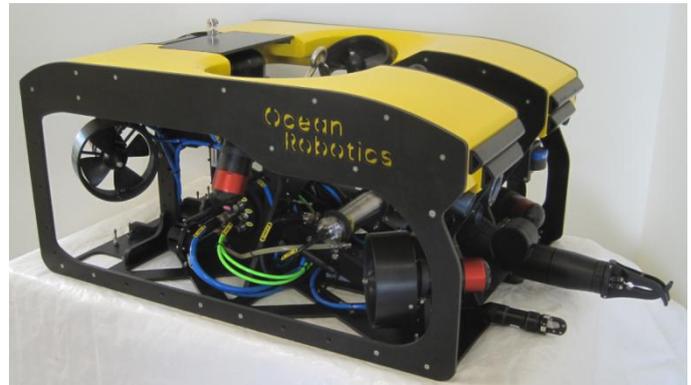


ROV AEGIR 50

Technical specification



Physical data

Length	1080mm	Depth capacity ROV	600/1000m
Width	720mm	Power requirements	3-5kVA
Height	470mm	Thrust	
Launch weight	85kg	Forward	650N
Payload	8kg	Lateral	350N
Tether capacity	Up to 1100m	Vertical	350N

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Construction

The ROV is based around a central high-strength frame, with a sturdy machined buoyancy. The frame facilitates ease of cable routing through integrated tracks running both from top to bottom and front to back. The frame is perforated with a standardized set of holes for adding external equipment and tool skids.

The ROV utilizes a fiber telemetry system, terminated in a junction box with dedicated oil compensator. For shorter excursion tethers an all-copper version can be delivered. Each thruster is internally oil compensated, with integrated compensator feed-back.

All electronics are mounted in two pods, one for core ROV functions and one for survey. The electronics are mounted in a way to facilitate easy access and maintenance.

Power supervision

Both high and low voltage connections on the vehicle are constantly monitored for isolation faults.

Consumers can be switched on and off in groups to help determine the location of a sudden isolation fault.

Core ROV pod

The ROV's internal control system is housed in the core pod, together with connectors for external equipment. The ROV is equipped with the following equipment:

- 6x MX thrusters. Internal compensator check, drive electronics and monitoring.
- As an option a 7th thruster is available, which enables full roll & pitch stabilization and control of the ROV.
- 2x spare hi-power connections
- 5x lighting channels, as standard 4 LED lights are mounted.
- External drivers +/- for actuators
- 1x hi-power tilt
- 1x IMU (9DOF)
- Spare blanks for further equipment

Survey pod

The survey pod comprises the telemetry system and supporting equipment. The pod is equipped with the following connections:

- 3x IP wide angle camera
- 1x IP 4K/1080 optical focus/zoom camera
- 1x Gb Ethernet connector
- 3x survey connections
- Spare blanks for up to 5x further comms channels, for instance SDI, Ethernet, Survey.

The survey channels can be configured for various signals (RS-232, RS-485, analog etc).

Cameras

The ROV is equipped with a color zoom HD camera and three miniature wide-angle color cameras as standard. Any additional cameras can be fitted.

Lighting

The vehicle can be equipped with up to 6 LED lights, each individually controllable. Data per light:

- 4000lumen light output
- 24VDC, 40W
- Fully dimmable, digital control with presets for all lights

Sensors

The vehicle comes as standard equipped with:

- 1 x depth sensor with over-depth warning (60/100bar range, 16-bit resolution)
- 1 x IMU with 3D magnetometer, accelerometer and gyro (2° RMS heading accuracy, 1° RMS roll/pitch accuracy)
- Water ingress alarms
- Earth isolation alarms

Operational envelope

The high powered vectored thrusters and flow-optimized layout of the ROV enables it to operate in high current waters, up to 3knots. With the 7 thruster arrangement the vehicle can pitch & tilt up to +/-45 degrees to get access to those hard-to-reach places.

Auto functions

Standard (all can be disabled by user under operation):

- Depth
- Heading
- Altitude (if altimeter fitted)

Optional:

- AutoPilot / Station-keep (additional sensors required for full-fledged station-keep)

Equipment

The ROV can be equipped with any sonar and positioning system. Manipulator arms 1-7F can be fitted.

Survey equipment of any kind can be carried, with possible mounting both back and front of ROV, to enable multiple uses during the same dive without a need to change payload. Integration of CP & FiGS with rotating holders.

Tether reels both motorized and manual are available, for up to 1100m tether.