

# UltraLab<sup>®</sup> ULS 80 D

## Sensing of Water Level and Waves



The ULS 80D with 8 sensors at 8 independent channels

**UltraLab<sup>®</sup> ULS 80D** is designed for the measuring of water surfaces in Ship Model Basins, Flumes, Hydraulic Laboratories at Universities and Institutes and Simulation Facilities of Physical Models. It is an easy to handle ultrasonic measuring system, which measures water level and waves fast and precisely. Because of its outstanding accuracy, the small beam angle of  $<3^\circ$  and its remote sensing technology almost all kinds of water dynamics (also steep waves) can be measured without interferences or influence to the target. Measurements close to or direct at objects/models are possible. The ULS is easy to handle and due to the wide range of application an universal tool for laboratories.

### UltraLab<sup>®</sup> ULS 80D Specifications

- 8 independent channels
- Various sensors measuring from 30 mm up to 3.4 m
- Superior resolution up to 0,18 mm
- Repetition rate up to 75 Hz
- Low operation effort and no maintenance necessary
- Analogue 0-10 V and digital RS232 output

**The ULS 80D** system is equipped with eight fully assembled independent channels. BNC voltage output (0–10 V) and digital RS232 output makes an easy integration into every data acquisition system possible.

### The UltraLab<sup>®</sup> ULS 80D is optimised to measure:

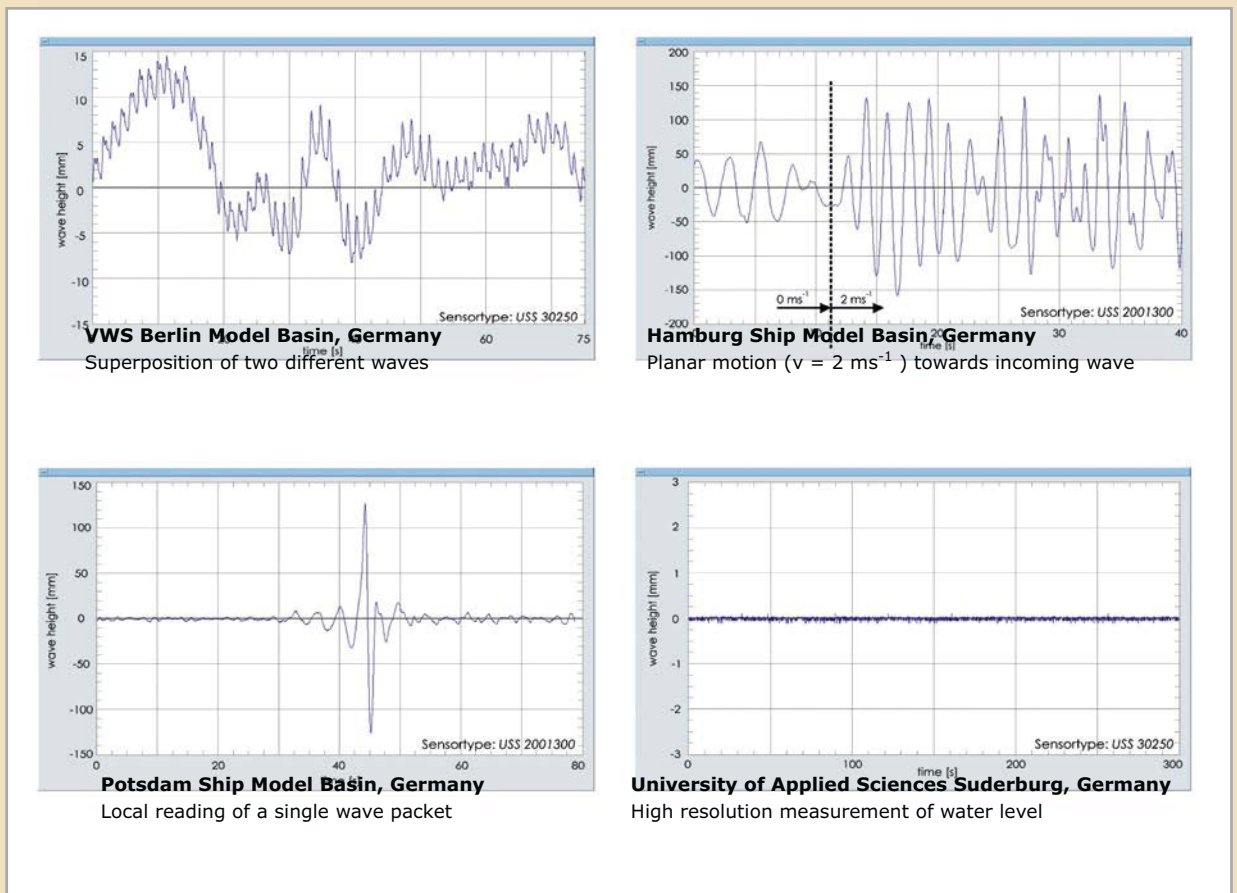
- Steep, small and fast waves
- Object contours (oil, ice, bodies, etc.)
- Wave fields around a ship model
- Wetted surfaces
- Flood wave propagation and Water levels

### Applications:

- Optimisation of Ship Models
- Measurements in Flood- and Water Surface Models
- Optimisation of Hydraulic Constructions
- Determination of Wave Parameters
- Analysis of Wave Fields
- Measurement of Object Contours

Available Sensors	USS 325	USS 635	USS 20130	USS 35340
Blind area:	30 mm	60 mm	200 mm	350 mm
Working range:	250 mm	350 mm	1300 mm	3400 mm
Frequency:	320 kHz	400 kHz	200 kHz	120 kHz
Techn. resolution:	0.18 mm	0.18 mm	0.18 mm	0.18 mm
Reproduceability:	±0.15%	±0.15%	±0.15%	±0.15%
Output update:	75 Hz	75 Hz	50 Hz	20 Hz
Analogue output:	0-10 V	0-10 V	0-10 V	0-10 V
Protection class:	IP 65	IP 65	IP 65	IP 65

### Digital output via RS 232



### Key References:



### Representative of General Acoustics:



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