



SoliSense

Turbidity and Suspended Solids Monitor



With the SoliSense® range of Suspended Solids/Turbidity analysers you get a world's first sensor. The first sensor to successfully incorporate four measuring technologies. For multiple measuring ranges the one sensor can monitor Turbidity and Suspended Solids from 10 NTU to 2%* solids in one sensor.

- Autoclean optical sensor
- Stable and reliable - excellent process control
- Suitable for all potable, waste and process waters
- Up to 6 months between maintenance
- Up to 3 months between calibration
- From 10 NTU to 2%* Solids
- Up to 10 Bar



The SoliSense® sensors are available with different controllers giving you the same great performance with different communication, display, and control options. With the SoliSense range of suspended solids meters, you get everything that you need - and nothing that you don't, without sacrificing the quality of measurement.

CRONOS® SoliSense



- High Quality - Lowest Cost
- Multilingual
- High resolution grayscale display
- 9 buttons for easy navigation
- Graphing and datalogging
- Enclosure; wall, panel, pipe or pole mounting. IP65/Nema 4x.
- Options:
 - Modbus LAN
 - Modbus RS485
 - Profibus
 - Up to 2 sensors
 - PID controls
 - Flow proportional controls
 - Remote sensors

CRIUS® SoliSense



- Highest Quality - Low Cost
- Multilingual
- High resolution colour display
- Intuitive user interface
- Customisable home pages
- All CRONOS® options plus:
 - Downloadable data logs
 - Up to 4 sensors
 - Remote access via LAN
 - Remote access via GPRS
 - Expandable to 16 sensors

For more information please see the individual brochures for CRONOS® and CRIUS®

Installation Options

- In line mounted



- Dip mounted



- Pipe mounted



Principle of Operation

Each probe is equipped with 2 light sources and 3 detectors. Each light source uses long-life emitters (at least 20,000 operating hours), and these are turned off when not required to conserve energy and extend the life.

By using multiple light emitters and detectors in a single probe it is possible to:

- Measure solids from 10 NTU to 2%* solids
- Monitor and compensate for fouling of the optics
- Monitor and compensate for aging of the optics
- Measure the side scattering of light (ISO7027 requires a 90° side scatter measurement). (NTU)
- Measure transmitted light (low % solids)
- Measure the back scatter of light (higher % solids)

The electronics provide a fully scalable output allowing the SoliSense® to measure any part, or the whole of measurement range. The sensor probe comes equipped with the capability of having a water jet regularly sweep over the optical lenses keeping them clean.

If you have an application that ranges from low NTU all the way to %age solids then the CRIUS® SoliSense® is certainly the monitor for you! With only 3 or 4 calibration points you can accurately monitor your process all the way from low NTU to 2%* solids.

The probes are stainless steel and are built to work in the demanding environment of a WwTW. If you want to monitor solids at any point in your waste water treatment plant, this instrument has the self cleaning sensor and accessories to do it. The SoliSense has proven particularly effective of MLSS, RAS and SAS measurements (Mixed Liquid Suspended Solids, Return Activated Sludge and Surplus Activated Sludge).



Dip



Bypass

* Determined by the optical density of the solids - dark waste water ~2% solids, other materials up to 25% solids

Specification*

Signal:	The SoliSense® sensor provides up to four user selectable outputs, which are proportional to the measured concentration range selected
Range:	Selectable 10 mg/l to 25%* Dry Solids. 10 NTU to 4000 NTU
Typical Ranges:	10-4000 NTU, 0-2% solids, 20-20,000 mg/l
Accuracy:	< 1% of measuring range end value
Reproducibility:	0.5 %
Weight:	Installation type ca. 1.5kg Immersion type ca. 0.5kg
Comms:	TCP/IP, Modbus, RS232, RS485, 4-20mA
Power supply:	100-250 V AC, 50/60 Hz 8-36 V DC
Ambient temperature:	-20 to +50°C
Process temperature:**	0-50°C
Lamp Source:	IR LED
Housing Materials:	Wetted parts, stainless steel, sapphire glass, and viton
Cleaning Cycles:	User settable cleaning cycle time and cleaning time
Cleaning:	Autoclean water or air jet
Reliability:	Simplified design with no moving parts
Durability:	Hard-wearing stainless steel/epoxy/sapphire glass
Pipe Options:	Pipe connection, pipe insertion or immersion versions to suit individual applications
Enclosure rating:	IP65
Display:	Value and Alarms at the same time, controller dependent
Resolution:	1 NTU

* All subject to change without notice

** Short term drift will occur in processes where the rate of change of temperature is greater than 0.5°C per minute.