Modular Sea Ice Buoy

The main component of the modular sea ice buoy is a thermistor string measuring air, snow, ice, and water temperatures. But in addition, it allows a most flexible configuration of additional sensors above, in, and under the ice. The main component is designed to be installed on an ice floe, including batteries and all control electronics. The unit usually has a small photo camera included. An above and under ice mast holds additional sensors. Sensor configurations vary from unit to unit, but all platforms report GPS position and atmospheric data via Iridium.

**Buoy description**
Manufacturer: Bruncin  
Data provider: Joubeh  
Weight: approx. 70 kg  
Deployment type: Installation on sea ice

**Technical Details**
Exemplary sensors mounted on the system, while the configuration differs between units
- Barometric pressure (hPa) BMP180 (accuracy: ±1 hPa)  
- Int. Temperature & Humidity HIH6130  
- GPS position S1315R (accuracy: ±2.5 m)  
- Temperature (°C) 240 x ADT7320 (±0.015 °C) for a 5m long chain  
- Pyranometer Apogee SP-230 or Apogee SP-110  
- Fluorescence & Backscatter WetLabs Eco Triplett  
- Dissolved Oxygen Aandera Optode  
- Salinity BKIN-50  
- Camera LinkSrpite LS-Y201, Picture resolution 160x120px

Measurement & data intervals: Mostly hourly  
Power supply: Alkaline or Lithium batteries