

# -4H-PocketFerryBox



## COMPACT SYSTEM FOR OPERATIONAL WATER MONITORING

*Taking multiparameter observations of water composition and pollutants mobile*

The -4H-PocketFerryBox is a solution for unattended and automated environmental monitoring in shallow waters close to shore, and inland waterways including rivers, lakes and hydro electric dams. While providing the same high-precision measurements of multiple water parameters and constituents as the larger -4H-FerryBox system, this lightweight man-portable variant can be used on small boats, installed on compact platforms and be physically carried to the site.

Delivered as a ready to go system in a durable, protective case with either a battery or Power Supply Unit for mains power, the -4H-PocketFerryBox unlocks a new world of water quality monitoring applications whether installed on piers, jetties or other infrastructure adjacent to water, or on small craft. Once in place, the system provides autonomous environmental monitoring according to the parameters requested.

### OPERATING PRINCIPLE

The intuitive software for control, data management and data visualization allows the operator to run and maintain the system easily. In conjunction with a corresponding communication module, remote control, telemaintenance as well as geo-tagged measurements or even series of position-dependent measurements are possible.

### CUSTOM PROJECTS

There are several add-on and user specifications that can be adapted to ensure the -4H-PocketFerryBox meets diverse user requirements, including:

- Battery case & Rechargeable battery pack
- Water supply pump
- Outside frame for water supply
- ComBox for data transmission
- GPS/Telemetry

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## APPLICATIONS

- Small research and survey vessels
- Inland waterways - rivers, lakes and dams
- Any project with limited space and/or power for equipment



## FEATURES

- Hand portable, stored and delivered in a high quality Zarges brand case
- Flow through system for acquisition of physical and biogeochemical data for mathematical climate models
- Flexible solution that's easy to prepare for taking measurements
- Optional ComBox enables:
  - Data transfer via Satellite, GPRS, UMTS or WiFi/LAN
  - Event triggered operation modes, with remote supervision and parameterization

## EXAMPLE CONFIGURATION: ENVIRONMENTAL MONITORING

Basic parameters	Range	Accuracy
Conductivity	0 - 70 mS/cm	0.003 mS/cm
Temperature	-5 - 35 °C	0.002 °C
Salinity	2 - 42 PSU	0.005 PSU
Oxygen conc.	0 - 500 µmol/l	8 µmol/l
Oxygen sat.	0 - 120%	0.4%
Total chlorophyll	0 - 200 µg Chl-a/l	0.01 µg Chl-a/l
Green algae	0 - 200 µg Chl-a/l	0.01 µg Chl-a/l
cyanobacteria	0 - 200 µg Chl-a/l	0.01 µg Chl-a/l
diatoms	0 - 200 µg Chl-a/l	0.01 µg Chl-a/l
dinoflagelates	0 - 200 µg Chl-a/l	0.01 µg Chl-a/l
yellow substances	0 - 200 µg/l	0.01 µg/l
cryptophytes	0 - 200 µg Chl-a/l	0.01 µg Chl-a/l
Turbidity	0 - 750 NTU	0.2 NTU
pH	0 - 14	0.1
Intake temperature	-5 - 35 °C	0.001 °C

Optional parameters	Range	Accuracy
pCO2	0 ... 3000 ppm	1 %
CH4	0 ... 50 µmol/l	3 %
Phycocyanin	0 ... 40,000 ppb	2 ppb
Phycoerythrin	0 ... 750 ppb	0.15 ppb
Fluorescein	0 ... 500 ppb	0.01 ppb
Rhodamine	0 ... 1000 ppb	0.01 ppb
CDOM/ FDOM	0 ... 2500 ppb	25 ppb
Crude oil	0 ... 2700 ppb PTSA	30 ppb PTSA
COD eq	0 ... 5000 mg/l	5 %
TOD eq.	0 ... 500 mg/l	5 %
BOD eq.	0 ... 5000 mg/l	5 %
Global radiation	0 ... 2000W/m <sup>2</sup>	0.012
Wind direction	0 ... 360 deg	2 deg
Wind speed	0.7 ... 50 m/s	1 m/s
Air temperature	-70 ... 90 °C	0.1 °C
Air pressure	600 ... 1100 hPa	10.5 hPa
Relative humidity	0 ... 100%	2 %
Precipitation	0 ... 4 ml/min	0.1 ml/min
Transmission	0 ... 100%	1 %

## CONTACT -4H-JENA

Get in touch to find out how the -4H-PocketFerryBox can enable more efficiency and quality for any long-term marine research project.

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## CONTACT YOUR LOCAL REPRESENTATIVE

The -4H-PocketFerryBox enables climate researchers to contribute towards meeting the United Nations Sustainable Development Goals.

