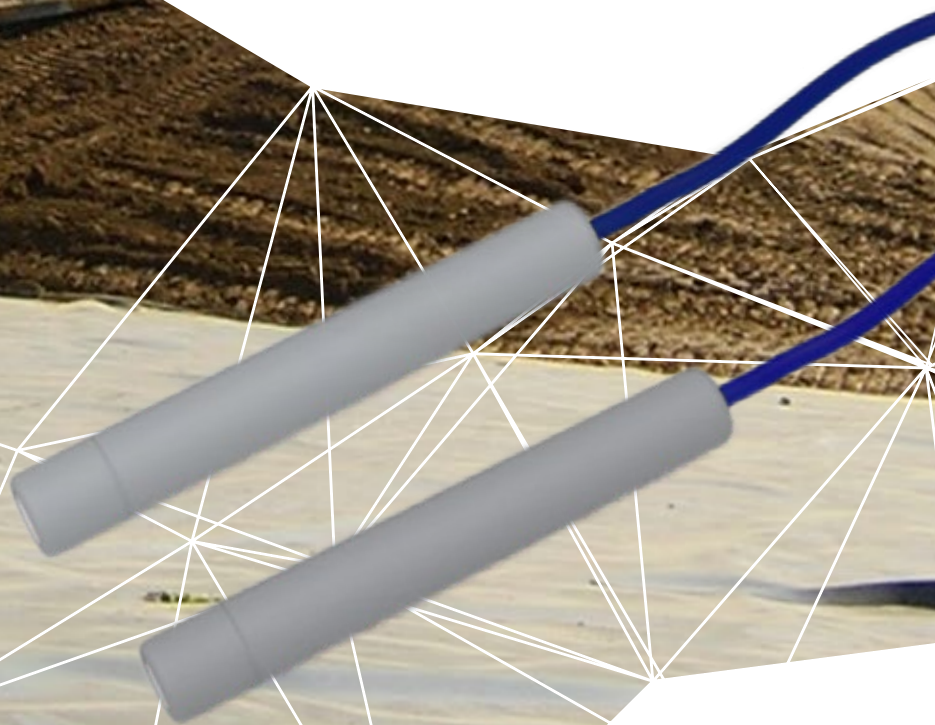
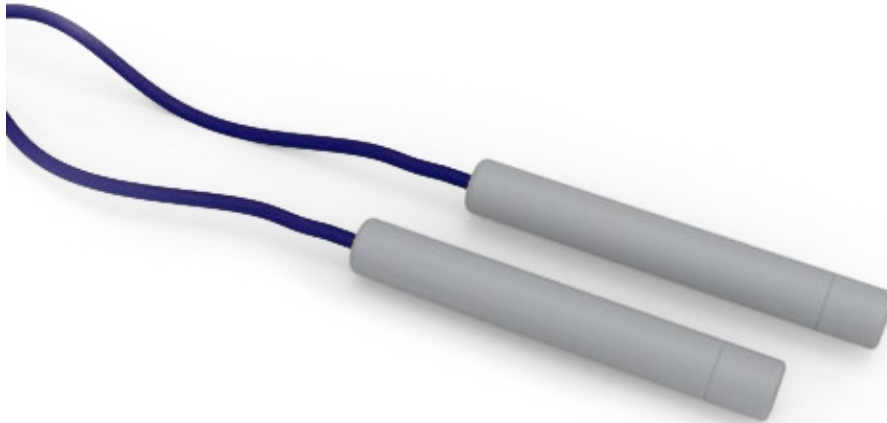


P235TI

# TITANIUM PIEZOMETERS

PIEZOMETERS





# TITANIUM PIEZOMETERS

Piezo-resistive titanium piezometers are designed to operate in corrosive environments, such as 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

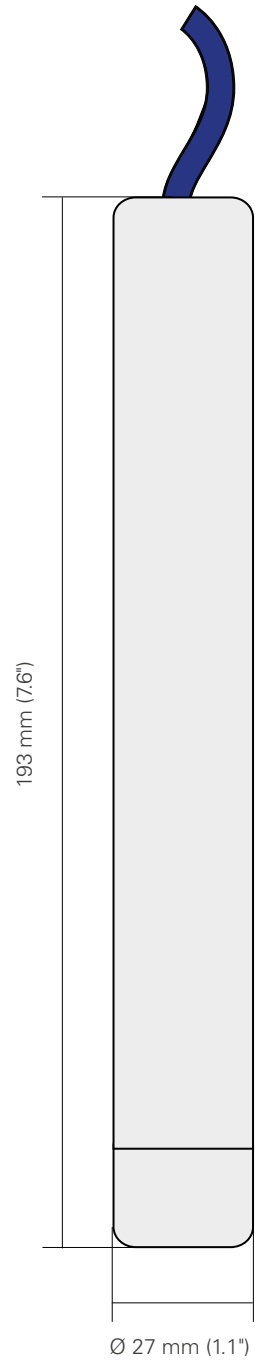
- Monitoring pore-water pressure under landfills
- Monitoring nuclear waste repositories
- Monitoring pore pressures in tailings

## 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

## TECHNICAL SPECIFICATIONS

MODEL	0P235TI	
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 <sup>(1)</sup>	< ±0.25% FS	
Total Accuracy <sup>(2)</sup>	< ±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	
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 <sup>(3)</sup>	up to pH=1 @ 20°C	
<b>FILTER UNIT</b>		
Type	LAE filter	HAE filter
Material	syntherized PE (Vyon ®)	ceramic
Pore size	40 µm	0.25 µm
<b>SIGNAL CABLE</b>		
OWE104PH100 <sup>(3)</sup>	4-wire cable with LSZH jacket, suitable for acid environment up to PH=1 @ 20°C	
Max cable length to logger <sup>(4)</sup>	1000 m (for more information see <a href="#">FAQ#77</a> )	



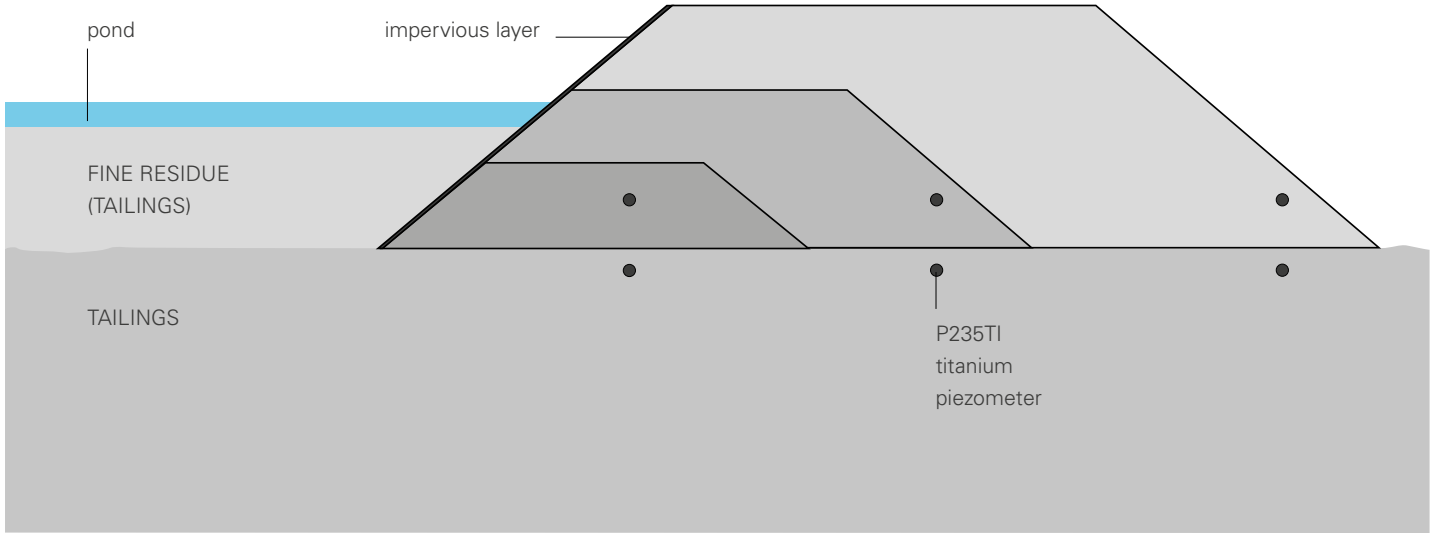
(1) including hysteresis

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

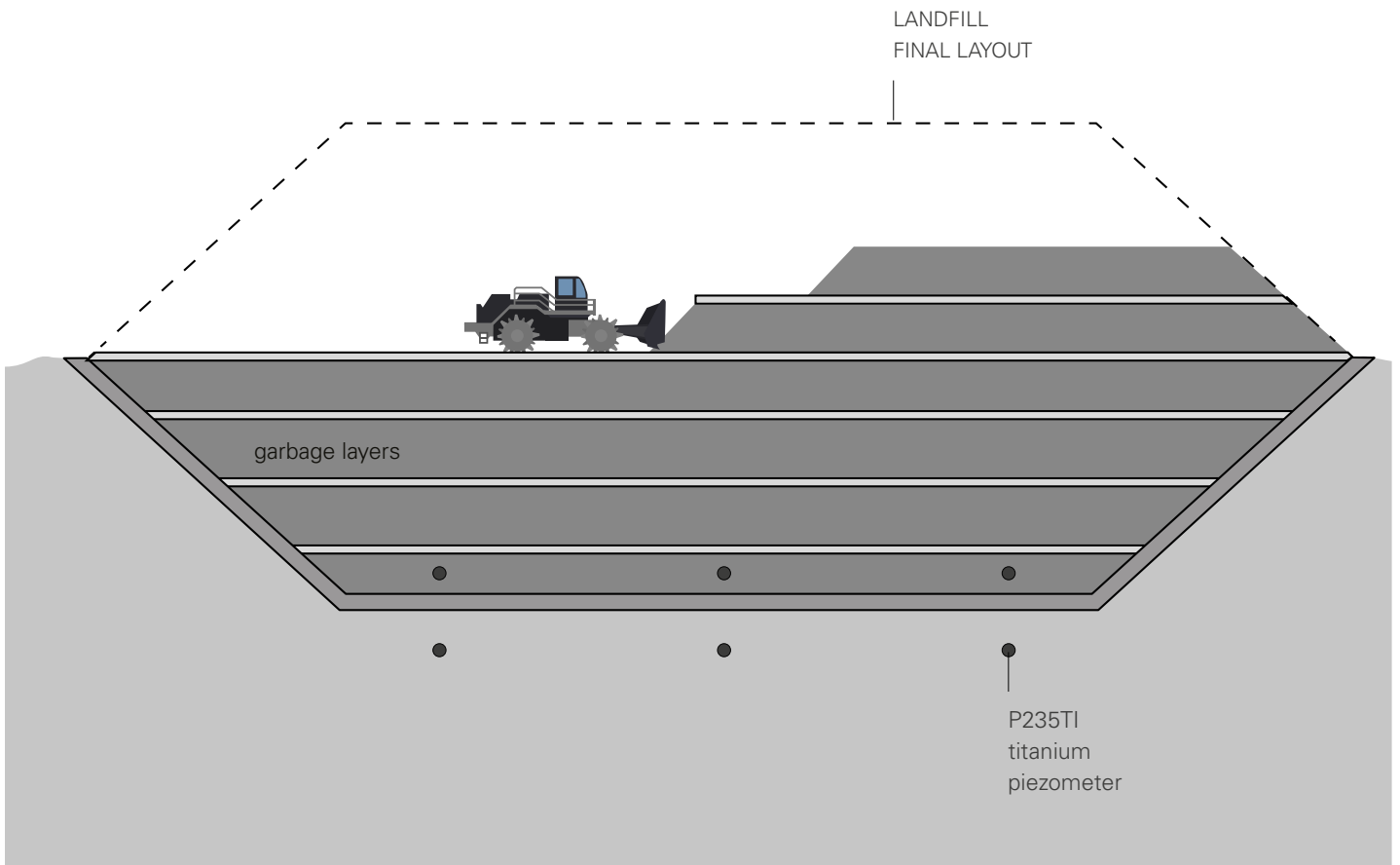
(3) Sisgeo's tests have verified that titanium piezometers and acid-resistant cable do not have functionality or corrosion problems after one year in a solution with pH = 1 and temperature 20 °C.

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

## APPLICATION IN TAILING DAMS



## APPLICATION IN LANDFILLS



## 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 OPF01D16000

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

### LAE VYON FILTER OPF40D2000P

Spare LAE Vyon® (synthesized polyethylene) 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 OEPDP000W00

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 OEPM0000000

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.

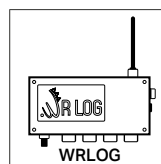
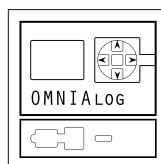
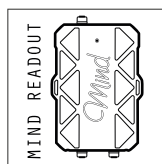
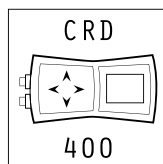
### BENTONITE PELLETS 1000BE20025K

10 mm bentonite pellets supplied in 25 kg bag.

### CABLE SPLICING KIT OEGSM0K0000

Splice kit for lengthening or repairing cable.

## READABLE BY



For further information refer to their own datasheets

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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.

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