

FIBER OPTIC SENSORS
PLUG AND FORGET SOLUTION
FOR GEOTECHNICAL APPLICATIONS



opSens Solutions

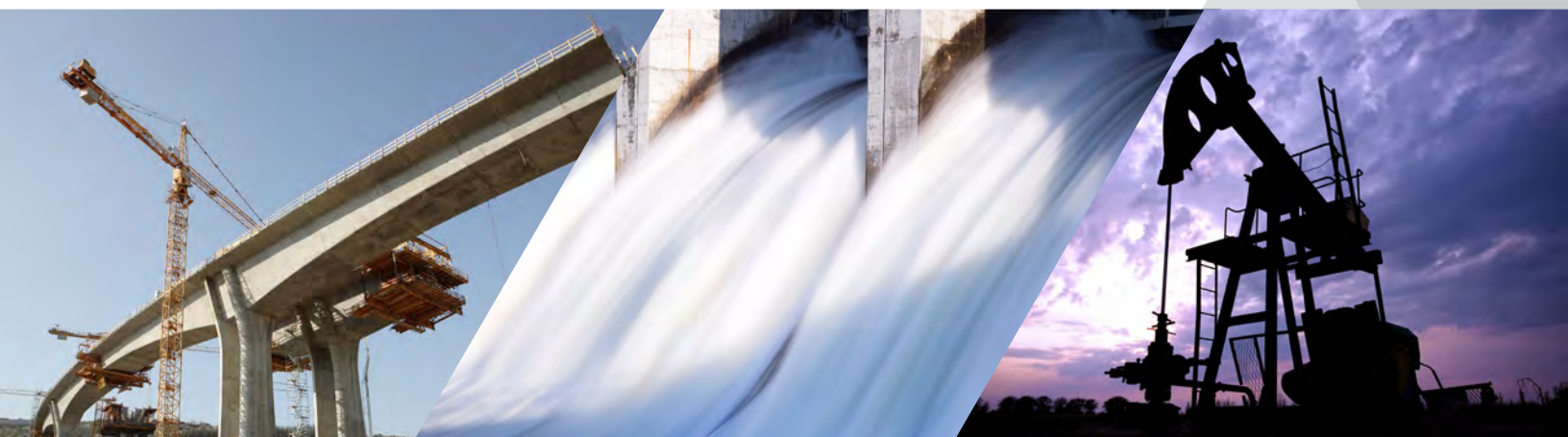
Enlightenment through smart measurements

PLUG AND FORGET SENSING SOLUTION

Geotechnical applications often require instrumentation to be buried in soil, grouted in place, or deployed in areas where access is restricted or not possible after installation. Reliable sensors lasting for decades is essential.

Packaged with the most robust material, and providing outstanding measurement stability, these sensors represent a true “plug and forget” instrumentation. Once installed, no intervention is ever required at sensor location.

Without the need for regular maintenance and with such level of reliability, Opsens Solutions fiber optic monitoring systems are becoming the next generation of instruments in many demanding geotechnical related applications, from reservoir surveillance to mining projects.



FOR CHALLENGING APPLICATIONS

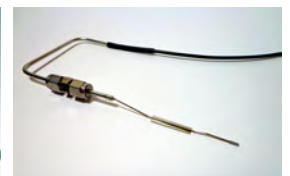
- » Power/chemical/nuclear plants
- » ATEX environment
- » Structural Health Monitoring
- » Downhole Observation
- » Dams and dikes
- » Mining



DISPLACEMENT SENSORS



STRAIN SENSORS



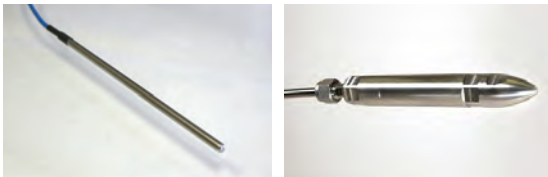
TOUGH INSTRUMENTATION FOR ROUGH CONDITIONS

- Underground storage area for nuclear waste material
- Applications using corrosive chemicals such as heap leaching
- Brine solution or corrosive fluids contained in landfill lining
- Explosive atmosphere in downhole application (ATEX)
- High load or pressurized environment
- Permanent immersion in marine environment
- Grouted in place or embedded in massive concrete structure

RELIABLE SOLUTIONS

NO DRIFT - MAINTENANCE FREE
EASY TO DEPLOY - SPOT WELDABLE
SUSTAIN HIGH PRESSURE AND TEMPERATURE
IMMUNE TO MOST EXTERNAL DISTURBANCES
ULTRA ROBUST DESIGN

TEMPERATURE SENSORS



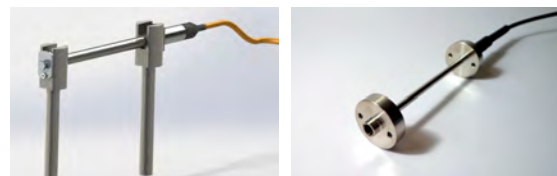
LOAD CELLS



PRESSURE SENSORS



EXTENSOMETERS



SIGNAL CONDITIONERS

Opsens Solutions readout units are compatible with all WLPI sensors. Through the same interface, the unit can provide temperature, pressure, strain, position, or displacement measurements to offer maximum versatility.



OEM CARD

OEM-type signal conditioner that offers a product designed for specific needs. Its compact size and modular assembly give OEM's the best in design flexibility.



HANDHELD UNIT

Ruggedized to provide good mechanical protection against intensive handling in tough environments, these devices are compact and offer maximum portability with battery powered function.



MULTI-CHANNEL EQUIPMENT

Robust and stackable multi-channel signal conditioners offering a variety of interface and communication protocols such as serial, analog and even EtherCAT.



MODULAR PLATFORM

Providing scalable sampling rate up to 1 KHz, these advanced data acquisition systems offer comprehensive graphical user-interface environment via the interactive front touch panel.

OUTSTANDING FIBER OPTIC SENSING SOLUTIONS FOR STRUCTURAL HEALTH MONITORING

KEY FEATURES

- Intrinsically safe
- No drift over time
- Immunity to microwaves, EMI, RFI
- Not affected by transverse strain
- Can be sealed up to 300 bars pressure
- Resistant to nuclear radiation

TO KNOW MORE

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