WESS GLOBAL
Beyond Measurement

Product Catalog

• Sludge Blanket Level Meter
• Sludge Density Meter
• Level Meter
• Flow Meter
• Water Quality Analyzer

WESS Global, Inc.
www.wessglobal.com

E-1904

Ultrasonic Sludge Blanket Level Meter

ENV100 SERIES

CE KC

The ENV100 Series utilizes enhanced ultrasonic technology to measure the sludge interface level in various types of clarifiers, settling tanks and thickeners with superior accuracy and reliability.

Features

· High temp. & chemical resistive sensor
· Implementation superior signal control and tracking algorithms
· Light and heavy layer level measurement with dual frequencies
· Abnormal signal filter

Applications

· WWTP / WTP
· Purification plant
· Industrial waste water treatment plants
 (Power Plant, Steel Mill, Semiconductor, Petrochemical, Food&Beverage)

Composition

Controller

Sensor

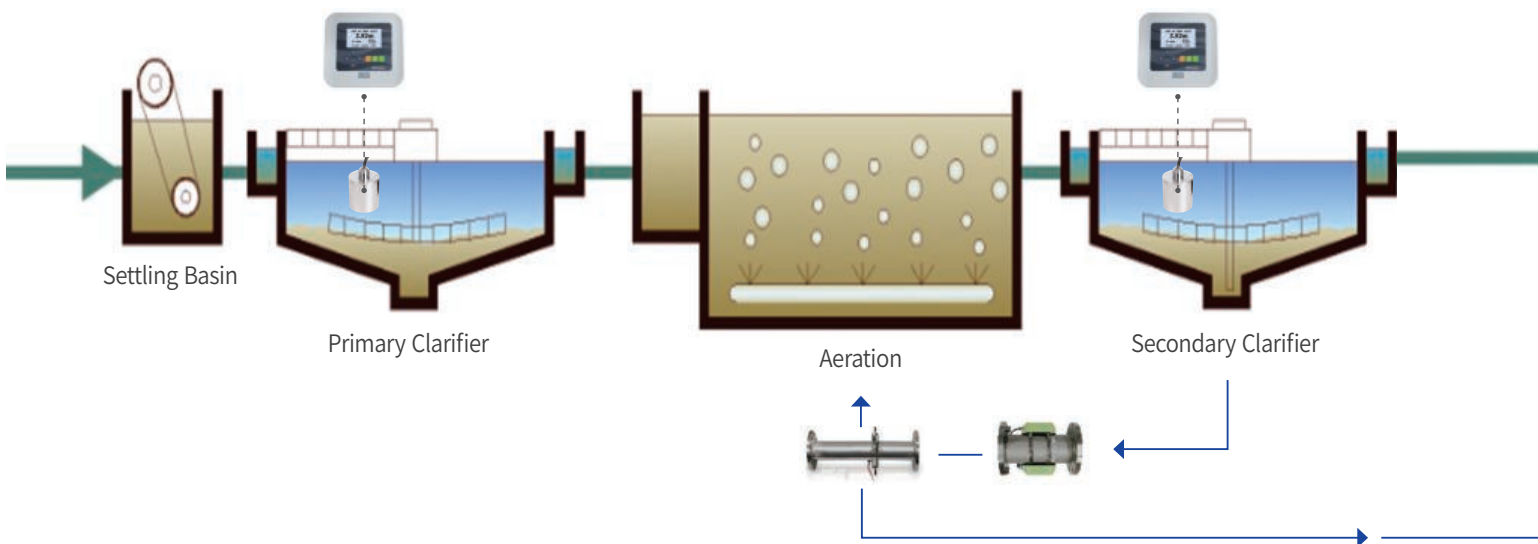### Optional Items

· **Swing Bracket**

It is to secure skimmer passage at clarifiers.

· **Built-in or External Cleaning Unit**

Periodical sensor cleaning is recommended as a precaution since floating debris and biological material are in contact with the ultrasonic sensor.

· **Sensor Mounting Kit**

WESS offers several types of mounting kits, such as sensor mounting kit, controller mounting kit, and cleaning unit mounting kit.

Settling Basin

Primary Clarifier

Aeration

Secondary Clarifier

Ultrasonic Sludge Density Meter

ENV200 SERIES

CE KC

The ENV200 Series is an ultrasonic instrument that measures the density of suspended solid in various liquids.
The density meter works with three types of sensors, clamp-on, spool-piece, and tank mount.

Features

· Stable & continuous measurement
· Adopt enhanced signal control algorithm (EEAM)
· Various types of sensors to accommodate all field demands at installation
· Offer several density units, %, g/l, ppm, kg/m³, g/cm³
· Offer non-intrusive sensor, clamp-on

Applications

· WWTP / WTP   · Purification plant
· Power plant   · Pulp & Paper
· Steel mill   · Food & Beverage
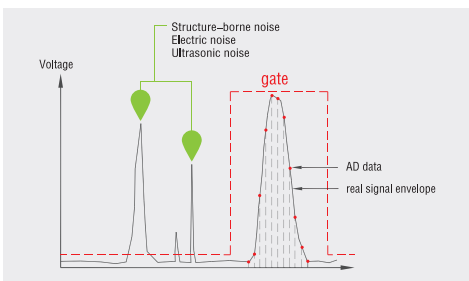
Composition

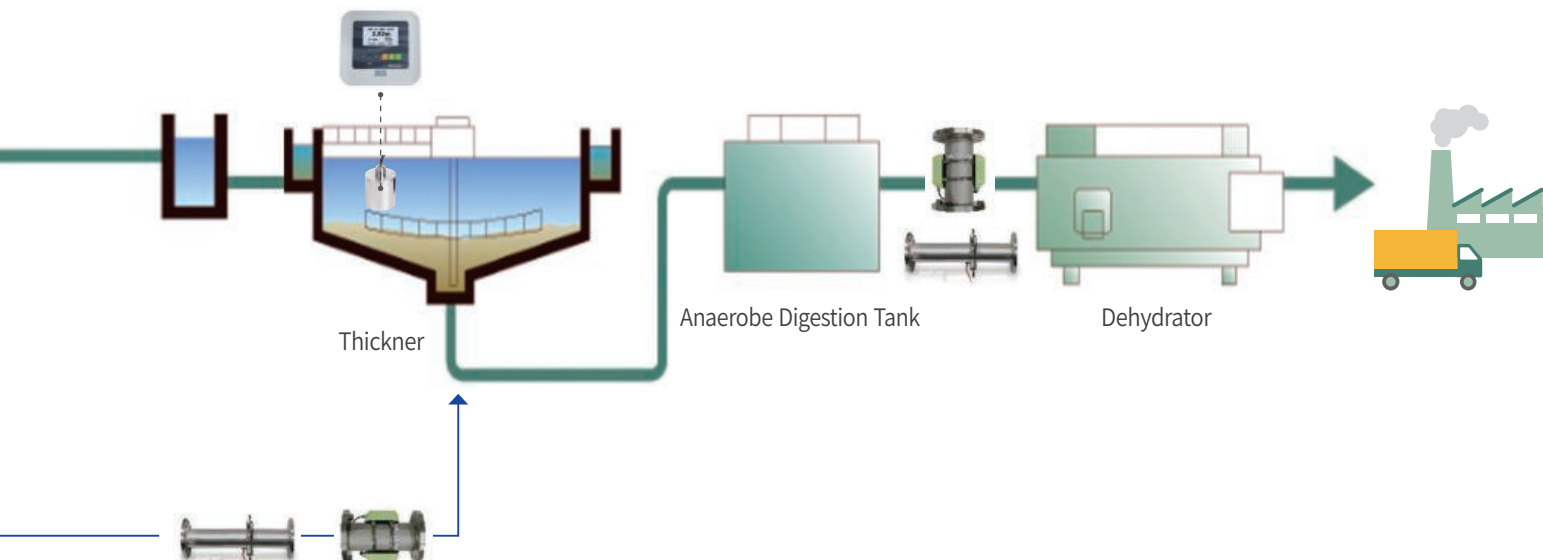| Controller	Clamp-on Sensor	Tank-mount Sensor	Spool-piece Sensor

Measuring Algorithm

EEAM (Envelope Energy Averaging Method)

Conventional ultrasonic attenuation density meter just determines density with amplitude of received signals. Unlike this, ENV200 is able to measure change of concentration in a more sophisticated manner by adopting the patented EEAM, which measures not only the amplitude of received signals but also observes the shape of signal. It takes all energy as envelope and then convert it into density.

Thickner

Anaerobe Digestion Tank

Dehydrator

Sludge Measurement

Clamp-On Ultrasonic Density Meter

ENV200 SERIES

The clamp-on type density meter doesn't need by-pass line or spool-piece(pipe section) which is required for maintenance or replacement. As the clamp-on sensor can be mounted outside of pipe line even under flow-running condition, the user neither need to stop their process nor to consider the corrosiveness of liquid.

Features

No Maintenance
· No sensor cleaning is required for sludge adhesion on sensor surface
· No sensor replacement is required for wear and tear by flowing medium

No Limit on Measuring Medium
· Can apply to almost all types of sludge regardless of abrasion, adhesion, and corrosion

No Additional Cost
· No additional water pipe line is required for sensor cleaning
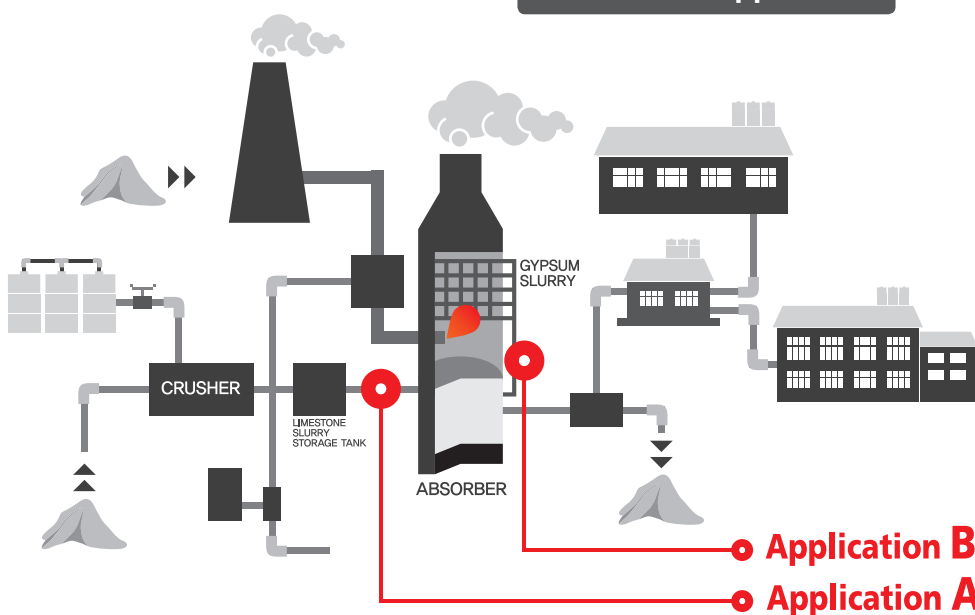· No by-pass line is required for maintenance

No Space and Tool
· No special equipments and tools are required during installation
· Can be applied at limited space

Applications

· WWTP / WTP
· Purification plant
· Power plant
· Plup & Paper
· Steel mill
· Food & Beverage

Power Plant Application

CRUSHER

LIMESTONE SLURRY STORAGE TANK

GYPSUM SLURRY

ABSORBER

Application B

Application A

Controller

Clamp-on Sensor
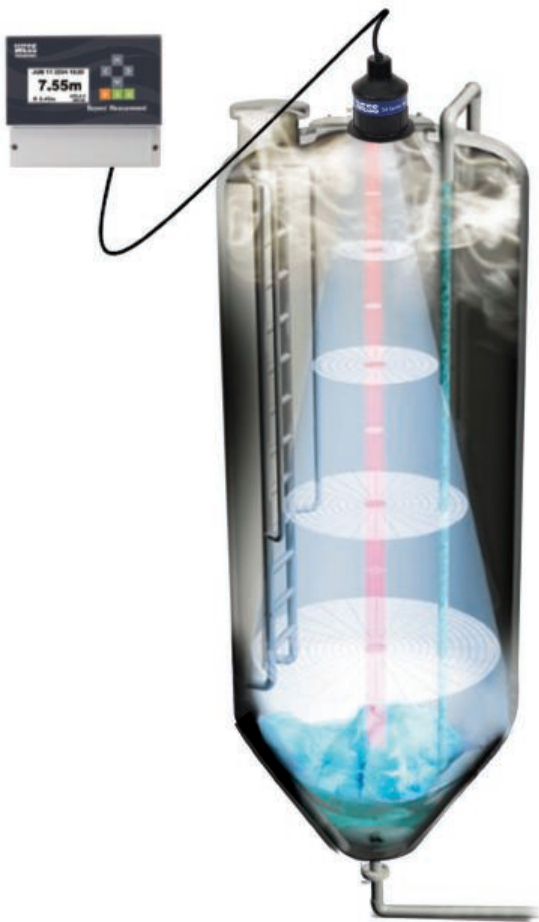
Ultrasonic Level Meter

LEV SERIES

CE KC

The LEV100 Series utilizes enhanced non-contact ultrasonic technology to measure liquid level in various applications with superior accuracy and reliability.
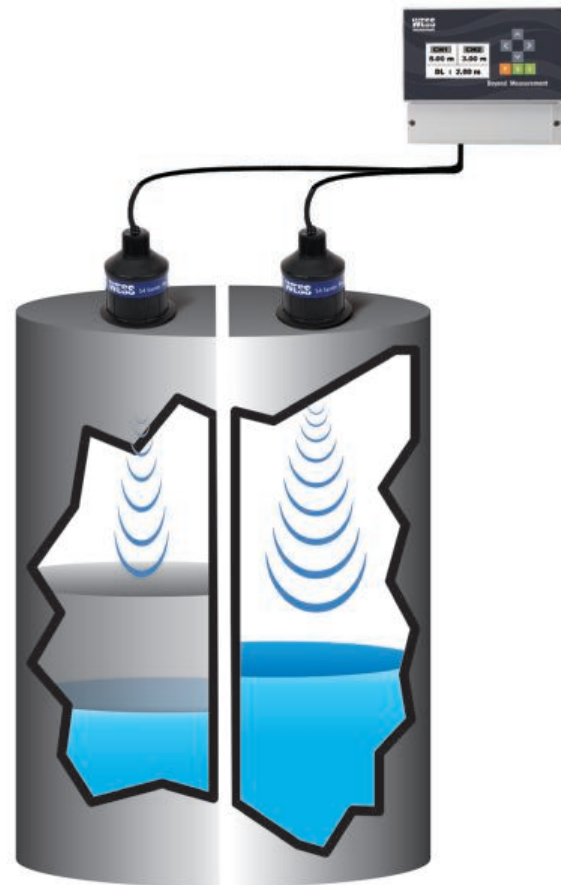
Features
· Single and dual channel measurement
· Possible for two tanks control simultaneously
· Various types of sensor depending on measuring range
  (10m, 15m, 30m)
· LCD Display of measuring status including numeric,
  echo, data trend, and parameter

Applications
· WWTP / WTP
· Purification plant
· Industrial waste water treatment plants
  (Power plant, Steel mill, Semiconductor, Petrochemical, Food & Beverage)
· Various storage tanks

Single Channel

Dual Channel

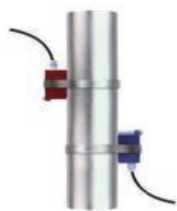- Display Differential Levels and Average

3 Flow Measurement

Clamp-On Ultrasonic Flow Meter

FLO100 SERIES

· Non-invasive flow meter
· Suitable for conductivity liquids
· Various types of sensor depending on pipe size and condition
· WWTP, chemical, pharmaceutical, etc.

Controller   Sensor

Open Channel Non-contact Radar Flow Meter

FLO200 SERIES

FLO200-R

· Non-contact radar flow meter
· Simultaneous measurement of water level & flow rate
· Minimize impact on pollutants
· Easy installation and maintenance
· Sewage, manhole, etc.

FLO200-U

· Open-channel flow meter
· Various types of sensor depending on measuring range
· User-feed curve programming
· Applicable to various weirs and flumes

Controller   Sensor

Electromagnetic Flow Meter

FLO300 SERIES

· Compact type / Remote type
· Possible to measure low in low conductivity, even with a content of suspended solids
· Suitable for most industrial applications

Compact Type   Remote Type

Water Quality Analyzer

WA SERIES

· Available in single and dual channel
· Self sensor configuration (Plug & Play)
· Pre-calibrated at the factory
· Min. two relay outputs (Alarm relay & Self cleaning relay)

· Self-diagnostics for the sensor and controller
· Back-lit LCD display
· Easy to setup and program

pH / ORP

Embedded electronics
- Include a built-in electrically isolated preamp and temperature compensation circuitry

Custom geometry
- Enable easy cartridge changes, short downtimes, and facilitate the integrated jet clean

Field proven cartridge
- Flat glass / double reference offer long-lasting reliable measurement

Dissolved Oxygen

Optical fluorescent technology
- No sensor caps, no routine calibration
- No replaceable membranes or electrolyte
- Low maintenance and inherent reliability

SS / MLSS

Near-infrared technology
- Provides increased dependability of the reading when color changes in the solids occur

Solid state electronics

Custom geometry
- Facilitate the integrated jet clean

Turbidity

Nephelometric turbidity
- Robust and waterproof (IP68)
- Ultra low-power consumption
- Very few maintenance and no consumables

Ultrasonic Sludge Blanket Level Meter

Ultrasonic Sludge Density Meter

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