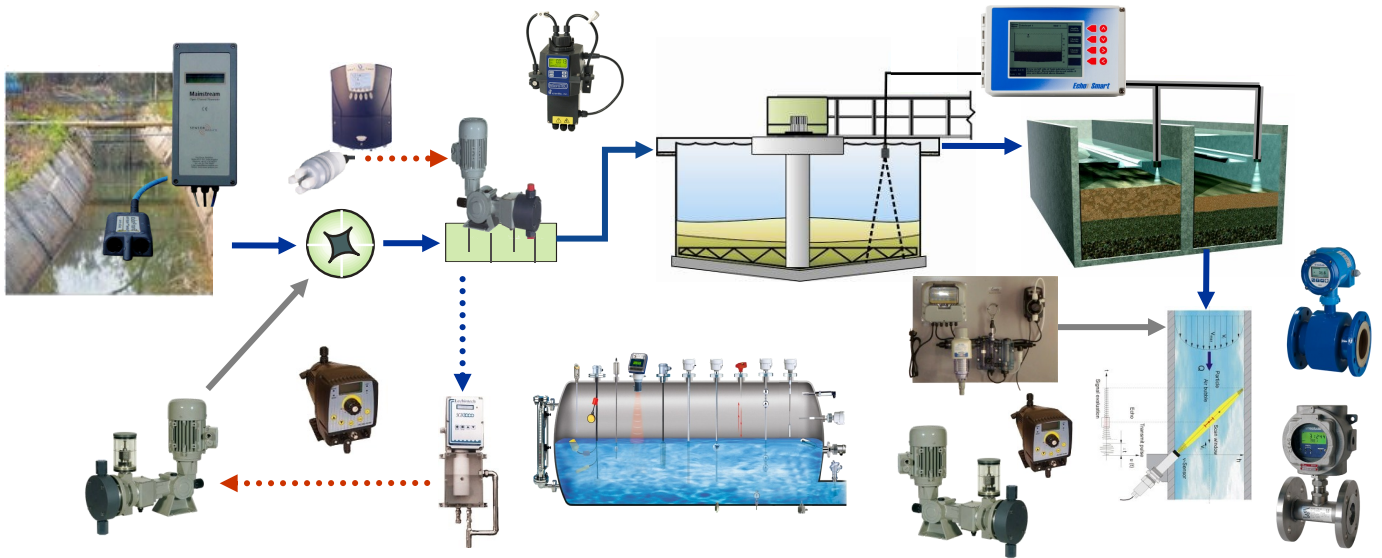


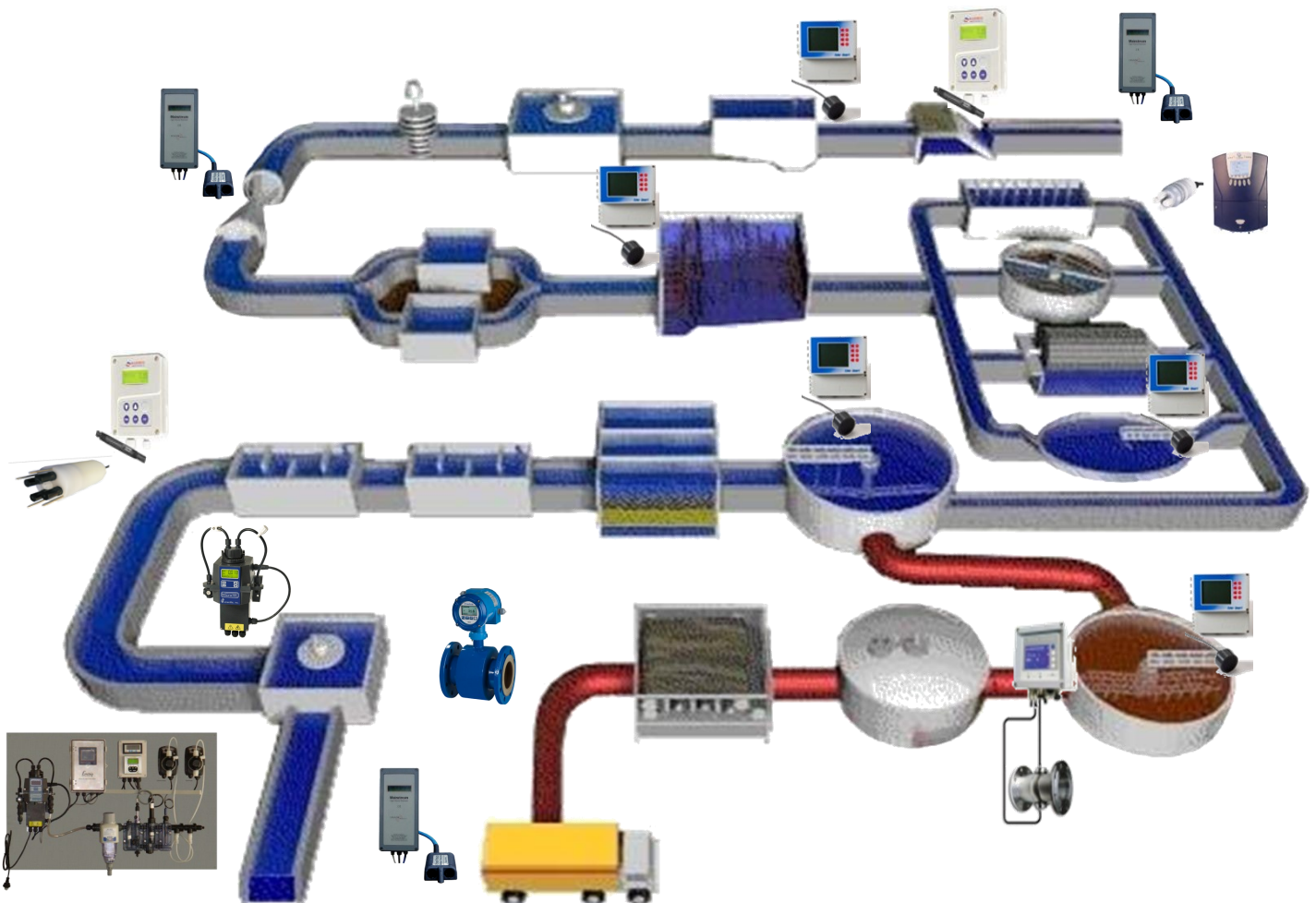
Optimisation & Control

Water Treatment

PROCESS
CONTROL
SERVICES
PTY LTD



Wastewater Treatment



Online Turbidimeter

Model MicroTOL

Designed for filtered water, raw water, waste water final effluent & industrial applications.

- Nephelometry measurement principal.
- Ranges 0 – 100 NTU & 0-1000 NTU.
- Fast response & easy calibration.
- Accurate, reliable & cost effective.
- Certified to CE, UL, CSA (ETL, ETLc).
- With ultrasonic cleaning

All MicroTOL Models include:

Backlight display, 4-20 mA, RS-485/Modbus, inline pressure regulator, desiccant, universal power supply (100-240VAC), & operator's manual.

MicroTOL 2 also includes spare measuring cuvette with light shield. Calibration kits must be ordered separately. *Pro Cal* custom NTU values available.



Inline Turbidity Meter

QuadBeam Suspended Solids Measurements

Waste Water Treatment

Primary Sedimentation Tanks: control of sludge withdrawal.

Aeration Tanks: Control of Mixed Liqueur Suspended Solids.

Secondary Clarifiers: Inlet Suspended Solids (Solids Load), Overflow Monitoring and Control of Sludge Withdrawal.

Sludge Dewatering: Flocculation Control, Performance Monitoring.

Final Effluent: EPA Compliance monitoring.

Water Treatment

Flocculation Control, Clarifier Sludge Withdrawal, Sludge Thickener Control & Filter Backwash Control.

MXD75 + Sensor T30

- Scattered light measurement
- Digital communication
- Up to 3 sensors on one transmitter
- Simple menu driven interface
- LCD display
- Measuring range: 0-50NTU / 0-1000NTU



Suspended Solids

- The QUADBEAM Sensors use advanced optical technology to provide stable, reliable and robust suspended solids measurements for industrial applications and harsh environments.
- Measurement ranges from 0-100 NTU up to 0-25 g/l activated sludge. 0-4% for Coal Dust.
- Suitable for immersion into tanks and insertion into pipes. A variety of accessories are available for installation.
- Fully configurable electronics unit with 4-20mA output and 2x relay outputs. Available in 1, 2 or 3 Channel versions.
- Measurement automatically compensates for variation in optical components & sensor fouling to eliminate drift to provide stable measurement.



Applications of the Microwave Technology

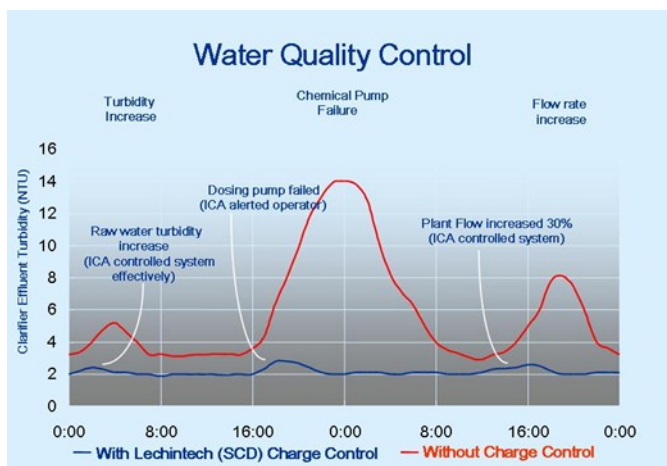
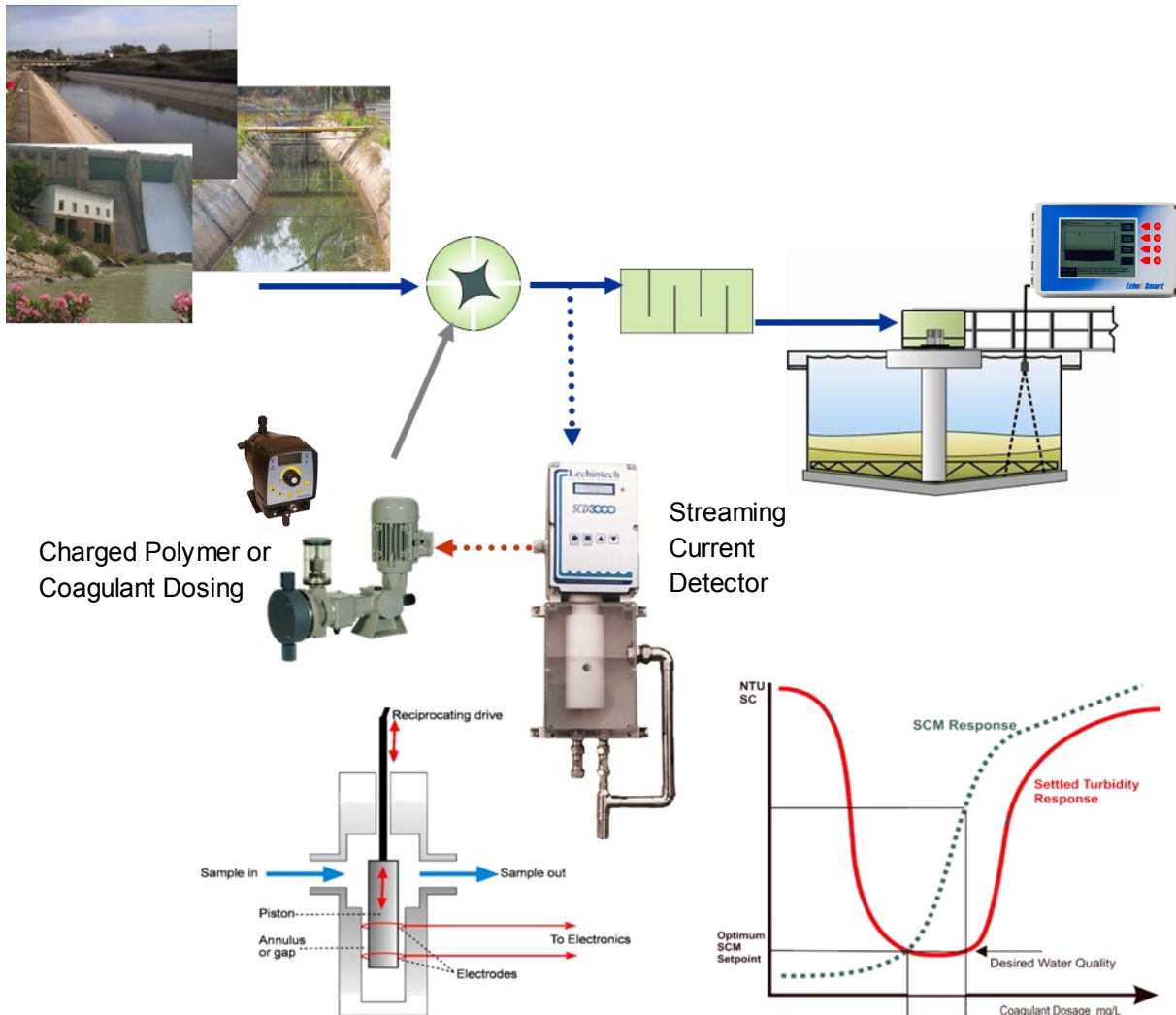
- Concentration - Density
- Thickens sludge
- Digested sludge
- Waste sludge

ProMtec (Microwave Technology)

- Microwave measurement
- Connection via coaxial cables (max. 150m)
- Isolated 4-20mA output
- Up to 10 Bar pressure rating



Streaming Current Detection for Optimisation and Control



- Easy to set up & calibrate
- Keypad navigation
- Draw a post dosed sample
- Monitor the sample charge
- Process the signal in a control device
- Send alarm messages to the operator
- Close the automation control loop for coagulation dosing via 4-20mA output

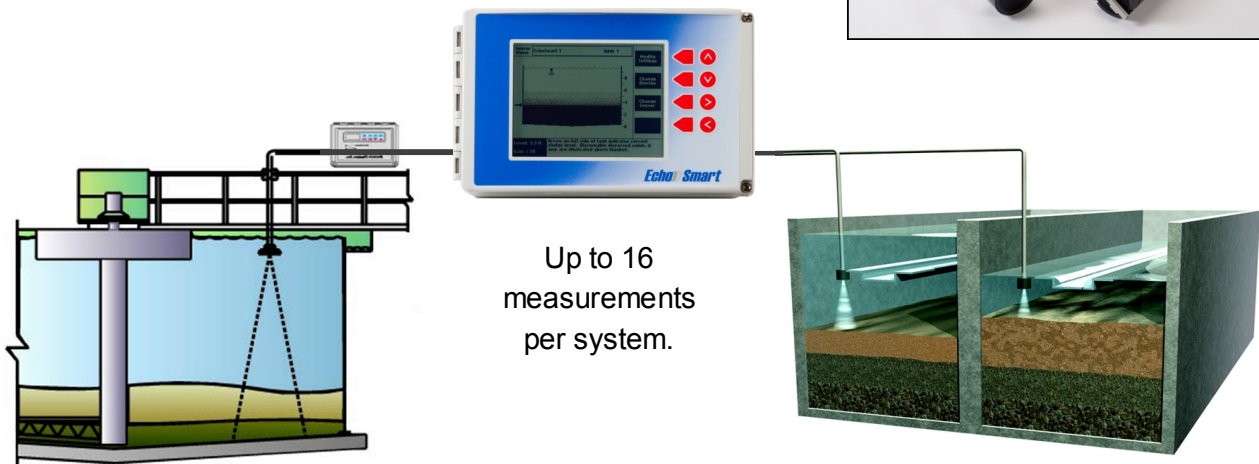
Interface Level Measurement

For Sludge Blanket & Filter Bed Expansion

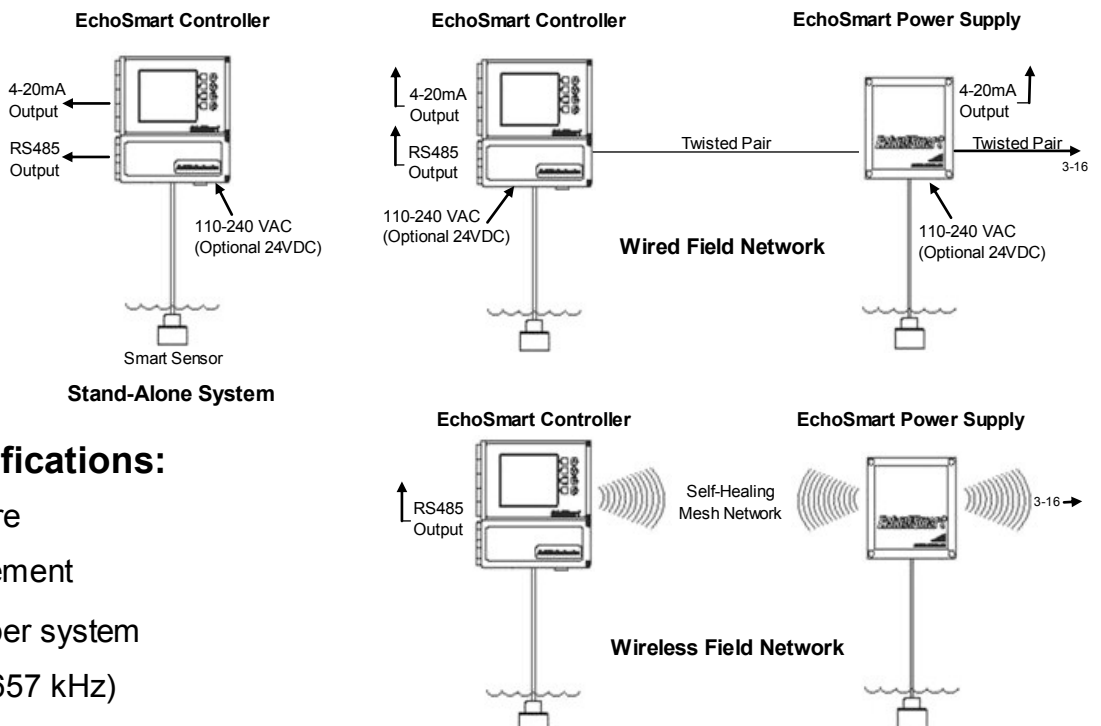
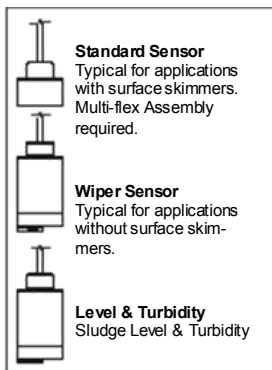
Water: Clarifiers, Sludge Thickeners, Filter Bed Expansion

Wastewater: Primary & Secondary Sed. Tanks & Sludge Thickeners

- Frequency specifically for Water & Wastewater applications.
- Detection of interface & dispersion layer
- 4-20mA or radio link on output signal
- Optional turbidity sensor



Smart Sensors Available



EchoSmart Specifications:

- NEMA 4X enclosure
- Real time measurement
- Up to 16 sensors per system
- Ultrasonic signal (657 kHz)
- Self-cleaning wiper sensor (option)
- Fully integrated Zig Bee Compliant RT
- Wired & Wireless field network (RS-485 & Ethernet options available)

Optical Sensor Technology

New sensor technology for oxygen measurement provides exceptional measurement performance and stability.



- Simple, easy installation.
- Direct insertion into aeration tank.
- No need for floats or other costly mechanisms.
- Not pressure sensitive, can be inserted at any depth

Benefits:

- No membranes to replace
- No consumables
- No electrolyte to replace
- No flow necessary
- Polypropylene body
- Not damaged by sunlight
- Electronics completely sealed
- Fast, dependable readings
- Multiple measurement
- Optical isolation provides optimum performance in sunlight



FLS ChemX - pH/ORP & Conductivity Controller

- 240 Vac, or 24 Vdc/ac
- 1 x 4-20mA - Recording
- 2 x Relay or OC, Configurable
- IP 67
- Panel or Wall Mount available
- Manual or auto temperature compensation Sensor (PT100/PT1000)
 - ❖ Alarm
 - ❖ Control On/Off, Pulse Width Modulation or Frequency
 - ❖ Auto calibration routine
 - ❖ Simulating Mode
 - ❖ Direct reading of raw probe response for diagnostic purpose & probe condition



Panel Mount

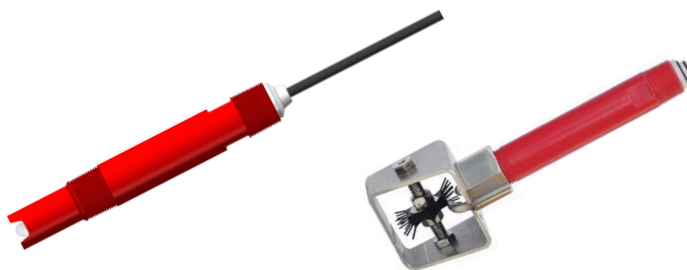


Wall Mount



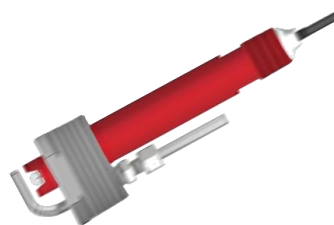
Barben Immersion, Long Life pH Sensor

- Longer lasting performance
- Minimal maintenance
- Options for Auto Cleaning In-Line
- Immersion or in-line installation
- With temperature compensation
- Poison resistant
- pH range: 1-13pH
- Temp range: 0-100°C
- Max. pressure: 150psig (10 bar or 1000kpag)



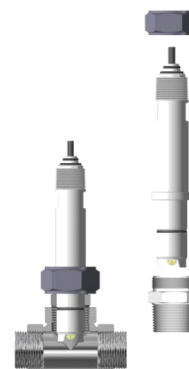
Barben Immersion, Harsh Duty ORP Sensor

- Longer lasting performance
- Minimal maintenance
- Options for Auto Cleaning In-Line
- Immersion or in-line installation
- Non Glass Flat Tip simplifies cleaning
- Poison resistant
- Platinum, Gold or Silver Cyanide Solid Bullet (10 260ppm)
- Max. pressure: 150psig (10 bar or 1000kpag)



Barben Insertion Long Life Probe with Nut Lock Adaptor

- Quick & easy remove & install for checking & calibration
- pH or ORP sensor
- Patented Axial Ion Path™ reference technology increases electrode lifespan in harsh application
- Proprietary low-noise, high temperature signal cable
- Specialized glass formulations
- Universal compatible with all manufacturer's analysers
- Sensor insertion depth from 2.6 to 12 inches (measured rib to tip of sensor)



HUMY 3000 Moisture Measuring System



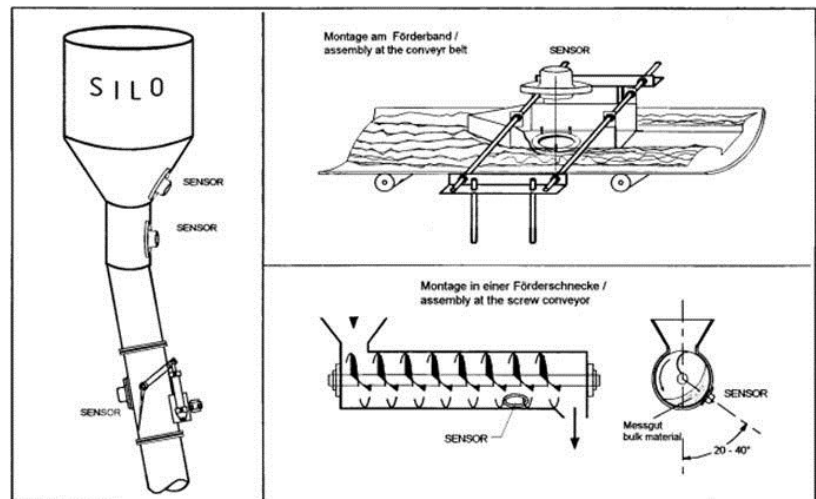
HUMY 3000

Specifications:

- In-line measurements
- Moisture measure range: 0.001%- 50%
- High precision of up to 0.1%
- Digital data transmission (up to 1km)

Features & Benefits:

- Digital sensor
- Up to 24 products
- Temperature compensation
- High resolution and high speed measuring
- Simple & quick installation and calibration
- Safety and long term stability measuring
- Robust maintenance free probe.
- Integrated data logger



CLX - Instrument

CLX OnLine Total or Residual Chlorine Analyzer (Reagent Dependant).

The CLX comes with 4-20 mA & RS-485 Modbus, backlight display, inline pressure regulator, power supply, replacement tubing / cuvette kit (one year supply) & owners manual. Reagents purchased separately.



AccUView OnLine UV % Transmission Analyzer 100 – 240 VAC for pressurized or Gravity Feed Potable Water Systems.

Each unit includes 4-20mA output with isolator, two alarm contacts, inline flow & pressure regulator, desiccant, power supply, Standard 100% T, Spare cuvette with Ultrasonic Transducer & operator's manual.



AccUView OnLine Wastewater UV % T Analyzers.

Each unit includes Stainless Steel (304) Enclosure with window for viewing of analyzer, spare cuvette, spare flow through assembly, 4-20mA with isolator, backlight display, bellows pump, power supply, desiccant, 500ml of 100% T water & 50 feet of source drain tubing.

- AccUView WASTEWATER OnLine UV% T Analyzer, 100-240 VAC.
- AccUView WASTEWATER OnLine UV% T Analyzer with Heater, 100-240 VAC



Standards & Reagents

ProCal Primary Turbidity Standards (for Hach® Instruments)

ProCal primary standard turbidity standards are pre diluted, factory certified*, & ready for use with Hach® process, laboratory & field instruments, as well as the HF Scientific product line & other manufacturer's instrumentation. The ProCal standard formula utilizes a preservative that enhances stability, yet it is safe & biodegrades rapidly. Custom NTU available.

Available pre-diluted standard: 0.0, 1.0, 10, 20, 100, 200, 800, 1000, & 4000.

Standards certified *for use with the Hach® Company's turbidimeters.

Hach® 1720 c/d/e Process Turbidimeter

Hach® 2100N Laboratory Turbidimeter

Hach® 2100Q Portable Field Turbidimeter

ProCal litre
For Hach® 1720



Standards certified * for use with the Hach®
Company's 2100N turbidimeter
Hach® 2100AN Laboratory Turbidimeter



Standards certified * for use with the Hach®
Company's 2100P turbidimeter

Hach® 2100P Portable Field Turbidimeter



Chlorine Testing

PPD-2 DPD Powder Pop® Dispenser

The HF PPD-2 DPD Dispenser is compatible with HF & many more non-HF Scientific photometers.



PPD-2 DPD Powder Pops®

Chlorine Micro Check Test Strips

(bottles of 50 strips)



J.A.W. Reagents for use in the Hach® CL 17 & HF CLX

MicroTOL – Field Turbidity

MicroTPW / TPI – Instruments.

Includes carrying case, one set of calibration standards, indexing rings, 4AAA alkaline batteries operator's manual & measuring cuvettes with light shield caps.

- MicroTPW Portable Turbidimeter (White Light) 0-1,100 NTU
- MicroTPI Portable Turbidimeter (IR) 0-1,100 NTU



DRT – 15CE – Instruments.

Includes: battery charger, sample cuvette w/light shield cap, 0.2 NTU reference standard, recorder output plug & instruction manual.

- DRT - 15CE Portable Turbidimeter 0-1000 NTU (White Light, 120V)
- DRT - 15CE Portable Turbidimeter 0-1000 NTU (White Light, 240V)



MicroTOL – Laboratory Turbidity

Micro100 – Instruments.

Includes a complete set of calibration standards (0.02, 10 & 1000 NTU), two measuring cuvettes with light shield cap & operator's manual.

- Micro 100 WL Laboratory Turbidimeter, 0-1000 NTU, 120V 60 Hz.
- Micro 100 WL Laboratory Turbidimeter, 0-1000 NTU, Universal Power 100-240V 50-60 Hz.
- Micro 100 IR Laboratory Turbidimeter, 0-1000 NTU, 100-240V Universal Power 50-60 Hz.



Micro1000 – Instruments.

Includes a complete set of calibration standards (.02, 10, 100 & 1750 NTU), two measuring cuvettes with light shield caps, operator's manual & plug-in power adaptor.

- Micro 1000 WL Laboratory Turbidimeter, 0-10,000 NTU, 100-240V Universal Power 50-60 Hz.
- Micro 1000 IR Laboratory Turbidimeter, 0-10,000 NTU, 100-240V Universal Power 50-60 Hz.



Chlorine Dosing & pH Neutralisation with Self-Cleaning Pre-Filter



Chlorination Only



Chlorine, pH & Turbidity with Data Logging

Piston and Positive Displacement Pumps

Options & Accessories

- Hydraulic or Mechanical Diaphragm
- Piston
- Polyethylene tanks
- Safety relief valve & back pressure valves
- Injection Valves & Foot Valves
- Hydropneumatic accumulators
- Calibration pot
- Dosing rate: up to 3800 l/hr

SD12



B125



Solenoid Pumps

4 sizes available (l/hr-Bar)

1:	2 - 8, 5 - 5, 7 - 2,
2:	7 - 4, 8 - 2, 10 - 0
3:	3 - 12, 4 - 10, 5 - 8
4:	10 - 4, 12 - 2, 14 - 0

HC897 - ON/OFF Control

- Adjustable stroke rate
- 0-20% 0-100%
- PVDF head
- Input for interlock



HC997 - Proportional Dosing

- PVDF head, viton or EPDM seals
- Inputs: Pulse & 4-20mA with option for pH/ORP
- 4 sizes as above

A Version: pulse input, 4-20mA input, 7 Day Timer

B Version: as for A Version & also with pH & ORP Sensor input.



HC200 Series - ON/OFF & Proportional Dosing

- pH / ORP sensor input or Pulse/4-20mA input
- Stroke length & frequency adjustment
- Input for interlock on level or flow
- Size (l/hr-Bar): 2-8, 4-18, 9-9, 15-4





Switch

Measurement Principles

Thermal Dispersion
Paddle Wheel
Sprung Paddle
Free Paddle
Variable Area (Rotameter)
Impeller
Sprung Float
Electromagnetic

Brands

Tecfluid
FineTek
FlowLine
Industrie Technik
Meister Stromungstechnik
Intek Rheotherm
FIP / FLS

Transmitters

Measurement Principles

Thermal Dispersion
Paddle Wheel
Variable Area
Impeller
Sprung Float
Electromagnetic
Ultrasonic (T/T & Doppler)
Turbine
Rotary Piston (PD)

Brands

Tecfluid
FineTek
FlowLine
Mainstream
Industrie Technik
Meister Stromungstechnik
Intek Rheotherm
FIP / FLS

Indication (Gauges)

Measurement Principles

Paddle Wheel
Variable Area
Impeller
Sprung Float

Brands

Tecfluid
Meister Stromungstechnik
Kytola
FIP / FLS



Switches

Measurement Principles

Bellows
Bourdon Tube
Diaphragm
Capillary
Bi-Metal

Brands

Regulateurs Georgin
FineTek
Industrie Technik

Transmitters

Measurement Principles

Piezoresistive
Thermocouple
RTD (PT100/PT1000)

Brands

Regulateurs Georgin
FineTek
MAC3
Rhombert

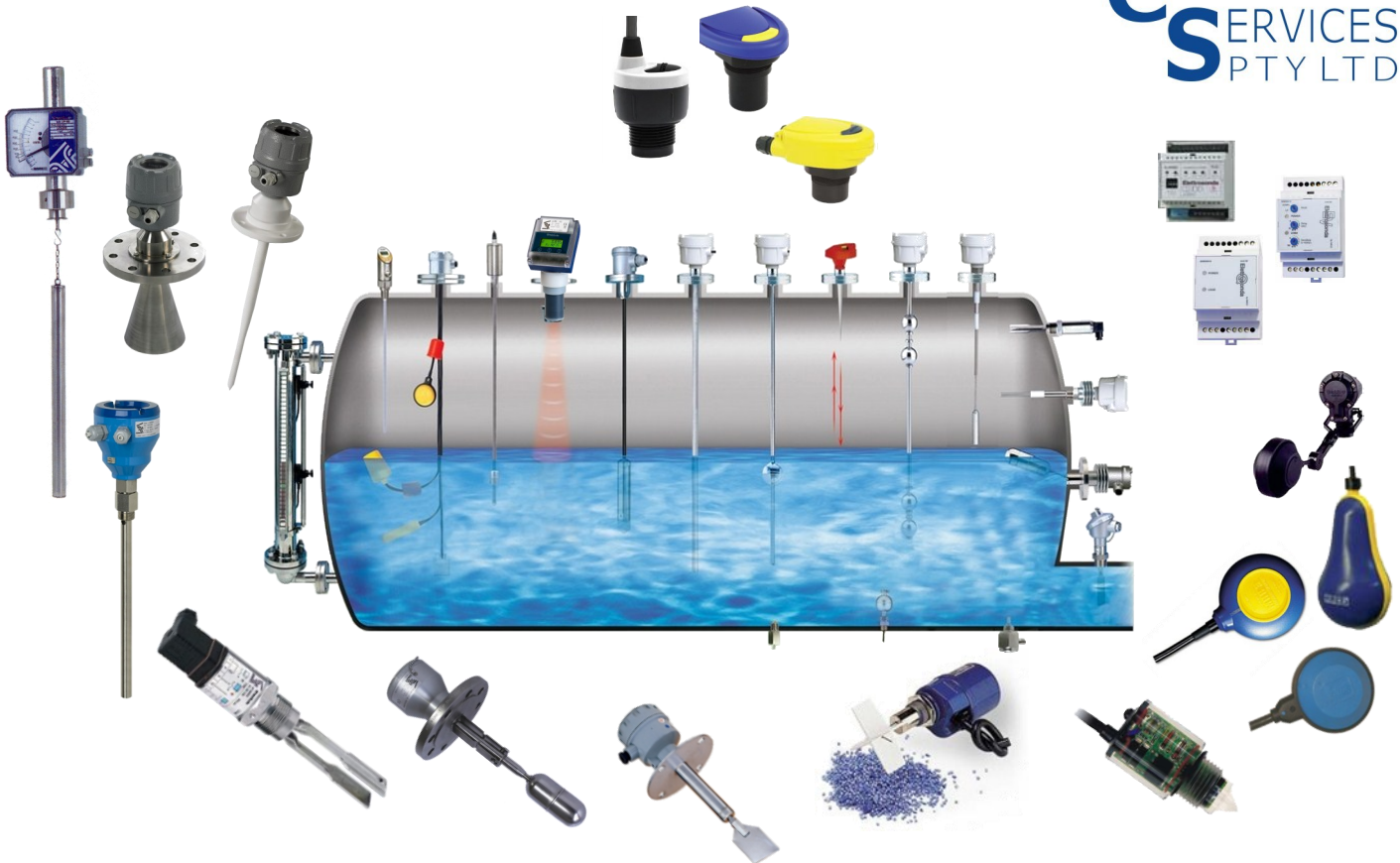
Gauges

Measurement Principles

Bellows
Bourdon Tube
Diaphragm
Capillary
Bi-Metal

Brands

Regulateurs Georgin
Rhombert
Teltherm



Switch

Measurement Principles

Magnetic Float
Side Float
Rotary Paddle
Buoyancy
Capacitance
RF Admittance
Ultrasonic
Cable Float
Vibrating Fork
Conductive
Optical

Brands

Tecfluid
FineTek
FlowLine
MAC3

Transmitters

Measurement Principles

Magnetic Float
Guided & Non-Guided Radar
Magnetostriptive
Buoyancy
Capacitance
Ultrasonic
Hydrostatic (Pressure)

Brands

Tecfluid
FineTek
FlowLine
MAC3

Gauges

Measurement Principles

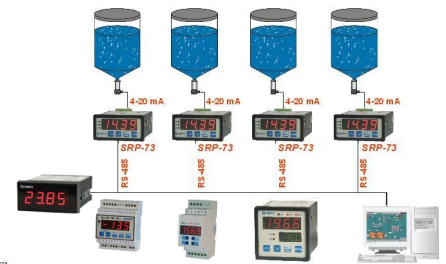
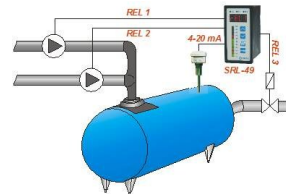
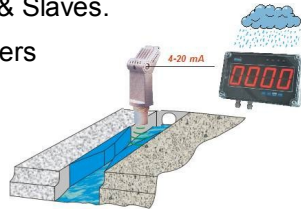
By-Pass Gauges
Sight Glasses (PVC)
Buoyancy

Brands

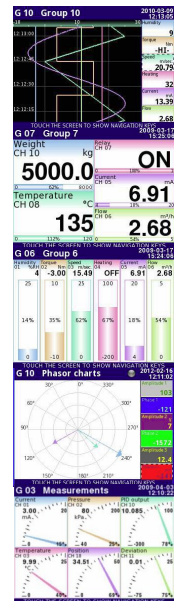
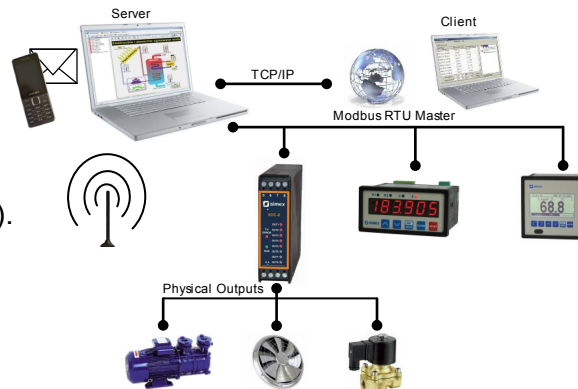
Emteq
Tecfluid
FineTek

Display, Controllers & Loggers

- Pulse & Frequency Inputs & Analogue Inputs.
- Panel, DIN Rail & Wall Mount (IP-65) Enclosure
- Small & Large Displays: 9mm, 13mm, 20mm, 57mm & 100mm.
- Display Only or with Alarm & Control Outputs.
- Panel Sizes: 72 x 36, 96 x 48, 72 x 72, 96 x 96.
- Modbus (RS-485) Masters & Slaves.
- Batch Controllers & Counters
- Bar Graph Display
- Rate, Total or Both.



- 3.5" Touchscreen Colour Display
- Up to 8 Analogue Outputs.
- Up to 16 Digital Outputs.
- Up to 48 Analogue Inputs.
- Up to 12 Universal Inputs (V/I/RTD/TC/mV/R).
- Up to 24 TC Inputs.
- Ethernet Options.
- Modbus RTU.
- USB Host (memory stick).



- 24 Vdc Power Supplies, DIN Rail, up to 5 Amp.
- Clocks, Timers & Time Controllers.
- Large Displays, Modbus Slaves.
- Transmitters: DIN Rail & Puck.
- 4-20mA Signal Isolators.
- Modbus I/O Modules.
- SCADA Software.



SCADA system with local display

Ex Barriers

- Rail Mount
- Back Plane Mount
- Galvanic Isolators
- Zener Barriers
- IECEX Certified
- SIL2 Capability
- HART Compatible

