

## VW vented piezometer



### Description

Model 1560 **VW vented piezometer** converts water pressure on the diaphragm to be measured into an equivalent frequency signal. The pressure on the diaphragm changed by fluid pressure causes a change in tension of the wire.

The wire excited by the plucking vibrates at its resonant frequency. The frequency signal transmitted through a cable to the readout.

Special steel is used to minimize thermal zero shift in the frequency and the precision of the diaphragm is high when manufactured it.

When atmospheric pressure is changed, the standard head also alters and because atmosphere should be revised in a place which requires precision measurement, a signal cable with a built-in vented tube needs to be used and because the vented tube is connected to a VW pressure sensor, it automatically revise the head error amount caused by atmosphere change quantity so that there is no need to separately perform atmosphere revision.

The signal cable is connected to a desiccant case in a place where people can easily access and filled with silica gel.

VW pressure sensor individually revises using an officially recognized digital indicator and automatic water pressure revision device and records the results in the calibration sheet.

Also the pressure transducer is equipped with a lightning protection for protecting the sensor electrical shock and a temperature device for compensating for temperature variations.

### Applications

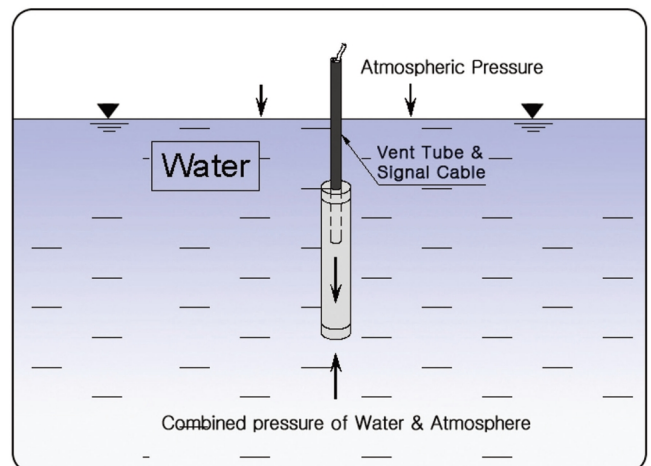
The VW vented piezometer is designed to measure pore water.

The vent type VW pressure sensor is designed to measure water level of a cleaning bed, dam and hydroelectric power plant.

- Measurement of water leakage volume in dams
- Measurement the water level in filtration plants and contained water lake

### Features

- Not affected by cable length and resistance change, reproducibility are very excellence
- 1000m H<sub>2</sub>O waterproof
- Block prevention of tube from condensation by the adaptation of 6mm large vent tube
- Convenience through silica gel's dryness of 3~6 months cycle with built-in big capacity silica gel



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### Specification

Model	1560	
Sensor element	Vibrating wire sensor	
Range	3.5~70kg/cm <sup>2</sup>	
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 $\Omega$ )	
Temperature device range	-40~105°C	
Temperature device accuracy	±0.5°C	
Water proof	1000m H <sub>2</sub> O	
Filter	50 micron sintered stainless filter	
Desiccant chamber	Silica gel / case, : plastic	
Dimensions	∅19.8 × 169.5mm	
Signal cable	Vented signal cable	∅12mm, 0.37mm <sup>2</sup> × 4C, ∅6mm vent tube, shielded PVC sheath cable
	Vented hose	∅6 × ∅8 P.E jacket / use between VW pressure sensor and desiccant case
	Non-vented signal cable	∅6.4mm, 0.37mm <sup>2</sup> × 4C shielded PU cable / Till desiccant case and connecting part of readout unit or data logger

### 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.

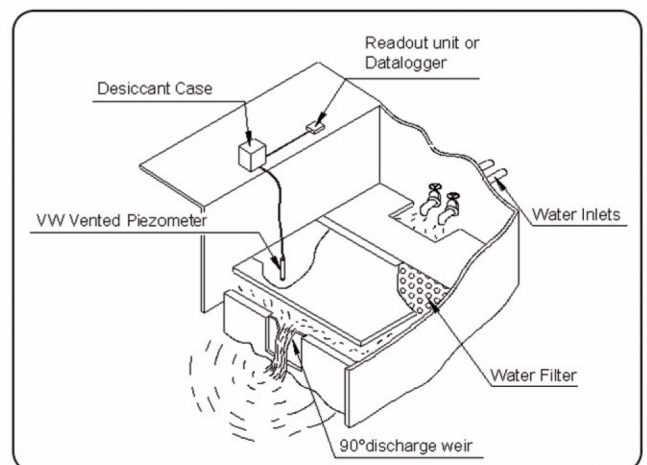
- ACE-800 (VW readout)
- ACE-1000 (VW data recorder)
- ACE-1100 series (VW mini logger)
- ADL-16V (VW data logger)
- ADL-200A (Smart logger)

### Ordering information

- Application field
- Keeping VW readout unit
- Pressure range

### Ancillary equipments

- Universal terminal box (model 7012/7024)
- Silica-gel case



[Installation of VW vented piezometer]