

AGI Underwater Gravimeter



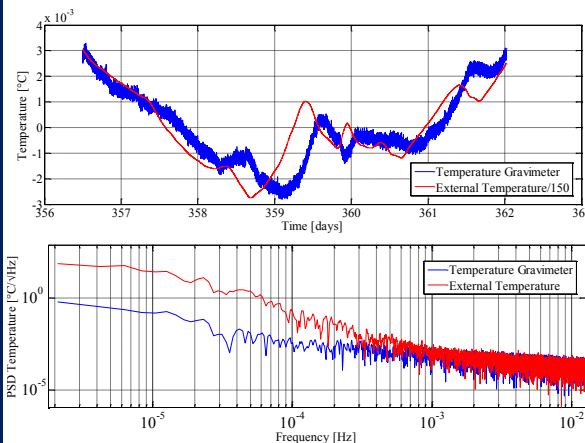
Main Features

- **High Resolution Measurements**
 - $\sim 10^{-6} \mu\text{gal}$ (10^{-9}g) rms @ 100s acq. time
- **Large Bandwidth**
 - DC to 50Hz (10^{-4}Hz to 50Hz for the best performance)
- **Gimbals Vertical Recovery System**
 - Max recoverable angle $>90^\circ$
 - Residual misalignment $<10^{-3}\text{rad}$
 - Vertical Recovery Time: $<20\text{s}$
- **Temperature Control System**
 - PID with programmable set point
 - Temperature rejection ratio ~ 150
- **Temperature Monitoring**
 - Embedded thermometer
- **Easy to install**
 - Compatible with Teledyne Benthos Glass Instrument Housing-13" (330mm)
- **Ready to use**
 - Embedded acquisition system
 - On board signal pre-processing
 - RS-232 NMEA standard output

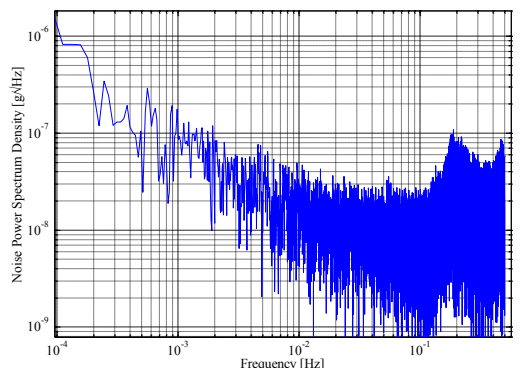
- **Low Power**
 - $<600\text{ mW}$ (sensor and electronics only)
 - $<2\text{ W}$ for temperature control system
- **Compact layout and Low Weight**
 - Inner Cube Size: 100x117x121 mm
 - Outer Ring Size: 310 mm
 - Weight: 2.5 Kg

Performance tests

- Temperature Rejection



- Noise Power Spectrum Density



AGI
ASSIST IN GRAVITATION
AND INSTRUMENTATION

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SPACE TECHNOLOGY
TRANSFER

AGI is born as a Spin-Off company of the Italian Institute of Astrophysics (INAF) and its mission is to transfer the know-how from the space borne physics experiment to the Geophysics field

EXPERIENCE AND
EXPERTISE

AGI has been involved in many R&D projects in Space, Geophysics and Oceanography fields.

Technical details

TECHNOLOGICAL SOLUTIONS

Geophysics: Deep Sea Gravimeters, 3-axis accelerometers, Gravity Gradiometer.

Oceanography: OS-IS® inland system for the sea-waves monitoring.

Space: FISICA (FP7 EU program), GALAC (ESA program for Galileo navigation satellites), Accelerometer for a CubeSat

TECHNICAL SUPPORT

AGI has labs and facilities to provide support in Electronic, Precision Engineering, Computer simulations and Informatics.

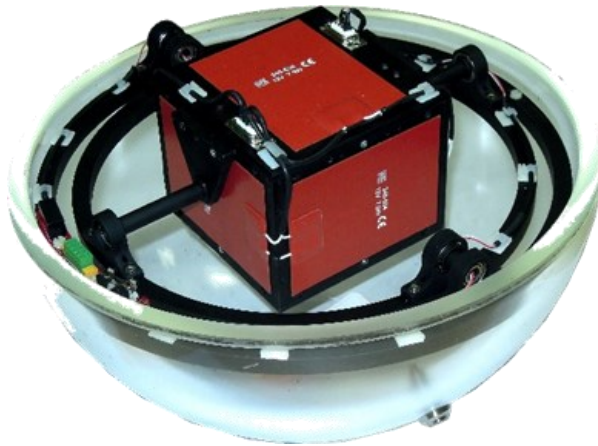
OTHER PRODUCTS

Three axis Accelerometer, OS-IS® system for sea waves monitoring, Gravitational Gradiometer.

CONTACTS

For more information on any of our products or services please visit us on the Web at:

www.agi-tech.com



Data Protocol

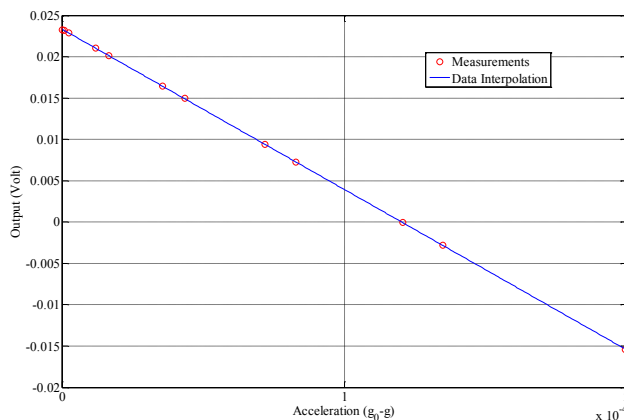
- NMEA

“\$Prefix, Acc. Data, Temp Data, System Status, *Checksum”

System Requirements

- Teledyne Benthos Glass Instrument Housing-13” (330mm) or equivalent
- 12 V Power Supply
- RS232 communication interface (115200 baud)
- Data Logger NMEA compatible

Calibration Curve



Communication Interface

- RS232

Rate	115200 baud
Data bits	8
Stop bits	1
Parity	none
Flow control	none

Electrical interface

- Terminal block plug, side entry, 5 way (FCI, 20020008-C051B01LF)



12 Volts	1
0 Volts	2
RS232 Tx	3
RS232 Rx	4
RS232 GND	5

Gravimeter

SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance
- Application Support
- Hardware Support
- Guaranteed Warranty



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