

Datasheet

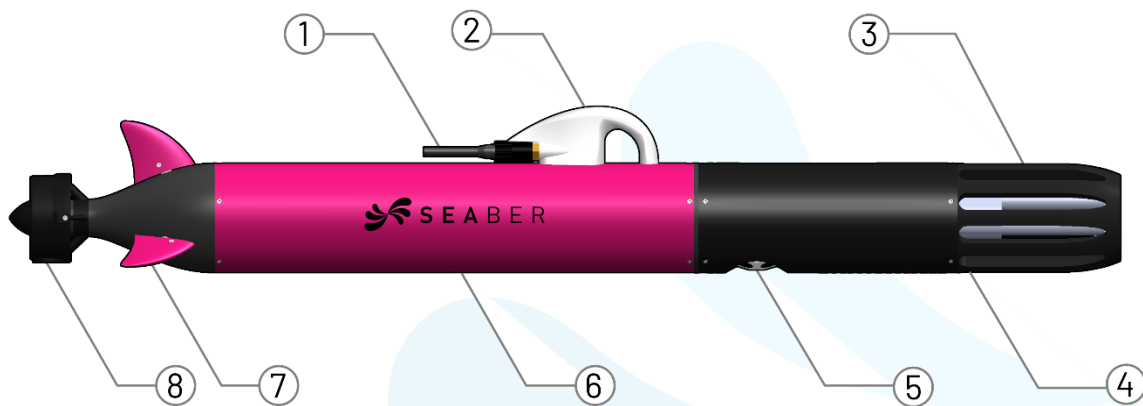
YUCO-PHYSICO

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

YUCO-PHYSICO is equipped with a fully autonomous multiparameter sonde AML-RT3. An optional DVL can be added, to compensate current, improve positioning and keep altitude from the sea floor. The YUCO-PHYSICO can embed up to three AML sensors, chosen among a long sensor range AML-RT3 compatible.

The following options are available on the YUCO-PHYSICO.

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



1 Start key and charging port

2 Mast, to grab the AUV and embed the communication means : UHF radio communication, GNSS antenna and status LEDs

3 AML-RT3 on which up to 3 AML sensors can be added, including sound velocity, conductivity, dissolved oxygen, turbidity, pH, chlorophyll A, crude-oil, etc.

4 [Optional] DVL (Doppler Velocity Logger)

5 Nose : wet part for buoyancy foam and payloads

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

7 Fins

8 Propulsion Thruster

Technical features

Length	123 cm
Body Diameter	12 cm
Weight in air	9.5 kg
Depth rating	300 m
Speed	3 to 6 knots
Endurance	10 hours @ 3 knots and 6 hours @4 knots (for Li-Ion battery)
Navigation accuracy	±2%of distance travelled when using the DVL
Energy	Li-Ion : rechargeable 600Wh/14.8V NiMH : rechargeable 200Wh/14.4V
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.

Sensors

AML- RT3		[Optional] DVL	
Data storage	30 GB	Model	Waterlinked A50
Maximum sample data	20 Hz	Frequency	1 MHz
Temperature	-20 °C to +45 °C	Beam angle	22.5 degrees
		Ping rate	4-26 Hz
		Max altitude	50 meters
		Max velocity	3.75 m/s
		Velocity resolution	0.1 mm/s



AML - RT3 Sonde



View of DVL integration in the YUCO