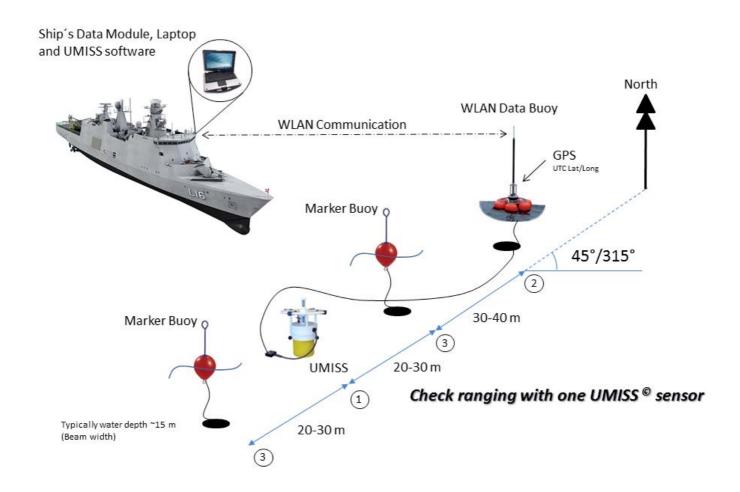


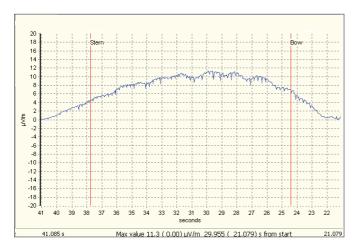
# **Polyamp Self Ranging System**

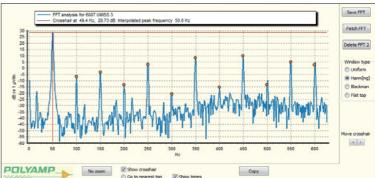
# **POLYSERA**<sup>©</sup>



The Polyamp Self Range System **POLYSERA**® is a Multi Influence Sensor system that will allow Naval ships to perform autonomous control of their own underwater signatures. Knowledge of level and range for the signatures are crucial for mission planning and tactical behaviour of Naval units.

The **POLYSERA**<sup>©</sup> system consists of one or more standard Polyamp **UMISS**<sup>©</sup> Multi Influence Sensor System connected to a sea cable which communicates the underwater data to a Data communication buoy at the surface. The Data buoy contains a small computer, batteries and a WLAN modem with antenna, which sends the measured and encrypted signatures data to an on-board Ships Data Module and a laptop computer where all the underwater signature data can be seen, stored and analysed. Due to its small size and weight the **POLYSERA**<sup>©</sup> is a truly portable system.





Typical **POLYSERA**® screenshots

## **General Specification**

Funktionality and performance	Specification
Multi Influence Sensor System	Polyamp UMISS® MKII sensor(s)
■ Type of sensor	3-D Magnetic and 3-D Electric with frequency range up to 3 kHz Hydrodynamic pressure and Inclinometer. Optional acoustic sensor.
Sensor communication t surface WLAN Data Buoy	Encrypted Ethernet TCP/IP/UDP trough a combined UW copper cable for power and Ethernet
<ul> <li>Sensor power supply</li> </ul>	Battery power from surface WLAN Data Buoy
■ Size and Weight	D x H: 625 x 606 mm; Weight: approximate 40 kg
WLAN Data Buoy	Polyamp POLYSERA® WLAN Buoy MKI
<ul> <li>Type of radio communication to ship with UMISS sensor data</li> </ul>	Encrypted WLAN Bandwidth > 10 Mbit/s with 2 m antenna and 500 m range
Power supply and capacity	Rechargeable AGM Lead acid batteries Capacity: 10 hours of full use of the POLYSERA® system without recharging
■ Size and weight	D <sub>max</sub> x H <sub>max</sub> : 850 x 2600 mm with antenna Weight: approximate 35 kg
Ranged ship module	Ships Unit with WLAN Modem, antenn, Laptop and UMISS® sensor software
■ WLAN Modem, antenna and range	Encrypted WLAN 2,4 GHz modem; Bandwidth > 10 Mbit/s 2 m antenna for approx. 500 m transmission range
Ships Data Module	Decryption and unpacking of UMISS® sensor data for the UMISS software that resides in the Laptop
■ Software	UMISS® sensor software running in the Laptop
Signature presentations	Line diagram, Water fall, FFT etc.
Navigation through range	Input for Ships own DGPS and / or through manually marking passing a buoy port
Transport	Full System can be stored in a EUR pallet, 2 m height < 100 kg total weight

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