



# Cariboo Chilcotin Divers Ltd.

Serving Industry Throughout Canada

## Triggerfish ROV

# TRIGGERFISH T4N



### T4N

**Compact size, Easy Maintenance, Operator Friendly, Rugged & Reliable**

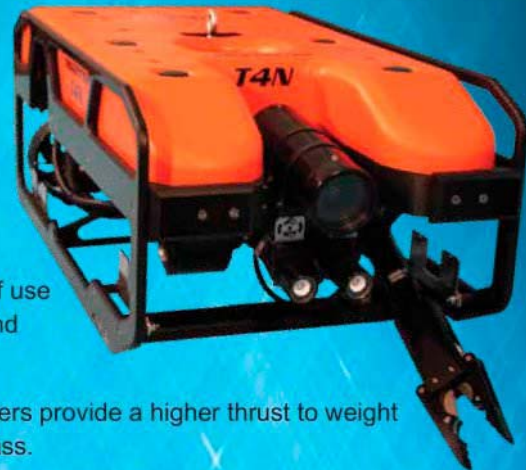
T4N is a rapid deployment high performance ROV system that provides more power and versatility compared to other vehicles in its class.

The T4N is the newest member of the networked family of ROVs. It now incorporates many of the Triggerfish T4H features in a smaller, more manageable system.

The power and control system is networked for ease of use with multiple microprocessors providing redundancy and expanded capabilities.

DOE, Inc. designed high performance brushless thrusters provide a higher thrust to weight ratio and are more reliable than other vehicles in its class.

Its polypropylene chassis is resilient, non-corroding, and maintenance free.



### THE DEEP OCEAN ADVANTAGE

The Deep Ocean Engineering brand is well established with over 20 years of experience supplying the robotics industry. Over 500 ROV systems have been delivered to a broad international customer base with clients in over 30 countries. Our internationally acclaimed system designs are strong, resilient, and rugged with the ability to integrate tooling and sensor packages. Our dedicated customer service, support, and technical training is unparalleled.

#### Applications include:

- Dam and Hydroelectric plant inspections
- Offshore oil & gas
- Military, customs & police
- Scientific research
- Search & recovery
- Underwater filming

[www.deepocean.com](http://www.deepocean.com)

**PRODUCT SPECIFICATIONS** **T4N**

**Features:**

- 300 Meters operating depth
- 2000 Meters Maximum Cable (Fiber optional)
- 450 Meters Maximum Cable (Copper)
- Standard configuration 2-Forward Thrusters, 1-Vertical and 1-Lateral
- High resolution Camera (on tilt bar assembly with LED lights)
- Brushless DC Motors
- Auto Heading, Auto Depth, Auto Altimeter (optional)
- Compass and rate gyro
- Portable topside control system with GUI interface and video overlay



**Vehicle**  
 Power Requirements: 300 VDC @ 3.3 KW  
 Working Depth: 305 meters (1000ft)  
 Length: 927mm (36.5 in) Width: 501mm (19.75 in)  
 Height: 355mm (14 in) Weight in Air: 45kg (99 lbs)  
 Forward Thrust: 23 kgf (50lbs)  
 Lateral Thrust: 10 kgf (22lbs)  
 Vertical Thrust: 10 kgf (22lbs)  
 Thruster Configuration: 2 forward, 1 lateral, 1 vertical

**Topside**  
 Power Supply: TDK-GEN  
 Input Voltage: 120 VAC / 240 VAC 50/60 hZ  
 Output Voltage: 300 VDC  
 Maximum Power Output: 3.3 KW  
 Monitor: 17" Sunlight Viewable Monitor  
 On Screen Display: YES  
 Graphical User Interface (GUI): YES  
 Joystick: Dual Joystick, 3 axis controller for horizontal vehicle control including forward, reverse, lateral and vertical.

**Camera**  
 Resolution: 752x582  
 Illumination: < 1 lux  
 SNR: 50 db  
 Lens: 37mm  
 Pan/Tilt: Tilt assembly with LED Lighting and Camera  
 Control: RS232

**Lighting**  
 LED: 77 Watts  
 Number of LED Lights : 2  
 Lumens 850lm each  
 Depth Rating: 6,000 meters  
 Control: Dimmable  
 Power: 8 VDC to 40 VDC

**Navigation and Depth Sensor**  
 Heading Sensor: MLH Pressure Sensor  
 Accuracy: +/-0.25 FSS  
 Pressure Range: 50-500 psi  
 Total Error Band: +/- 2% FSS  
 Maximum Depth: 380 Meters

**Umbilical**  
 Maximum Length: 450 meters (copper)  
 Diameter: 0.5"  
 Weight: 30kg  
 Number of Conductors: 16

20130321 - Specifications subject to change