

# DATA SHEET

# TMI-Orion Dynamics

## S-ROV



**Underwater modular vehicle platform for inspection, measurement and operation.**

The S-ROV is a rugged configurable and upgradable platform for underwater inspection, measurement and operation.

The additional modules and sensors create tailored solutions for a wide range of customer needs.

## STANDARD CONFIGURATION

### S-ROV

#### Technical specifications

<b>Depth rate</b>	300 m
<b>Maximum speed</b>	1.5 knot
<b>Payload capacity</b>	3.5 kg
<b>Thrusters</b>	8
<b>Power supply</b>	2 batteries OR Powered from the surface
<b>Minimum dimensions</b>	(L x W x H): 600 mm x 590 mm x 296 mm
<b>Weight</b>	23.5 kg (in air)
<b>Material</b>	Aluminum, Delrin, Stainless steel, resin



S-ROV

#### Equipment and sensors

<b>Add-on capacity</b>	Up to 5 free connectors for additional equipment
<b>Telemetry sensors</b>	AHRS, temperature/pressure sensor
<b>Automatic functions</b>	Auto stability, auto heading, auto depth, auto altitude (if altimeter)

#### Cameras and lights

<b>Front camera</b>	High resolution 1/3" progressive CMOS chip on tilt (-45°/+45°). Resolution 1080 p x 720 p.
<b>Light</b>	2 x 1500 lm LED at the front with intensity control

## Surface Control Unit

### Technical specifications

#### Console integrated in a waterproof case

<b>Graphical user interface</b>	Installed TMI-Orion software including a graphical interface: <ul style="list-style-type: none"><li>- Front and rear cameras,</li><li>- Compass,</li><li>- S-ROV pitch and roll,</li><li>- Depth,</li><li>- Camera tilt,</li><li>- Autopilot function status,</li><li>- Umbilical cable turns count,</li><li>- Display overlay.</li></ul>
<b>Data storage</b>	Data recording on integrated hard drive 128 GB SSD or on external storage.
<b>Control</b>	Joystick and keyboard
<b>Video display</b>	17" Full HD high luminosity and anti-reflection screen.
<b>Dimensions</b>	Case open: (H x L x W) 21.1 cm x 53.8 cm x 40.6 cm
	Case closed: (H x L x W) 60 cm x 53.8 cm x 40.6 cm
<b>Weight</b>	17.5 kg
<b>Power supply</b>	Voltage: 88 to 264 VAC (50Hz, 60Hz)



Surface Control Unit

## Umbilical cable

### Technical specifications

<b>Reel</b>	Manual with slip ring
<b>Cable length</b>	300 m. Copper, neutral at 300 m, wound on a manual winch. Please contact us for other length.
<b>Cable diameter</b>	Maximum 15.5 mm
<b>Tractive force</b>	Maximum 300 kg with Chinese finger.



Umbilical cable on winch

## Documentation and guarantee

### Included documentation

Products specifications,  
User's manual,  
Quick start guide,  
Maintenance manual for TMI-Orion system,  
Maintenance manual for each module.

### Guarantee

1 year, labor and parts, except transport fees.

## Miscellaneous

### Spare parts

Tools and spare parts

### Transport case

For the ROV

## OPTIONS

### Equipment

<b>Acoustic altimeter</b>	Altitude from 30 cm to 50 m
<b>Sonar</b>	Upon request
<b>Acoustic camera</b>	2D or 3D imaging sonar, model to be defined by the customer (adaptation upon request).
<b>Acoustic positioning</b>	USBL
<b>Manipulator arm</b>	2, 3, 5 functions.
<b>Other equipment</b>	Thickness measurement, cathodic protection measurement... Adaptation upon request.



*S-ROV with optional gripper*

### Cameras and lights

<b>4K front camera</b>	Blackmagic® micro studio camera 4K + Blackmagic® Design Video Assist 4K HDMI/6G-SDI (optical fiber umbilical necessary for real time display)
<b>1K front camera</b>	TMI-Orion Color camera.
<i>Other camera models, adaptation upon request</i>	
<b>Rear camera</b>	High resolution 1/3" progressive CMOS chip. Resolution 1080 p x 720 p
<b>Rear light</b>	1 500 lm, manual positioning.
<i>Depending on the configuration, it is possible to add 2 more lights</i>	



*S-ROV with optional camera*

### Power supply

<b>Necessary power for surface power supply</b>	4 kW
<b>Supplied power</b>	2.3 kW
<b>Specifications</b>	2,5A/115VAC or 1,3A/230VAC (50Hz, 60Hz)
<b>Dimensions</b>	450 mm x 371 mm x 180 mm

*The S-ROV can be used with batteries or an external surface power supply. The power supply cases are interchangeable.*



*Power supply case*

### Umbilical cable

<b>Cable type</b>	Tight structure optical fiber
<b>Length</b>	Upon request for length < 300 m. Please contact us for length > 300 m.

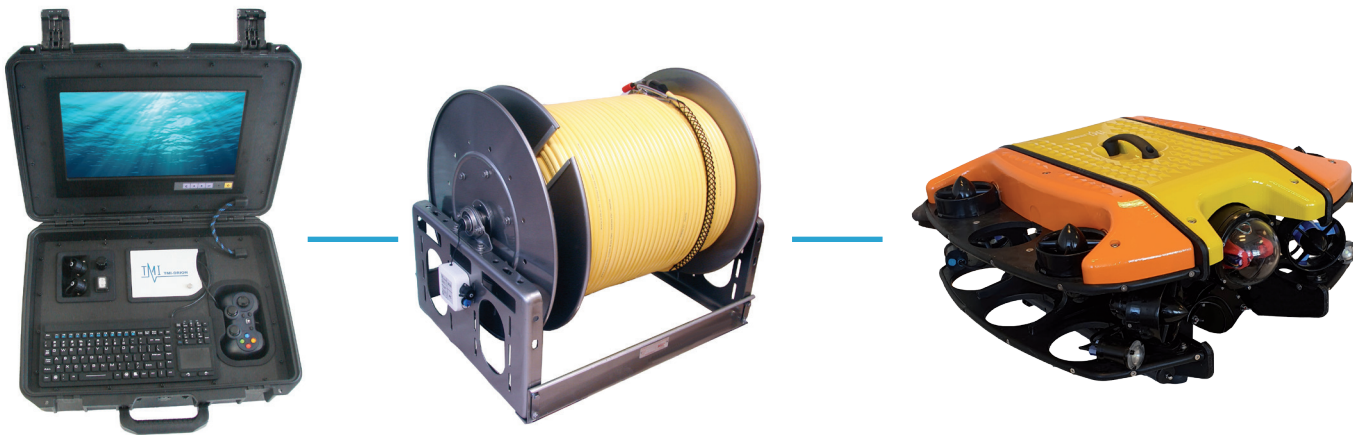


## Surface Control Unit

TMI-Orion software	Can be installed on a rugged and watertight PC.
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## Training

Commissioning and training (FAT, SAT, on site user training)
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