

# MLSS/SLUDGE LEVEL METER 55-1 0 Z



Measurement of Sludge Level in a



### Measurement of MLSS Density

# **Measuring Range**

MLSS 0~20000mg/l (max. 30000mg/l)

Water Depth: 0~5m(max. 10m Measurement with extended Cable)

### Optional Measuring Mode (common to SS-10Z and SS-10F)

6-Item working curve which has plenty of Evidence is built-in and gives measurement by selecting the Mode.



#### Example)

Mode 1 Food and dairy Sludge A

Mode 2 Food and dairy Sludge B

Mode 3 Sewage /combine Septic Tank A

Mode 4 Sewage /combine Septic Tank B

Mode 5 Human waste disposal/deposit Tank A Mode 6 Human waste disposal/deposit Tank B

# **Measuring Outline**

Signals from the MLSS Detector which is composed of reference Light receiving Element controlling Near-Infrared LED Light and LED luminance at the certain Level, transmitted Light receiving Element and Water Pressure Sensor can be calculated to be larger, indicate the Sludge Density and Water Depth of Sludge Level at the Same Time, make Alarm for Sludge Level, and obtain Sludge Zone Belt.

Detector is Near Infrared Light System, Little influenced by the outer Light and Color.

Therefore, it gives you highly sensitive MLSS Measurement.

# Measurement of MLSS & Sludge interface

Simultaneous measurement of MLSS and Sludge Level (water depth) (SS-10Z)

Activated sludge density in the Air Chamber and sludge density or Sludge Level (water depth) in deposit tank can be measured at the same Time with a Single Meter. At the Sludge Level, "ALM", "mg/\ell", "m" blinks and tell The Sludge Level.

REF Ph·D



\*SS-10F without pressure sensor

### Memory of Measured Value (common to SS-10Z and SS-10F)

Measured Value is memorized if you press MEMO key. Measured Value is called back by using **A** or ▼ key. Max. 30 Data can be memorized and called back.





SS-10Z

# With Back Light (common to SS-10Z and SS-10F)

With Back Light, reading in the dark is OK.





Sludge Level blinking

### Measurement of Water Depth (zone surface) with New Type Pressure Sensor (SS-10Z)

New type pressure sensor of the Detector is made of stainless Steel.

Trouble Free if you submerge it into water for a long time.

### **Use Applications**

Sludge Density Measurement of Septic Tank, Sewage, Human Waste Disposal Plant, activated Sludge Disposal Plant. Measurement of sludge zone surface/Water Depth of Deposit Tank. Construction Site. Sake Brewing Plant. Sludge Density measurement of food plant, etc.

#### With Shock Absorbing Rubber for Detector (common to SS-10Z and SS-10F)

In case of shock, it prevents the Breakage of Detector.

Caution: Selection of working curve (MODE) should be done after exact Measurement of Sample Density by Manual Analysis (weight method).

Continuous and stable Measurement of Water Depth (Zone Surface) and MLSS density for a long time is OK.







# Measurement of Activated Sludge Density/Sludge Level in a Deposit Tank

# Economy type, popular type, highly sensitive MLSS meter

\*\*Exclusive for MLSS Measurement, not for Water Depth Measurement. Economy Price with the Same Quality as SS-10Z.



- Measurement of 0~20000 mg/l(max.30000mg/l)
- ■Alarm function at Sludge Level
- Automatic LED Light correction with reference Light
- Measurement with Mode Selection by usage
- Stainless Steel Detector with Shock absorbing Rubber

# **Specifications**

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Name/Model	MLSS/Sludge Level Meter: SS-10Z (with Water Depth Measuring Function)		MLSS Meter : SS-10F (without Water Depth Measuring Function)		
Measurement	Activated Sludge Density, Zone Surface (Water Depth) of Sediment Tank and	Sludge Density	Activated Sludge Density		
Measuring Method	MLSS : Near-Infrared Pulse Transmission light System		MLSS : Near-Infrared Pulse Transmission Light System		
	Sludge Level (Water Depth) : Semiconductor Temperature Sensor System				
Measuring Range			MLSS: 0~20000mg/\ell(max.30000mg/\ell\) display)		
	Sludge Level: 0~5m(max. 10m display with prolonged cable)				
Resolution	ion MLSS: $10 \text{mg}/\ell$ (within $0 \sim 10000 \text{mg}/\ell$ ) $100 \text{mg}/\ell$ (within $10000 \sim 30000 \text{mg}/\ell$ )		MLSS: 10mg/\ell(within 0~10000mg/\ell) 100mg/\ell(within 10000~30000mg/\ell)		
	Sludge Level: 0.01m				
Accuracy	racy MLSS: within ±3%(FS) under certain conditions		MLSS: within ±3%(FS) under certain Conditions		
	Sludge Level ::within ±3%(FS) under certain conditions				
Display	splay Liquid Crystal Display		Liquid Crystal Display		
	MLSS : LCD 4 digits(upper)		MLSS: LCD 4 digits		
	Memory : LCD 2 digits		Memory: LCD 2 digits		
	Sludge Level : LCD 4 digits(lower)				
Mode	Select one of 6 Modes.				
	Example				
	① Food and dairy Sludge Mode A.				
	② Food and dairy Sludge Mode B.				
	3 Sewage disposal/combine Septic Tank Sludge Mode.   *By the Feature of Sludge, these Modes may not be within ±10% compar		ture of Sludge, these Modes may not be within ±10% compared		
			analyzed Value, therefore, plaese analyze manually and have span		
			Point Calibration when it is necessary.		
	6 Deposit Tank concentrated Sludge Mode B.		•		
Zone Surface Measurement	"ALM", "mg/\ell" blinks over 15000 mg/\ell.		"ALM", "mg/\ell" blinks over 15000mg/\ell.		
	Water depth display at "ALM", "mg/ℓ" blinking shows sludge zone surface. Cable length at "ALM", "mg/ℓ" blinking enables to measure sludge zon		Cable length at "ALM", "mg/\ell" blinking enables to measure sludge zone surface.		
Calibration Method	MLSS:				
	ne-point Calibration (zero calibration only)				
	② Tow-point Calibration (Zero and Span Calibration) **Span Calibration should be done by Sludge of known Density. ③ 3~4 point Calibration (Zero, Span and Middle-Point Calibration) **Span calibration should be done by Sludge of known Density, and Middle-Point Calibration by diluted Sludge.				
	Water Depth : Auto Zero Calibration at the time of throwing Power Source.				
Self diagnosis	Battery Voltage, Detector, Disorder Calibration Disorder, Scale Over				
Memory	Max. 30 data				
Structure	Dust-Proofed, Water-Proofed, corresponding to IP67				
	(under the condition of Connector Plug and the Meter correctly connected	)			
Power Source	DC4.5V(LR03×3) Auto power off after 30 Minutes.				
Dimensions	70(W)×170(D)×36(H)mm				
	Approx. 290g				

Detector		
Name/Model	MLSS/Sludge Level Detector : SSD-10Z(with Pressure Sensor)	MLSS Detector : SSD-10F(without pressure Sensor)
Cable length	6m Standard(possible max. 11m)	6m standard(possible max. 11m)
Dimensions	$\phi 40 \times 214$	
Weight	Approx. 800g	
Materials	ABS, SUS304	
Unable to test	Sample with organic Solvent, strong Acid Sample, Sample with strong Oxidizer	

# **Standard Components**

Meter(Detector), Alkaline battery: LR03 \*\*already set in the meter. Plastic cover, Carrying case, Neck strap, washing brush ▲Shock absorbing rubber for Detector,

# **Optional Accessory**

Simple Standard Filter

\*By using this Filter, we can easily check if Detector is normal or not.