



## AQUANAUT MK 1

### All Electric Tetherless Transforming Subsea Robot



Nauticus all-electric subsea AUV/ROV transforming robot, Aquanaut Mk1 is the shallow water variant of the most advanced **tetherless** subsea robot on the market.

Nauticus Aquanaut Mk1 has a 116-hour mission endurance 60km range 20-hour endurance, 500m depth rating and is fully hoverable in ROV mode with mission endurance calculated at station keeping in 1 knot of current.

#### GENERAL

Depth Rating	500 msw
Cruising Speed	3 knots
Maximum Speed	6 knots
Range*	60 km
	*based on transit at cruising speed
Endurance^	20 hrs
	^based on station-keeping in 1 knot current

DIMENSIONS	AUV MODE	ROV MODE
Length	2870 mm	3870 mm – With Arms Extended
Width	1524 mm	1524 mm
Height	955 mm	2388 mm
Weight	1305 kg	1305 kg
Payload	65 kg	65 kg

#### ENERGY SYSTEM

Battery Capacity	20 kWh Li-ion
Recharge Time	4 hours

#### SENSING PACKAGES

##### Navigation Package

- Nortek DVL 500 Doppler Velocity Log
- iXblue Phins 6000 Inertial Navigation System
- Micron Sonar
- Blueprint Oculus M1200d Imaging Sonar
- AML-3 Instrumentation (Sound Velocity, Conductivity Temperature, and Pressure)

##### Communications Package

- Nauticus Dolphin Comms Modem
- Subnero M25 Modem
- Hydromea LUMA-X Optical Modem

##### Imaging

- HD Cameras
- Blueprint Oculus M1200d Imaging Sonar
- Nauticus Stereo Vision
- Nauticus 3DSL Point Cloud Generation
- Kraken LED Light Panels
- DeepSea LED Flood Lights

#### Survey and Mapping

- Kraken AquaPix MINSAS Synthetic Aperture Sonar
- Teledyne SeaBat T50 Multibeam Echosounder

#### Positioning System

- Sonardyne AvTrak-6 Ultra Short Baseline (USBL)
- Advanced Navigation Poseidon GPS / GNSS / Galileo

#### EMERGENCY SYSTEMS

- Nauticus STO system (Hardware and Software E-Stop)
- Emergency Strobe and Iridium modem
- Hull Subsonus Tags (battery powered)
- Emergency payload drop weight

#### SOFTWARE

##### Nauticus Nautilus

- Browser based vehicle connection with a server backend
- Operate AQ from any location that can access the secure server

#### TOPSIDE CONNECTIONS

Data Download	Fibre Optic
Shore Connection	HMI Tether Cart (Communications and Power)

#### MANIPULATORS

Category	Heavy work
Power Source	Electric
Control Modes	Position, Velocity, Impedance
Input Device	Master Arm
Functions	8
Max. Reach	1500 mm
Input Device	Master arm
Depth Rating	500 msw
Lift at Max. Reach	25 kg
Wrist Rotation	360°



nauticus  
robotics

# AQUANAUT MK 1

All Electric Tetherless Transforming Subsea Robot

