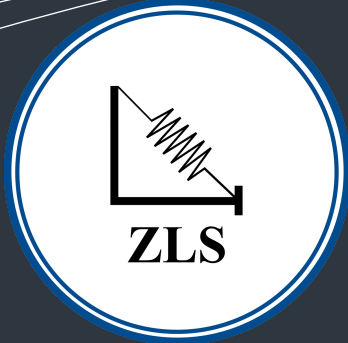


ZLS CORPORATION

EXCELLENCE IN GRAVITY METERS



ZLS Dynamic Meter™

- Highest Quality
- Most Precise
- Most Rugged
- Most Reliable

Applications

- Eliminates damper adjustments
- Eliminates cross-coupling errors
- Smaller residual imperfection errors
- Liquid damping
- Eliminates "slope error"

Models

- Marine
- Airborne (optional configuration)

ZLS Dynamic Meter™

Introduction

After nearly three years of research and development ZLS has introduced a meter for marine applications. The ZLS Dynamic Meter™ is a completely new meter designed to eliminate inherent cross-coupling errors, frequent damper adjustments, and vibration sensitivity problems associated with beam-type gravity meters (L&R Air/Sea Meter).



UltraSysII™ is Fully Digital

Transducer outputs are digitized with little additional analog processing. The ZLS system digitizes input signals 200 times a second. All processing, including filtering, is done digitally. All control-loop algorithms, for both the platform and gravity sensor, are performed digitally by an embedded computer. Eliminating analog circuits enhances reliability and simplifies servicing.

ZLS Dynamic Meter™

- *Worldwide 7000 mGal*
- *Drift: Approx. 3.0 mGal or less per month after aging*
- *Stabilized Platform: Pitch +/- 25 degrees, Roll +/- 30 degrees*

Weight:

- *Stabilized Platform and Sensor: 185 lb. +/- 5 lb. (83.9 kg. +/- 2.3 kg.)*
- *System Control Module: 6 lb. (2.7 kg.)*
- *Power Supply Module (Desktop Package): 36 lb. (16 kg.)*

Dimensions:

- *Stabilized Platform and Sensor: 27 in wide; 22 in deep; 25 in high (70 cm wide; 55 cm deep; 64 cm high)*
- *System Control Module: 19 in. wide; 5.5 in. deep; 3.5 in. high (48 cm. wide; 14 cm. deep; 9 cm. high)*
- *Power Supply Module (Desktop Package): 21 in. wide; 18 in. deep; 7 in. high (53 cm. wide; 46 cm. deep; 18 cm. high)*

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Features of the ZLS Dynamic Meter™

The new sensor eliminates the cross-coupling errors inherent in older beam-type gravity meters by constraining the proof mass to vertical linear motion.

Damper adjustments are no longer required.

The new sensor utilizes liquid damping that virtually eliminates the sensitivity to vibration common in air-damped sensors.

Residual imperfection errors, due to minute variations in manufacture of the system are typically three to five times smaller than those for beam type sensors. Unlike beam type meters, imperfection errors are stable with time and do not require regular testing to track changes.

The new design eliminates the "slope error" prevalent in beam meters that causes reading errors with beam position under dynamic conditions.

Features of UltraSysII™ Controller System

- Digital techniques replace analog hardware, eliminating electronic drift and enhancing system reliability.
- Fully automatic system will start and function unattended after a power interruption.
- Full manual control through menu selection.
- 200 Hz data sample rate accurately digitizes sensor, gyro and accelerometer signals assuring no loss of signal information.
- 200 Hz update of platform feedback loops provides superior platform control.
- Simultaneous data output to video monitor, hard disk, serial port, and printer.
- Integrated GPS.
- Graphic or digital format.
- Alarm function shuts down system and provides a remote alarm signal in the event of a serious system malfunction.
- Keyboard log records all keyboard activity for review.
- System Computer.
- Integrated Control Electronics Module.
- Complete testing and final adjustment using the ZLS test facility.
- Self-contained precision gyro power supply and servo amplifiers.

Deliverables

- ZLS Dynamic Sensor
- ZLS Stabilized Platform
- System Control Module: attaches to the platform frame
- Universal Worldwide Power Supply: freestanding
- Host Software: processes data for high resolution or standard marine operations
- Comprehensive User's Manual
- Limited two-year warranty

Specifications are subject to change without notice. Results may vary depending on conditions. The following are trademarks or registered trademarks of their respective companies or organizations: ZLS Dynamic Gravity Meter™ and UltraSysII™, ZLS Logo / ZLS Corporation, DOS, Windows / Microsoft Corporation.

ZLS Dynamic Gravity Meter is Hand Crafted in Austin, Texas, USA