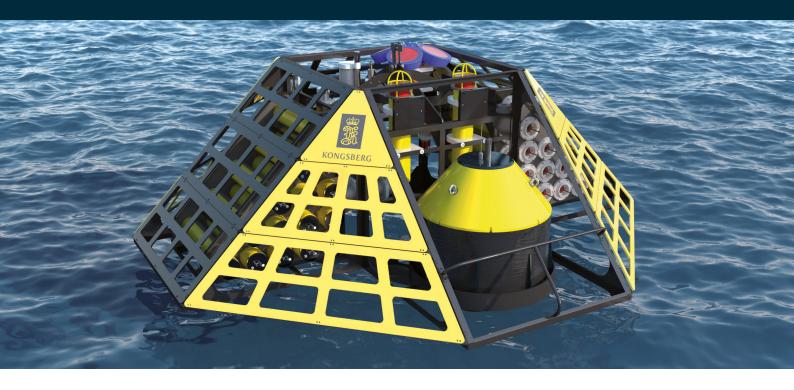
K-LANDER





K-LANDER AUTONOMOUS SEABED SENSOR CARRIER

The K-Lander seabed observatory is the core of the KONGSBERG Modular Subsea Monitoring-Network (MSM). With complete flexibility on sensor type installed and electric power from integral battery packs, K-Lander can operate for up to 24 months on the seabed with minimal intervention.

The K-Lander is a highly flexible, scalable sensor carrier platform with a standard depth rating to 2000 m and integral advanced communication technology to deliver data from the seabed. Built on a robust stainless steel frame and engineered with a trawl-resistant design in mind, the K-Lander allows easy integration of various sensors suited for diverse subsea monitoring applications.

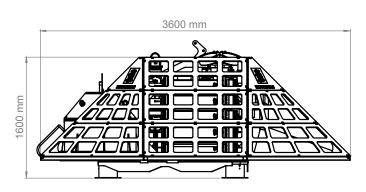
Intelligent algorithms within the built-in Data Processing Unit (DPU) allow the integration of data from multiple sensor sources, including K-Point based sensor data, thus allowing for wide area coverage. The incoming data is computed within the DPU into a comprehensive environmental model rather than plain event logging, making it quicker and more efficient to act on data received.

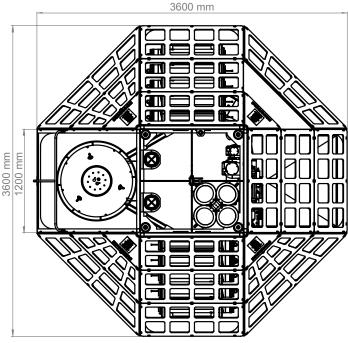
Communication between the K-Lander, its subsea nodes (K-Point) and the surface is via the field proven HiPAP or μPAP transducers, using the established Kongsberg Maritime developed cNODE technology and the proprietary HiPAP Cymbal acoustic protocol for positioning and data link. These tried and tested technologies ensure confidence that the K-Lander will continue delivering data even after months below the surface.

Designed for the harsh reality of long-term subsea deployment, the K-Lander system is equipped with an advanced rope recovery system using two completely independent acoustic transponders with mechanical release mechanism (Kongsberg Maritime cNODE).

It is easy to assemble and take apart, and positioning and the amount/ type of sensors used, interfaces and batteries can be determined by the user, making it suitable for a wide range of projects, including:

- · Environmental Monitoring
- · Offshore Oil & Gas
- Marine Renewables
- Marine Research





TECHNICAL SPECIFICATIONS

WEIGHT AND DIMENSIONS

- Complete assembly 3.6 m x 3.6 m x 1.6 m
- · Weight in air of frame and basic components 1 t
- · Weight in air of batteries when fully equiped 1 t

POWER SUPPLY

- · 4 cNODE battery packs (each 128 Ah) standard
- · Up to 30 cNODE battery packs on request

SENSOR INTERFACE

 10x Serial, 1x Ethernet 1x analogue, *other configurations on request

STANDARD SENSORS AND DEVICES

- · 2x cNODE for release, communication and positioning
- 1x CTD
- 1x Data Processing Unit (DPU)
- 2x Power Management Unit (PMU)

POWER SUPPLY

- · 4 cNODE battery packs (each 128 Ah) standard
- · Up to 30 cNODE battery packs on request

MAXIMUM OPERATING DEPTH

· 2000 m standard (other depth versions available on request)

RECOVERY DEPTH

· Depending on rope length and currents in deployment area

RECOVERY ROPE LENGTH

Available lengths: 500 m, 1000 m, 1500 m, 2000 m, 2400 m

MATERIALS

· Stainless steel 1.4571 (A5), Titanium, POM, PE

COMMUNICATION

 HiPAP Cymbal acoustic protocol for positioning and data link, compatible with cNODE, µPAP, cPAP, HiPAP

SOFTWARE

K-Lander Control*, Retreive system status (topside)
*uPAP cPAP or HiPAP system on vessel required

HARDWARE REQUIREMENTS

 Win 7/8 32 Bit, 200MB free disk space, Dual Core CPU, 2GB RAM

Specifications subject to change without any further notice.