Importadora Gyb Limitada
Padre orellana 1476
Santiago CL13101 Chile

Conjunto de magnetometros MaxiMag y AeroSmartMag

Código: GD-MM-ASM

Marca: N/D

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Detalle

MaxiMag

The Overhauser magnetometer set and SmartMag is designed to solve any ground magnetic task, including gradiometry and regular surveys with walking and base magnetometers.Both devices are equipped with built-in high-precision GNSS receivers that provide centimeter-level positioning accuracy. In addition to the basic components of MaxiMag and SmartMag units, the set includes cables and mounting brackets for assembling a gradiometer. If you plan to perform drone-based surveys, we recommend choosing the AeroSmartMag + MaxiMag set.

Magnetometer or gradiometer

Walking MaxiMag and base station SmartMag are independent magnetometers with built-in GNSS receivers, consoles, and memory. SmartMag can also be used as a second sensor, turning MaxiMag into a fully functional, high-precision gradiometer. Both magnetometers can be mounted on the dedicated non-magnetic MagCart .

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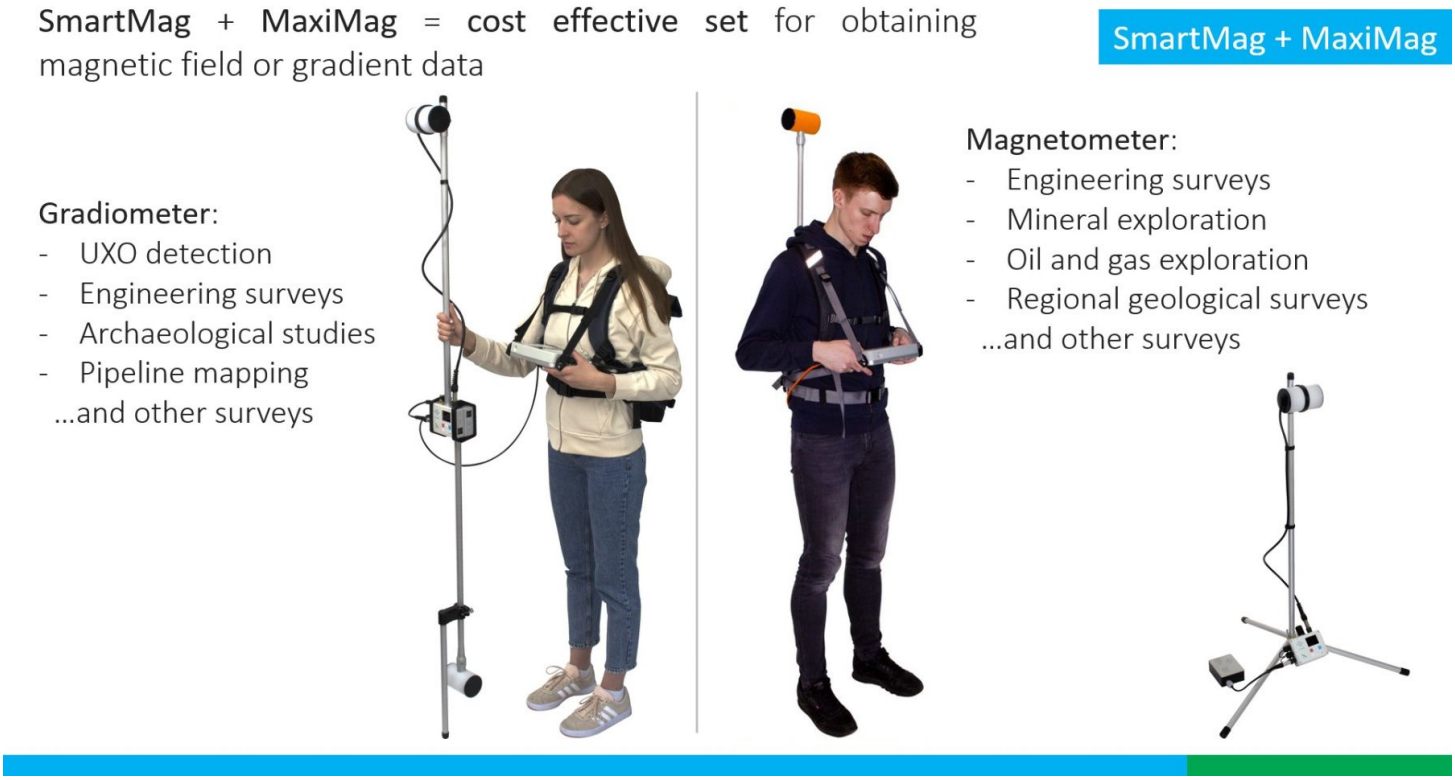
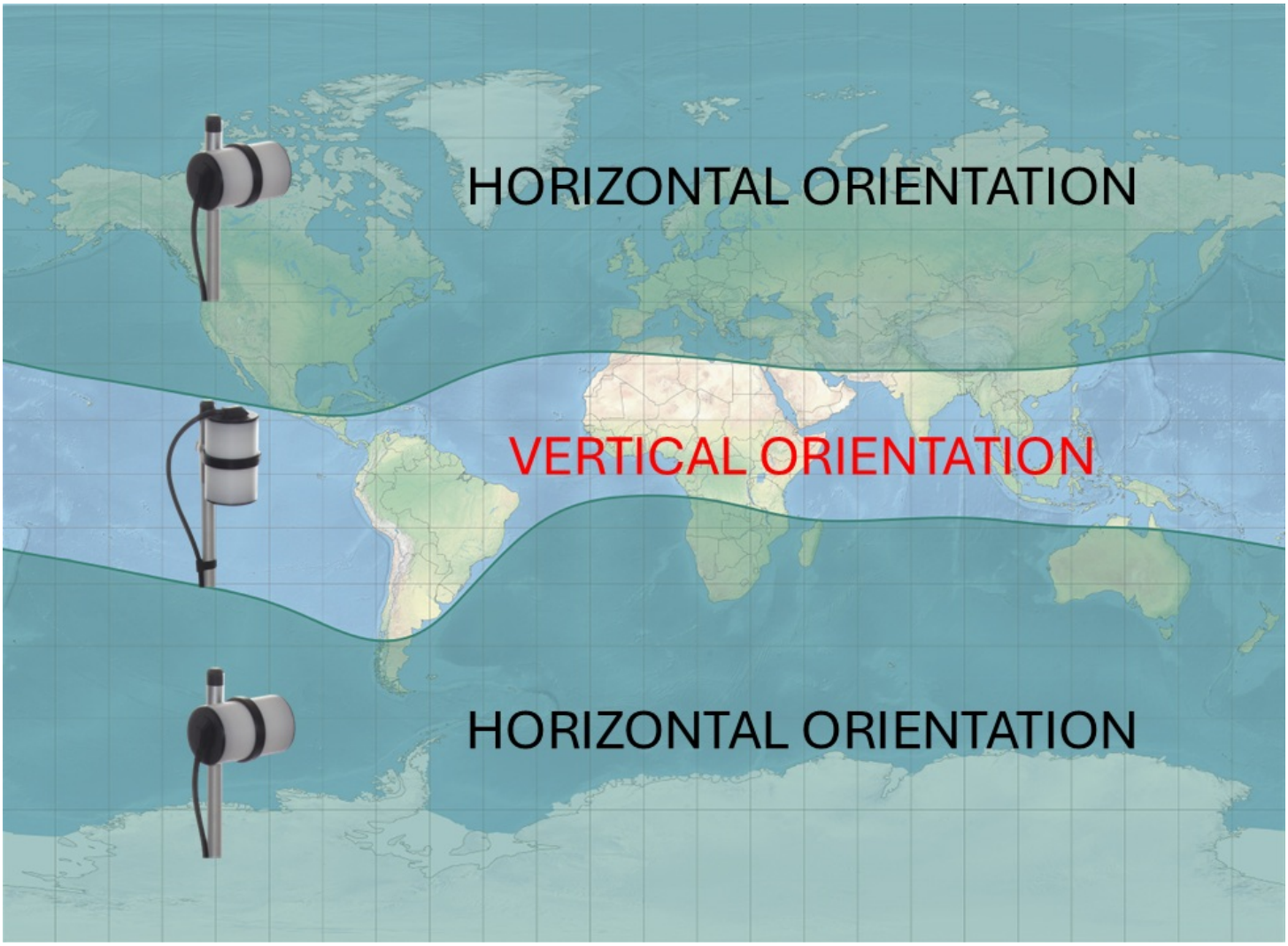


High-precision coordinate referencing

Both magnetometers are equipped with high-precision built-in dual-frequency GNSS receivers capable of recording raw data. This allows to use any magnetometer not only as a magnetic base station, but also as a GNSS base. At the same time, the second magnetometer operates as a rover to provide centimeter-level accuracy for measurement positioning. The RTK option is an indispensable tool for archaeological surveys where precise coordinates are critically important.

An ideal solution for any region

Our Overhauser magnetometers have no dead zones and can be used at any latitude. Simply keep the sensor in a vertical or horizontal position as shown in the diagram below to achieve maximum sensitivity, without worry about line direction or specific sensor orientation. This feature is especially important for UAV magnetometers operating in equatorial regions.



Overhauser magnetometers do not require sensor heating, like optically pumped ones, so power consumption and operating time remain the same whether in the summer heat or winter cold, and it is always much longer compared to any optical pumped magnetometer.

Low power consumption and lightweight design

Overhauser magnetometers offer a unique combination of sensitivity and low power consumption. MaxiMag and SmartMag are the lightest magnetometers in their class, thanks to their design and the use of lightweight batteries. MaxiMag comes with a light and comfortable harness featuring multiple adjustments to fit anybody and a backpack for your lunch and a jacket. MaxiMag sensors are available in two modifications: Modular Rigid Sensor vertical orientation + - Sensor to electronics module connection Connector Permanent Carry-on case + - We recommend the rigid design for harsh environments at low temperatures where additional connectors and assembling the sensor with gloves on can be inconvenient. Modular sensors are convenient for use closer to equator and during transportation. The magnetometer package contains a minimum number of parts to make assembly as easy as possible, but at the same time it consists of all the necessary components, so you do not have to buy additional cables, GNSS receiver and other “options and accessories” required for regular operations. Every magnetometer we ship is ready to be used in its basic configuration. Options add functionality but are not required by most users for standard operating scenarios. Thoughtful down to the smallest details We spent years conducting geophysical surveys before deciding to design equipment that would make life easier for field geophysicists. We implemented all the ideas that came to us in the taiga or mountains, under the scorching sun and in the polar night. MaxiMag features a built-in bright LED flashlight and a heated LCD display,

ensuring perfect readability day or night, in both hot and cold conditions. SmartMag is equipped with an OLED display that operates without heating down to -40°C. MaxiMag also has a dual-sided keypad that is equally comfortable for both right- and left-handed users, and especially convenient on freezing days when you just want to keep switching hands in and out of a warm pocket. We value user feedback and ideas of improving functionality and usability. Many features were implemented thanks to user suggestions and easy remote firmware update. Data format User can create project folders that can be used to divide survey sites or data collection days. All measurements are saved in a TXT file in the project folder. The file from each magnetometer has a name containing the serial number of the console, the code of the measurement mode and the number of connected sensors. The files have a homogeneous structure, i.e. every measurement in the file is a line that contains all necessary information: UTC date and time, time zone, base name or line# and station name, measured field, estimated error, sensor serial number, latitude and longitude in decimal degrees, altitude, UTM coordinates with automatic zone and hemisphere selection, horizontal and vertical accuracy. When working with a gradiometer, the line will contain measured field, estimated error, and sensor serial number for each of the connected sensors, and the file name will be different from the magnetometer mode, so the uniformity of the format will not be broken. Even if there are many operators working on a survey site at the same time, you will always be able to identify which instrument was used for each single measurement in the database. Metrology and noise protection - a guarantee of high accuracy All our magnetometers are metrologically tested. We control noise level, absolute accuracy and heading error. The robust algorithms allow to perform measurements at high level of industrial noise, in a city environment, or right under high-voltage powerlines. Reliability and warranty Three-year warranty, reliability and fast technical support make your project seamless. Our Overhauser sensors have the longest in the World lifecycle of more than 10 years. You can also take advantage of our trade-in program and replace your old instruments with the new magnetometers from us. Trade in your outdated, unreliable, and heavy magnetometers from other manufacturers for our modern, lightweight, and high-performance solutions! Operating modes Mobile survey with walking or towed magnetometer and station measurements with line guidance Gradiometer or two independent magnetometers for ground surveys Base station with continuous measurements Search mode for UXO objects detection or evaluation of a base station location GNSS receiver mode with ability to collect RAW GNSS data for a centimeter level accuracy with base or rover modes Application area Mineral exploration Regional geological studies Engineering surveys Pipeline mapping UXO detection Archaeological studies Oil and gas exploration Magnetic observatory Basic delivery set: MaxiMag console with built-in multi-band GNSS receiver Digital Overhauser sensor OVHmag Li-ion battery 14.8V/4Ah with charger - 2 pcs Sensor-to-console cable AGM battery power cable - 2 pcs USB cable - 2 pcs Backpack harness Transportation case Gradiometer accessories: - Gradiometer support - Gradiometer bracket - Gradiometer cable - Power cable extension cord SmartMag console with built-in multi-band GNSS receiver Overhauser sensor on rod External GNSS antenna on rod Rope locking tripod hitch Non-magnetic tripod Console bracket Smart base station carry-on case Optional: Real-Time Kinematic positioning Additional digital Overhauser sensors Non-magnetic cart MagCart for multi-sensor gradiometer SmartManager software RS-232 cable for real-time data broadcasting

Especificaciones técnicas

Ficha tecnica de la variante activa.

Especificación	GD-MM-ASM
Type	Overhauser magnetometers
Number of sensors	2 (up to 30 with additional sensors)
Dynamic range	20 000 to 120 000 nT
Absolute accuracy	0.1 nT
Sensor sensitivity	0.021 nT / √Hz rms 0.012 nT / √Hz rms (on request)
Resolution	0.001 nT
Gradient tolerance	30 000 nT / m
Sample rates	0.2; 0.25; 0.5; 1 s and longer with 1 s step
Sensors stability	> 10 years
Additional sensors	IMU; compass
Interfaces	built - in : USB; RS - 232; CAN FD. optional : Ethernet (CAN - Ethernet interface unit required)
Maximum communication cable length	up to 6 km (CAN FD); up to 100 m (RS - 232)
GNSS receiver	built - in and optional external
GNSS antenna	MaxiMag : built - in and optional external AeroSmartMag : external
GNSS signals	GPS L1C / A and L2C; GLONASS L1OF and L2OF; Galileo E1B / C and E5b; BeiDou B1I and B2I; QZSS L1C / A; L1S and L2C. SBAS : WAAS; EGNOS; MSAS; GAGAN; SDCM
Connectors	MaxiMag : 2 × CAN FD+12V / RS232+12V; USB; external GNSS antenna AeroSmartMag : XT - 60; CAN FD / RS232 / 12V; USB; external GNSS antenna; Overhauser sensor

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Especificación	GD-MM-ASM

Display	MaxiMag : 240 × 128; LCD AeroSmartMag : 160 × 128; OLED
Keypad	MaxiMag : 32 buttons AeroSmartMag : 6 buttons with backlight
Built-in memory	up to 32 Gb (microSD)
Power supply	9.5 - 21 VDC; LiPo 3S / 4S; Li - ion 3S / 4S; LiFePo4 4S; or lead - acid battery 100 - 240 VAC; optional power supply required
Operating temperature	–40 to +60 °C
Battery	14.8 V; 4 Ah
Dimensions with connectors	MaxiMag : 930×125×72 mm – rigid sensor 940×130×105 mm – assembled modular sensor 260×150×45 mm – console AeroSmartMag : Ø73×116 mm – sensor 125×100×35 mm – console
Item weight	MaxiMag : 1.1 kg – console 1.4 kg – rigid sensor 1.5 kg – modular sensor 0.7 kg - Li - ion battery AeroSmartMag : 1000 g – magnetometer 151 g – 4S 1300 mAh LiPo battery 37 g – bracket for DJI M300 / M350 142 g – 4 m suspension rope
Weight of a set includes console, sensor, battery, tripod, and GNSS antenna	MaxiMag walking magnetometer : 4 kg SmartMag base station : 3.1 kg MaxiMag+SmartMag gradiometer : 6 kg
Delivery package size and weight	MaxiMag : 100 × 20 × 25 cm; 14 kg – magnetometer with rigid sensor 55.8 × 35.5 × 19 cm; 8.5 kg – magnetometer with modular sensor AeroSmartMag : 55.8 × 35.5 × 19 cm; 4.5 kg

Galería de imágenes

Mostrando hasta 6 imágenes de la galería.

Imagen de galería 1

Imagen de galería 2

Imagen de galería 3

Imagen de galería 4

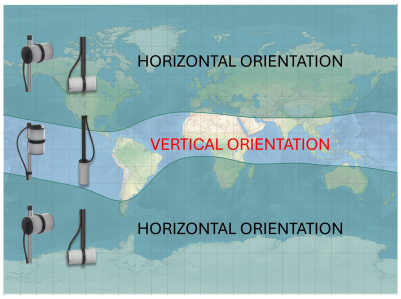

Imagen de galería 5

Imagen de galería 6

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