



KWS100 SERIES

ULTRASONIC SLUDGE BLANKET LEVEL METER

**NEWLY DEVELOPED CLEANING SYSTEM AND
NEW ALGORITHMS ASSURE A STABLE MEASUREMENT**



KWS100 SERIES ULTRASONIC LEVEL METER FOR SUBMERGED SLUDGE

SOPHISTICATED INSTRUMENT FOR MEASURING A SLUDGE BLANKET LEVEL

KWS100 is a high precision device measuring the submersible sludge level with the most updated technology of ultrasonic measurement. The housing is waterproof rated IP68. The automatic cleaning system prevents the sensor surface from a buildup. The algorithm based on our long-term engineering experience can avoid noises caused by an agitator, a bridge, etc., resulting in complete measurement of the indistinct sludge blanket in a digestion tank, a thickener and others. And yet it excels in a good maintenance and a high reliability.

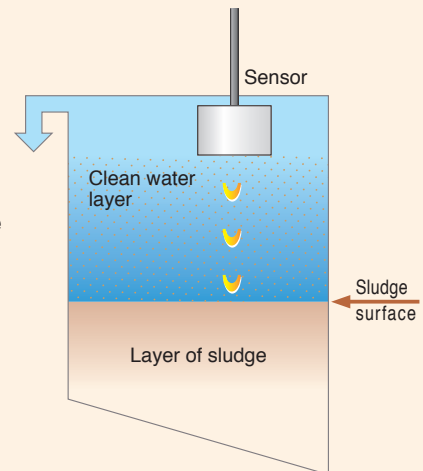


■ **FEATURES**

- A continuous real time measurement controls your facility effectively to reduce running cost and labour charge.
- An economical system with 4 sensors available.
- A built-in logger stores data of 10,000 points.
- Save wiring cost with an optional wireless system.
- The automatic cleaning system helps with reducing hard maintenance works.

■ **APPLICATION**

- Waste water Treatment Facility (Primary & Secondary Purifier, Condensation/Sedimentation Equipment)
- Water Purifying Facility
- Power Plant (Desulfurization Equipment)
- Petro chemistry, Sludge Purification Tank



■ **Merits of Sludge level meter**

- A real time control reduces the pumping cost more than scheduled time control.
- Optimizes the heating energy with an appropriate control of the removal sludge level in the tank.
- The real time control in the primary treatment reduces a load on downstream processes.
- Improves the treatment efficiency with consistent and smooth operation of overall treatment facility.
- Optimizing operation to meet required treatment variation makes the running cost lower.

SPECIFICATION

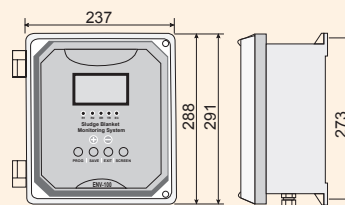
CONTROLLER		
Application	Single Type	Multiple Type
Type	KWS100-S	KWS100-M
Range	0.35~10m	0.35~10m
Resolution	1 cm	1 cm
Accuracy	±0.5% FS or 2.5cm	±0.5% or 2.5cm
Temperature	-10~60℃	-10~60℃
Quantity of Sensor	1	4 at the maximum
Data Storage	10,000 point	10,000 point
Display	Value, Echo, Trend	Value, Echo, Trend
	Level, Distance, Temper. mA, Time	Level, Distance, Temper. mA, Time
Output	4-20mA 100-750Ω maximum 3SPDT (5A 250VAC) RS232C (Standard) RS485, Profibu-DP	4-20mA 100-750Ω maximum 3 SPDT (5A 250VAC) RS232C (Standard) RS485, Profibu-DP
Power Source	100~240VAC 50/60Hz 20~30VDC Option	100~240VAC 50/60Hz 20~30VDC Option
Power Consumption	Less 6W	Less 6W
Housing Material	Main body: FRP	Main body: FRP
	Window: Polycarbonate	Window: Polycarbonate
Weight	3.0kg	3.2kg
Housing Rating	IP67	IP67
Certificate	CE	CE

SENSOR		
Type	SI-G	SI-H
Material	Main Body : SUS316 Transmitting face: grey PVC Teflon(T)	Main Body : SUS316 Transmitting face: Teflon
Cleaning	built-in nozzle	
Connection	3/4" NPT	Advance arrangement
Cable Length	10m (standard), 100m max.	10m (standard), 100m max.
Temperature	-10~60℃	-1~100℃
Beam Angle	5°	5°
Frequency	160kHz	160kHz
Weight	2.5kg (including 10m cable)	4kg (including 5m cable)
Housing Rating	IP68	IP68

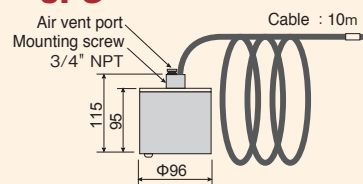


GENERAL DRAWING

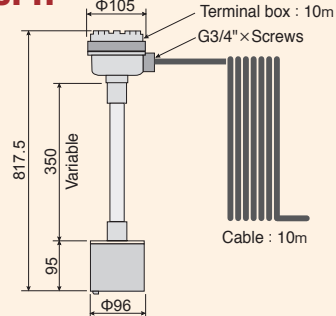
ENV100-S/M



SI-G



SI-H



OPTION PRODUCTS



Cleaning Unit



Sensor / controller mounting kit



Swing bracket

PORTABLE TYPE

Controller is equipped with a rechargeable battery (a charger is attached), and Sensor can wear a float. Being of a handy model, it can easily measure the sludge interface level in various places.

KWS100-P
Controller



SI-P
Sensor

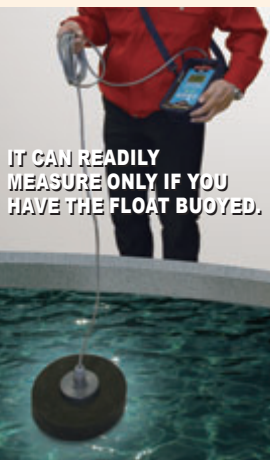


FEATURES

- No need to carry cable
- No electric power supply is required because of the rechargeable battery loaded.
- Type of VTA: Visual Threshold Adjustment
- Type of ASF: Abnormal Signal Filter

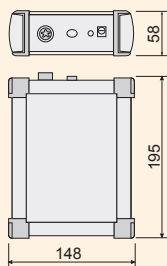
APPLICATION

- Water Purification Plant, Clarifiers for Wastewater Treatment Plant
- Water Purification Plant, Thickeners for Wastewater Treatment Plant
- Thickeners in plants
- Settling Tanks, Lake, Settling Pond

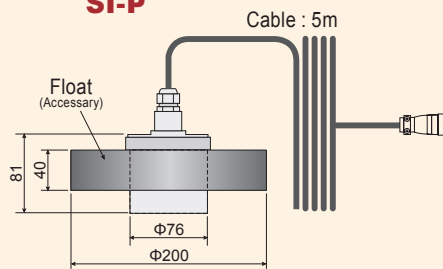


GENERAL DRAWING

KWS100-P



SI-P



SPECIFICATION

CONTROLLER	
Application	Portable Type
Type	KWS100-P
Range	0.35~10m
Resolution	1 cm
Accuracy	±0.5% or 2.5cm
Temperature	-10~60℃
Quantity of sensor	1
Data Storage	Depend on setting
Display	Value, Echo, Trend
	Level, Distance, Temper mA, Echo, Time
Output	RS232c
Power	Rechargeable batter
Power Consumption	Less 6W
Housing Material	Aluminum
Weight	1.5kg
Housing Rating	IP65
Certificate	CE

SENSOR	
Type	SI-P
Material	Main Body : Clear PVC
	Transmitting face : epoxy
Cleaning	N/A
Connection	N/A
Cable Length	5m
Temperature	-10~60℃
Beam Angle	5°
Frequency	160kHz
Weight	700g (including 5m cable)
Housing Rating	IP68

Line of business

- Rotary paddle level switch
- Vibration level switch
- Swing level switch
- Acoustic level switch
- Capacitance level switch
- Capacitance proximity sensor
- Capacitance level meter
- Diaphragm level switch
- Tilt level switch
- Leakage level switch
- Microwave level switch
- Sounding level meter
- Flow switch
- Conductance level switch
- Float switch
- Float level meter
- Ultrasonic level meter
- Conveyor peripheral sensor
- Dust monitoring system
- Oxygen analyzer
- LAZAR Level meter
- RADAR Level meter
- Sludge blanket level meter
- Ultrasonic flowmeter

Nuclear Power Generation to Rice Milling
All-round Manufacturer of Level Controllers for Powder, Granules and Liquid

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Design, development and manufacture
of level measuring sensors

*Please be sure to read USER'S GUIDE, Installation & Operation
Instructions before using the instrument.

*The specifications herein may be subject to change without advance notice.

Agent