

Datasheet

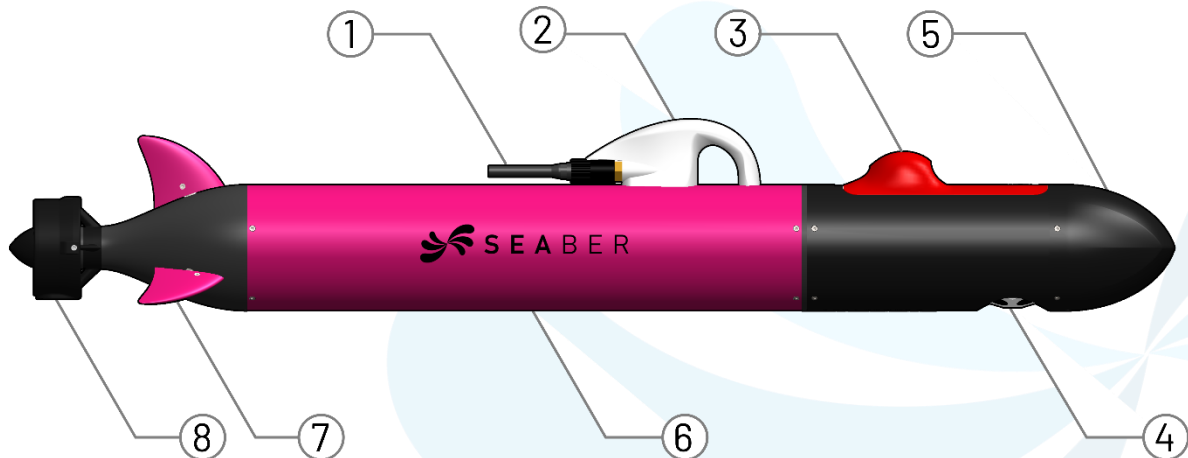
YUCO-CTD

This document provides further information on the YUCO-CTD key features.

YUCO-CTD is equipped with a CTD Legato sensor from RBR allowing to monitor salinity and temperature. In option it can come with a DVL, to compensate current, improve positioning and keep altitude from the sea floor.

The YUCO-CTD is available with two options:

- DVL to compensate current, to compensate current, improve positioning and keep altitude from the bottom
- NiMH batteries instead of Lithium



1 Start key and charging port

2 Mast (UHF radio communication, GNSS antenna and status LEDs)

3 CTD Legato sensor from RBR

4 DVL (Doppler Velocity Logger)

5 Nose (wet part for buoyancy foam and payloads)

6 Sealed dry body section which contains Lithium-Ion battery (or NiMH) and electronics.

7 Fins

8 Propulsion Thruster

Technical features

Length	112 cm
Body Diameter	12 cm
Weight in air	10 kg
Depth rating	300 m
Speed	3 to 6 knots
Endurance	10 hours @ 3 knots / 6 hours @ 4 knots (with Li-Ion battery)
Navigation accuracy	±2% of distance travelled with DVL
Energy	Rechargeable 600Wh/14.8V Li-Ion or rechargeable 200Wh/14.4V NiMH
Battery Charger	100 to 240 VAC 50 to 60 Hz
Programming interface	SEAPLAN software by SEABER
Surface Communication	LoRa UHF point-to-point communication with SEACOMM device (see below) For YUCO status messages and orders 868Mhz frequency range (depends on region) PYCOM LOPY4 chip with available regions: AS923, AU915, EU868, US915, IN865 TX Power: 25mW
Available Accessories	Rugged transport case Spare parts and tools in waterproof bag

All available CTD parameters can be set from the [SEAPLAN](#) software interface before launching the mission.

Sensors

CTD		DVL	
Temperature		Model	Waterlinked A50
Range	-5 °C to 42 °C	Frequency	1 MHz
Initial accuracy	±0.002° (-5 to +35 °C) ±0.004° (+35 to +42 °C)	Beam angle	22.5 degrees
Resolution	0.00005 °C	Ping rate	4-26 Hz
Typical stability	±0.002 °C per year	Max altitude	50 meters
Time constant	< 1 s (standard), < 0.1 s	Max velocity	3.75 m/s
Conductivity		Velocity resolution	0.1 mm/s
Range	0 to 85 mS/cm		
Initial accuracy	±0.003 mS/cm		
Resolution	0.001 mS/cm		
Typical stability	±0.010 mS/cm per year		
Resolution	0.00005 °C		
	0.00005 °C		



View from below, with the DVL