

VWPIEZOMETER



Specifications

Sensor Type	Vibrating Wire Sensor
Resolution	0.025%FS
Accuracy	±0.1% FS
Max Pressure	1.5 X rated range
Filter	50-micron, sintered stainless steel
Temperature Sensor	Thermistor (-40 to +125 °C)
Material	Stainless Steel
Size	19 X 122 mm
Weight	205 g

Introduction

VW Piezometer is based on vibrating wire principle. The wire is preloaded with tension and attached on a stainless steel diaphragm. The preload tension on the wire may change due to liquid pressing applies force on the diaphragm. The wire is electrically stimulated by coil and magnets and the corresponding frequency is measured. VW Piezometer is used to measure static and dynamic pressures of all kind of liquids. For example, pore water pressure in eater dam, pore water pressure in a tunnel and measurements for ground water levels.

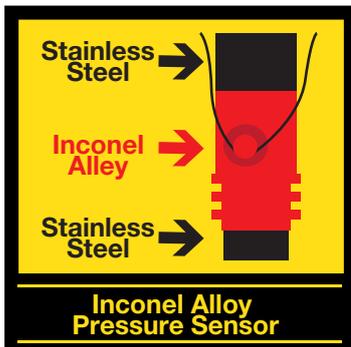
Application

- Monitoring water level
- Monitoring water pressure at a slope
- Monitoring water pressure in an earth dam
- Monitoring water pressure in reclamation soil

Brand and Model

Label: Sanlien
 Model:PZ 1050 (50psi/3.5bar)
 PZ 1100 (100psi/7.0bar)

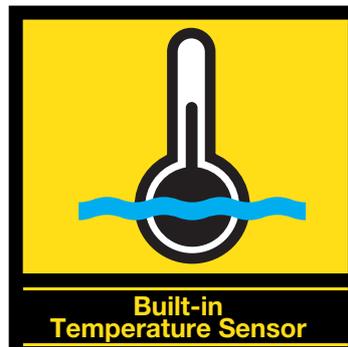
Features



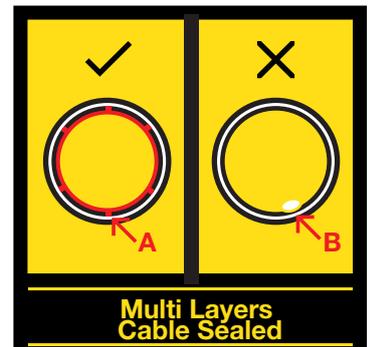
The core body of our Piezometer uses Inconel alloy instead of stainless steel. This type of alloy is well suited for service in extreme environments subjected to pressure and heat. The physical behavior Inconel alloy enhances our VW Piezometer a longer life time and stable data output.



We designed our housing to joint with the VW core mechanically, in order for the core diaphragm has direct contact with water. Many manufacturers simply used epoxy to joint housing and VW core together. When jointing housing and VW core with epoxy, air bubbles may flow in. The air bubbles may prevent the VW core to have direct contact with the diaphragm, which leads to fault data.



Our sensor has built in temperature sensor. In addition, the built- in temperature sensor is AEC-Q200 qualified and it has accuracy of 0.5 °C between 0 °C and 50 °C.



We design two layers of seals on our "cable to VW Piezometer" assembly process in order to prevent water leakage.