

# Portable sludge level controller MUDLine TGS



## SAFETY INSTRUCTIONS

- Do not open the housing!
- Only connect the device to the battery charger supplied and described in the operating instructions!
- Only clean the cable reel with the built-in electronics with a damp cloth, do not immerse or spray with a jet of water!

## DESCRIPTION

The battery-operated sludge level meter MUDLine is designed for on-site random sample measurement in basins or tanks. The probe detects the transition between water and sludge by means of transmitted light measurement and the immersion depth by means of hydrostatic pressure measurement.

The sensitivity of the sensor can be adjusted in two stages (high/low concentration).

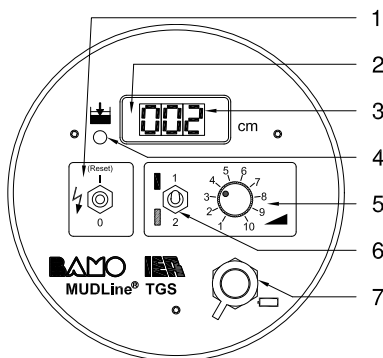
When the sludge level is reached, this is signalled visually and acoustically.

The current diving depth is shown on a display in "cm".

A hold function makes it easier for the user to read off the immersion depth.

## TECHNICAL DATA

Immersion probe	Protection class IP68 (max. 10m, in accordance with EN 60 529)
Measurement precision	approx. 1cm
Power supply	Battery operated
Measurements per battery charge	>100 measurements of 7 minutes each
Automatic shutdown	After 7 minutes of no activity
Charging time	max. 2.5 hours
Ambient temperature	0... +50 °C
Cable	TPE special cable, 10m
Material immersion probe	PVC
Protection class	Cable reel/control elements: IP44 (EN 60 529)
Weight	3500g
Wall power supply	230V AC



1	On/Off switch (reset)
2	"LO BAT" display (low battery level)
3	LC display, 3 digits
4	red LED = sludge detected
5	Potentiometer sensitivity
6	Measuring range switch
7	Charging socket

# BAMO INTERNATIONAL

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controller  
**MUDLine TGS**

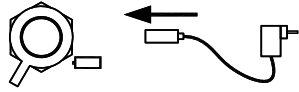
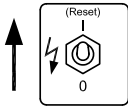

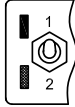
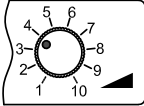
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## SLUDGE LEVEL MEASUREMENT

<b>Before first use:</b>			Connect the charger, fully charge the batterie ACS 110 (approx. 2.5 hours) ACS 48 (approx. 10 hours)
1	Switch on the device: Switch at 1		Digital display switches on
2	Digital display immersion depth		002 *) = initial value if probe is not immersed *) Values between 000 and 005 permitted
3	Select the measuring range		1 = high turbidity 2 = low turbidity  In most cases, the following setting is selected: Position 2
4	Set switching point		1 = low 10 = high
5	<b>Quick setting</b>	Immerse probe until cable starts (clear area)	Set the rotary knob so that the LED is not yet lit and no signal tone is heard (turn back and forth several times)  In most cases, the following setting is selected: between 4 and 5 **)
6	Measurement	Slowly immerse the measuring probe deeper	LED and signal tone signalise sludge level detected; Digital display = immersion depth

\*\*\*) Adjust the setting in the thickener or in special circumstances on the basis of a comparative measurement (e.g. sight tube, disc or similar)

### Increased sensitivity

slight difference in turbidity = with smooth transition between sludge and clear phase (e.g. agitated sludge)

The device is calibrated as follows and the desired switching threshold is set:

- Take a sample with the desired sludge concentration and place in a bucket
- Place a bucket of clean water next to it
- Immerse the measuring probe in the sample (at least 10 cm deep)
- Set the potentiometer as above, repeat several times if necessary

### Highly increased sensitivity

- with "very low sludge concentration":  
→ Select measuring range 2  
= small differences in turbidity are recognised!
- Procedure as above

### Please note!

- In this operating mode, the device reacts very sensitively to the difference between clarified and turbid water and recognises even small particles that have been stirred up!

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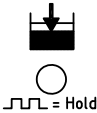

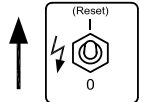
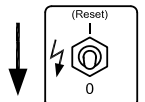
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## SLUDGE LEVEL MEASUREMENT (continuation)

Automatic measured value memory for immersion depth)			
1	Recognised by mud level: Signal tone = continuous tone LED lights up	Hold the probe at this depth for approx. 5 seconds	Signal tone switches from continuous to interval LED switches from steady light to flashing light
2	Only then pull out the probe		Signal tone goes off LED keeps flashing
3	Read off the kept diving depth		
4	Delete the dive depth kept: Button on reset		LED goes out Digital display = 002...005 Ready for new measurement
5	Switch off: Button to 0		Digital display off

## CLEANING

- Only clean the cable reel with built-in electronics with a damp cloth or similar, do not immerse or spray with a jet of water!
- The measuring probe and cable can be cleaned under running water with a (soft) brush,  
**Do not use a high-pressure cleaner/steam jet!**  
→ This causes damage to the immersion pressure sensor
- Only use mild household cleaners, no solvents or cold cleaners!

## MAINTENANCE

When used as intended, the appliance is maintenance-free.

## CHARGER

The LCD panel displays "LO BAT" when the battery charge level is low.  
The built-in NiMH battery can then be recharged using the charger supplied.

Charger types: ACS48 or ACS110 (until 07/2023)

	Charging time with completely empty battery	Procedure after the end of charging
ACS 110	max. 2-3 hours	Charger can stay connected to the mains
ACS 48	max.10 hours	<b>Disconnect the charger from the mains</b>

### Note:

Continuous charging with the ACS48 charger is not recommended. Continuous charging causes the battery to age significantly faster.

### Charging process:

- Remove the protective cap from the MUDLine TGS charging socket
- Attach the connecting cable to the charger and screw tight
- Plug the charger into a 230 V socket
- Red LED on the charger lights up
- Then the red LED lights up continuously = battery is charging

### Please note!

After successful charging, replace the protective cap on the charging socket of the MUDLine TGS!

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