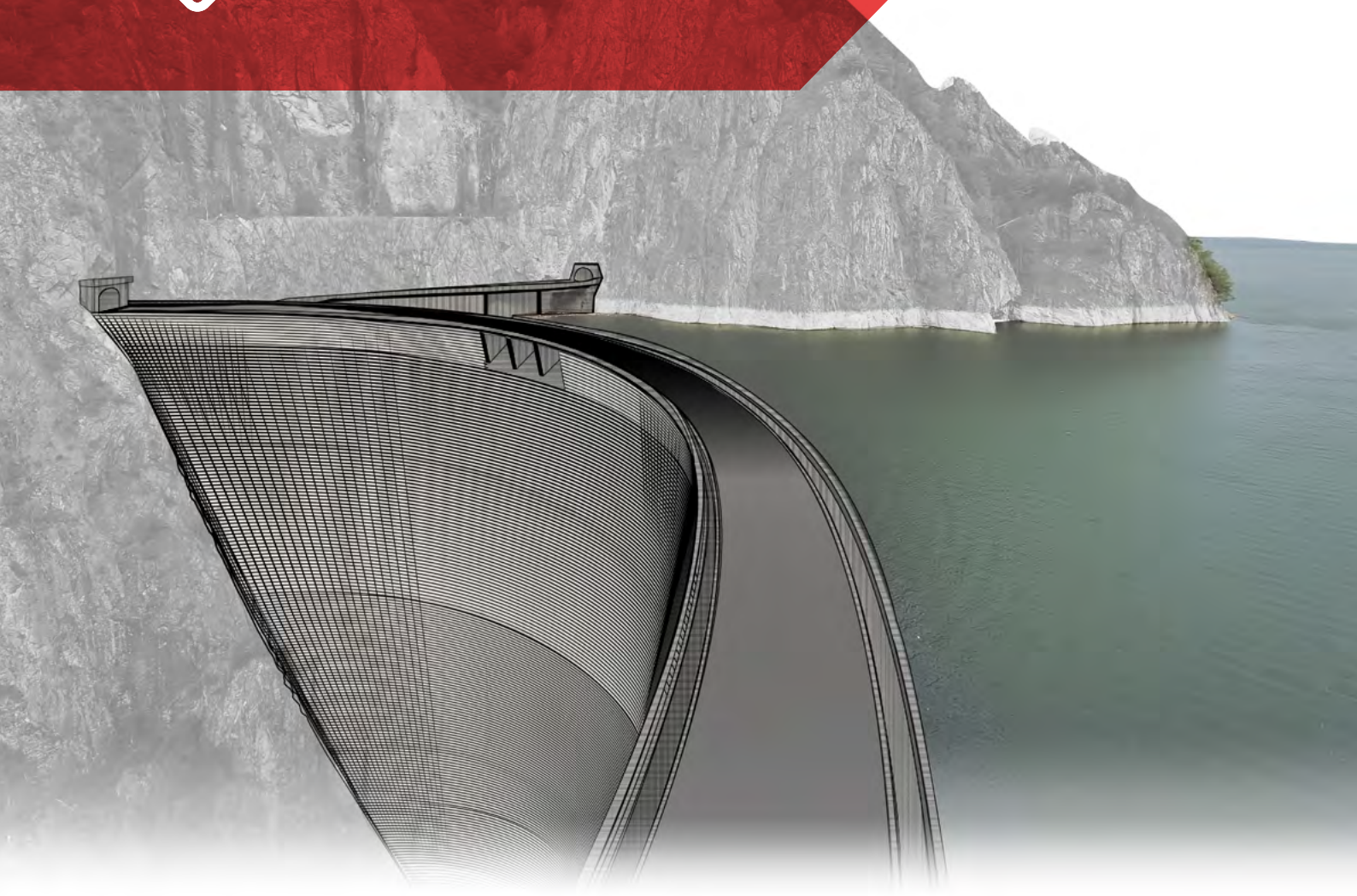
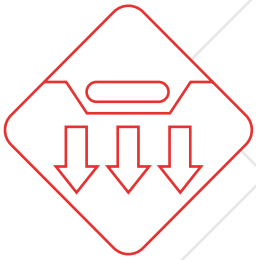
pizzi instruments



Magnetic Extensometer Inductive type



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Instruments and Systems for Geotechnical and Structural Monitoring

Magnetic Extensometer Inductive type

Description

Our magnetic probe, of the inductive type is designed by us for use in settlement gauge columns made of PVC, ABS or plastic material and equipped with iron rings positioned along the length of the column. The probe is able to slide along its length and follow the movements of the ground.

The probe is fitted with a sturdy electric cable, inextensible and with reference marks every 50 cm, which in addition to allowing transmission of electric signals emitted by the probe, also supports it during its descent and ascent inside the column during monitoring. During its descent and ascent, the probe intercepts the various iron rings andsends a signal that identifies their exact centered location.

The exact position of the probe is measured by the cable (graduated in millimeters) which holds it.

Applications

- Dams
- Road and railway embankments
- Levees
- Land surrounding excavation areas and diaphragms
- Tunnels
- Landslides
- Various

Features and benefits

- Does not require magnetic rings
- Precise and reliable over time
- Easy to use
- For use with thick and large diameter pipes

Measuring principle

The magnetic probe, intercepts, during its descent and its ascent, the various iron rings positioned along the settlement column, sending a signal that defines the exact centered position of the probe inside the rings. The measurement of the position of the probe, and therefore the position of the iron ring is determined via the cable holding the probe. All measures refer to a well-defined measuring point on the head element of the settlement gauge.

The probe allows centering of the ring with high resolution and repeatability and therefore with very precise definition of position, accuracy to about 2mm. The accuracy of measurement depends on cable maintenance and on the operator performing the readings. With good training, a measuring accuracy of 1mm can generally be achieved.

In the case of larger diameters of the settlement column, it is necessary to equip the probe with a device to increase its diameter.

The probe has an external diameter of 57mm and is generally used in settlement or inclinometric columns. The electric cable is supplied with a special cable reel containing the signaling device.

A digital display indicates the position of interception of the metal rings.

Using the battery test function, charge level and battery status can be viewed on the display. Two beepers indicate the passage of the probe into the top and bottom of the iron rings.

It is recommended to charge the battery after use.

The instrument is composed of:

- **Magnetic induction probe**
- **Cable with kevlar core with marker every 50 cm; 50m length (standard), 100m on request.**
- **Roller cable reel with logger/sensor and built-in battery**
- **Charger**
- **Stainless steel leveling staff, with graduations in millimeters, length 50 cm**

Technical specifications

Material	Stainless steel and PVC
Accuracy and repeatability of detection	1 mm
Inextensible cable	With marking every ½ meter
Control Unit	Inserted in the cable reel
Sensor	Inductive
Display for the ring detectio	On the reel
Settlement Column	PVC – ABS

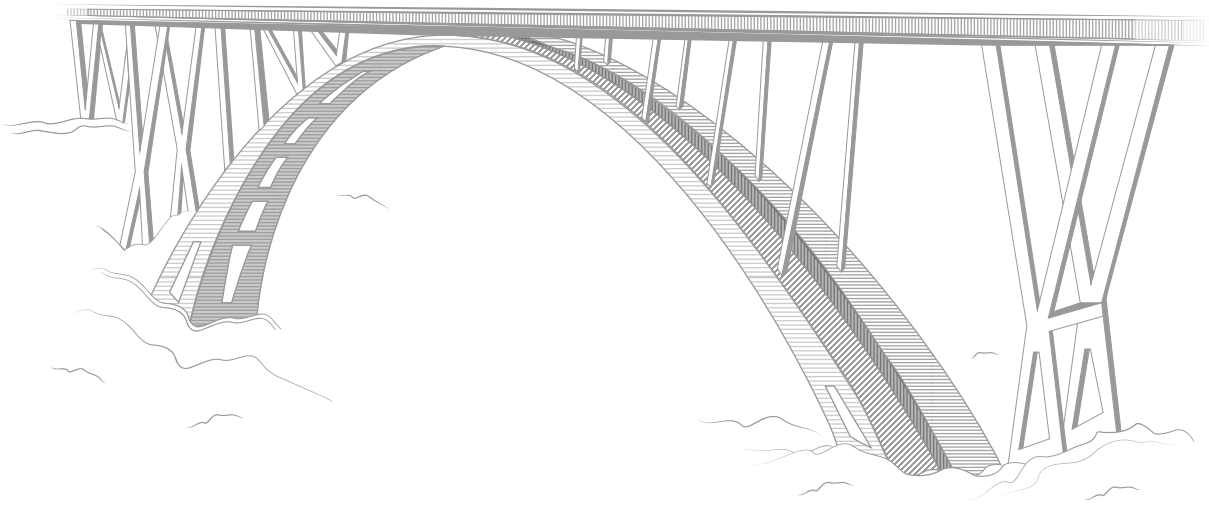
Accessories and related products

Intermediate element for settlement column, with fixed junction sleeves	In PVC, L = 3 meters, provided with fixed junction sleeve
Intermediate element for settlement column, with fixed junction sleeves	In PVC, L = 3 meters, provided with fixed junction sleeve
Head Element with cap	To close and protect the settlement column
Bottom Element	As final element with fixed reference
Simple ring in galvanized iron	For installation in bore holes
Simple ring in galvanized iron with plate	For the installation in embankments under construction

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.

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