

# MiniROVER<sup>®</sup>

REMOTELY OPERATED VEHICLE

## Portable, Robust, Dependable

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 new 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 scanning sonars. This versatility allows the MiniROVER to be used for a wide array of applications.

### Applications

- Port and harbor security
- Ship hull inspections
- Dam and tunnel inspections
- Inspection of water tanks
- Floating Production Storage & Offloading inspections
- Police evidence search and recovery operations
- Search and rescue (SAR) operations
- Mine countermeasures
- Under-ice surveys
- Interior and exterior pipe inspections
- Inspection of nuclear reactor facilities
- Offshore structure surveys
- Salvage operations
- Real-time monitoring of marine construction operations
- Artificial reef monitoring operations
- Pipe and cable tracking



MiniROVER

INNOVATIVE UNDERSEA SYSTEMS TECHNOLOGY



**TELEDYNE  
BENTHOS**

A Teledyne Technologies Company

## System 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:	18.1 kg (40 lb) per thruster
Reverse static thrust:	10.4 kg (23 lb) per thruster
Vertical:	One 1/3 HP magnetically coupled brushless DC motor
Forward static thrust:	8.2 kg (18 lb) per thruster
Reverse static thrust:	4.1 kg (9 lb) per thruster
Lateral (optional):	One 1/3 HP magnetically coupled brushless DC motor
Forward static thrust:	8.2 kg (18 lb) per thruster
Reverse 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:	41 kg (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

