TELEMAC

Geotechnical - Application Note

GEOTECHNICAL AND STRUCTURAL INSTRUMENTATION

Integrated Solutions. Provide integrated solutions for structural integrity monitoring for geotechnical applications using fiber optic sensor vibrating wire technologies.

Initial Site Assessment. Provide the tools that allow a detailed assessment of site conditions during the project design phase.

Site Safety. Protect workers, equipment and surrounding structures.

Reducing Construction Costs. Provide quantitative data that promote cost optimization of the design work during construction.

Checking Long-term performance. Use adequate monitoring system to control all phases of construction.

References

- Port of Rotterdam, strain measurement, Netherlands
- Burj Al Arab, oversight of foundations, USA
- Detection and localization of Sinkhole, USA
- Geotextile for ground movement, Australia
- Seaway St. Lawrence, Canada
- Vanino Dock, Siberia, Russian Federation
- I40, landslide, USA
- N12 motorway, retaining wall, Switzerland
- Genoa harbor, breakwater, Italy
- CKS airport floor, Taiwan
- Randa, landslide, Switzerland
- UCLA / Caltrans, USA
- Colombo, pier, Italy

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Roctest has been offering a wide range of cutting-edge solutions for geotechnical applications worldwide for more than 50 years.

Tailor-made solutions designed for your specific needs in terms of training, installation and maintenance.

Our range of products is based on two established technologies: the vibrating wire – well-known and proven, and the fiber optic – state- of-the-art and promising technology.

Our products are used in each phase of your projects; In-situ testing, foundation monitoring, and structural health monitoring.

In-Situ Testing / Site Assessment

- Soil bearing capacity
- Lateral loading
- Deformability modulus
- Permeability
- Strength index
- Shear strength
- Concrete & rock triaxial strength

Instrumentation

- Pressuremeters
- Borehole dilatometers
- Packers
- Piezometers
- Point load testers
- Vane shear testers
- Hoek triaxial cell

Pressuremeter model TEXAM, Yonkers, USA

Foundation Monitoring

- Driven piles
- Drilled shafts
- Tiebacks & soil nailing
- Rock anchors
- Concrete piles
- Slurry wall

Instrumentation

- Strain & stress gauges
- Displacement transducers
- Settlement gauges
- Load cells
- Total pressure cells

Rock anchors load cells, Beacon Hill Urban Tunnel, Seattle USA

Structural Health Monitoring

- Bridges
- Buildings
- Tunnels
- Dams
- Other large structures

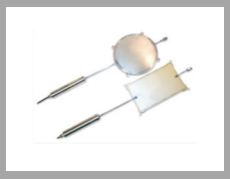
Purpose

- Stability
- Security
- Behavior
- Design & quality

Monaco Tunnel, Monaco/France – Olympic Stadium, Montréal, Canada
Library of the Parliament, Ottawa, Canada

Geotechnical - Application Note

Vibrating Wire Piezometer
PW Series



Total Pressure Cell
TPC

Load Cells
VH, ANCLO, HYDLO

Borehole Extensometer
BOR-EX

Vibrating Wire Strain Gauge
EM-5

Inclinometer Probe
Profil

Pressuremeter
TEXAM

Point Load Tester
PIL-7

GEOTECHNICAL AND STRUCTURAL INSTRUMENTATION

Roctest

Roctest is the leading developer, manufacturer and supplier of innovative sensing technologies based on vibrating wire and fiber optic sensors for geotechnical and structural instrumentation.

We are featuring a complete line of conventional sensor-based solutions ranging from the ultra-robust traditional vibrating wire technology to state-of-the-art fiber-optic technology used for the measurement and monitoring of geotechnical projects and structural health monitoring (SHM) of critical assets such as: dams, tunnels, mines, buildings, bridges, nuclear power plants and many other structures too numerous to list.

Roctest offers a wide range of pressuremeters, rock dilatometers, laboratory and in-situ testing equipment for soil and rock.

Available Application Notes

- FO Leak Detection for Dams and Dikes
- Dam & Dike Instrumentation and Safety Monitoring
- Tunnel Instrumentation & Structural Health Monitoring
- Bridge Instrumentation & Structural Health Monitoring
- Building Instrumentation & Structural Health Monitoring
- Historical Monument Instrumentation
- Geotechnical and Structural Monitoring
- Nuclear Power Plant Instrumentation
- FO Movement Detection in Tunnels
- FO Leak Detection for Chemical Plants
- FO Leak Detection for Pipelines
- Storage Facility Instrumentation
- Cliff Instrumentation

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NOVA METRIX

Telemac SAS reserves the right to make any changes in the specifications without prior notice