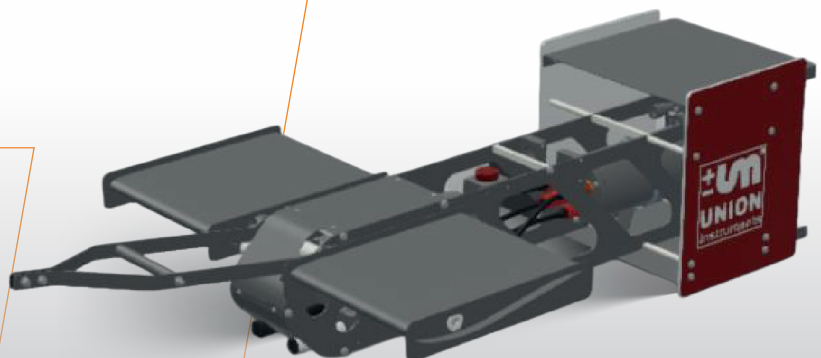


Special Instrument

BIO-FISH

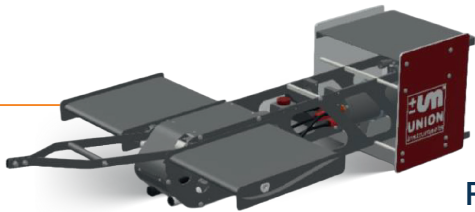


Maritime
Research



Special Instrument

BIO-FISH



Fast, precise data acquisition

Our BIO-FISH is an extremely lightweight, multi-parameter system designed for fast and comprehensive data collection in estuaries, lakes, rivers, and coastal waters. It is highly automated, allowing it to be operated even by personnel without specialized training in measurement technology or data processing.



Maritime Research

The complete system consists of:

- The BIO-FISH tow body with up to fifteen physical, chemical, and biological sensors
- An electronic module for data acquisition and control
- A GPS navigation system

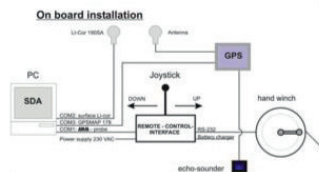
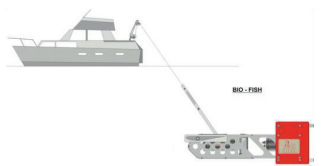
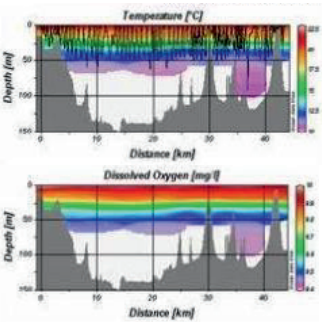
System performance data:

The BIO-FISH weighs approx. 20 kg and can be handled on-site by a single person. The maximum operating depth is 60 m at 3 knots. Special versions for greater depths and specialized sensors are available upon request.

The sensors on the BIO-FISH are positioned to ensure unobstructed flow-through. The measurements are not significantly affected by movement through the water column.

Options:

Additional instruments can be integrated as required.



Sensor data

	Principle	Measurement range	Initial accuracy	Resolution	Response time
Temperature	Pt 100	-2...36 °C	± 0,01 °C	0,001 °C	150 ms
Pressure	piezoresistive	0...100 dbar	± 0,1 dbar	0,01 dbar	150 ms
Conductivity	7-pin cell	0...60 mS/cm; 0...4 mS/cm	± 10 µS/cm; ± 2 µS/cm	1 µS/cm; 0,1 µS/cm	150 ms
Oxygen 1	amperometric	0...150 % sat.	± 2 % sat.	0,02 % sat.	3 s (63 %) 10 s (95 %)
Oxygen 2 (optional)	galvanic	0...200 % sat.	± 2 % sat.	0,02 % sat.	≥ 250 ms (100 %)
pH (H ₂ S resistant)	Potentiometry	4...10 pH	± 0,02 pH	0,02 pH	< 10 s
Redox	Potentiometry	± 2 V	± 2,0 mV	0,1 mV	< 10 s
H ₂ S	amperometric	3, 10 or 50 mg/l	< 3 % f. s.	0,001; 0,03; 0,1 mg/l	< 3 s (100 %)
Turbidity	Light source: 880 nm	0 ÷ 750 FTU	< ± 2 %	0,02 FTU	< 1 s

Data Acquisition Software:

The standard data acquisition package (SDA) is a Windows®-based software that handles data collection, analysis, real-time graphical display, storage, and output to printers and other peripherals. SDA is menu-driven and controls the probe's functions as well as all data outputs. The collected data are converted into technical values and can be imported into analysis programs such as spreadsheets.

Data Transmission:

The BIO-FISH system operates exclusively in real-time display mode and requires a single-core marine cable with a diameter of approximately 3.2 mm. Data transmission takes place via this single-core cable, and additional analog devices can be connected to the BIO-FISH probe (please inquire). The data transfer is carried out through RS-232 signals (telemetry) via the marine cable to the remote control unit and via RS-232 to the PC. It is recommended to use an original ADM probe to ensure full functionality of the SDA software for navigation.

Key Features:

- Versatile, portable system*
- Maximum wave-shaped diving depth: 60 m at 3 knots
- Wave-shaped range in automatic mode: 8 to 40 m
- Navigation speed: 3 to 5 knots
- GPS and echo sounder equipment for navigation
- Multichannel sensor with 16-bit resolution installed
- Low power consumption: 60 W / 230 V**
- Baud rate: 4800 bit/s, minimum 4 scans/s
- ADM-SDA software for navigation and data acquisition

Dimensions:

Overall length:	Approx. 950 mm
Overall width:	Approx. 700 mm
Overall height***:	Approx. 320 mm
Housing width:	Approx. 120 mm
Weight***:	Approx. 20.0 kg

* Only a small hand winch with slip rings is required.
** Power consumption of the PC not included.
*** Height and weight may vary depending on selected options.

In line with our policy of continuous improvement, the design and specifications of our products may differ from those shown in this brochure.



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