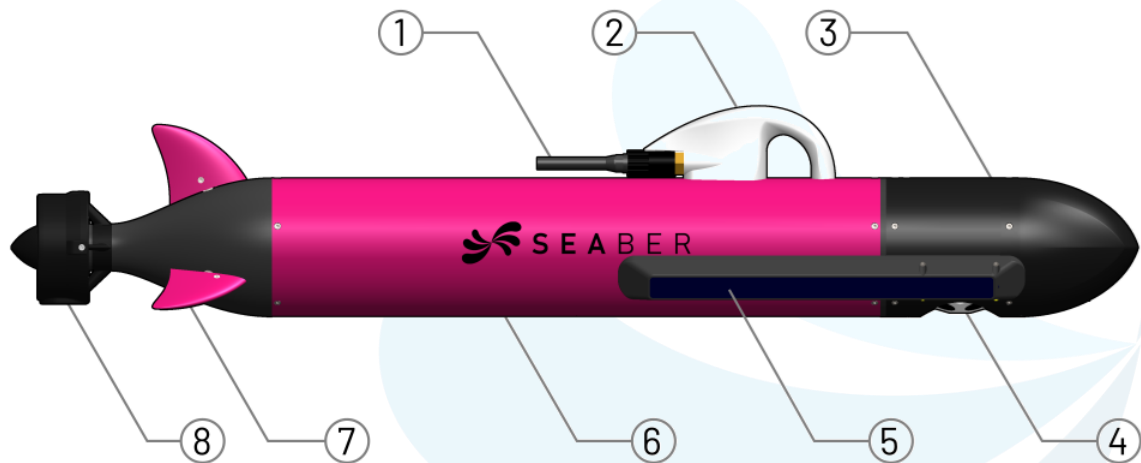# Datasheet
YUCO-SCAN

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

YUCO-SCAN is equipped with a Side-Scan Sonar from *DeepVision*, producing seabed scan images. It comes with a DVL, to compensate current, improve positioning and keep altitude from the sea floor. YUCO-SCAN is available with the following options:

☐ Option Camera & Light: Gopro enclosure integration on the YUCO-SCAN with Lumen Subsea Light to provide color footage of the dive
☐ NiMH batteries instead of Lithium

1	Start key and charging port	2	Mast (UHF radio communication, GNSS antenna and status LEDs)
3	Nose (wet part for buoyancy foam and payloads)	4	DVL (Doppler Velocity Logger)
5	Side-scan sonar dual transducers	6	Sealed dry body section which contains Lithium-Ion battery (or NiMH) and electronics
7	Fins	8	Propulsion Thruster

Technical features

Length	101 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
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 sonar parameters can be set from the SEAPLAN software interface.

Sensors

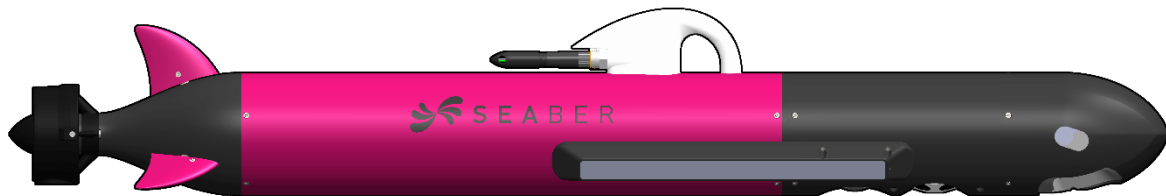| Side Scan Sonar		DVL	
Model	DeepVision	Model	Waterlinked A50
Frequency	200, 340 or 680 kHz	Frequency	1 MHz
Horizontal Beam Width	0.5°	Beam angle	22.5 degrees
Vertical Beam Width	60°	Ping rate	4-26 Hz
Range	Up to 50m per channel	Max altitude	50 meters
Output file format	DVS (DeepVision Format) XTF (eXtended Triton Format)	Max velocity	3.75 m/s
		Velocity resolution	0.1 mm/s

View from below, with the DVL

OPTIONAL: Camera & Light

YUCO-SCAN can be equipped with a GoPro 300m depth rated enclosure and a light.

Enclosure		Light	
Compatible model	GoPro HERO9 or HERO10*	Model	BlueRobotics Lumen Subsea
Orientation	0° (looking down) 30° (looking ahead)	Brightness	1500 Lumens, 5700 Kelvin
		Beam Angle	135°

*GoPro Camera is <u>not provided</u> with the YUCO-SCAN

YUCO-SCAN with camera and light

Nose embeding the camera