 0 – 1500mg/l
Resolution:	1 mg/l (for <1000 mg/l), 10mg/l (for 1000- 9999mg/l), & 100 for > 10000mg/l
Repeatability:	+/- 0.5% of reading
Accuracy:	3% of reading
Sensor Drift:	<1% per year
Response Time:	90% in < 60 secs
Temperature compensation:	0-65 °C

Transmitter/Controller Specification

Mechanical Construction:	Dimensions l x h x d	312x225x150 mm (approx)
	Weight:	4 kg (approx)
	Materials:	Fibreglass
	Ambient conditions:	-40 to 55 °C, 0-100% Humidity
	Weather Protection:	NEMA 4X
	CE:	Compliant
Outputs:	Display:	Two line back lit LCD with extended temp range and UV resistant
	Analogue:	1 off 0/4–20 mA optically isolated, for SS.
	Relays:	2 off form C 10/6 Amps load @ 125/250 VAC 2 off form A 10/6 Amps load @ 125/250 VAC 1 dedicated to jet clean, 3 user programmed
	Dig. coms:	RS 232 and modbus RTU
Power requirements:	Supply voltage:	115 VAC -60Hz, 230VAC -50 Hz
	Load:	30Watts With air clean: 750 Watts surge 440Watts running

Sensor assembly Specification

Mechanical Construction:	Materials:	Epoxy, silicone, Polyurethane
	Dimensions:	38mm dia(nominal), support pole 3m nominal
	Weight:	~1 Kg excluding support pole + bracket
NOTE: Physical dimensions dependant on sensor variant chosen		
Process conditions:	Medium Temp	0-65 °C
	Medium Pressure	100PSI max
	Max dist. To controller	610m

Ordering Information

When placing an order it is important to indicate the following requirements to our sales staff:

1. Are you sure you only want a single channel SS system (there are 2, 4 and 8 channel systems available capable of measuring DO and SS in any combination).
2. What SS range do you want to measure and what is the medium?
3. What mounting arrangement is required, i.e. in tank, in pipe etc ?
4. What cable length is required? This must take account of the length of the support pole (if in use), the distance between transmitter and sensor position and the excess free length required in order to lift the sensor pole out of the channel.
5. Do you require pole mounting? If so what pole length is required? The standard length is 3m.
6. What is the rail diameter to which the pole support bracket is to attach?
7. Do you wish to wall mount or rail mount the transmitter. If rail mount, what is the rail diameter?
8. Do you require air cleaning? If so is site air available or will you provide your own compressor? Please state if you wish us to supply an integral compressor.
9. Do you require liquid cleaning, will you provide the pressurised liquid?
10. What analogue and digital outputs are required and what ranges/values should be preprogrammed

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