

# MISSION SPECIALIST ALLY



Mission Specialist systems deliver purpose-built vehicles with cutting-edge underwater robotics technologies, making them the preferred submersible choice for those seeking to take their subsea capabilities to the next level.

The Mission Specialist Ally Base Package includes the Ally submersible, the Workhorse Control Console user interface, and 100m Performance Tether. The Premium Package adds a comprehensive suite of advanced underwater components, including a manipulator with a 90-degree vertical swing for enhanced lifting capabilities, DVL for precise station keeping, navigation and mission planning, and multibeam sonar for searching, inspection, and navigation in conditions where camera visibility is limited.

The Ally submersible is designed to provide components toward an upgrade to the Mission Specialist Defender when additional payload/capability is needed.

## \_Specifications

### [ELECTRICAL]

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

### [ENVIRONMENTAL]

DRY WEIGHT	13.6 kg (30 lbs)
DIMENSIONS LxWxH	64.1 × 30.5 × 30.5 cm (25.3 × 12.0 × 12.0 in)
DEPTH RATING	300m Standard
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/180°, Digital Pan/Tilt/Zoom

### [THRUSTERS]

HORIZONTAL (2)	Oil-filled brushless with quick-change propeller, programmable
VERTICAL (2)	
THRUST	Forward 16.8 kg Reverse 15.0 kg Lateral 6.1 kg
VELOCITY	Forward: 4.0 kts Vertical: 0.8 m/s Sway: 0.9 kt
LIFTING	10.0 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]

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
--	--

## \_Ally Base Package - Part # 74771

- > Mission Specialist Ally submersible
- > Workhorse Control Console
- > 100 m Performance Tether

## \_Ally Premium Package - Part # 74953

- > Mission Specialist Ally submersible
- > Workhorse Control Console
- > 100 m Performance Tether
- > Doppler Velocity Log (DVL) - Navigation/Station Keeping
- > SONAR - Forward Looking Dual Frequency
- > Manipulator - Dual Function, Spring-loaded 90-180 Vertical

## \_Optional Integrated Components

- > Workhorse Splashproof Controller
- > Expeditionary Tether Reel
- > Mission Specialist Subsea Batteries
- > Square Float Block

