

SURVEY EQUIPMENT

**Technical Specifications** 





Survey@uniquegroup.com

www.uniquegroup.com

# **Uni-Lander**

The Uni-Lander is constructed of a robust stainless-steel chassis with floatation to aid stability and fins for directional assistance during deployment. A telemetry bottle mounted on the lander manages all power and data connectivity between the Lander unit and the topside control. All peripheral devices and sensors are connected to the bottle.

The key component of the video system is an Eagle IP Stills/UHD video camera based on a high-quality Digital SLR Camera, offering full control via the topside interface. Images will also be stored locally on an SD Card as well as being passed to the lander internal network. All video and data is transferred directly to the surface unit for live interpretation. This includes HD video, stills images, sensor data and ethernet data from optional sensors such as an imaging sonar or CTD.

A portable rack mount system containing the control PC & the lander topside communications module is supplied. Software provided allows the operator to take full control of the system stills and video camera, view all parameters from the on-board sensors, and display on twin monitors.

The system has been designed to operate on various armoured coaxial cables typically used on offshore survey vessels. Actual data rates and volt drop will depend on the length and type of cable. The system can be supplied by Unique Group, complete with a suitable winch and cable.



E. survey@uniquegroup.com W. www.uniquegroup.com

# **Uni-Lander**

## Features:

- Utilises clients' existing coax winches on a range of cable diameters and lengths
- Produces very high-quality stills images with full control over camera functions
- High-quality video feed from at least one camera
- Variable lighting system to illuminate seabed under Lander
- Switchable lasers for scaling of images
- Collects key positional information heading, pitch, roll and depth
- Ability to collect & display data from other sensors
- Flexible multiplexer design allows clients to fit additional instrumentation
- Topside system allows control and monitoring of all video and sensor feeds
- Stable, robust chassis to cope with repeated deployments
- Flooded tubular structure allows easy mounting of standard pipe clamps



E. survey@uniquegroup.com W. www.uniquegroup.com

# Uni-Lander

**Technical Specifications** 

## Subsea Lander Components: Standard Configuration

- 1 x Lander Coax Bottle 300 with inbuilt Depth Transducer
- 1 x Eagle IP Stills Camera 300 18MP
- 1 x Eagle IP HD 180 Degree Camera
- 4 x Eagle IP LED lights 4000m
- 2 x Lasers 6000m
- 1 x THDT sensor
- 1 x Altimeter

## Chassis

The Uni-Lander has a stainless-steel flooded tubular chassis to which all other components attach using adjustable clamps. There is built in buoyancy, a tail fin, horizontal fins to aid stability during descent and landing. On the base the skids have optional sand plates to stabilise the unit on the seafloor. The sizing of the structure is designed to accept standard size Stauff clamps allowing ease of installation for ancillary payload.

## Telemetry

The Uni-Lander telemetry bottle is the heart of the system, connecting the topside control system via umbilical, and powering and communicating with all the peripherals fitted to the lander. It can supply 600 watts of power to instrumentation and has nine ethernet ports with 24V DC, two serial ports with 24V DC, and a switched 24V DC output for lasers.



E. survey@uniquegroup.com W. www.uniquegroup.com



## Stills Camera

The very high-quality digital stills camera is housed in a 300m depth rated housing as standard. This digital stills and HD Video camera is controlled from the topside via ethernet. It has an 18-megapixel sensor, manual or autofocus, and can record 4k HD to internal storage.

### **180 Degree Awareness**

A 180-degree digital camera provides full 180-degree view or "digital pan and tilt" for complete situational awareness around the Uni-Lander. This superb HD colour image camera is also housed in a 300m housing and controlled via ethernet.

## Lighting

Lighting is provided by 4 high brightness LEDs, rated up to 4000m water depth. Fully controllable over ethernet interface, they can provide up to 6000 lumen at a 90-degree beamwidth.

## **Clearwater Lens (Optional)**

A clearwater lens has been developed as an option which in highly turbid estuarine conditions, can greatly improve the quality of the image. The lens housing has built-in lighting around the perimeter, and the design allows the camera to view through a large volume of clear water to within a few centimeters of the seafloor. Feedback from clients on failings of other systems has been considered during design, to ensure this system is easy to install, use and clean when installed on the drop camera frame.



E. survey@uniquegroup.com W. www.uniquegroup.com



#### SURVEY EQUIPMENT



#### UNIQUE GROUP OFFICES

#### MIDDLE EAST

Unique Group FZC Sharjah T. +971 6 5130333 E. Info@uniquegroup.com

QATAR Unique System Tr & Eng WLL Doha 1: +974 44147079 E. gatarsales@uniquegroup.com

#### SAUDI ARABIA

Muraba Alsahra Trading LLC Riyadh and Al Khobar T. +966 13 802 0614 E. ksasales@uniquegroup.com

#### AFRICA

Unique Hydra (Pty) Ltd Cape Town T. +27 21 835 7900 E. sasales@uniquegroup.com

#### ASIA PACIFIC

Unique System (SEA) Pte Ltd Singapore T. +65 9712 7732 E. fareastsales@uniquegroup.com

NOW Unique Hydrographic Systems Pvt Ltd Navi Mumbai and Vadodara T. +91 22 27619939/40/41/75 E. indiasales@uniquegroup.com

#### AUSTRALIA

Unique Subsea Australia Pty Ltd Perth Airport Park T. +61 418 205 212 E. aussales@uniqueproup.com

#### QUEENSLAND Unique Subsea Australia Pty Ltd Murarrie, Queensland T. +61 A18 205 212 E. aussales@uniquegroup.com

USA

Unique System Inc Houston, Tesas T. +1 713 937 6193 E. usasales@uniquegroup.com

#### EAST COAST Water Weights Inc Suwanee GA 30024 T. +1 678 730 4180 E. marketing@waterweights.com

#### WEST COM

Water Weights Inc Montclair CA 91763 T.+1 909 626 8316 E. marketing@waterweights.com

#### EUROPE

Unique Seaflex Ltd Cowes, Isle of Wight T. +44 1983 290 525 E. buoyancyballast@uniquegroup.com

Unique System (UK) Ltd Water Weights Ltd Aberdeen, Scotland T. +44 1224 723 742 E. uksales@uniquegroup.com

#### NETHERLANDS

Unique System BV T.+31 850 513 700 Water Weights BV T.+31 850 513 750 Werkendam E. info.awnl@uniquegroup.com