



Electric Piezometers OG200

Technical features



Piezometers are constituted of a cylindrical metal body that houses a pressure transducer and a front porous filter, which in turn can be made of stainless steel or ceramic.

Internal electronics are completely embedded in epoxy resin in order to ensure a long-term sealing. Electrical piezometers can perform absolute or relative measurements. The first are affected by atmospheric pressure, the latter are not. Relative measurements are allowed by a vented cable connecting the sensor membrane to open air. Capillary pipe is placed in the same cable used for power supply and signal transport. Piezometers can be customized with any cable length and any full scale calibration.

Vibrating wire piezometers output signal is insensitive to the length of the cable and unaffected by moisture. Vibrating wire piezometers are used for absolute measurements. Both electric and vibrating wire piezometers can be easily connected to portable readout units or dataloggers.

Applications

Electrical piezometers are used to measure pore pressure in saturated soils (absolute piezometers) or to measure groundwater levels in wells, open pipes, or reservoirs (relative piezometers). Available in various models and with different porous filters for every kind of use.

OTR produces the following types of Piezometers:

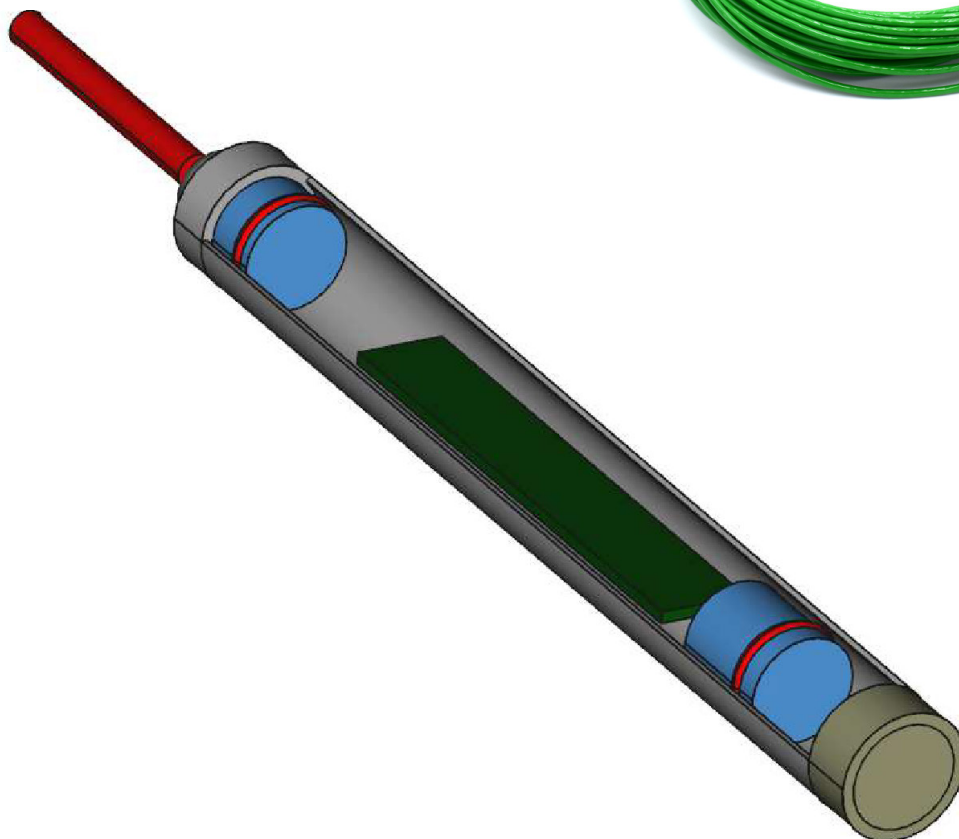
- Electrical (relative and absolute)
- Vibrating Wire (absolute) for long term monitoring of pressures in saturated soils.

Uses

- Measurement of pore pressure in saturated soils
- Monitoring over-pressure induced by overload (road and rail embankment)
- Monitoring groundwater levels in open pipe piezometers and wells

Related Instrumentation

- Geotester 3.0 Readout Units;
- D200-D800-D1600-D3200 Datalogger;
- Otrmonitoring website;
- Ceramic filters;
- Casagrande Filter;
- Piezometer Casings.



Technical specifications

	  			
Model	OG200R	OG200A o S	OG200VW	OG200T
Measure	Water Level	Pore Pressure	Pore Pressure	Pore Pressure
Sensor element	Relative	Absolute or sealed gauge	Absolute Vibrating Wire	Absolute or sealed gauge
Range	1-2-5-10-20-50-100 m H2O	200-500-700-1000-2000-3000 kPa	350-500-700-1000-1500 kPa	100-200-500-1000-2000-5000 kPa
Sensitivity	0.01% F.S	0.01% F.S	0.01% F.S	0.01% F.S
Accuracy	0.3% F.S.	0.3% F.S.	0.3% F.S.	0.3% F.S.
Over Pressure	150% FS	150% FS	120% FS	150% FS
Output	4-20 mA	4-20 mA	Hz	4-20 mA
Working Temperature	-10°C / +70°C	-10°C / +70°C	-10°C / +70°C	-10°C / +70°C
Long Term Stability	D0.02% F.S. (1 year)	D0.02% F.S. (1 year)	D0.02% F.S. (1 year)	D0.02% F.S. (1 year)
Diameter	22 mm	22 mm	19 mm	22 mm
Length	190 mm	190 mm	155 mm	190 mm V
Material	AISI 316	AISI 316	AISI 316	AISI 316
Weight	0,25 Kg	0,25 Kg	0,2 Kg	0,25 Kg
Filter Porosity(*)	40 micron	40 micron	40 micron	-

(*) Also ceramic filter 5 µm available

Codes & Part Numbers

P/N 2013000 Relative OG200R Electric Piezometer
 P/N 2013001 Absolute OG200A Electric Piezometer
 P/N 2013002 Electric piezometer OG200S sealed absolute
 P/N 2013003 OG200 Electric piezometer with gas port
 P/N 2006003 OG200VW vibrating wire piezometer
 P/N 2006004 OG200VW vibrating wire piezometer
 P/N 2006050 5 µm ceramic filter
 P/N 2006051 Fabric filter for installation
 P/N 2015000 Cable 3x2x0.25 PUR KEVLAR Halogen Free
 P/N 2015001 VENTED Cable 2x2x0.25 PUR Halogen Free
 P/N 2015004 VENTED ARMORED Cable 2x2x0.25 PUR