

## Mission Specialist Defender

The VideoRay **Mission Specialist Defender** ROV is a system which utilizes interchangeable, modular components residing on a single, intelligent network. This topology provides an extremely flexible and customizable platform which can be easily adapted to target specific missions. It is this flexibility which sets the Mission Specialist ROV series apart from current technology in the Remotely Operated Vehicle industry.





#### **System Information**

**Power Requirements:** 110/220 VAC (1 to 2.4 kW)

Total System Weight (Sub & OCC): 32.5 kg (71.6 lb)

**Cases:** 2 Watertight Rugged Hard Cases

Owner's Manual:Online DigitalSystem Tool Kit:Basic Tool KitCommunications Protocol:RS-485 and Ethernet

**Warranty:** 2 Year Limited



#### Camera

**High Definition** With Ethernet interface (IP) **Video:** up to 1920 x 1080, 25 fps

**Mechanical:** Standard VideoRay 9 pin connection

Ethernet, 12 VDC, RS-485 Auto or Manual Focus Optical Glass Dome

**Features:** White Balance Control

up to 16x Digital Zoom (64 steps) 13 Megapixel Still Image Capture

Sensitivity: Less than 1 lux (standard)
View Angle: 160° Tilt (180° FoV)

Horizontal: 136°

Vertical: 91°

**Compression:** h.264



# Submersible Depth Rating:

• **Up to 1,000 m** (3,280 ft)

#### Size:

• **71.12** x **39.37** x **23.80** cm (28.80 x 15.50 x 10.37 in)

#### Weight:

• 17.2 kg (38 lb) without ballast

#### Ballast:

Modular

#### Case:

• 79.5 x 51.8 x 31 cm (31.3 x 20.4 x 12.2 in) 9.4 kg (20.8 lb)

#### **Power**

#### 400 VDC power module

1500 W @ 48 VDC

Full monitoring of input voltage, output current, temperature



**Float:** 400 m (1,312 ft)

2 km (6,561.68 ft) - optional



#### **Operator Control Console (OCC)**

**Power Input:** 90–260 VAC (47–440 Hz)

**Power Output:** 400 VDC, 2400 W

**Display:** Daylight Viewable Monitor

Weight: 15.2 kg (33.6 lb)
Case: Water tight

0.62 x 16.87 x 8.12 in

(52.37 x 42.85 x 20.62 cm)

**Processing:** Integrated i7 system processor

**Controller:** Industrial Programmable

Hand Controller

**Safety:** Integral Line Isolation

Monitor Emergency

Kill Switch

**Ports:** 7 external USB ports

1 external Ethernet port









### **Communications**

(5) 100 Mbps Ethernet ports

(5) RS-485 ports

Power Available: 12 V, 120 W

24 V, 300 W

48 V, 1500 W

Power control and monitoring



#### **Propulsion**

#### Brushless thrusters with integrated controller

4 Vectored Horizontal Thrusters Forward: 26.7 kg (59 lbs) Reverse: 15 kg (33 lbs) Lateral: 8.6 kg (19 lbs)

3 Vertical Thrusters

Up 23.1 kg (50.9 lbs) Down 12.9 kg (28.4 lbs)



#### Lighting

#### LED

2 independent light arrays (38 W max ea.) 60° spot beam

110° flood beam

Each array can be individually controlled

3,000 K CCT, 80 CRI White

7,600 total lumens per LED light module



#### **IMU**

#### 9 DOF IMU and Magnetic Compass

Pressure based depth sensor: 100 Bar, with 400 Bar optional

0.2° Static Roll/Pitch 0.5° Dynamic Roll/Pitch

1.0° Yaw

18°/h Gyro Bias Stability



#### **Tether**

Neutral Performance: Neutral buoyancy,

smaller diameter

Standard Neutral: Negative Extension: Breaking Strength: Management: Neutral buoyancy
Negative buoyancy
680 kg (1,500 lb)
Tether Deployment
and Storage Reel

For more details about our accessories, visit VideoRay.com.