

# AEGIR 25 ROV

A big performer in a small package

  
POWER  
(Kw)  
**1.5**

  
SPEED  
(Kn)  
**3**

  
DIMENSION  
L x W x H (cm)  
**70x45x41**

  
WEIGHT  
(kg)  
**30**

  
PAYLOAD  
(kg)  
**5**

  
DEPTH CAPACITY  
(msw)  
**500**



## The ROV Aegir 25 is a big performer in a small package, bringing earlier unheard-of capacity to the small OBS-ROV market.

ROV Aegir 25 is a very compact observation class ROV system designed for demanding tasks within inshore operation as well as for costal and offshore operations where a small, powerful ROV is needed. Easily carried and operated by one man the ROV can be used for inspection and intervention tasks, having ample room for external equipment. The system can be delivered in all-copper or fiber versions depending on customer requirements and tool packages. The protective frame shape gives the ROV a small projected diameter, perfect for confined space exploration.

# TECHNICAL SPECIFICATION / ROV

## SURVEY CONNECTIONS ON VEHICLE

For communication between the ROV and the surface the setup looks as follows:

- Up to 4x video channels, switchable (Single or dual real-time transmission)
- 1 x DATA

The DATA channel can be equipped to handle serial data or Ethernet, over twisted pair.

When the ROV is equipped with fiber the number of available channels increase, up to 3x simultaneous video feeds and 4x data channels are available. Also HD video and Ethernet options are available for fiber vehicles.

## TOOLING POWER SUPPLIES ON VEHICLE

The standard connections for external power include:

- 1 x 24VDC, up to 250W
- 1 x  $\pm 24$ VDC, 3A

As an option the ROV can be fitted with 1 x 300VDC outlet. The 300V can be controlled like a thruster to enable use as a brush or similar.

## CAMERA SYSTEM AND TILT

The ROV comes with 1/2 camera connections as standard:

- Analog video (PAL/NTSC) + 24VDC

All cameras can also be remotely controlled by one of several available channels: UART, xTLK or analog control. A front mounted tilt with user defined presets makes delicate monitoring easy. The vehicle can be fitted with any type of camera, to customer requirements.

## LIGHTING SYSTEM

The vehicle comes equipped with 2/3 LED lights, each individually controllable. Data per light:

- 3500lumen light output
  - 24VDC, 40W
  - Fully dimmable, digital control with presets for all lights.
- More lighting can be mounted on the vehicle.

## SENSORS

The vehicle is as standard equipped with:

- 1 x depth sensor with over-depth warning
- 1 x IMU with 3D magnetometer, accelerometer and gyro
- Water ingress alarms
- Earth leakage alarms

## SONAR AND TRANSPONDER

The vehicle can be fitted with any sonar and transponder. To keep the precise control characteristics of the ROV please consult with Ocean Robotics to get units that match the rest of the systems layout.

## AUTO FUNCTIONS

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

- Depth
- Heading

Optional:

- Altitude (requires altimeter or DVL)
- AutoPilot / Station-keep



# TECHNICAL SPECIFICATION / SURFACE

## POWER DISTRIBUTION

The ROV is supplied by DC power from the surface. The voltage levels are automatically tuning under operation, to enable long tether excursions without compromising ROV performance. The power network is constantly monitored for isolation faults to give the pilot clear warning when something is wrong. Automatic shut-down under hazardous conditions can be user-disabled to ensure safe recovery of the system.

Rugged cases ensures the systems operational state even under adverse conditions, as an option the whole system can be delivered in IP-rated (under use) cases to enable running even outside in the pouring rain and breaking waves.

## TETHER WINCH

A sturdy but light-weight and easily transportable winch complete with slip ring is used for tether handling. The winch can be hand-operated or equipped for electrical drive. The winch can be adapted to carry any length tether up to 500m.

## PILOT CONTROLLER

The pilot control is used to control all aspects of operations. Everything can be controlled and monitored from this unit. Dedicated controls for the ROV are at the heart of the unit. A multi-way joystick and a thumb wheel controls the thrusters, the lights are dimmed through dedicated encoders and the camera and tilt functions are reached through switches. External equipment such as manipulators and relays are also controlled directly.

The pilot controller is complemented by a touch controller in the pilot station that enables system status checks and loading of new hardware into the distributed control system for expansion or replacements.

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# Ocean Robotics