



ROV OBSERVER 3.1

Data Sheet



Standard features

- **Depth rating** : 150 m
- **Maximum speed**: 3 Knots
- **ROV Dimensions** (mm): 490 x l 270 x H 210
- **Weight** : 6.4 kg (14.1 lbs)
- **Umbilical length** : 100 m (50, 150, 200 m options)

3 to 4 hours system autonomy on embedded batteries

Rechargeable and operable on external supply (110-220 V)

Vision

2 high resolution (530 lines)/high sensitivity (0,002 lux) **color cameras** (front one with pan & tilt unit)

2 x 900 lumen LED lights, variable intensity

Navigation

- Auto heading
- Auto depth
- Auto speed
- Auto up/down

Standard Sensors

Compass, depth, temperature

Options

- ✓ Search sonar (Tritech Micron DST)
- ✓ Digital thickness gauge (Cygnus)
- ✓ 2 functions manipulator
- ✓ Water/sediment sampler
- ✓ USBL Acoustic Positioning
- ✓ Salinity/Conductivity probe
- ✓ Manual winch with slip ring

Observer 3.1 is a hand portable **versatile observation vehicle**, with the unique feature of having **embedded batteries** allowing the system to be operated instantaneously in the most remote locations, up to 4 hours. It also operates on main power (110 or 220 V).



Packaged in **one single waterproof case**, with a total weight of **32 kg**, including umbilical and control console, it is a highly portable system with no compromises on inspection capabilities: equipped in its standard version with **2 high quality color cameras**, it can also carry a micro sonar, a 2 axis manipulator and many other sensors and tools thanks to a user friendly **ancillary plug** (power/data/ control) on vehicle external hull.

The control console is contained in a waterproof case and includes a **8,1" LCD video display**, an **integrated digital recorder** (on USB key), 2 video output (for external display or recorder), audio in/out for communication with vehicle, 2 x 3 axis joysticks (navigation and camera pan & tilt) and a 30 keys soft pad for the multiple automatic or on/off functions of the system.





OBSERVER 3.1 Specifications

Main Features

Rated depth	150 m (500 ft)	
Dimensions	L 490 mm x W 270 mm x 210 mm (L 17.7 in x W 10.6 in x 8.6 in)	
Weight	<ul style="list-style-type: none"> ▪ In air : 6.4 kg (14.1 lbs) ▪ In water : neutral, adjustable by clump weights on bottom cylinders 	
Speed	3 knots	

Propulsion and Energy

Thrusters	<ul style="list-style-type: none"> ▪ 2 longitudinal thrusters (forward/backward) ▪ 1 vertical thruster (up/down) 	
Propellers	3 x 3 blades propellers with funnels	
Accumulators	Ni-MH, up to 4 hours autonomy (vehicle + console)	
External Power	AC 110-220V – allows simultaneous ROV operation + accus recharge	

Control System

Console	Integrated in a 14" x 11" waterproof case. Video screen and digital recorder in the lid, joystick, keypad and connectors in the base.	
Video display	8,1" Color LCD screen, with parameters adjustment menu and remote control	
Digital recorder	« One touch » integrated digital recorder, 3 levels of compression, data storage on USB key	
Keypad	30 keys soft pad, with back light, for auto fonctions and configuration switches	
Auto functions	Auto depth, auto heading, auto up/down, auto speed	
Outputs	2 BNC connectors for video display/recorder, 1 audio (mic/headphones)	
Additional control	Wireless remote joystick control	Option

Video cameras and lighting

Front camera	Color camera on pan & tilt unit, 530 lines, 0.002 lux, adjustable parameters through screen menu	
Rear camera	Color camera, 530 lines, 0.002 lux, adjustable parameters through screen menu	
Lighting (front)	2 x 900 lumen LEDs, with variable control, each side of front camera	
Lighting (rear)	1 x 50 lumen LEDs, inside rear camera bulb	
Additional lights	On accessory plug, power on request	Option

Sensors and tools

On board	Compass, pressure, temperature	
Sonar	Tritech Micron DST sonar or equivalent	Option
Thickness gauge	Cygnus Digital Thickness Gauge	Option
Acoustic posit.	Mini USBL(with console integrated display) or GIB Lite™ (« Underwater GPS »)	Option
Sampling	Water and/or sediment sampling tool	Option
Manipulator	2 functions (wrist rotation/grabbing) manipulator. Non parallel jaws, 75 mm max. opening. Larger jaws on request	Option
Audio comm.	2 ways audio communication with vehicle (listening/speak mode)	Option
Salinity/Conductivity	Physico-chemical sensors giving the salinity,conductivity,pH,O2....	

Umbilical

Standard	100 m umbilical, 5.8 mm diameter with Kevlar braid (100 kg breaking load)	
Extensions	50 or 100 m umbilical extensions (up to 200 m)	Option

Packaging and documentation

Shipping container	«All in one» case. Water proof StormCase™, lifetime guarantee, with pressure valve, wheels and handle. Total weight : 32 kg (70 lbs), including vehicle, control console and umbilical	
Operator/ maintenance manual	Detailed operator/maintenance manual, printed + electronic version	
Warranty	One year warranty parts and labour	
Support contract	Annual maintenance and reconditioning contract, with free upgrades	Option