SENSYS®
Magnetometers & Survey Solutions

UAV / drone magnetometer survey kit

MAGDRONE R4

Applications

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

Features

- Autarkic system with 5 FGM3D/75 Fluxgate sensors, GPS input, altimeter and battery
- Attachable to any UAV / drone with 3 kg payload
- 8 GB internal memory card
- Data loss prevention
- 200 Hz recording rate
- 1 Hz live data output rate
- WLAN download interface
- Data processing tool incl.

The MagDrone R4 is an ultra portable magnetometer survey kit with 5 triaxial Fluxgates to be attached to any UAV / drone with a 3000 g payload.

Its unique folding mechanism allows a sensor spacing of either 25cm or 50cm providing a 2.5m swath width. Other solutions are available on request!

With 200Hz sampling rate the MagDrone series can easily filter out noise from net frequencies, infrastructure or the UAV / Drone motors. Hence, the MagDrone devices can be directly installed on the drone landing gear to enable a very compact setup.

The MagDrone R4 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.

The MagDrone Data Tool 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.

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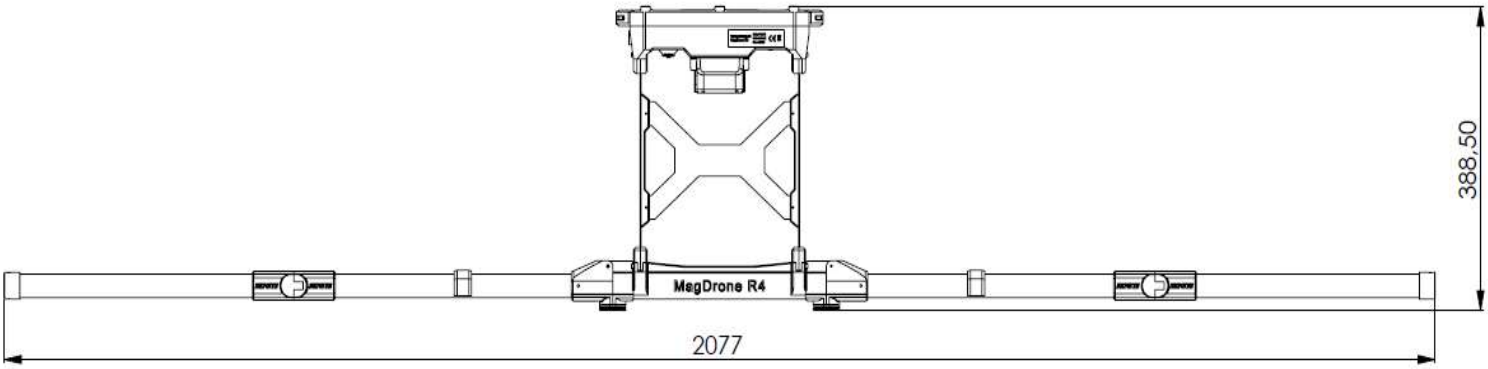
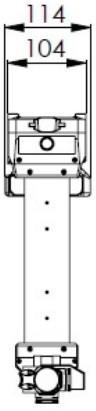
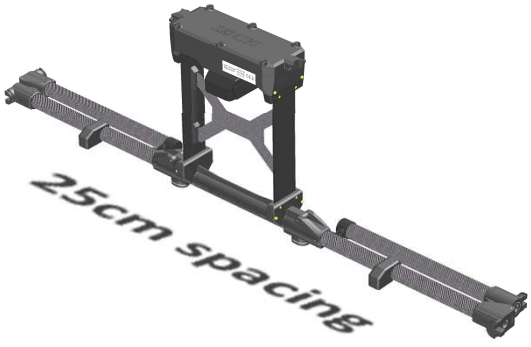
Technical Data MagDrone R4

General Technical Data	
Power Supply	18 V; 1,5 Ah Li-Ion re-chargeable battery (90 min. recording)
Operating Temperature	-20°C to +50°C
Weight / with Li-Ion battery	2700 g / 3000 g
Overall power consumption	10 W
Internal Memory	8GB (enough for 120h measurement data)
User Interface	Start/Stop button; Web Interface
Survey mode	Continious recording while airborne
Sampling rate	200 Hz (higher rates available on request)
Live data output	1 Hz magnetic data and status information to Web Interface
Dimensions (W x D x H)	See drawing below
Swath width	Adjustable: 1000 mm, 2000 mm
Altimeter	2 x SRF 02 (0.015…6 m)
FGM3D/75 Fluxgate	Tri-axial Fluxgate sensor
Number and orientation of sensors	5, horizontally, aligned to each other
Specified measurement range	±75,000 nT (higher ranges available on request)
Sensor resolution	</= 50 pT
Distance between sensor centre points	Variable 250 mm or 500 mm







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