# BALI USV200

## Multibeam autonomous bathymetry

### Performance & Polyvalence

Hydrojet propulsion and multibeam depth sounder integrated «flush» into the hull

Suitable for port areas, inland waters, lakes, rivers... and for very shallow areas (15 cm draught)

Full day operation (2 knots, up to 10 knots (5 m/s))

100% automated bathymetry, Compact and space-saving

### Multibeam system

Multibeam soundeur R2SONIC 2020

GNSS RTK inertial control, positioning and compasses

Hull celeritometer, Navigation and acquisition software : Hypack (HYSWEEP®) and QINSy

### Multi-applications

Conventional and specific bathymetric surveys
Ideal for surveys of inland waters, ports, rivers...

Navigation safety, Dredging Control


The BALI USV200 multibeam is a compact, powerful and robust solution.

With the multibeam sounder and propulsion integrated directly into the hull, the drone can safely operate in a very wide range of environments, such as in the middle of shallow areas or areas with complicated access.

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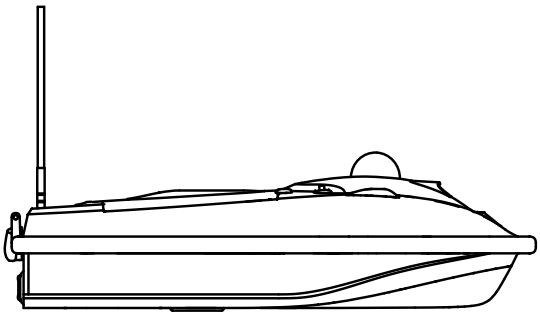
| Technical characteristics | |
|---|---|
| Inertial control and positioning | Inertial control FOG or MEMS<br>Multiconstellation GNSS, Beidou, Galileo<br>Multi-frequency RTK |
| Soundeur R2SONIC 2020*<br>• 200 to 400 Khz (700 Khz option)<br>• Mini SVS | Adjustable frequency range from 200 to 400 kHz and 700kHz<br>High resolution : 2°x2° @400kHz,1°x1° @700kHz<br>Opening 10 to 130°, range 75m+ nadir |
| Communication | GSM<br>Long range UHF (403-473MHz)<br>Wireless LAN (2.4GHz) |
| I/O Interface | Ethernet<br>Wifi |
| User Interface | Full system configuration<br>Mission planning<br>Real time navigation<br>Real Time Survey Setup and Tracking |
| Other sensors | Oceanographic Winch (SVP, multicapt)<br>Scanner Laser<br>Shore Based Control Post |



| USV Caracteristics** | |
|---|---|
| Hull material | Carbon fiber |
| Size | 160 x 70 x 40cm |
| Weight | 32 kg |
| Draft | 15 cm |
| Engine | Hydrojet |
| Speed | 5m/s max. |
| Endurance (1.5m/s speed) | 6h minimum |
| Remote controller range | 1km |
| Wireless base station range | 2km |

**Standards delivery**

1 USV
1 rechargeable battery
1 wireless base station
1 remote controller
1 multibeam system R2SONIC 2020 with miniSVS
1 Inertial control, GNSS RTK compass
1 transit case on wheels
1 360° Camera
1 Collision avoidance system
Drone navigation software and autopilot

**Optionnels delivery**

Additional batteries
Oceanographic winch with SVP or multi parameter probe
Laser scanner
Launching trolley
R2SONIC modes: UHR 700 Khz, Truepix, Water column data
PC Portable Rugged Terrain

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

## Conventional and Specific Multibeam Bathymetric Survey