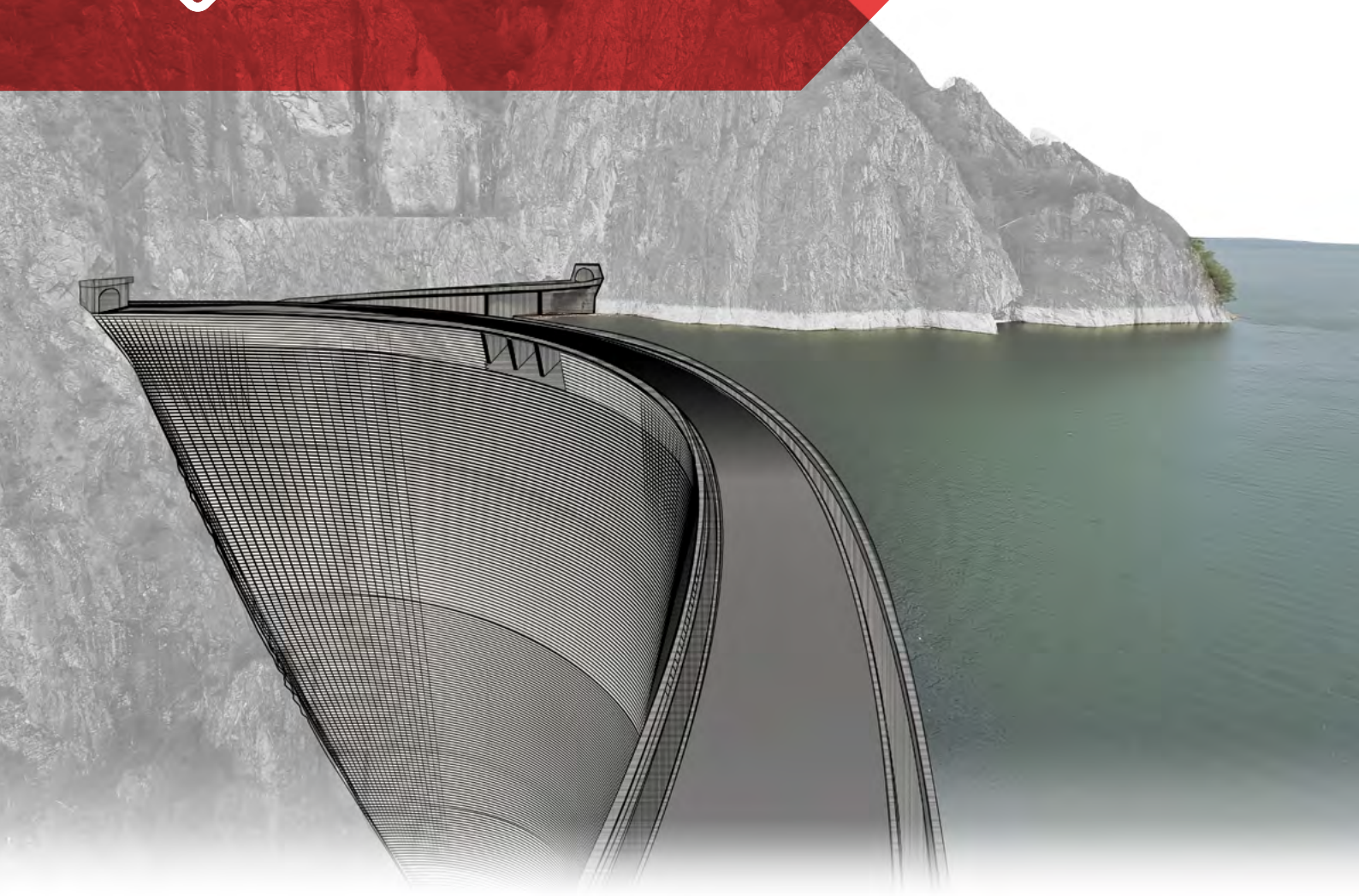
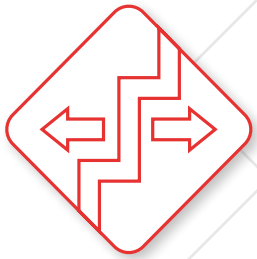
pizzi instruments



Electric crackmeter with touching probe



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Instruments and Systems for Geotechnical and Structural Monitoring

Electric crackmeter with touching probe

Description

These crackmeters can be used in a wide variety of situations, especially where continuous or very frequent measurements are required, such as: monitoring of load tests on floors, monitoring of deformations of a structure under very rapid load variations, monitoring of cracks in a dynamic regime, application to rod and plate strain gauges, etc.

Typical applications for electrical crackmeters are the monitoring of:

- Bridges
- Tunnels
- Landslides; earth or rock
- Civil engineering structures
- Pylons
- Tie rods
- Geotechnical and structural supervision
- Others

Features and benefits

- High resolution and sensitivity
- High measurement speed
- Very good robustness
- Good resolution and linearity
- Simple and economical
- Simple measurement mode

Measuring principle

The potentiometric crackmeter is a simple linear or circular voltage divider, depending on the application. A resistive track is traversed by a special cursor which locates the measurement point, i.e. the point at which the division takes place. The position of the cursor identifies the location of the measurement point. When suitably powered, the instrument outputs an analogue signal proportional to the displacement.

The LVDT extensometer consists of a tube with three windings arranged with parallel axes and a moving ferromagnetic cylindrical core inside, usually of high magnetic permeability.

The central winding is called the primary winding and the other two are the secondary windings: the primary winding is connected to an AC voltage generator and the output voltage, which is proportional to the displacement, is measured at

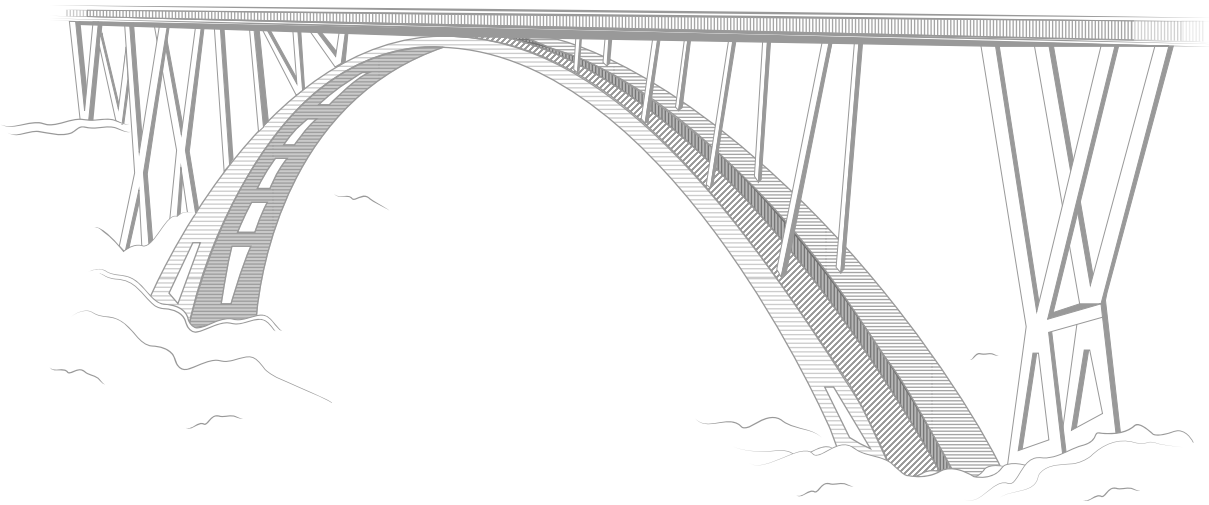
Technical specificat

Model	Linear Potentiometer	LVDT - 5	LVDT - 350
Temperature sensor	Integrated	Integrated	Integrated
Range	50 ÷ 150 mm	12,5 – 350 mm	+/- 5 mm
Linearity	< 0,1% F.s	0,3% - 0,5% F.s	---
Output	Potentiometric, 4-20 mA (on request)	± 5 V , 4-20 mA	V
Power supply	2 – 24 Vdc	9-36 Vdc	1-10 Vrms
Anchorage type	Anchors, threaded rods, fixtures, magnetic fixtures	Anchors, threaded rods, fixtures	Anchors, threaded rods, fixtures
Material	Stainless steel	Stainless steel	Stainless steel
Operating temperature	-20 …. +80 °C	-40 …. +120 °C	+5 to 80 (with gaiter)/ -10 to 80 (without gaiter)
Accuracy	< 0,5 % F.s	< 0,5%F.s	0,5 - 5 um
Repeatability	0,01 mm	0,01 mm	± 0,15 um
Resolution	Millesimal (Theoretically infinite)	0,05%Fs	Depends on the associated electronics
Precision	0,5% F.s.	0,5% F.s	---
Thermal Drift	Ratiometric Measurement	0,03%F.S/°C	---

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.

Pizzi Instruments S.r.l.
Via del Fornaccio, 46
50012 - Vallina - FI - Italia

Phone/Fax : +39 055 6810722
info@pizzi-instruments.it
www.pizzi-instruments.it