

ZLS CORPORATION

EXCELLENCE IN HIGH PRECISION GRAVITY METERS



Burriss Gravity Meter™

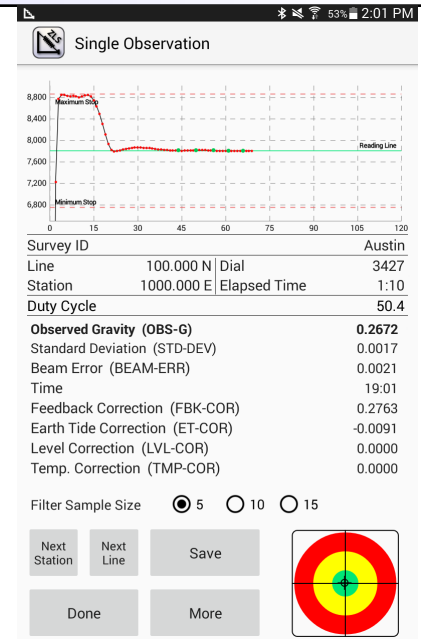
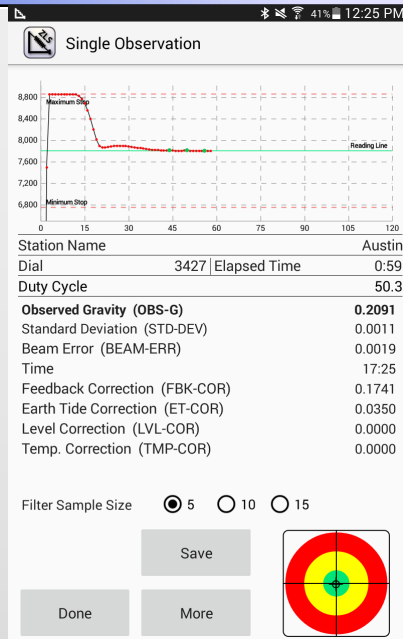
- Visual Graphics
- Survey Feature
- View Data Files
- Variable Filtering
- GPS Functionality
- Chinese/Spanish Language
- Highest Quality
- Most Precise
- Most Rugged
- Lightest Metal Spring Meter
- Android App

Applications

- Petroleum
- Mineral
- Civil Engineering
- Geophysical Mapping
- Geotechnical
- Archaeological
- Groundwater Studies
- Environmental Studies
- Tectonic Research
- Volcanology
- Geothermal

Specifications

Range: Worldwide
Resolution: .0001 mGal
Std Deviation: <.005 mGal
Uncompensated Drift:
 < 20 microGal / day
Battery Life: 16-18 hr (standby)
 12-14 hr (operation)
Size: 26.67 x 19.05 x 30.48 cm
 10.50 x 7.50 x 12.00 in
 (L x W x H)
Weight: 5.9 kg (13 lbs)



Burriss Gravity Meter™ - Made for the Field

The Burriss Gravity Meter™ (BGM) is an automated, high precision land gravity meter. Each BGM is built around a handcrafted, metal, zero-length spring. ZLS springs have extremely low hysteresis and drift rates. A beam arrestment protects the meter during transportation to insure precise reading. The ZLS clamping mechanism alleviates the hysteresis endemic to meters not offering a clamp. Made from all metal components, the BGM is the most rugged and precise gravity meter on the market. The meter has worldwide range and a reading resolution of 0.0001 mGal.

High precision readings can be taken within one minute under normal field conditions. The V-Grav application comes pre-installed on an Android™ tablet. The application allows the user to visually monitor the beam and levels during a reading. Setting up surveys with sequential station numbering is easy with the V-Grav template feature. Data can be viewed, stored in memory, stored on a memory card, downloaded, or just e-mailed.

The V-Grav control system allows the user to choose the level of precision needed for each application. This allows the meter to be used for micro-gravity and larger regional or geodetic surveys. Lower precision results in faster reading times, allowing more stations to be logged in a day. Higher precision allows meter to be used for the most demanding microGal surveys.

The Burriss Gravity Meter™ contains the sensor, electronics and battery in an all-in-one, easy-to-handle unit. The BGM is sealed to keep out the weather so you do not have to worry about sudden rain or dust storms.

Small in size, with the lithium-ion battery, the meter weighs 13 pounds (5.9 kgs). With one battery the meter will last on standby for 16 - 18 hrs. and operate for 14 hrs. at 23°C.



The sensor is sealed and temperature controlled to shield it from atmospheric pressure and ambient temperature changes. Use of the thermostatic controlled oven and special insulation allows the meter to be operated in ambient temperature ranging from -15° to $+50^{\circ}\text{C}$. A lower range option of -45° to $+50^{\circ}\text{C}$ is available.

Ceramic electronic levels are used to ensure accurate and reliable gravity measurements. The levels are orthogonally mounted on the sensor and have a displayed resolution of one arc-second. Output of the levels can be monitored graphically during readings. Real-time off-level corrections are automatically calculated for ease of use in the field.

The Burrell & Northey Gravity Meter™ leveling system is fast and easy to use. The leveling legs are incorporated into the body of the meter. A leveling base plate is also provided for use in areas without a solid surface to place the meter up on. Under normal field conditions, the BGM can be precisely leveled for microGal (μGal) readings within 30 seconds with the aid of real-time off-level corrections.

Calibrated and Non-Calibrated Screw Meters

ZLS offers two models of the Burrell & Northey Gravity Meter™ : Calibrated and Non-Calibrated Screw. Both meters are identical in construction and have the same automatic reading resolution of 0.0001 mGal. The only difference is that one meter has a calibrated screw and the other does not.

Calibrated Screw Meter

The Calibrated Screw meter is intended for users who routinely survey large geographic areas, mountainous regions or continental surveys. ZLS calibrates the micrometer screw at discrete 50 mGal points over the entire working range of the screw. With the Calibrated Screw meter, the dial can only be used at calibrated points for large geographic surveys. The Calibrated Screw meter can also be used like a Non-Calibrated Screw meter for short range surveys or stationary site measurements.

Non-Calibrated Screw Meter

The Non-Calibrated Screw meter is intended for users with short range surveys and/or stationary site measurement requirements. The micrometer screw can be set to any position, then locked for an observation. The Non-Calibrated Screw meter can be used for surveys larger than 50 mGals by tying the points together. For Secular Earth-Tide measurements, a station version of the non-calibrated screw meter is modified for lower range and higher internal precision.

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