

TITANIUM PIEZOMETERS

Piezo-resistive titanium piezometers are designed to operate in corrosive environments, such as salt water, tailings, and landfills.

Resistance to corrosion is provided by a titanium body, ceramic diaphragm, polyethelene or ceramic filter, and acid-resistant signal cable.

The robust 4-20mA output is compatible with most readouts and data loggers and is suitable for dynamic readings.

APPLICATIONS

- Monitoring pore-water pressure under landfills
- Monitoring where brackish water or salt water is present
- Monitoring nuclear waste repositories
- Monitoring pore pressures in tailings

FEATURES

- Corrosion-proof up to pH=1
- High accuracy and stability
- Compatible with most readouts and data loggers
- Built-in thermistor (on request)
- Suitable for dynamic measurements



Meet the essential requirements of the EMC Directive 2014/30/UE



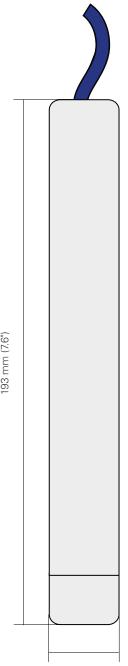


TECHNICAL SPECIFICATIONS

MODEL	0P23	5TI		
Description	Titanium piezometer with piezo-resistive sensor			
Available full scales (FS)	200 kPa, 500 kPa, 1.0 MPa, 2.0 MPa (29 psi, 72.5 psi, 145 psi, 290 psi)			
Overpressure	1.3 x FS (for 200 kPa FS) 2 x FS (all other FS)			
Sensitivity	0.01% FS			
Linearity (1)	< ±0.25% FS			
Total Accuracy (2)	< ±0.20% FS (for 200 kPa FS) < ±0.15% FS (all other FS)			
Signal output	4 - 20 mA current loop			
Electric supply	12 - 24 V DC			
Thermic zero shift	0.00025 % FS /°C			
Electric insulation	4 KV		. (7.6"	
Temp. operating range	-20 to +80 °C			
Temperature sensor	built-in thermistor on request			
Body material	titanium			
Dimensions	Ø 27 mm (1.1", length 193 mm (7.6")			
Weight	0.5 kg (1.1 lbs)			
Corrosion resistance (3)	up to pH=1 @ 20°C		_	
FILTER UNIT			_	
Туре	LAE filter	HAE filter		
Material	syntherized PE (Vyon ®)	ceramic		
Pore size	40 μm	0.25 μm		
SIGNAL CABLE				
0WE104PH100	4-wire cable wit suitable for acid envoirments		Ø 27 mm (1.1")	

1000 m (for more information see <u>FAO#77</u>)

Max cable length to logger (4)



⁽¹⁾ including hysteresis

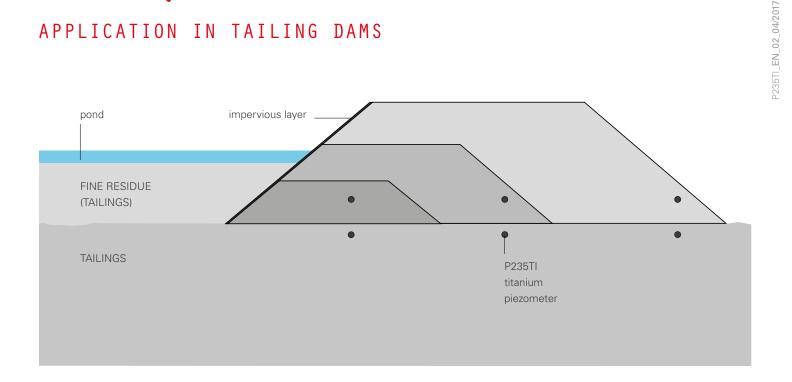
⁽²⁾ including linearity, hysteresis and repeatability, calculated with 3rd degree polinomial

⁽³⁾ Sisgeo's tests have verified that titanium piezometers do not have functionality or corrosion problems after one year in a solution with pH = 1 and temperature 20 °C.

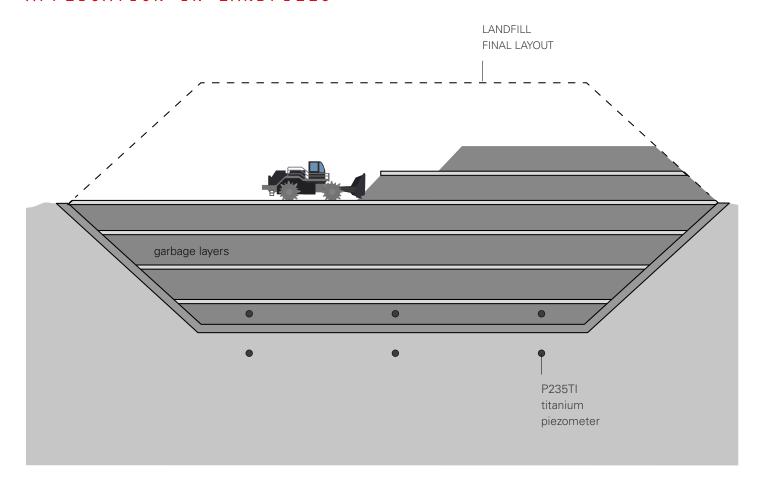
⁽⁴⁾ refer to FAQ section of Sisgeo website: www.sisgeo.com/faq



APPLICATION IN TAILING DAMS



APPLICATION IN LANDFILLS



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P235TI

ACCESSORIES AND SPARE PARTS

PROTECTIVE PIEZOMETER CAP OP100CH1000

Protective cap for standpipe piezometers with data plate and survey pin.



FILTER SATURATION DEVICE OPF01SAT000

Stainless steel pump for saturating HAE ceramic filters. Includes pump, 10 bar pressure gauge, and a threaded connection for the filters.



HAE CERAMIC FILTER OPFO1D16000

Spare HAE ceramic filter for P235 piezometers, pore size 0.25µm.

LAE VYON FILTER OPF40D2000P

Spare LAE Vyon ® (syntherized polyetyilene) filter for P235 piezometers, pore size 40/50µm.

SINGLE INSTRUMENT OVP JB OEPDP002W00

IP67 plastic box with 3-level OVP Over Voltage Protection board for the connection of a 2-wire instrument. Note that OVP requires connection to an adequate earth ground.

OVP JUNCTION BOX OEPDPOOOWOO

IP67 plastic box with 3-level OVP Over Voltage Protection boards for the connection of up to 15 instruments. Note that OVP requires connection to an adequate earth ground.

TERMINAL BOX OEPMOOOOOO

Terminal boxes provide termination and connectors for 1, 2, or 3 instruments.

Used with portable readout. Includes IP67 plastic box, cable glands, and 7-pin military connectors.

BENTONITE PELLETS 1000BF20025K

10 mm bentonite pellets supplied in 25 kg bag.

CABLE SPLICING KIT

Splice kit for lengthening or repairing

READABLE BY







Refer to separate datasheets for further information.

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TECHNICAL ASSISTANCE

SISGEO offers customers e-mail and phone assistance to ensure proper use of instruments and readout and to maximize performance of the system.

For more information, email us: assistance@sisgeo.com

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