

Stingray

Specifications

PERFORMANCE

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|-------------------|-------------------------------------|
| Maneuverability: | 3-axis translation and yaw rotation |
| Horizontal Speed: | Greater than 3 knots on surface |
| Operating Depth: | 350 m (1150 ft) of seawater |
| Payload: | 2.5 kg (5.5 lb) in-water weight |

PHYSICAL CHARACTERISTICS

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|--------------|---|
| Size: | 46 cm (18.0 in) high 46 cm (18.0 in) wide 122 cm (48 in) long |
| Weight: | 32 kg (70 lb) for standard 2-horizontal thruster configuration, excluding ballast & installed options |
| Slide rails: | Two built-in slide rails for easy installation of additional tools, sensors, thrusters, cameras, lights, etc. These rails run the entire length of each side of the Stingray ROV. |

THRUSTERS

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| Horiz, vert, lat: | 1 hp magnetically coupled brushless DC motors; four optional |
| Forward Static Thrust: | 40 lbs forward thrust per thruster |
| Reverse Static Thrust: | 11 kg (23 lb) per thruster |
| Propeller: | Stainless steel |
| Nozzle: | Nylon Kort |

VIEWING SYSTEM

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| Camera: | High-resolution 18X zoom color video, NTSC or PAL |
| Resolution: | 470 lines |
| Sensitivity: | 1 lux @ 50 IRE |
| Lights: | Two 35 or 75 watt fixtures |
| Tilt Mechanism: | Up to 90° up from horizontal, 90° down from horizontal |

SENSORS

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|----------------------|----------------------------------|
| Pitch/Roll: | ±20°, ±0.2° with 0.2° resolution |
| Heading: | 0–360°, ±1° with 1° resolution |
| Depth: | ±1° of operating depth |
| Angular Rate Sensor: | Yaw rate gyroscope, ±150°/sec |

SURFACE CONTROL UNIT & VEHICLE POWER SUPPLY

PHYSICAL CHARACTERISTICS

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| 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 lb) |

ELECTRICAL SPECIFICATIONS

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| Input Power | 100–120 VAC or 200–240 VAC, 47–63 Hz - single phase |
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TETHER - DUAL COAX

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|------------------------|---|
| Diameter: | 1.65 cm (0.65 in) |
| Weight in Fresh Water: | Neutral |
| Weight in Air: | 65 kg/305 m (143 lb/1000 ft) nominal |
| Breaking Strength: | 900 kg (2000 lb) nominal |
| Peak Tension Load: | 164 kg (360 lb) maximum |
| Minimum Bend Radius: | 20 cm (8 in) |
| Construction: | Outer yellow foam polyurethane flotation jacket over Kevlar braid |
| Conductors: | (2) 75 ohm coax, (4) 16 AWG, and (2) 26 AWG twisted shielded pair |
| Maximum Length: | 500 m (1968.5 ft) |

TETHER - SINGLE COAX

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|-------------|--|
| Diameter: | Less than .65 in. |
| Conductors: | (1) 75 ohm coax, (4) 16 AWG (1) 26 AWG twisted shielded pair |