

Electrical Piezometers



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Instruments and Systems for Geotechnical and Structural Monitoring



Piezometers and Water Level Meters

Electrical Piezometers



Description

This piezometer uses piezoresistive sensors. They can have steel or ceramic membrane; piezometers are available in synthetic material for use in hostile environments, such as the leachate in landfill sites. They are available with different scales and different operating characteristics. Piezometers with integrated dataloggers are also available. The datalogger can be included either in the body of the sensor or externally, connected to the instrument via cable.

For each measuring range, piezometers with different accuracies are available.

Applications

Electrical piezometers are mainly used for the measurement of water levels, with the possibility of remote transmission of detected data.

Applications include:

- Dams
- Landslides
- Probe holes
- Wells
- Diaphragms
- · Geotechnical, structural and hydrological monitoring

Deep measurements in:

- Aquifers
- Piezometric wells
- Sewage Plants
- Tanks
- Lakes and rivers
- Water treatment plants
- Landfills
- Various

Features and benefits

- Piezoresistive measuring element
- Wide range of scales
- High resolution and sensitivity



- Excellent sensor speed response
- High reliability
- Stainless steel case, fully watertight
- On request, housing in titanium or in other material
- Anti-corrosion
- Compact design
- Versioni per misura livello relativa o assoluta
- Measures in relative or absolute pressure
- Fluid temperature to 150 ° C (on request)

Technical features

Measuring Range	From 1 to 300 meters of water column
Precision	$\leq \pm 0,25\%$ f.s.; $\leq \pm 0,1\%$ f.s.; $\leq \pm 0,05\%$ f.s.
Overcharge	2-3 x F.S. depends on the selected model
Thermal Drifts [± %FS/°C] - Zero: 0+70°C - Span 0+70°C	0,06 0,02 0,02
Long Term Stability (1 year)	< 0.2% FS for ranges > 1 bar 4 mbar for ranges 0.5 < 1bar
Operation Temperature	-20 +80 °C
Fluid Temperature	-20 +80 °C
Power Supply	Power Supply 10-15Vdc - always refer to the certificate supplied with the instrument
Output signal	mV/V (non amplified) o 4-20 mA
Pressure Sensor Material	AISI 316L
Material	Stainless steel 316 (titanium upon request)
Cable Material	PUR/ PUR with compensation tube

Accessories and related products

DL	Datalogger with or without integrated modem for data transmission
Compensation Cable	For absolute measurements of piezometric pressure
Junction Boxes	Available in different models for the connection of different instrume
Multipolar Cable	Available with different conductors for the connection of different sensors to one cable
DEC 5	Portable Readout Unit
DEC 3000	Portable Datalogger
CUM 3000	Multichannel Datalogger
MUX	Multiplexer for the connection of different sensors to the datalogger



The Company

For over 40 years we have been producing precision and large facility monitoring instruments sold throughout the world.

Accuracy in design, efficiency in construction, reliability in management; these are the prerogatives that every major work must have and that Structural Monitoring Systems must guarantee.



Technical assitance

If you have any requests or questions about our instruments or if you have special needs that require different solutions from the standard, please contact us. Our team will provide all the necessary information and will be very happy to work with you to study, develop and customize instruments and solutions suitable for your specific needs.

All data present in the sheets could change without notice. Please check the release carefully and for more details contact Pizzi Instruments.

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