



# Temperature-Profiling Drifting Buoys

## iceTC2(5)/30, iceBTC2(5)/30

### Functionality

Monitoring of vertical distribution of ice temperature (thickness of ice on basis of ice temperature) and temperature of upper ocean layer below ice, ice surface temperature and air pressure with data transmission through satellite. The buoys are equipped with digital temperature-profiling line (thermoline) with profiling depth down to 2 m (TC2 version, 20 cm interval between sensors) or 5 m (TC5 version, 50 cm interval between sensors). The design of buoy is optimized for using in polar and subpolar regions. Operation in open water is possible.

### Sensors

#### Position data (GPS/Glonass)

GNSS receiver	GlobalTop Titan3
Additionally	Doppler effect Argos or Iridium

#### Temperature profile

Range	-20 to +20°C
Accuracy	+/- 0.1°C
Resolution	0.04°C
Number of sensors <sup>1</sup>	11
Profiling depth <sup>2</sup>	
iceTC2/30, iceBTC2/30	2 m
iceTC5/30, iceBTC5/30	5 m

#### Air pressure (iceBTC2(5)/30)

Range	850 to 1050 hPa
Accuracy	+/- 1 hPa
Resolution	0.1 hPa

#### Measurement interval

hourly

#### Sensors activation

at round hours

### Communication

Satellite system Argos or Iridium

### Operation

Environment temperature	-30 to +50°C
Lifetime	12 months at least

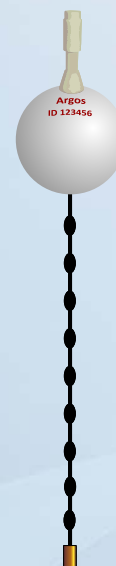
### Construction

Battery	alkaline
Activation switch	removable magnet
Hull	
Body	fiberglass plastic
Diameter	35 cm
Colour	white
Thermoline	
Diameter	15 mm (line) 20 mm (temp. sensor.) 35 mm (ballast)
Ballast weight	1.5 kg
Disposition of sensors <sup>3</sup>	equidistant
Weight	12 kg

#### iceTC2(5)/30



#### iceBTC2(5)/30



Size of shipping crate	45 x 45 x 55 cm
Gross weight	20 kg

(1,2,3) Profiling depth, number and location of sensors can be changed by agreement with the customer

