

MOBILE TRACKING RANGE

Ensuring operational capabilities.

Passing on information.



They who have better information remain ready to act.

The ability to monitor your sovereign territory or mission territory and to be able to react quickly to the smallest discrepancies is of crucial importance for the safety of people and machines.

We at Gabler are able with our Mobile Tracking Range System to provide a solution to monitor your underwater infrastructure and sovereign territory and to warn of potential dangers.

For this purpose, we have developed the subsea monitoring platform NEREUS Mk.3 with our partner develogic, through which you can place a comprehensive network of acoustic recorders that detect any discrepancy.

The NEREUS.MK3 instrument platform initially was designed as broadband acoustic monitoring and communication platform for Naval purposes. Through the communication of the individual platforms with each other, a wide-ranging network for underwater monitoring can be set up.

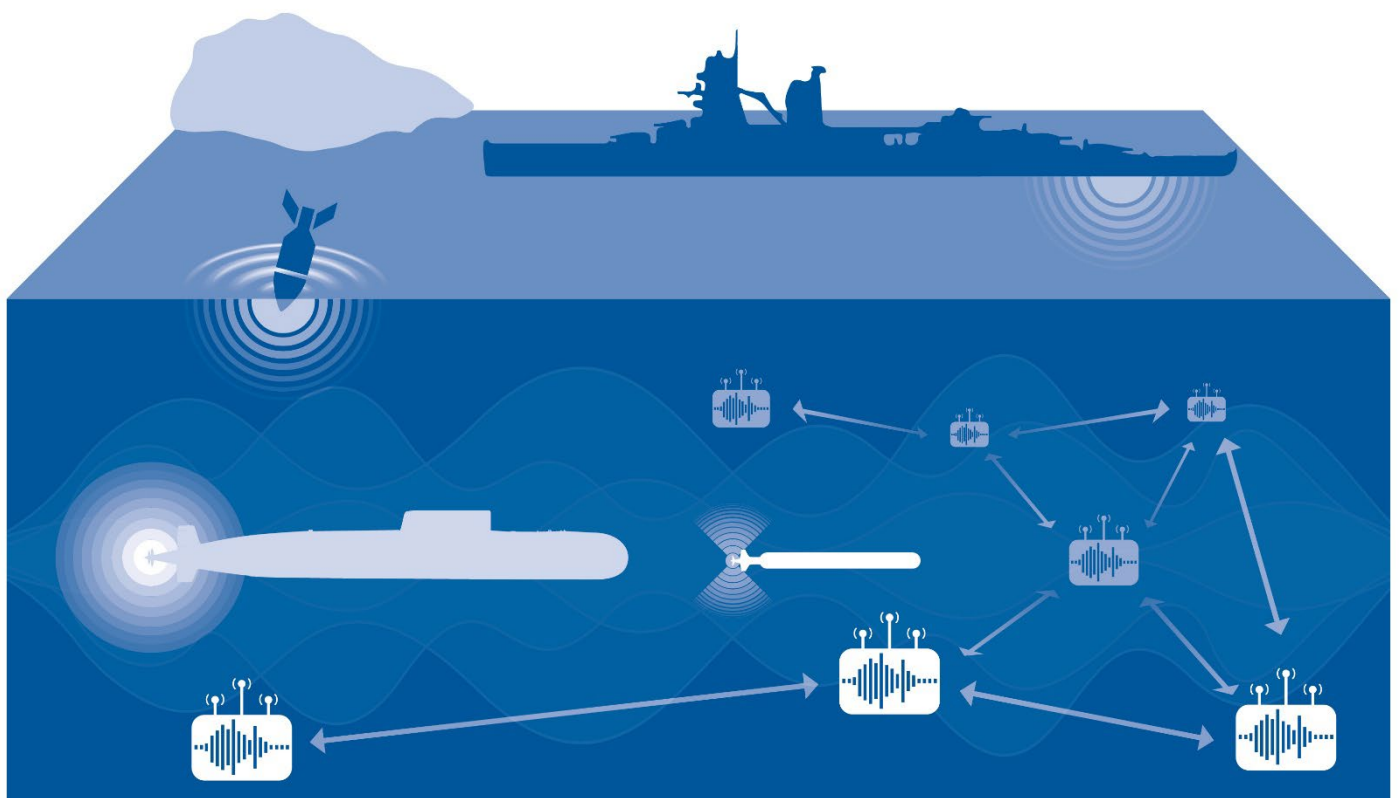
In addition to this original purpose, it is ideally suited as host system for any type of small to intermediate sized subsea sensors for deployments with short to medium duration and high power consumption.



Possible configuration of 5 hydrophones and 3 communication transducers



Subsea Monitoring Platform NEREUS Mk.3

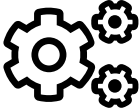


The NEREUS Mk.3 Platform



Deployment

The system can be deployed to the seafloor via a ballast plate or anywhere in the water column by a suitable mooring. The rated operational depth is 500m. One of the key features is the integrated buoyancy concept (besides hosting the system electronics and batteries, the housings also provide the required buoyancy for recovery) which can bring the system back to the water surface at the end of the mission or for maintenance purposes. For easier recovery, the system is equipped with GPS, AIS, LED flasher and IRIDIUM telemetry. Once exposed, the system has an operational lifetime of up to 2 years.



Battery and Equipment Options

The long lifetime is made possible by the high-energy capacity provided by quickly rechargeable Lithium Iron Phosphate batteries. The integrated LiFePo battery technology is inherently safe (as opposed to standard Lilon batteries), is able to provide high currents as often required by acoustic transmitters and can be recharged without significant capacity loss for several 1000 cycles.

The sensor grid plate on top allows the integration of various hydrophones and sensors. In this way, the necessary measuring instruments can be installed for a wide variety of scenarios. For example, up to 5 additional broadband hydrophone recording and processing channels can be used, as well as a wide variety of available transducers. Furthermore, up to 4 modem channels between 2kHz and 60 kHz can be installed and different modulation and coding schemes (mOFDM-DPSK, N-M-FSK, JANUS, FRSS and more, available to select customers) as well as 3rd party modems can be used.



Application Areas

The NEREUS Mk3 Lander is a host system for any type of small to medium-sized underwater sensors and can therefore be used in different situations. For example, the system could be used to monitor pipelines and harbor basins. In this way, other underwater vehicles, divers and potential attempts at sabotage can be detected and reacted to in good time. In addition to monitoring applications, the system can also be used for research purposes.

General Specifications



General Specification	
Size (LxWxH):	720 x 720 x 1180 mm
Weight:	Approx: 200 kg
Displacement:	Approx: 230 l
Operational depth:	500m
Energy Capacity:	-3000Wh / 24V
Operational Lifetime:	Up to 2 years (depending on installed equipment and configured monitoring intervals)
Power monitoring:	Smart power monitoring assures safe voltage-limited shutdown of the system @18.4V (configurable)
Release:	Fail safe acoustic release
Data storage:	2TB SSD, up to 35TB low power flash storage
Interfaces:	RS232,422,485, Ethernet, analogue inputs, Hydrophone inputs (up to 5) additional to HAM.UAP (up to 4 transducers)

MTR by Gabler Naval – Unique Features



Long in service phase due to low maintenance



Complete Custom variants available



Easy recovery system



High data recording capacity



Integrated acoustic communication between deployed platforms for more accurate location of discrepancies

FROM THE OVERALL SYSTEM TO INDIVIDUAL COMPONENTS

All of our products meet the highest military standards and are up to the high demands of the navies. Therefore, our products are ideally suited for military, civil and research areas. Our underwater communication products stand for the highest reliability and quality. The products can always be adapted to different scenarios and individual requirements.

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GABLER
submarine
experts

25

Satisfied
Navies

25

Develogic
experts

100

%
Reliability