

UAV / drone magnetometer survey kit

MAGDRONE R3



Applications

- Survey & surveillance
- Mine exploration / tracking / monitoring at flexible heights
- Detection on unreachable, flooded or mined areas

Features

- Autarkic system with two sensors, GPS, accelerometer and battery
- Attachable to any UAV / drone with 1+ kg payload
- 2GB internal memory card
- Power concept with function for data loss prevention
- 200 Hz recording rate
- 2 Hz live data output rate
- USB download interface
- Data processing tool

The MagDrone R3 is an ultra portable magnetometer survey kit to be attachable to any UAV / drone with a 1+kg payload only.

The kit consists of Carbon fibre sensor tube with two built-in 3-axis Fluxgates, a 1-button data logger with internal SD card, rechargeable batteries, an integrated GPS as well as a serial live data output. It only needs some cable ties to mount the kit directly to the UAV.

The MagDrone R3 is made and optimized for small and mid size survey UAVs that are shaped for less payload and longer flight times.

The MagDrone R3 survey kit can be used for general purpose surveys, science related magnetic cartographies, mine exploration, as well as for safety relevant operations such as area scanning for bombs and ammunition, preventive check and surveillance of areas and camps against intrusion.

An associated software helps to identify flown tracks, cut, filter and compensate the raw data, generates a preview and exports into various formats to further process the recorded values i.e. using the MAGNETO[®] software, GIS tools or Matlab with your own scripting.

Technical Data MagDrone R3

General Technical Data	
Power Supply	11.1 V; 1,950 mAh Li-Ion re-chargeable battery
Operating Temperature	-20°C to +50°C
Weight / with Li-Ion battery	750 g / 884 g
Overall power consumption	500 mA
Sensor tube dimensions (W x D x H)	1,070 x 22 mm
FGM3D/75 Fluxgate	
Number and orientation of sensors	2 pieces, laid horizontal, parallel
Specified measurement range	±75,000 nT (higher ranges available on request)
Number of sensor axis	3
Distance between sensor centre points	1,000 mm
Datalogger	
Power	50 mA
Sensor input	Internal wired
User Interface	On/Off + Start/Stop button; status LED
Survey mode	Recording when start/stop pressed
Sampling rate	200 Hz (higher rates available on request)
Live data output	2 Hz (via serial interface)
Internal memory	2 GB
Datalogger dimensions (W x D x H)	230 x 128 x 43/73 mm
Standard package	
MagDrone R3	Sensor tube, 2 pcs. built-in FGM3D/75 sensors, data logger (fixed to tube), 2 pcs. rechargeable batteries
Rugged case (W x D x H)	1120 x 290 x 110 mm
Internal GPS	U Blox SAM-M8Q
Peripherals	Data transfer cables (USB), set of internat. power plugs, wall charger, accessory bags, USB memory stick with software
Documentation	Certificate, manual, quick guide
PC software	MagDrone DataTool
Optional accessories	
Data processing	MAGNETO® Software
Live output	Serial Bluetooth dongle

