

VW multi-point piezometer



Description

As shown in the figure on the right, model 1500 **VW multi-point piezometer** is installed as several VW piezometer in one hole by layer. Even if it is perfectly shielded from bentonite, the piezometer on the top encounters with several signal cables, causing inevitable leakage due to the narrow shield layer.

Model 1500 that was developed for overcoming this problem and shielding certainly is kitted by model 1510 VW piezometer and ID Ø25mm PVC pipe, so model 1500 is originally shielded and to install is easy.

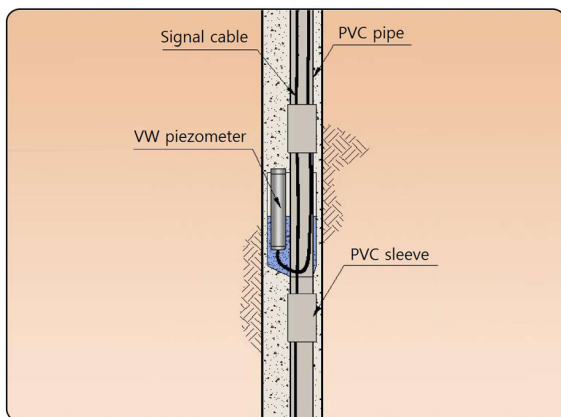
You can take out the signal cable into the interior of PVC pipe that is connected model 1500 kit after preparing the Ø25mm × Ø32mm PVC pipe and checking the installation depth at the field.

You can finish the interior of PVC pipe that signal cable was gotten out as the grouting that bentonite and cement were mixed at the exterior of the installed piezometer using VW piezometer and PVC pipe per layer.

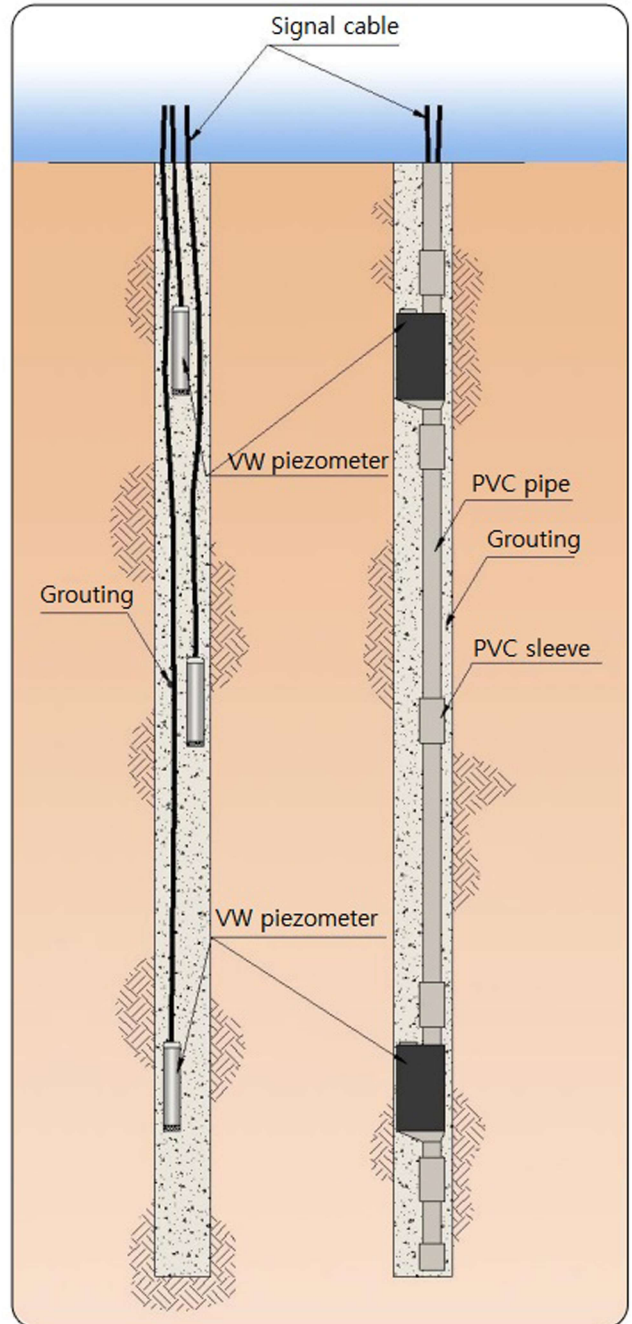
Applications

VW multi-point piezometer is manufactured to measure pore water pressure by setting up several piezometer in one hole by layer.

- Measuring drainage during excavation work
- Measuring pore pressure to determine stability under excavation
- Surveying stability of slope and ground



[Cross section]



[Traditional method]

[Model 1500]

Features

- Stability and reliability in extreme environment
- Not affected by cable length and resistance change, reproducibility are very excellence
- Easy to use and install
- Possible to automatic measurement
- Basically prevention to damage of signal cable by drill casing or auger drill

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Specification

Model	1500
Sensor element	Vibrating wire sensor
Range	3.5~70kg/cm ²
Resolution	0.025% FSR
Accuracy	±0.1% FSR
Nonlinearity	±0.5% FSR
Over range capacity	150% FSR
Thermal zero shift	Less than 0.05% FSR/°C
Operating temperature	-40~80°C
Built-in temperature device	Thermistor (3k Ω)
Temperature device range	-40~105°C
Temperature device accuracy	±0.5°C
Water proof	1000mH ₂ O
Filter	50 micron sintered stainless filter
Materials	Special stainless steel, PVC pipe $\varnothing 32 \times \varnothing 25 \times 540\text{mm}$, $\varnothing 60 \times \varnothing 50 \times 170\text{mm}$
Weight	0.8kg
Signal cable	$\varnothing 6.4\text{mm}$, $0.37\text{mm}^2 \times 4\text{C}$ shielded PU sheath cable

(Note) The accuracy depends on the air entry in the filter, compensating thermal zero shift and difference in air pressure.

The readout

It is connected to the system such as the VW readout units, data loggers to be data logging and data acquisition system to monitor readings. It is compatible with other company's readout unit.

- ACE-800 (VW readout)
- ACE-1000 (VW data recorder)
- ACE-1100 series (VW mini logger)
- ADL-16V (VW data logger)
- ADL-200A (Smart logger)
- VL Module (Smart LoRa system)

Ordering information

- Application field
- Pressure range
- Keeping VW readout unit
- Cable length
- Installation tool kit
- As negative pore water pressure can be occurred on the site, Ace will provide compensation service upon customer's request.

Ancillary equipments

- Universal terminal box (7012/7024)
- Polyethylene sheath cable for heavy duty
- Atmospheric manometer