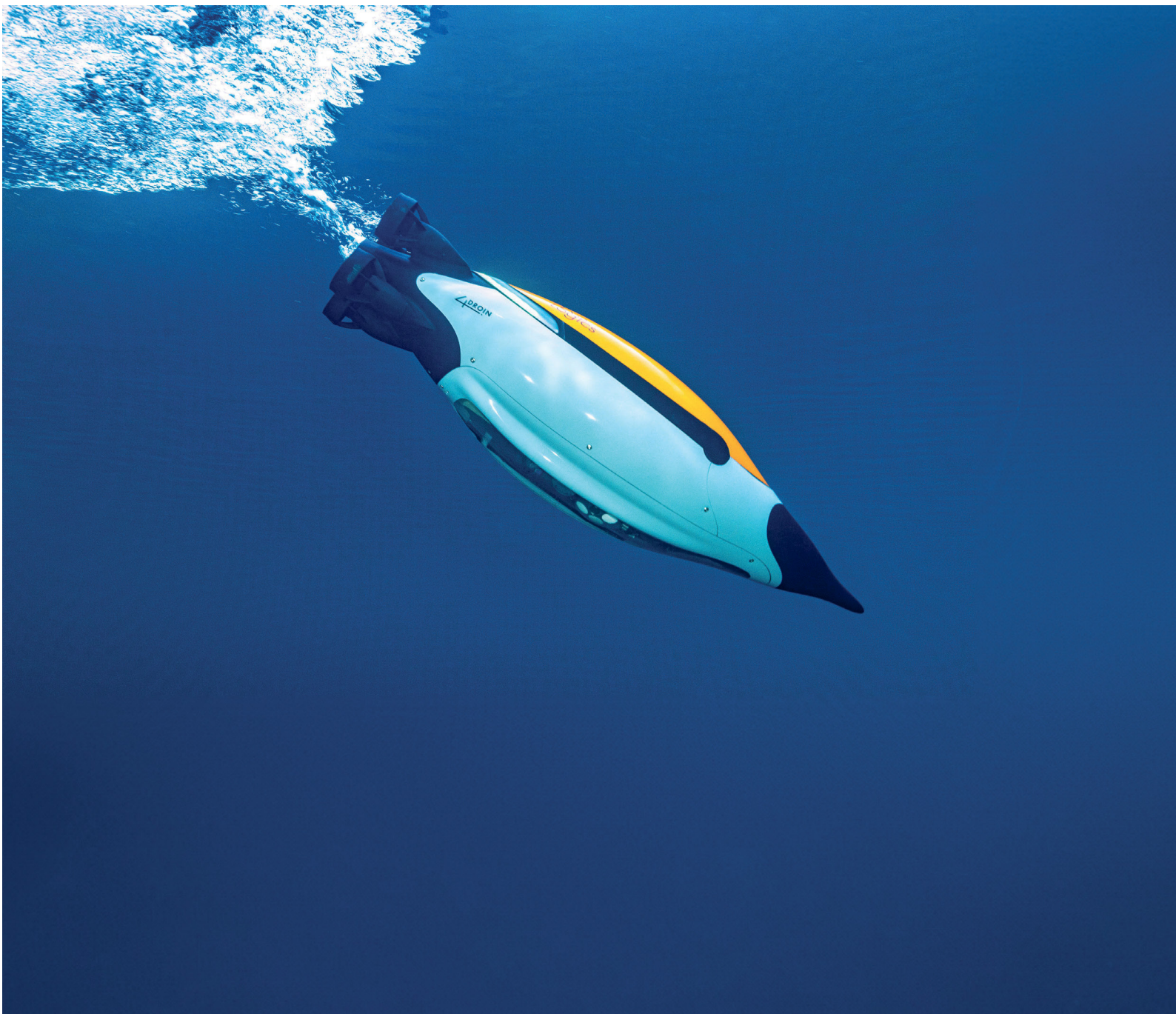




# QUADROIN

## AUTONOMOUS UNDERWATER VEHICLE

PRODUCT INFORMATION GUIDE



## EVOLOGICS QUADROIN: THE INTELLIGENT, SWARM-CAPABLE AUV

### Onboard intelligence

- real-time underwater assessment of sensor data
- dynamic mission adjustments based on situational awareness
- onboard ATR (Automatic Target Recognition)
- onboard OAS (Object Avoidance System)

### Swarm capability

- communicate via CATL and DCCL standards (STANAG 4817 in preparation)
- deploy up to 6 Quadroins in a swarm
- Quadroins can assume and maintain formations
- distributed roles within a swarm: some systems will scout, others will gather target details - all within the same mission
- Quadroins can form underwater acoustic communication relays for long distance information transfers

### Live Connectivity

- at the surface, receive data logs via WiFi, StreamCaster network, or cellular network (Tactical Core ready)
- underwater, receive real-time positions, status updates, and target data over acoustic communication
- communicate via CATL and DCCL standards (STANAG 4817 in preparation)

### Lightweight agility and speed

- Sub-25 kg weight allows for fast one-person handling
- up to 10 hours of operating time on one battery set
- 10 kn (5 m/s) maximum speed

### Easy handling

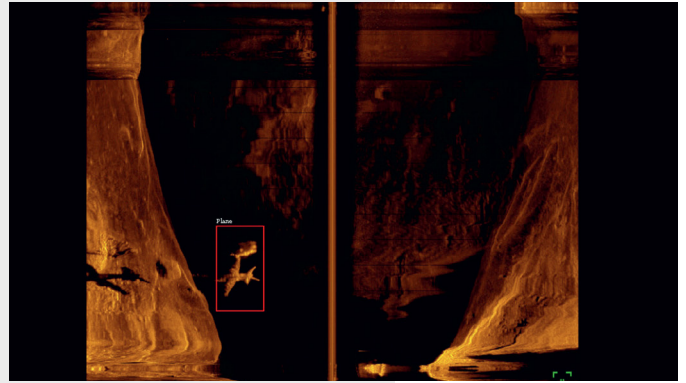
- Comfortable transport case for easy one-person transport and deployment
- Very compact packing volume

### THE QUADROIN SYSTEM



### Accident and crime scene investigations

Quadroin can search for lost objects and help locate victims of drowning. With side-scan sonar and automatic object recognition, it will provide fast and accurate surveys of lakes, rivers, and harbours. With video feed, it confirms and identifies found targets. Object locations and images will be transmitted with their absolute, geo-referenced coordinates and visualized on a map.



### Inspection for dangerous objects and IEDs

Quadroin is pre-trained to recognize a wide range of potentially harmful underwater objects, such as sea mines, anti-landing mines, IEDs, ammunition, and firearms. It has a strong track record in mine search missions with NATO and close allies. It is also used by police forces and harbour security authorities.



### Regular monitoring of critical underwater infrastructure

Quadroin can monitor harbours, flood gates, LNG terminals, pipelines, cables, and offshore wind parks. It will identify known threats ad-hoc. In addition, it can perform frequent repeated missions (patrols) and detect changes in underwater environment.



### Environmental monitoring and protection

Quadroin can monitor sensitive underwater ecosystems, such as fragile reefs. It can count population of sea stars, assess the underwater growth of kelp forests, or search for ghost fishing gear. It is also used by scientists to measure water properties inside of subsea eddies.



### Coordinating missions with divers

Quadroin can cooperate with scuba divers. It will seamlessly communicate with EvoLogics Diver Navigation systems. Divers will see the AUV's position on their underwater maps in real time. They can also receive identified target data from any Quadroin in the area. Dive teams can call the Quadroin to their own underwater location or send it ahead to specific waypoints.



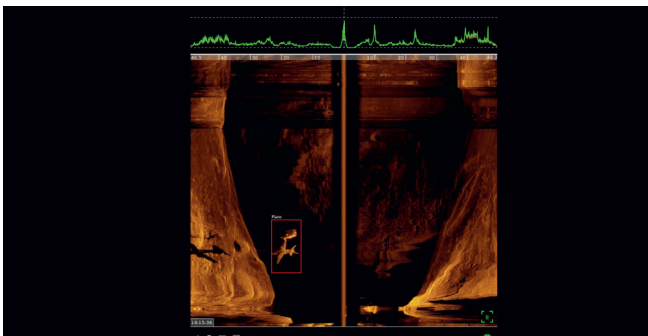
## SPECIFICATIONS AND CONFIGURATION OPTIONS



GENERAL	OPERATING DEPTH	150 m
	SPEED	up to 10 kn / 5 m/s
	ENDURANCE	up to 12h at 1.5 m/s (default survey speed), depending on installed payload
POWER	POWER SUPPLY	internal rechargeable Li-Ion batteries, optionally swappable
	BATTERY CAPACITY	1 kWh
	CHARGING TIME	less than 6 hours
INSTRUMENTS	UW COMMUNICATION AND POSITIONING	S2C M 18/34 acoustic modem with atomic clock, up to 13.9 kbit/s
	NAVIGATION	GNSS, Nortek Nucleus 1000 DVL with AHRS and INS, IMU, USBL/LBL aided positioning, underwater collision avoidance system (future option)
	GNSS	Dual-band receiver and antenna with RTK options
	RADIO COMMUNICATION	WiFi 2.4 GHz, 863-870 MHz ISM modem (915 MHz available), StreamCaster 2x2 MN-MIMO 2200-2500 MHz, LTE optional
	ON-BOARD PC	EvoLogics AI module for high-end onboard computing
PAYLOAD	PAYLOAD OPTIONS	side-scan sonar, down looking full HD underwater camera with dimmable LED light, object recognition hardware and software, ADCP, CTD, fluxgate magnetometer
	PAYLOAD CAPACITY	up to 3 kg
DIMENSIONS		length 1120 mm, Ø 304 mm max.
WEIGHT		less than 25 kg in air / buoyancy trimmable

For pricing and configuration information contact us at [sales@evologics.com](mailto:sales@evologics.com) or call +49 30 4679 862 - 0

Specifications subject to change without notice. © Evologics GmbH - April 2025



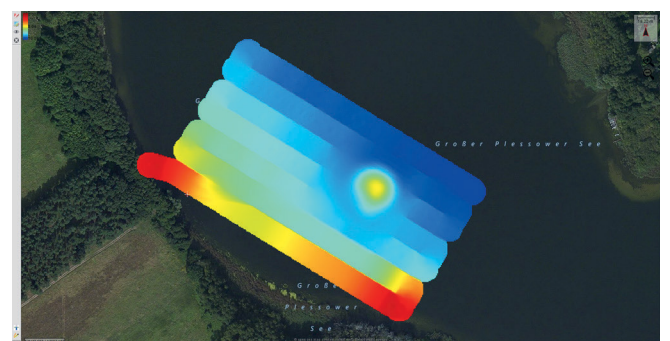
DURING THE MISSION  
Side-scan sonar live view with object detection



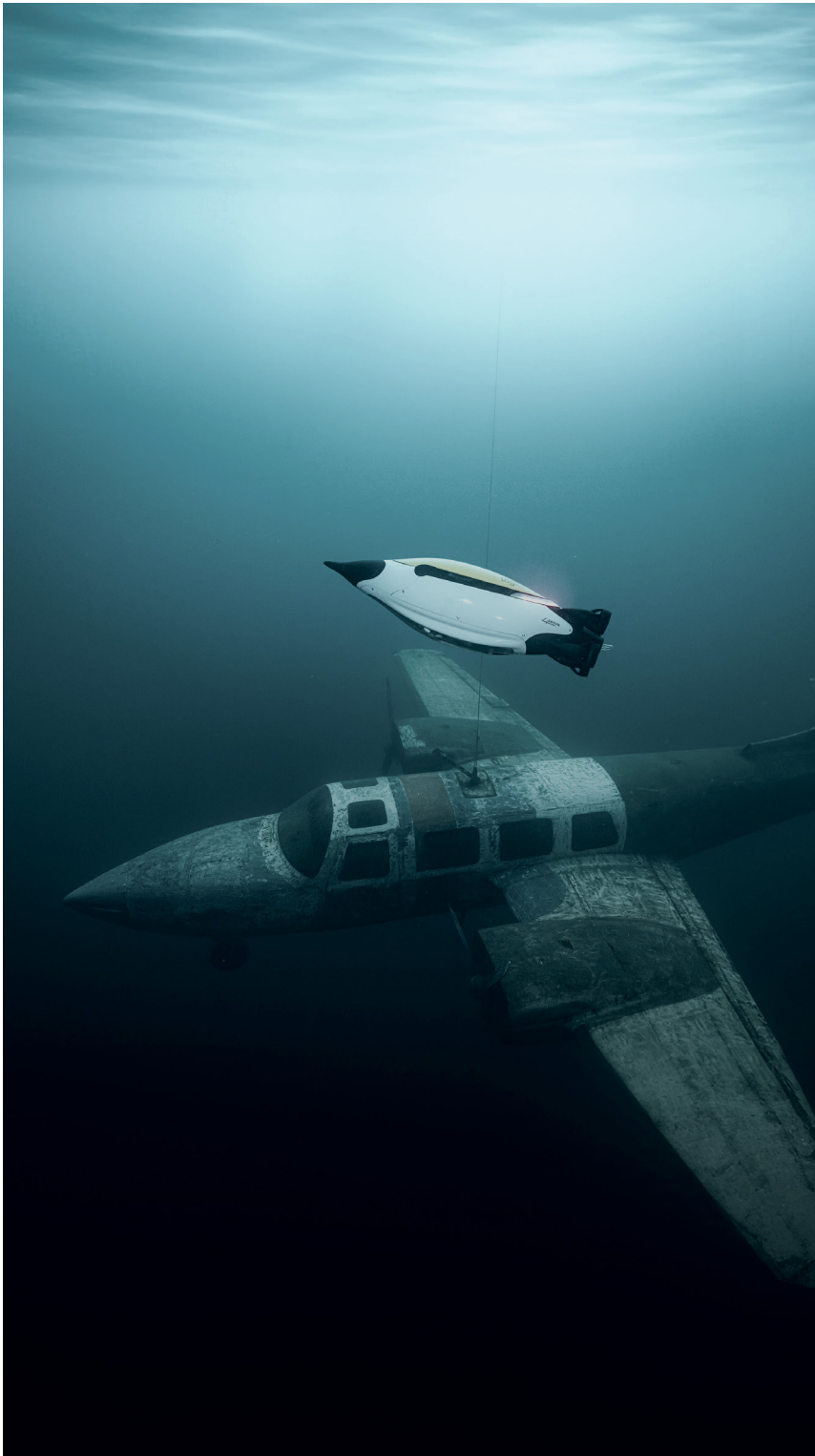
DURING THE MISSION  
Mission progress live view



DURING THE MISSION  
Diver Navigation coordination



MISSION RESULTS  
Single-beam echosounder bathymetry in 2D



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