BALI USV100
Autonomous bathymetry

Simple and easy bathymetric survey

Hydrojet propulsion up to 10 knots

Long-term autonomy

Versatile and suitable for all conditions environmental

GEOD® powered

Manual and / or autonomous bathymetry

Real-time centimeter accuracy RTK

Integrated web server compatible with many software

Single Frequency (SF) and Dual Frequency (DF)

Stable platform with low draft and compatible with many sensors (ADCP, sidescan sonar, echo sounders...)
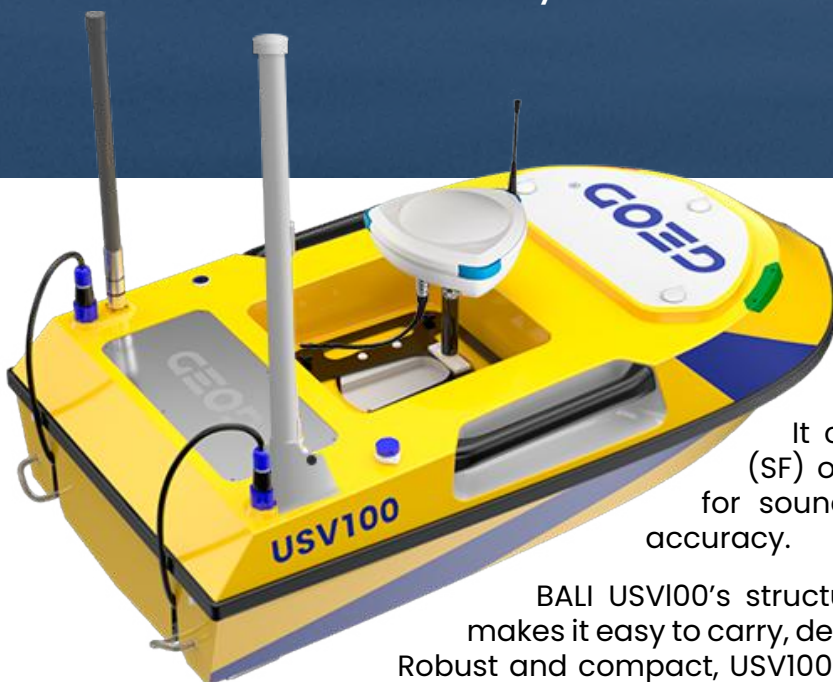
Robust and lightweight

One surveyor can operate it

Ultra-resistant carbon fiber hull

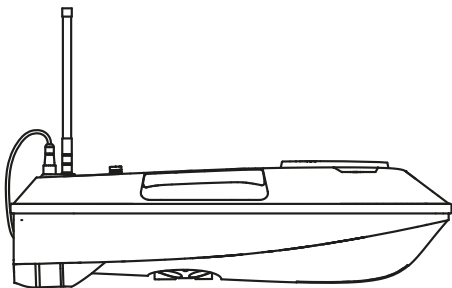Ideal for surveys of inland waters, ports, rivers...

BALI USV100 is a complete bathymetric survey solution, which is simple to operate and extremely accurate.

It comes with either a single frequency (SF) or a dual frequency (DF) echosounder for sounding up to 200 m with centrimetric accuracy.

BALI USV100's structure is made with fiber carbon which makes it easy to carry, deploy and operate by only one operator. Robust and compact, USV100 can be used in any environnemental and hydrological conditions.

Technical characteristics

Positioning	GPS, Glonass, Galileo and BeiDou dual-frequency RTK (1cm) - SBAS (0.5m)
Sonding*	
• 450kHz frequency	Range : 0,15m - 100m Accuracy : 0,2% of depth range or 2 cm Angle beam : 5°
• 200kHz frequency	Range : 0,4m - 200m Accuracy : 0,2% of depth range or 2 cm Angle beam : 9°
• 30kHz frequency	Range : 0,4m - 200m Accuracy : 0,2% of depth range or 2 cm Angle beam : 26°
Radio communication	GSM Long-range UHF (403-473MHz) Wifi (2.4GHz)
I/O interface	Full system configuration Mission planning Real time monitoring Real time navigation Bathymetric data cleaning
Data format	
• Position	Latitude, Longitude, Altitude (WGS84) and XYZ
• Sounding	Water depth (meter)
Data output	NMEA0183 and ASCII
Software interface	Web browser (iOS, Android, Windows)

Standard delivery

1 USV
1 rechargeable battery with charger
1 wireless base station
1 remote controller
1 BALI (smart antenna + echosounder)
1 PTZ camera
Navigation and autopilot software
1 transit case on wheels

Optional delivery

Additional batteries
BALI stand-alone assembly kit
ADCP, sonar side scan, ...

*Other configurations available on request
**Vacuum, without echosounder or inertial sensor

USV characteristics**

Hull material	Carbon fiber
Dimensions	105 x 55 x 38 cm
Weight	17 kg
Draft	15 cm
Engine	2 hydrojets
Speed	5m/s max.
Endurance (vitesse 1 m/s)	From 10h to 12h
Remote controller range	1 km
Wireless base station rane	2 km

Easy to carry

Compact