

Teledyne Benthos

MiniROVER®

Remotely Operated Vehicle

High Performance, Low Logistics Inspection

The MiniROVER Remotely Operated Vehicle is Teledyne Benthos' answer to our customers' request for a more portable and powerful ROV system. Over 500 Benthos MiniROVER series vehicles have been sold worldwide. The latest MiniROVER is an extremely robust, highly portable system. With its extreme thrust capability, the MiniROVER allows the user to extend the operational envelope of their ROV projects and explore areas never before possible. The MiniROVER is one man deployable and has built in connectivity for many optional sensors, including Teledyne BlueView sonars. This versatility allows the MiniROVER to be used for a wide array of applications.



MiniROVER



The MiniROVER is easily deployed and recovered by one person.



MiniROVER equipped with Blue View Sonar

PRODUCT FEATURES

Features

- High performance, exceptional thrust to weight ratio
- Low logistics, easy deployment, operations, and retrieval
- Compatible with many imaging sonars, designed for Teledyne BlueView systems
- Single and dual function manipulators available
- Field proven and backed by decades of ROV experience

Applications

- Ship hull inspection and port/harbor security
- Search and rescue
- Law enforcement evidence recovery
- Marine animal research and monitoring
- Mine counter measures
- Pipeline/infrastructure inspection



MiniROVER

Remotely Operated Vehicle

TECHNICAL SPECIFICATIONS

Performance

Maneuverability:	3-axis translation
Horizontal speed:	4 knots on surface with minimal tether deployed
Operating depth:	300 m (984 ft) of seawater

Physical Characteristics

Size:	29.8 cm (11.7 in) high
	40.6 cm (16 in) wide
	68.6 cm (27 in) long
Weight:	23.5 kg (51.8 lbs) for standard 2-horizontal thruster configuration, excluding ballast and installed options

Thrusters

Horizontal:	Two 1 HP magnetically coupled brushless DC motors
Forward static thrust:	16.7 kg (37 lb) per thruster
Reverse static thrust:	10.4 kg (23 lb) per thruster
Vertical:	One 1/3 HP magnetically coupled brushless DC motor
Upward static thrust:	8.2 kg (18 lb) per thruster
Downward static thrust:	4.1 kg (9 lb) per thruster
Lateral (optional):	One 1/3 HP magnetically coupled brushless DC motor
Port static thrust:	8.2 kg (18 lb) per thruster
Starboard static thrust:	4.1 kg (9 lb) per thruster
Propeller:	Stainless Steel
Nozzle:	Nylon Kort

Viewing System (Both cameras mounted in Lexan tube)

Camera 1:	High resolution color video - NTSC
Resolution:	470 lines
Sensitivity:	1.0 lux
Tilt mechanism:	180° for both cameras simultaneously

Camera 2:	High resolution B/W video - NTSC
Resolution:	600 lines
Sensitivity:	0.003 lux
Lights:	Variable intensity LED arrays - 1 Port & 1 Starboard - External to camera enclosure

Optional Rear Facing Camera

Camera Option A:	High resolution color video- NTSC
Resolution:	480 lines
Sensitivity:	0.01 lux

Sensors

Pitch/Roll:	±20°, 0.2° resolution
Heading:	0-360°, 1° resolution
Depth:	±1° of operating depth

Surface Control Unit & Vehicle Power Supply

Physical Characteristics

Size:	37.1 cm (14.6 in) high
	56.2 cm (22.1 in) wide
	56.0 cm (22.0 in) long
Weight:	41kg (90 lbs)

Electrical Specifications

Input Power Requirements:	100-130 VAC or 200-250 VAC, 47-63 Hz, auto-sensing - single phase, 3000 Watts - 5000 VA maximum, depending on installed options. Adjustable current limiting for use with small generators
Output Power to Vehicle:	150-300 VDC 12 Amps - isolated, regulated at vehicle

