

## Hydrophone (Bed load monitoring system)

Pipe-type Hydrophone: 660,000JPY\*

Plate-type Hydrophone: 830,000JPY\*

\* Not include the data logger

In Japan, the hydrophone that a microphone is installed into the pipe (Pipe-type hydrophone) is often used for the bed load measurement. We developed the hydrophone instructed by Prof. Mizuyama at Kyoto University of Institute of Agriculture. We have two types hydrophone. One is the pipe-type hydrophone, and another is the plate-type hydrophone. The pipe-type hydrophone can measure smaller sedimentation, but pipe is sometimes dented by big stone flow of flood. Once the pipe is dented, the observed signals become big and the pipe should be changed. Then, we develop the plate-type hydrophone below the plate. User can select two types of hydrophone.

The hydrophone is consisted of microphone, preamplifier, pulse converter, data logger (10 channels), power unit. The solar battery unit is also prepared.

(Manufacture and Sale)  
Michinobu Nonaka (Hydrotec Company)  
Tel: +81-748-52-1748  
Fax: +81-748-53-1485  
E-mail: rishin@hydro.co.jp



Fig1. Experiment field of the Ashiarai-dani, Hodaka  
Sedimentation Observatory of DPRI, Kyoto University



Fig2. Experiment field of the Shiramizu-dani, Hodaka,  
Sedimentation Observatory of DPRI, Kyoto University

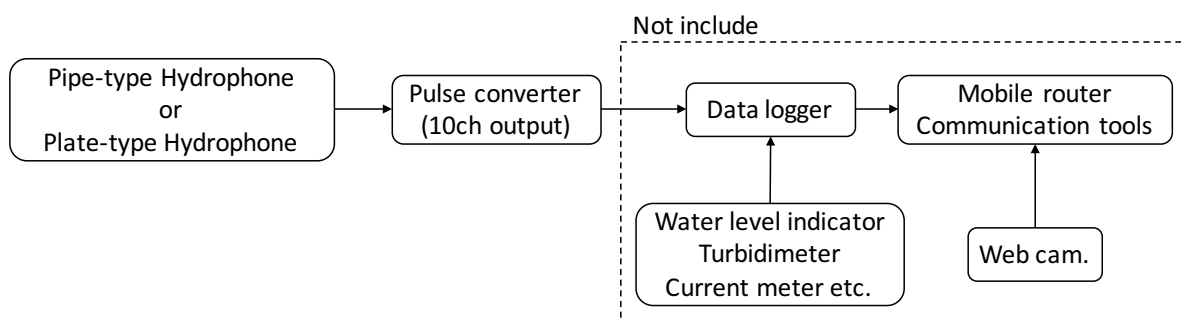
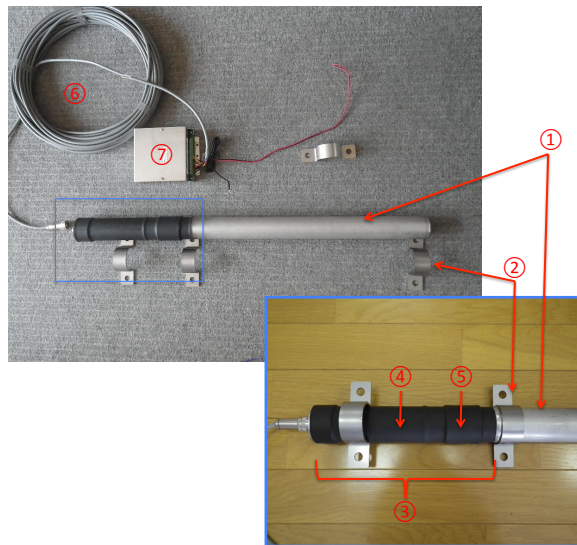


Fig.3 Block diagram

## Pipe-type Hydrophone



1. Pipe (0.5m, 2.0m, other)  
Outside diameter: 48.6mm, (t = 3mm)  
Weight: about 4.5kg  
Quality of material: SUS304
2. Saddle
3. Microphone unit
4. Pre amplifier (built-in)
5. Microphone (built-in)
6. Cable (mounting connector)
7. Pulse converter (10ch output)  
Power source: DC 12V  
Consumption current: 40mA (average)

## Plate-type Hydrophone

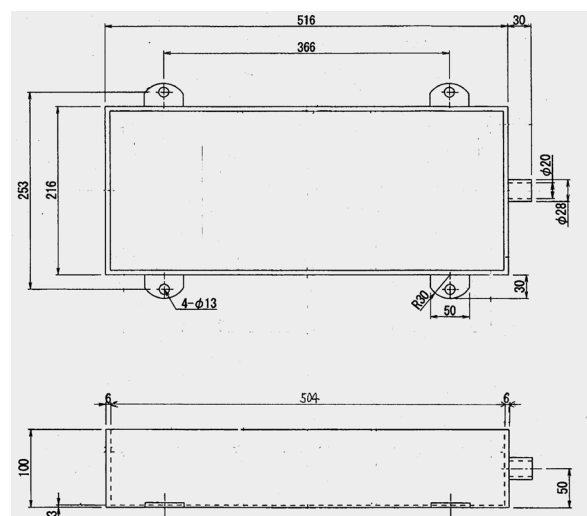
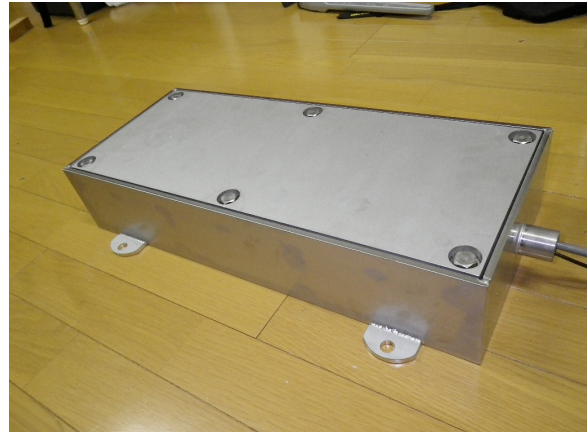


Plate size: 50×20cm (t = 12mm)  
Quality of material: SUS304  
Outer size: 544×274×100mm  
Weight: 25kg

## <Observed sample>

