

Ultrasonic Sludge Blanket Monitoring System



The ENV100 Ultrasonic Sludge Blanket Level Meter manufactured by WESS, utilizes enhanced ultrasonic technology to measure the sludge interface level in various types of clarifiers, settling tanks and thickeners with superior accuracy and reliability. The instrument continuously provides the user with important information which includes numeric & graphic screens representing the distance to the blanket, an echo profile image to ensure correct configuration during commissioning and saved data analysis.

Additional features such as ASF (Abnormal Signal Filter), allows elimination of irregular field noise which can result from moving structures intermittently obscuring the signal. The ENV100 technology additionally incorporates a compressed air cleaning system to maintain the sensor in optimum condition and guarantee maintenance-free measurement. Specially designed mounting kits are also available.

Product Features

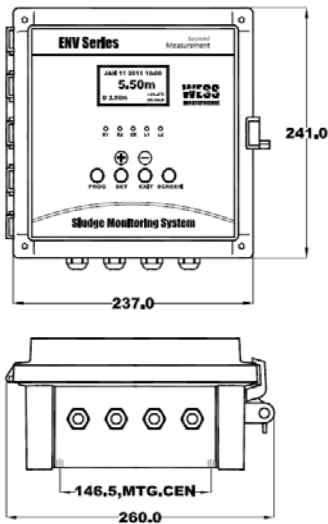
- Continuous and real-time measurement
- 4 sensors measurement with one controller enables economic operation
- Maximum 400 days data logging and monitoring
- Wireless option avoids cabling cost
- Automatic sensor cleaning guarantee maintenance-free measurement
- Built-in unique algorithm eliminates stationary and moving structures
- Free WESSWARE software enables field data analysis and menu setup



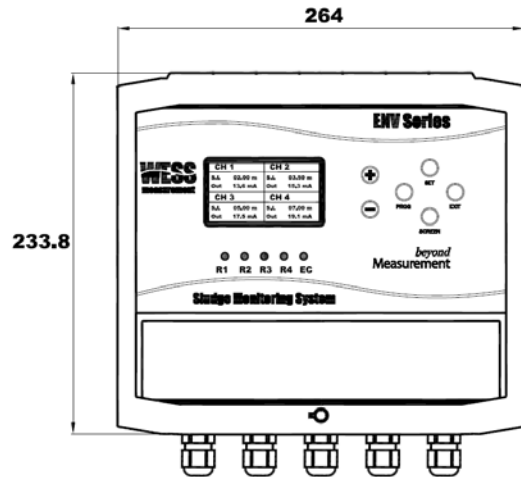
Product Dimensions

Controllers

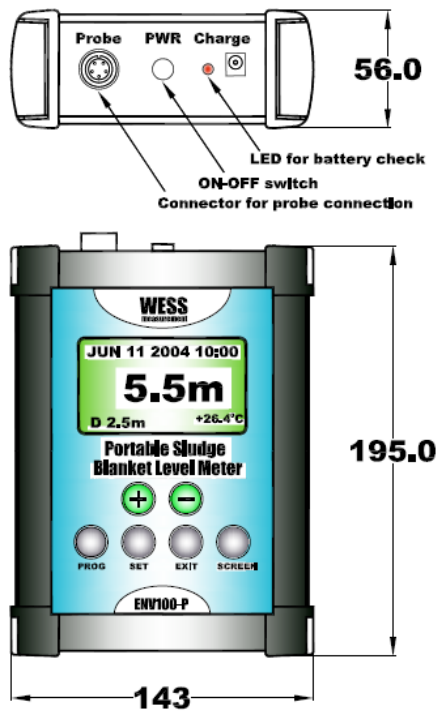
C1-S



C1-M

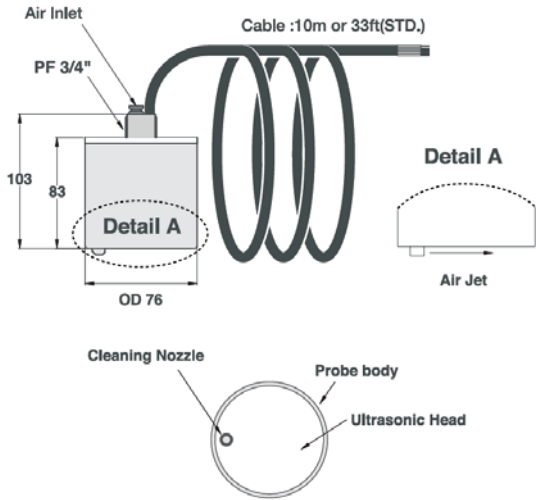


C1-P(Portable)

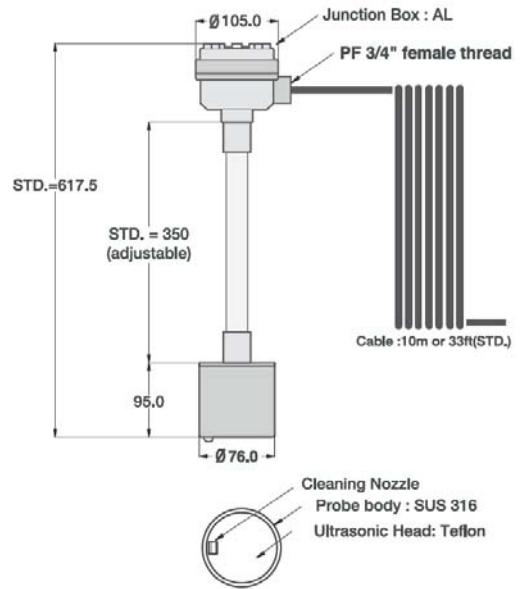


Sensors

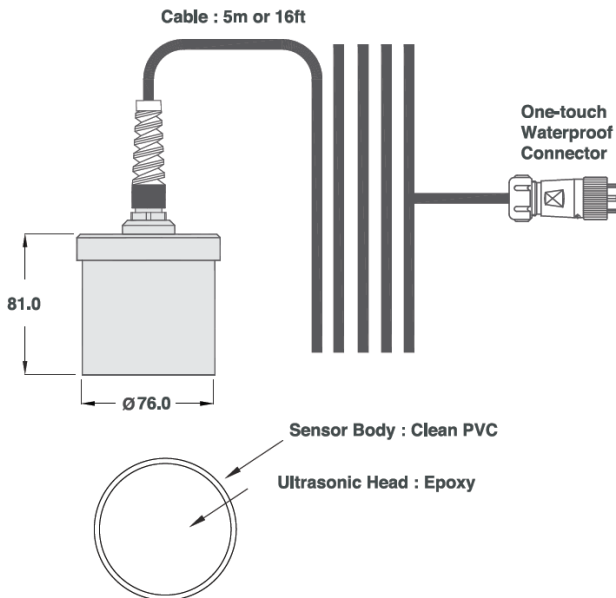
S1-G/T



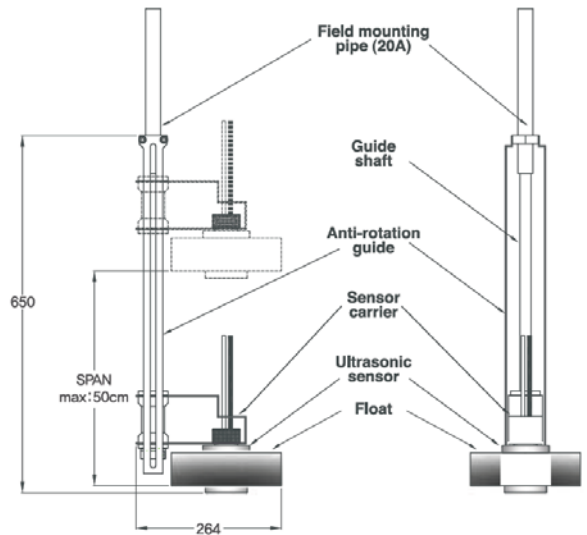
S1-H(High Temp. Type)



S1-P(Portable Type)



S1-F(Floating Type)



Product Specifications

Controllers

C1-S

Measuring Principle	Ultrasonic Echo Flight Time
Measuring Range	0.35 ~ 10m(1~33ft)
Resolution	1cm(metric units), 0.1ft(UK units)
Accuracy	+/- 1% of measured range or 1 inch, whichever is greater
Measuring Pulse	5~25times/sec
Measuring Density	User programmable density(Light/Heavy)
Display	Graphic LCD (Interface level, Distance, Echo Amp, Time, Current output, Trend, Temperature)
IP Rating	IP66
Data Saving	Maximum 400 days Data logging & Trend
Screen	Numeric, Echo Profile, Data Trend
Operational Temperature	-20 ~ 70°C(-4~158°F)
Sensor Control	1 Point
Sensor Cleaning	Automatic air-jet
Outputs	Current : 4~20mA, nom. Load 250Ω (load range : 100 ~ 750Ω) Relay : 3 SPDT(5A, 250VAC) – “ER” “R1” “R2” Digital : RS232C(Standard), RS485(Option)
Power Supply	Standard : 100 ~ 240V AC, 50~60Hz, ≤6W Option : 20~30V DC
Enclosure Material	Polycarbonate
Dimension	237(W) x 241(H) x 125(D)mm
Weight	3 kg
Certificate	CE

C1-M

Measuring Principle	Ultrasonic Echo Flight Time
Measuring Range	0.35 ~ 10m(1~33ft)
Resolution	1cm(metric units), 0.1ft(UK units)
Measuring Pulse	5~25times/sec
Measuring Density	User programmable density(Light/Heavy)
Accuracy	+/- 1% of measured range or 1 inch, whichever is greater
Operational Temperature	-20 ~ 70°C(-4~158°F)
Display	Graphic LCD (Interface level, Distance, Echo amp, Time, Current output, Trend, Temperature)
IP Rating	IP67
Data Saving	Maximum 400 days Data logging & Trend
Screens	Numeric, Echo Profile, Data Trend
Outputs	Current:4EA X4~20mA,nom. Load 250Ω (load range : 100 ~ 750Ω) Relay : 3 SPDT(5A, 250VAC) – “ER” “R1” “R2” Digital : RS232C(Standard), RS485
Power Supply	Standard : 100 ~ 240V AC, 50~60Hz, ≤6W Option : 20~30V DC
Enclosure Material	Body : ABS Window : Polycarbonate
Dimension	264(W) x 233.8(H) x 144(D)mm
Weight	3.2 kg
Certificate	CE

C1-P(Portable)

Measuring Principle	Ultrasonic Echo Flight Time
Measuring Ranges	0.35 ~ 10m(1~33ft)
Resolution	1cm(metric units), 0.1ft(UK units)
Measuring Pulse	5~25times/sec
Accuracy	+/- 0.1% of measured range or 1 inch, whichever is greater
Operational Temperature	-20 ~ 70°C(-4~158°F)
Display	Graphic LCD (Interface level, Distance, Echo Amp, Time, Current Output, Trend, Temperature)
Data Saving	Programmable Memory
Screens	Numeric, Echo Profile
Sensor Control	1 Point
Outputs	Digital : RS232C(Standard), RS485(option)
Power Supply	3EA X AA Lithium ion rechargeable battery
Enclosure Material	Aluminum
Dimension	143(W) x 195(H) x 56(D)mm
Weight	1.5 kg
IP Rating	IP65
Certificate	CE

Sensors

S1-G/T

Sensor Structure	Ultrasonic sensor with built-in cleaning nozzle
Material	S1-G Body : S.S. 316, Head : C-PVC + Epoxy S1-T Body & Head : Teflon
Mounting Thread	3/4" PF female thread
Cable Length	10m(33ft)Standard, Max. 300m extensible on request
Operational Temp.	-10 ~ 60°C(14 ~ 140°F)
Beam Angle	4 degree
Frequency	160/380 kHz
Weight	3kg(Incl. 10m Cable)
IP Rating	IP68
Cleaning	Air-jet (built-in cleaning nozzle)

S1-P(Portable)

Material	Probe body : Clean PVC, Ultrasonic Head : Epoxy
Cable Length	5m(17ft)
Operational Temperature	-10 ~ 60°C(14 ~ 140°F)
Beam Angle	5 degree
Frequency	160/380 kHz
Weight	3kg
IP Rating	IP68

S1-F

Material	Probe body : Clean PVC, Ultrasonic Head : Epoxy
Cable Length	10m(33ft)Standard, Max. 300m extensible on request
Operational Temperature	-10 ~ 60°C(14 ~ 140°F)
Beam Angle	4 degree
Frequency	160/380 kHz
Weight	2kg
Sensor Cleaning	Ari-jet Cleaning
IP Rating	IP68

Sensors

S1-H(High Temperature)

Sensor Structure	Ultrasonic sensor with built-in cleaning nozzle
Material	Probe body : S.S. 316, Ultrasonic Head : Teflon Junction Box: Aluminum die-casting
Mounting Thread	3/4" PF female Thread
Cable Length	10m(33ft)Standard, Max. 300m extensible on request
Operational Temperature	-10 ~ 100°C(14 ~ 212°F)
Beam Angle	4 degree
Frequency	160/380 kHz
Weight	3kg(Incl. Cable)
IP Rating	IP68
Cleaning Method	Air-jet (built-in cleaning nozzle)
Pipe Length Between	350mm Standard, extensible on request



S1-G/T



S1-H



S1-F



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WESS
 measurement