FO III

Balanced size and payload capacity in a versatile multi-purpose platform

This ROV is designed and manufactured maintaining a balanced ratio between its practical size and its payload capacity.

This allows it to carry various accessories on board such as laser pointers and different sensors, sonars, tracking systems, and even manipulators. All this thanks to its modular design, which makes it stand out from other equipment in its category.

Its resistant and robust structural chassis made of AISI 316L stainless steel, hand welded (TIG) and crystal blasted, is the basis of the modular design that allows it to integrate various accessories that greatly expand the range of applications, making it a flexible and customizable equipment. This ROV is the perfect base for multipurpose operations.

Its modular structure allows for the expansion of equipment and instruments to be carried on board, even in a second phase after the initial acquisition.

Its stable, hydrodynamic design and three powerful 400 Watt brushless magnetic coupling thrusters give it great maneuverability underwater and the power to carry the necessary accessories on board.

These state-of-the-art motors, housed in robust casings, have electronic protection and do not use polluting coolants.

The high resolution Full HD camera with integrated laser pointers, together with the high power LEDs attached to the tilt mechanism or externally, all in robust aluminum housings, provide a very high quality image in real time.

It is equipped with the standard sensors (*Depth Gauge, Compass, ROV and Tilt mechanism inclination, Power consumption*) and automatic functions (*Auto Depth/Auto Dive/ Auto Head, Auto Gimbal*) of all the company's range of ROVs.

It has a self-regulating power supply unit (PSU) that automatically regulates the voltage loss of the umbilical cable, ensuring delivery of the maximum power needed for the motors and increased motor efficiency.

This ROV also has the lifetime warranty that Mariscope offers with its products. It is the only manufacturer in the world to offer this warranty on its systems, with no limit on working hours.

MADE IN GERMANY
ROV LIFE TIME
WARRANTY

designed,
engineered &
made in Germany

BUILT TO LAST

FO III

STRUCTURAL AND OPERATIONAL SPECIFICATIONS

Operating depth	500 meters
Speed	3 knots
Dimensions (Length x Width x Height)	1000 x 650 x 500 mm
Structural chassis	Structural chassis made of AISI 316L stainless steel, hand welded (TIG) and crystal blasted.
Weight	45 - 95 Kg (depending on the equipment)

PROPULSION

Type of thrusters	Brushless electric motors with magnetic coupling. Motors in saltwater resistant aluminum housing with anodized surface and zinc sacrificial anode.
Thrusters power	400 W each.
Number of thrusters	2 horizontal thrusters 1 vertical thruster

IMAGE AND LIGHTING

Camera	Full HD (1920 x 1080) camera with integrated laser pointers in salt water resistant aluminum housing with anodized surface. Installed on external tilt system (160° swivel angle).
Type of lighting	High-intensity submersible LEDs (> 2,900 lumens each) in saltwater-resistant aluminum housings with anodized surface.
Lighting configuration	4 total LED spotlights: • 2 LED spotlights attached to the same camera tilt system that rotate simultaneously with it to ensure correct illumination at any camera position. • 2 fixed LED spotlights installed to optimize front illumination. This configuration can be easily customized by the user, as the LED spotlights are attached to the chassis by specially designed fasteners to fit the ROV frame.

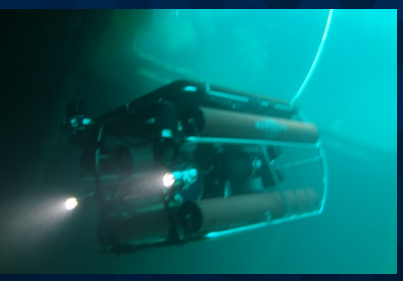
STANDARD SENSORS AND AUTOMATIC FUNCTIONS

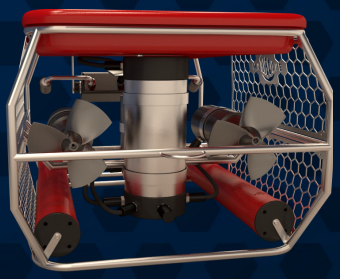
Standard sensors	- Depth gauge - Digital compass - ROV and Tilt mechanism inclination sensor - ROV power consumption
Automatic functions	- Auto Depth / Auto Dive - Auto Head - Automatic Gimbal (automatic tilt correction to maintain the observed horizon)

FO III

SURFACE UNITS

Video Console	Installed in waterproof Pelican case. 21.5" monitor, industrial computer with forced cooling and SSD recording drive with 500 Gb capacity. Real-time Full HD transmission to surface via high-speed Ethernet. On-screen display of piloting functions and sensor information.
Steering Console	Installed in Pelicase Hull iM2050 case with carrying strap. Wireless, with range up to 500 meters and rechargeable LiPo batteries. 2 joysticks for ROV operation. Control of lights on/power (by potentiometer) and all available piloting functions.
PSU (Power Supply Unit)	The PSU automatically regulates the voltage to compensate for the voltage drop along the umbilical cable, thus ensuring delivery of the maximum power needed for the motors and higher motor efficiency. The PSU is integrated in the Video Console.





CABLE AND REEL/WINCH

Umbilical cable	Multipolar with polyethylene or polyurethane coating, high visibility yellow color and neutral buoyancy. With Kevlar reinforcement and 2 ton tensile strength.
Reel / Winch	Stainless steel AISI 316L made, with sealed 18-way gold plated slip rings in a watertight container box. For cable lengths up to 500 meters it is supplied with manual reel. For lengths of 500-1000 meters it is supplied with an electric winch with the same characteristics.

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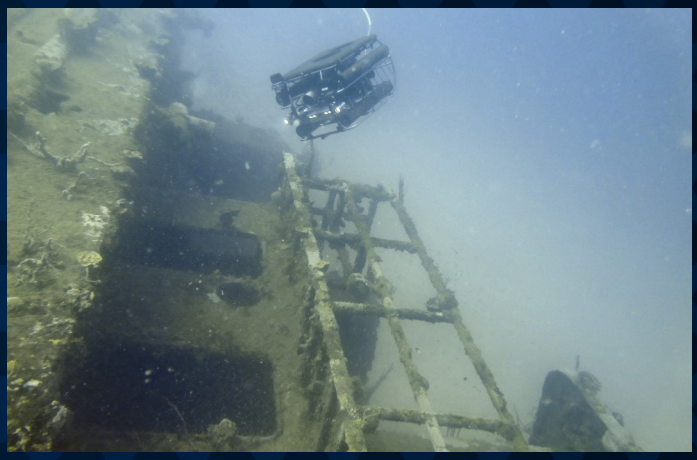
POWER REQUIREMENTS

Electrical power required	2,5 Kw
Type of power required	Input selectable between single-phase 230 V AC or three-phase 380 V AC.

DURATION OF THE WARRANTY

Time	Lifetime
Working hours	No limits



OPTIONAL ACCESSORIES

Special sensors for measuring CO_2, H_2S, CTDO, oil in water, UTM/CP probes, and others on request	Special cameras and EOD lighting on request
Forward-looking or high definition/multibeam sonars on request	Different types of USBL tracking systems are available upon request
Customized manipulators specially adapted to customer requirements	Cavitation cleaning units

Mariscope Meerestechnik
Redderkoppel 6A
(24159 - Kiel - Germany)
(+49) 4316 0837645
www.mariscope.de
info@mariscope.de
Mariscope Meerestechnik

Mariscope Ingeniería
Km 4.8 Sector la Vara
(5480000 - Puerto Montt - Chile)
(+56) 65 2562789
www.mariscope.cl
info@mariscope.cl
Mariscope Ingeniería

Mariscope Mediterráneo
(Barcelona - Spain)
(+34) 625332060
www.mariscope.de
m.fertig@mariscope.de
Mariscope Mediterraneo

Mariscope Argentina
Avda. Juan XXIII Norte Nro. 1970
(9120 - Puerto Madryn - Argentina)
(+54) 9 297 4292932
www.mariscope.com.ar
info@mariscope.com.ar