DESCRIPTION:
This unit should be used to generate and visualize water hammers in pipes and to demonstrate how a surge chamber works. The trainer should consist a pipe section with a ball valve and a surge chamber and a second pipe section with a solenoid valve.
A water hammer is produced by rapidly closing the ball valve. The sudden deceleration of the water mass release kinetic energy, which is converted into potential energy in the surge chamber. The resulting pressure vibrations are measured by a pressure sensor.
A rapid closing of the solenoid valve in the second pipe section produces a strong water hammer. The water's kinetic energy is converted into pressure energy. The water hammer and the subsequent vibrations are detected by two pressure sensors in the pipe section.

Technical Details:

- **Pipe section for pressure vibrations**
- Stainless Steel
- Length: 5m, dia: 20mm (ID)
- ball valve
- Surge chamber
- Height: 800 mm
- Dia: 50mm
- **Pipe section for water hammers**
- Stainless Steel
- length: 5m, dia: 26mm
- Valve: solenoid
- Tank: 50L (Stainless Steel)
- **Measuring ranges**
- pressure (pipe section):2x0-7 bar output 4-20 ma
- pressure (surge chamber):0-0.3 bar ouput 4-20 ma

Experiment:

- Demonstration of water hammers in pipes
- Demonstration of surge chamber working
- natural frequency in surge chamber

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.