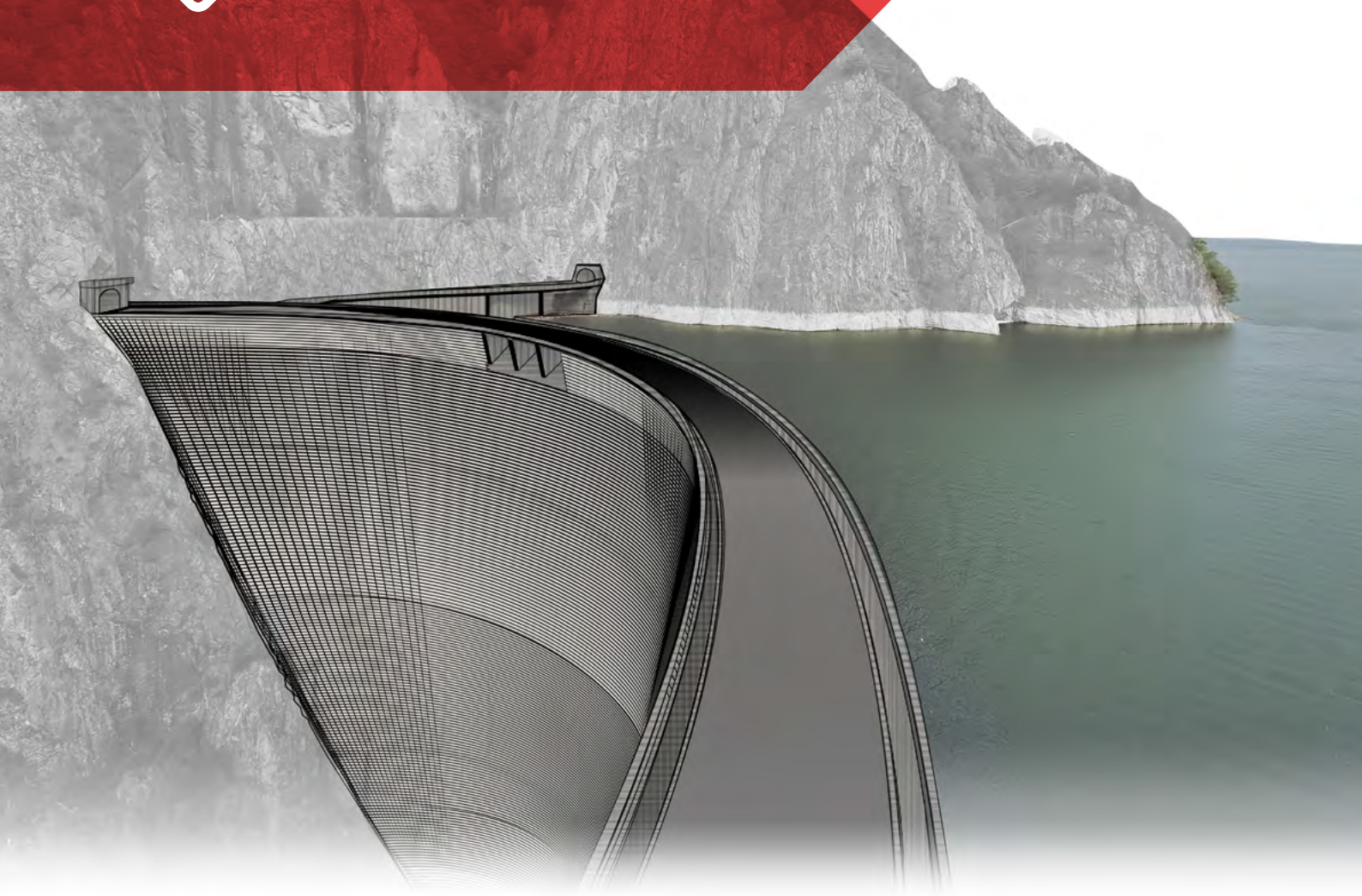
pizzi instruments



EGS – Portable Electronic Telependulum

www.pizzi-instruments.it

Instruments and Systems for Geotechnical and Structural Monitoring

EGS – Portable Electronic Telependulum

Description

For the monitoring of dams, pendulums and tense wire collimation have become increasingly popular. These control systems allow simple and immediate measurements to be taken, meaning that the collection of this data can also be entrusted to technically unqualified personnel.

The need for coordinometers for non-qualified users has prompted our research, development and production of the manual EGS coordinometer which perfectly meets this purpose.

The instrument is made in two versions for different uses:

EGS – 2C for the measurement of pendulum wires

EGS – FT for measurement with horizontal tense wire

The above models differ substantially in optical and mechanical components, they use the same electronics, appropriately configured.The EGS-2C is portable, manually operated, and able to provide, with a single positioning, the measurement of the two planimetric coordinates of the wire's position with respect to a fixed point in the structure to be monitored.

The EGS-FT instrument is portable, manually operated, and able to provide the position of the horizontally tense wire with respect to a fixed point in the structure to be monitored.

Taking measurements is simple and objective because the operator is not required to evaluate anything, simply to correctly use the instrument.

Application

The EGS-2C coordinatometer is an excellent instrument for the measurement of the wire movements of a pendulum, both straight or reverse.

Generally used where the use of pendulums is possible, in particular major applications are:

- **Dams**
- **Historical buildings and monuments**
- **Civil construction**
- **Vertical supporting works**
- **Towers**
- **Minarets**
- **Skyscrapers**

Features and benefits

- **Great accuracy**
- **Portability**
- **Easy to use**
- **Objectivity of measurement**
- **Reduction of errors linked to the execution of taking measurements**
- **High long-term repeatability**
- **Maximum reliability**
- **Long Life of the system lifetime**
- **Minimal wear and tear**
- **Low maintenance required**
- **Integrated functions of self-diagnosis and testing**

Measuring principle

The read control unit is composed of a lower support base, beneath which are located three spherical centering feet for positioning the instrument on its base. On the upper part is a cart which carries the two optoelectronic pairs (arranged in an orthogonal and a 45 ° to the axis of advancement of the cart).

The operating knob is fixed to the rear of the cart, this allows the movement of the cart and the execution of measurement.

The FT version is equipped with a single optoelectronics pair arranged vertically to the instrument.

The cart is operated by turning the rear knob to move an endless screw coupled to a special device for the reduction of mechanical backlash between the screw and the cart itself. The cart is also guided by a lateral axis along which it slides with Bushing type ball bearings.

The support of the advancement screw is constructed radially on bushings and axially with thrust bearings.

Technical features

S.N. Modello	PND2101001 EGS-2C	PND2201001 EGS-FT
Technology	Measurement without contact, with opto-electronic coupling system	Measurement without contact, with opto-electronic coupling system
Measuring Range	X = ±25 mm ; Y= ± 25 mm	X = ±25 mm
Resolution	0,01 mm	0,01 mm
Accuracy	0,1 mm	0,1 mm
Operating Temperature	Da -10 °C a +50°C	Da -10 °C a +50°C
Autonomy	From -10 °C to +50°C	From -10 °C to +50°C
Internal Power Supply	Sealed Lead Acid Battery from 12 V to 1,2 Ah	Sealed Lead Acid Battery from 12 V to 1,2 Ah
External Power Supply	At 220 V – 50 Hz +/- 15%	At 220 V – 50 Hz +/- 15%
Recharge	With on-board battery charger powered at 220 Vac	With on-board battery charger powered at 220 Vac
Current absorbed	In stand-by 90 mA under measurement 150 mA	In stand-by 90 mA under measurement 150 mA
Control electronics	Microprocessor 68 HC705	Microprocessor 68 HC705

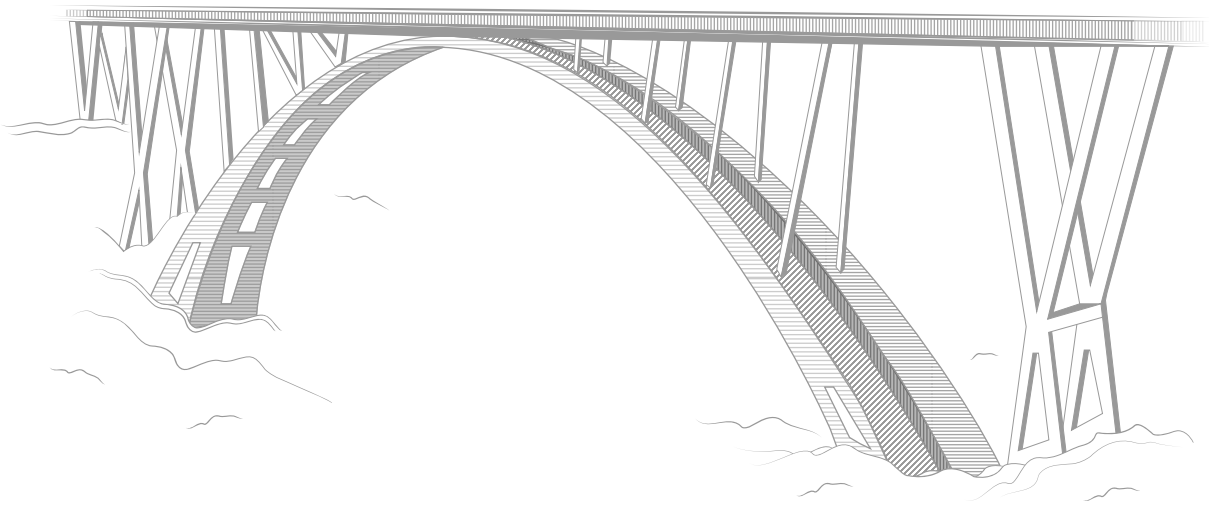
Accessories and related products

Direct and Inverted Pendulum	Pendulum System for the control of horizontal movements
Electromagnetic Telependulum	Automatic Coordinometer with electro-magnetic technology for automatic readings of direct and inverted telependulum
Laser Telependulum	Laser Telependulum for the automatic readings fo direct and inverted telependulum, no movable parts

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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