

# UWB

## UNDERWATER BLAST TEST

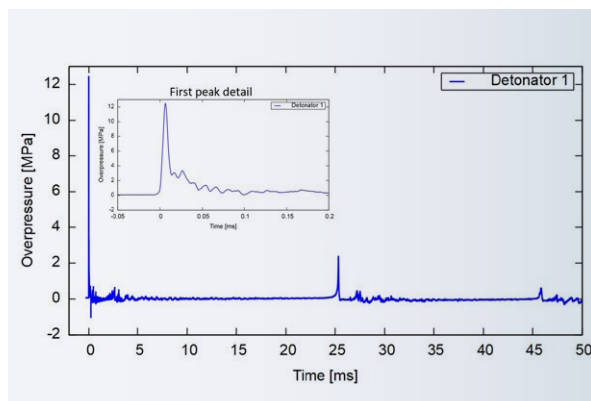
The UWB device provides a solution for measuring underwater explosion parameters. The instrument is built into a case for easy transport and to protect its components. The UWB consists of a battery powered main unit, connecting cables and a pressure sensor which attaches into a blasting pool.



## APPLICATIONS

The Underwater Blast device is designed to be used in outdoor conditions for both civil or military research. The instrument records pressure-time dependency by a pressure sensor placed close to the explosive charge under water. Simultaneously with pressure-time data recording the oscillation of bubble is observed. Both parameters combined provide a solution for evaluation of:

- ▶ Bubble energy
- ▶ Shock wave peak pressure
- ▶ Shock energy at the gage
- ▶ Total expansion work
- ▶ Initiation capability of detonators



Example of overpressure-time curve from detonator experiment in 1m<sup>3</sup> tank.

## ADVANTAGES & FEATURES

- ▶ Battery powered, up to 5 hours of operation
- ▶ Inbuilt signal conditioning and data acquisition unit
- ▶ Pressure-time curve recording with up to 2MS/s sampling
- ▶ Controlled via laptop and UWB software
- ▶ Durable case for device protection in field experiments
- ▶ Up to 4 measurement channels



UWB device prepared for detonator test in 1m<sup>3</sup> tank.



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