MS2

The evolution of the most compact of Mariscope´s ROVs

Since the early 90´s Mariscope is developing and manufacturing customized ROVs and towed systems, deep sea cameras and oceanographic equipment.

The product range of ROVs goes from compact systems to work-class units.

Mariscope set goals of permanent technical evolution in all its models, that lead to periodical launching of new models.

With no conceptual changes, but applying the knowledge and experience acquired in the past, each model evolves over time.

Maximum robustness, efficiency and quality are signatures of Mariscope´s ROVs, but keeping in mind the cost of the final product and retail price.

With a new hydro dynamic shape, the new MS2 keeps focus in the modularity of the equipment, ease of maintenance, robustness and reliability.

The highly impact resistant stainless steel tubular frame protects its components, and is propelled by four compact and efficient state-of-the-art brushless magnetic coupling thrusters.

The Full HD camera with live transmission via high-speed Ethernet, is complemented by four high output LED lights and laser pointers.

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

Highly Reliable
Technology

designed,
engineered &
made in Germany

BUILT TO LAST

MS2

STRUCTURAL AND OPERATIONAL SPECIFICATIONS

Operating depth	500 meters
Speed	3 knots
Dimensions (Length x Width x Height)	590 x 410 x 370 mm
Structural chassis	Structural chassis made of AISI 316L stainless steel, hand welded (TIG) and crystal blasted.
Weight	32 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 2 vertical thrusters

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 fixed LED spotlights installed to optimize front illumination, which illuminates the full range of view of the camera.

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)

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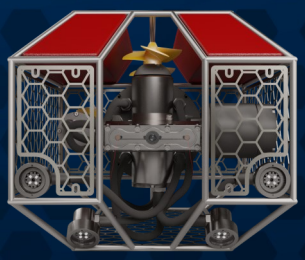
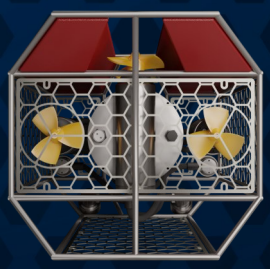
SURFACE UNITS

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 18-way sealed gold plated slip rings in a watertight container box. For cable lengths up to 500 meters it is supplied with manual reel.

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POWER REQUIREMENTS

Electrical power required	1,5 kW
Type of power required	Input single-phase 230 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
Forward-looking or high definition/multibeam sonars on request	EOD lighting on request
Customized one function manipulators specially adapted to customer requirements	Different types of USBL tracking systems are available upon request

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