

Baltic Sea Measurement Station - Darss Sill - measuring pile

Position: 54°42'N 12°42'E ; in Betrieb seit September 1992

Data Telemetry

- 5G-Industry-Router
- 2 SIM-Cards, roaming
- GPS
- WLAN
- Ethernet-Switch
- 5,5 Watt max.

Energy Source 1

- 2 pcs. Wind turbine
- 24 V
- 500 Watt Power

Energy Source 2

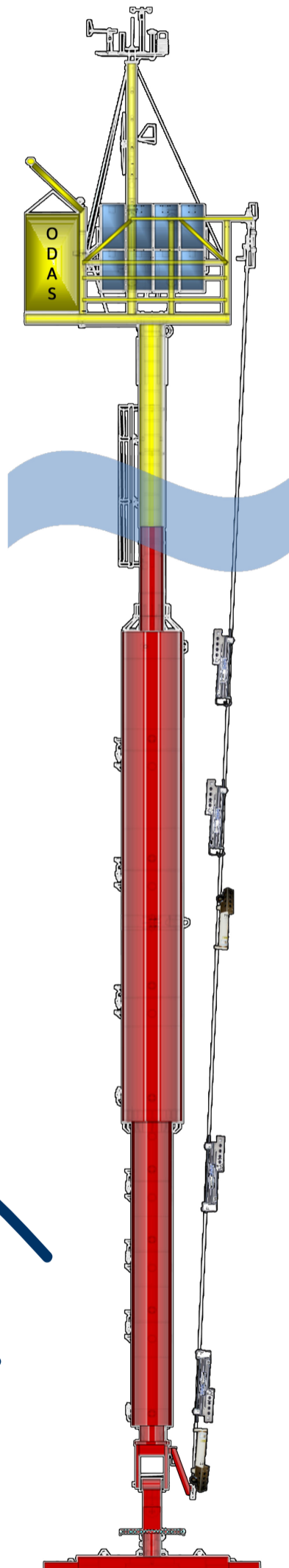
- photovoltaics
- 10 modules
- 24 V
- 1000 Watt Power

Energy storage

- DryFit – Lead-Gel-battery
- Maintenance free
- 24 V
- 519Ah

Data processing

- Windows-Industrial-PC
- Intel Pentium CPU
- 4 GB RAM
- 128 GB SSD
- 6 RS232/485 Ports
- 4 USB Ports



Meteorology

- Wind direction
- Wind speed
- Air temperature
- Humidity
- Air pressure
- Global radiation

Housekeeping

- Battery voltage
- Charge current - solar
- Charge current - wind
- Inclination
- Compass
- Discharge current
- Acoustic transmission

2m

- Temperature
- Conductivity
- Chlorophyll a
- Turbidity

5m

- Temperature
- Conductivity
- Chlorophyll a
- Turbidity

7m

- Temperature
- Conductivity
- Oxygen
- Radioactivity

12m

- Temperature
- Conductivity
- Acoustic modem

17m

- Temperature
- Conductivity

19m

- Temperature
- Conductivity
- Oxygen
- Pressure

Ground platform (approximately 100 m offset)

- Temperature
- Conductivity
- ADCP current meter
- Wave measurement
- Acoustic modem



INFORMATION

The IOW-MARNET stations are financed by BSH. They transmit data every hour directly to BSH and via the Internet to the Network data base at IOW. All MARNET stations contribute to the Global Ocean Observing System (GOOS / BOOS)



- based on the IOW steering tower
- installed 1992, renewed 2022
- the most important measurement station in the Baltic Sea for observing general water exchange with the North Sea
- When ice forms, it is placed in a submerged position

CONTACT: robert.mars@iow.de

Department of Marine Observation, Measurements Technology
R. Mars, E. Stohr, J. Kurth, M. Sommer
shown: 3rd generation of the Warnemünde joint mast 2018