

MISSION SPECIALIST Defender



The Mission Specialist Series is designed and built with power, reliability, and flexibility in mind. The Defender is our most capable and compatible ROV configuration, optimized for precise control, larger payloads, lifting capability, and specialized operations.

The Defender ROV utilizes interchangeable, modular components that comprise a single, intelligent network, providing an extremely flexible and customizable platform that can be easily adapted to target-specific missions. It is this flexibility that sets the Mission Specialist ROV series apart from current technology in the Remotely Operated Vehicle industry.

A Mission Specialist Defender ROV system is the operator's choice for rugged capability and reliable performance.

_Specifications

[ELECTRICAL]

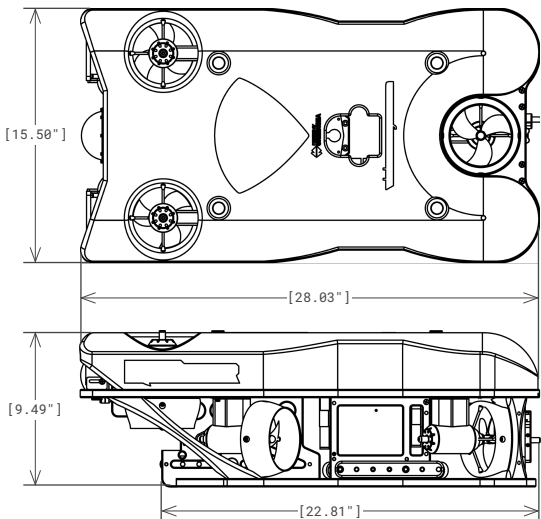
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|--------------------|--------------------------------------|
| POWER REQUIREMENTS | 110/220VAC (1-2.4 kW) |
| POWER MODULE | 400 VDC |
| POWER OUTPUT | 12 V/120 W, 24 V/300 W, 48 V/1,500 W |
| FEATURES | Power Control/Monitoring |

[CONNECTIONS]

| | |
|---------|---|
| 5-PIN | 48 VDC - Thruster/LED RS-485 |
| 9-PIN | 12/24 VDC - Accessories 100Mbps Ethernet RS-485 |
| 8-PIN | Tether - Power/Comms |
| TYPE ST | Fiber Optic (Optional) |

[ENVIRONMENTAL]

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|------------------|---|
| DRY WEIGHT | 17.2 kg (38 lbs) |
| DIMENSIONS LxWxH | 71.1 × 39.4 × 23.8 cm (28.0 × 15.5 × 9.5 in) |
| DEPTH RATING | 300m Standard, 1km+ optional |
| TRANSPORT | Hard-sided, watertight case |



_Modules

[ULTRA 4K SMART CAMERA]

| | |
|-------------------|-------------------------------------|
| PROCESSOR/STORAGE | NVIDIA Jetson Orin NX/1 TB SSD |
| OPTICAL SENSOR | 1/2.3" |
| RESOLUTION/FOV | 12.3 MP/200°, Digital Pan/Tilt/Zoom |

[THRUSTERS]

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|--------------------------------|--|
| HORIZONTAL (4) VERTICAL (3) | Oil-filled brushless with quick-change propeller, programmable |
| THRUST | Forward 23.6 kg Reverse 15.0 kg Lateral 8.6 kg |
| VELOCITY | Forward: 3.8 kts Vertical: 0.8 m/s Sway: 0.9 kt |
| LIFTING | 9.5 kg |

[LIGHTING]

| | |
|----------------------|---|
| LED LIGHT ARRAYS (2) | Individually controlled spot and flood arrays, 38 W max each. 3,000 K CCT, 80 CRI White 7,600 total lumens/module |
|----------------------|---|

[IMU]

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|---|---|
| ATTITUDE & HEADING REFERENCE SYSTEM (AHRS) | 9 DOF & Magnetic Compass Pressure-based depth sensor, 100 Bar, 400 bar opt., 0.2° Static Roll/Pitch, 0.5° Dynamic Roll/Pitch, 18°/h Gyro Bias Stability, 1.0° Yaw |
|---|---|

_Integrated Options

- > Subsea Batteries—Li-ion, NiMH
- > Camera—Auxiliary, 3d Modeling
- > Navigation — DVL/GPS, USBL
- > SONAR—Forward, Side, Scanning
- > Manipulator—Single, Dual, Multi-Axis
- > NDT/Sampling/Cavitation Cleaner
- > MCM/UXO Neutralizers