MARINA PACKAGE

MODUL 1 | WATER LEVEL + TEMPERATUR

Low Power Communication Module to transmit ocean data remotely

benefits



24/7 location accurate water level information. Warn your berth tenants of critical water levels. Provide local, real-time temperature data.

features



Water level sensor system based on ultrasonic measurements to detect the water level inside the marina.



Water temperature measurements within the marina at real-time intervals for precise temperature recording.



User-friendly digital interface that translates all measured data into useful information.

costs



approx. 800 € prototypes costs. Installation via Pinck Yachttechnik, maintenance not required.



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MODUL 1 | WATER LEVEL + TEMPERATUR

Low Power Communication Module to transmit ocean data remotely

technics



Parameters: water level (+- tba), temperature (+-0.5C), GPS, customizable for analogues sensors 0-3 3V



Installation: connected on deck/stern basket via strap



Dimensions: 10 x 12 x 10cm (LxBxH) Water proofness: splash proof IP65



Power supply: 12V DC / LiPo battery powered, charging by solar or mains via transformer (240 V). Power consumption: ~0.1Wh



Data transfer: LoRaWAN



MARINA PACKAGE MODUL 2 | AIR PROPERTIES

Compact, cost-effective and expandable solution to measure essential meteorological parameters.

benefits



24/7 location accurate atmosphere data. Support your berth tenants with local weather and wind parameters.

features



Local and accurate meteorological parameters.



Provide local and accurate air temperature, barometic pressure, wind speed, wind direction and humidity (expandable) to berth holders.



User-friendly digital interface that translates all measured data into useful information.

costs



approx. 500 € prototype costs. Maintenance: very low ~ once/year cleaning



MARINA PACKAGE MODUL 2 | AIR PROPERTIES

Compact, cost-effective and expandable solution to measure essential meteorological parameters.

technics



Parameters: wind speed, wind direction, air temperature, barometric pressure and humidity (expandable).



Installation: on a mast or pole, or a place ensuring free streaming air flow.



Dimensions: 28 x 11 x 11 cm. Water proofness: splash proof



Power supply 12V DC, charging by solar or mains via transformer (240 V). Power consumption < 50 mA.



Data transfer: LTE, LoraWan, CAN Bus, StarLink, (mail client).



MARINA PACKAGE MODUL 3 | AIR QUALITY

Location-accurate air quality measurements based on trace gases, black carbon and aerosols.

benefits



24/7 location accurate air quality information. Inform and warn your berth holders of critical air quality.

features



Local and accurate atmospheric measurements based on trace gases, black carbon and aerosols. Individually customizable.



Provide local and accurate concentrations of health-relevant gases + particles. Show how clean and healthy the air in the marina is.



User-friendly digital interface that translates all measured data into useful information.

costs



approx. 2.500 € prototype costs.
Maintenance: lx sensor calibration/year by
SOOP, switching off at too high humidity/rain.



MARINA PACKAGE MODUL 3 | AIR QUALITY

Location-accurate air quality measurements based on trace gases, black carbon and aerosols.

technics



Parameters: trace gases (carbon dioxide, sulphur dioxide, nitrogen dioxide, carbon monoxide, ozone), black carbon and aerosols, customizable



IInstallation: Internal/water-protected Teflon hose, which is attached at a high point on the mast or pole.



Dimensions: 37 x 30 x 17 cm Water proofness: splash proof



Power supply: 12 V DC, charging by solar or mains via transformer (240 V). Power consumption: 16 W



Data transfer: 1 MB/day, LTE, LoraWan, (mail client)



MARINA PACKAGE MODUL 4 | BIODIVERSITY

Location and accurate environmental DNA (eDNA) underwater sampling to detect rare or invasive species.

benefits



Local and accurate bidiversity information. Inform your berth holders and the local authorities of rare or invasive species.

features



Provide local and accurate information on biodiversity and inform the berth holders and the local authorities of important detections.



User-friendly digital interface that translates all measured data into useful information.

costs



approx. 500 € prototype costs + analysing costs Maintenance: replace filters, deploy device underwater



MARINA PACKAGE MODUL 4 | BIODIVERSITY

Location and accurate environmental DNA (eDNA) underwater sampling to detect rare or invasive species.

technics



Parameters: environmental DNA (eDNA) via underwater sampling.



Installation: deployed fixed underwater or onestop sampling



Dimensions: 14 x 15 cm Water proof till 55 m water depth.



Power supply: 8 AA batteries



Data transfer: samples are shipped or picked up by SOOP, Data are stored on SD-card.



MARINA PACKAGE MODUL 5 | PLANKTON

Location accurate image informationen on marine plankton recorded by a modular camera system.

benefits



Local and accurate information on marine plankton. Support research in plankton variety and learn about local water quality.

features



Provide local and accurate information on biodiversity of marine plankton one of the most important indicators for the marine food chain.

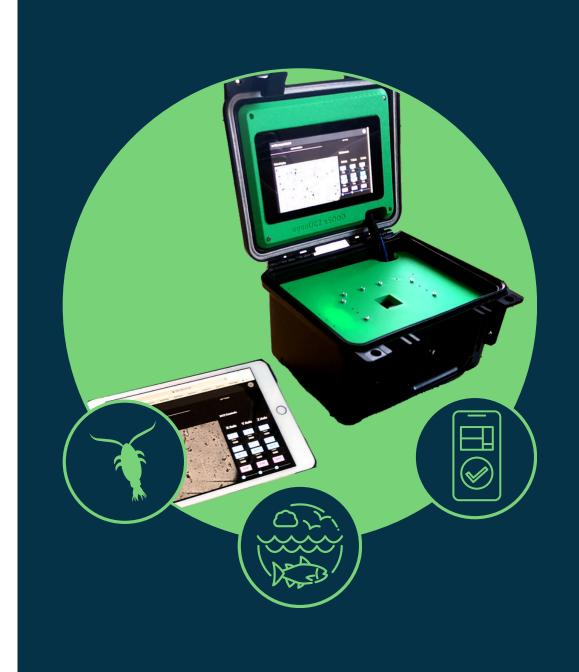


User-friendly digital interface that translates all measured data into useful information.

costs



approx. 5.000 € prototype costs. Maintenance: change of flow cell, calibration by SOOP.



MARINA PACKAGE MODUL 5 | PLANKTON

Location and accurate environmental DNA (eDNA) underwater sampling to detect rare or invasive species.

technics



Parameters: plankton images (25 – 2000 μm resolution).



Installation: flow-through connection connected to pump and tubing.



Dimensions: 25 x 20 x 12 cm Water proofness: splash proofed.



Power supply: 12 V DC, charging by solar or mains via transformer (240 V). Power consumption: tba



Data transfer: local storage on SSD-card, mail to or pick up at SOOP.

