

Ultrasonic Sludge Blanket Monitoring System



CSM5000 sludge blanket level meter utilizes its specialized ultrasonic technology to measure the liquid and solid interface level in various types of clarifiers, settling tanks, and thickeners. The CSM5000 offers 3 useful information with numerical & graphic displays, such as range of blanket level, echo profile images, and saved data analysis etc. Its built-in probe cleaning device makes automatic probe cleaning efficiently with no additional cost and the swing bracket helps to protect the probe from skimmer travels. Its 5 respective LEDs also help the field operator to monitor the operational status in a moment.

Benefits

Reducing pumping costs

Minimize the manual measurement

Automatic tank de-sludging

Product Features

- Non Contact Measurement
- Single or Dual Points Measurement
- Visual Threshold Adjustment(VTA)
- 10,000 points Data Logging & Trend Mode
- Robust Total Insulated FRP Enclosure(IP 67)
- Built-in Cleaning Nozzle for Probe Cleaning
- Optional Probe Cleaning Device
- Optional Swing Bracket for skimmer avoidance

Applications

- Primary & Secondary Clarifier
- Gravity Thickeners
- Setting Tanks
- Mining Clarifiers
- Circular Rotating or Static clarifiers
- Lamella Clarifiers
- Brine Tanks



Product Specifications

Electronic

Measuring ranges	1 ~ 33ft (35~10m)
Resolution	0.5 inch (12mm)
Accuracy	±0.5% of measured range or 0.5 inch which is greater
Operational Temperature	-4 ~ 158°F(-20 ~ 70°C)
Outputs	Current output : 4 ~ 20mA, Max. Load 750 ohm Relay output : 3 SPDT(5A ,250VAC) – “ER” “R1” “R2” Digital output (option) : RS232, RS485
Power supply	Standard : 100 ~ 240VAC,50~60Hz, ≤15W Option : 24V DC
Enclosure Material	Body/Cover : FRP Window: Polycarbonate
Dimension	W9.33 x H9.49x D5.16 inch (237X241X131mm)
Mounting	hole center W 5.98 x H 9.29 inch (152X236mm) hole Dia. 0.32" x 4ea (Ø8.2mmx4)
Weight	6.6lb(3kg)
Enclosure Rating	NEMA 4X (IP66)
Certificate	CE
Visual Threshold Adjustment(VTA) 10,000 points Data Logging & Trend Mode	

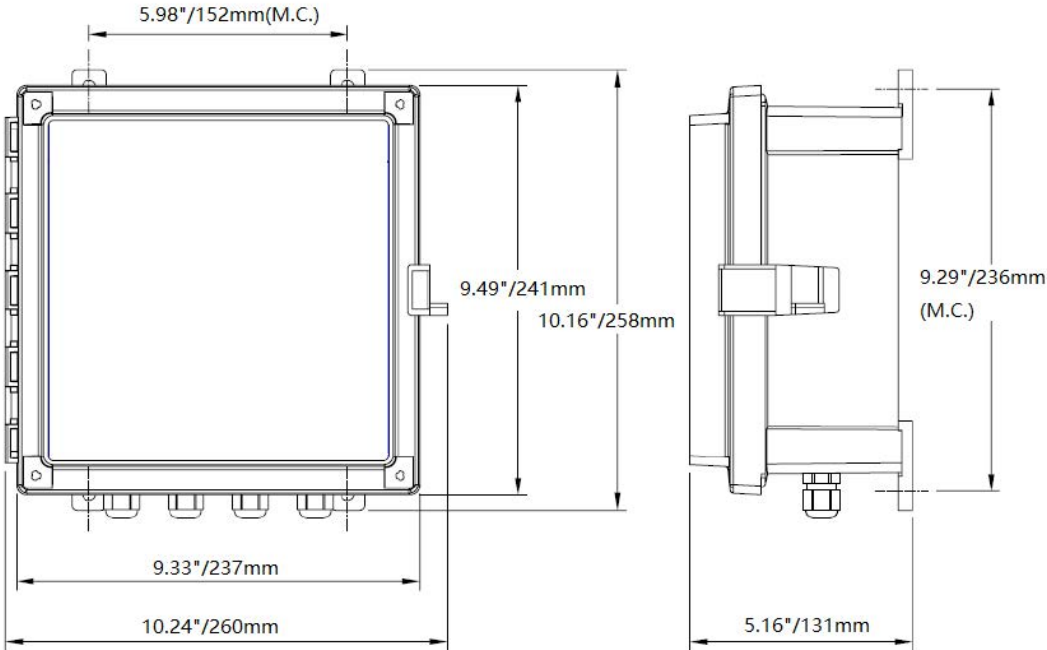
Probe

Sensor Structure	Ultrasonic sensor with built-in cleaning nozzle
Frequency	160/380KHz
Beam Angle	3°
Material	Probe body : 304 or 316SS Ultrasonic head : Epoxy or Teflon
Mounting Thread	3/4" FNPT thread
Cable length	33ft STD. (10m) Max. 300ft extensible via customer request
Operational Temperature	14~140°F (-10~60°C)
Dimension	O.D. 3x3.3" (Ø76 mmx 83mm)
Weight	4.85lb(30ft cable included) Immersible
IP-Rating	IP68
Cleaning Method	Air Jet (built-in Cleaning Nozzle)
Connection with Optional Cleaning Device	One-Touch fitting for 1/4" tube

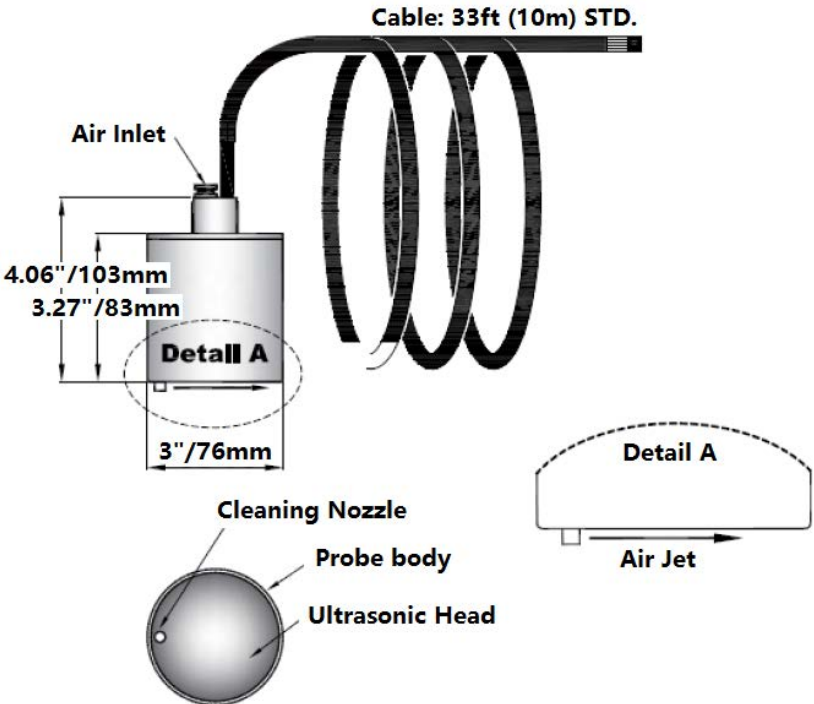


Product Dimensions

Controller



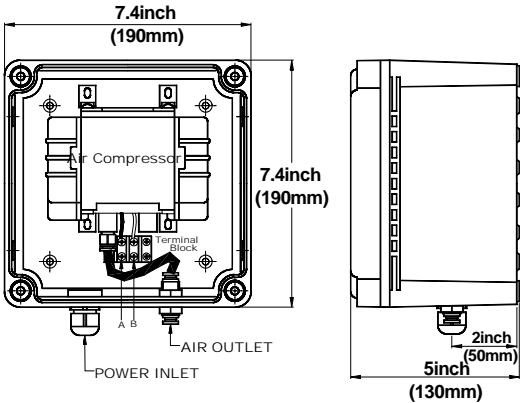
Probe



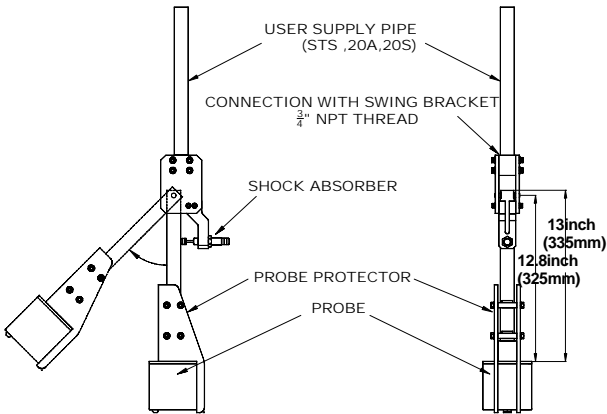
Optional Devices

The probe cleaning device is useful when applying to harsh and dirty sites and swing bracket is used where skimmer travels

Probe Cleaning Device



Swing Bracket



Ordering Code

CSM5000 Sludge Level meter			
Enclosure			
4	Standard NEMA 4X		
7	Explosion Proof		
Communication			
-	Without protocol		
1	RS232		
2	RS485		
Power supply			
	AC	100~240V	
	DC	24V	
CSM5000	-	4	-
		1	-
			AC

		Probe Cleaning Device(PCD)			
		S	Without PCD		
		P	With PCD		
		Total Cable Length			
		Standard 33ft Type total cable length required			
CSM5000-RTX	S	-	C	X	X

