



## Underwater Sensors

### *Shallow and deep water foundation testing*

Installing piles underwater is a major task in the construction of offshore oil platforms, wind farms, ports and bridges. High strain dynamic pile testing consists of measuring strain and acceleration during pile driving to evaluate driving stresses, hammer performance and bearing capacity.

High strain dynamic testing during underwater driving requires underwater sensors. Underwater measurements are challenging due to the need for waterproof transducers, cables and connectors; due to the difficulties of handling the heavy cables; and due to their physical interference with other equipment, such as an Remotely Operated Vehicles (ROV).

Pile Dynamics, Inc., offers Shallow Water (up to 100 meters) and Deep Water (up to 300 meters) waterproof Strain Transducers and Accelerometers for use with the Pile Driving Analyzer® (PDA). PDI's underwater sensors are reliable, durable and easy to install.

### **Shallow Water Piezoelectric (PE) Accelerometer**

Compatible with PDI connection cable (dry connectors); encapsulated and waterproof to at least 50 meters for 2 weeks

### **Shallow Water Piezoresistive (PR) Accelerometer**

Compatible with wired connection for use with PDA model (8G or PAX); waterproof to 50 meters for 2 weeks

### **Shallow Water Strain Transducers**

Compatible with PDI connection cable (dry connectors); waterproof for 50 meters for 2 weeks



### **Deep Water Strain Transducer**

Compatible with PDI underwater main cable; encapsulated and waterproof to at least 300 meters for 1 month

### **Deep Water Piezoelectric (PE) Accelerometer**

Compatible with PDI underwater main cable; encapsulated and waterproof at least 300 meters for 1 month

### **Deep Water Main Cable**

Compatible with PDI underwater sensors and PDA model (8G or PAX)

**Pile Dynamics, Inc. (PDI)** is the world leader in developing, manufacturing and supplying state of the art QA/QC products and systems for the deep foundations industry. The company is headquartered in Cleveland, Ohio, USA, with offices and representatives worldwide. For additional information visit us at [www.pile.com](http://www.pile.com) or contact [info@pile.com](mailto:info@pile.com).