

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.

## 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

## FOR CHALLENGING APPLICATIONS

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

DISPLACEMENT SENSORS



TEMPERATURE SENSORS



LOAD CELLS



STRAIN SENSORS



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.



### COMPACT

The FieldSens<sup>W</sup> is a **compact and robust** multi-channel signal conditioner supports a broad range of fiber optic sensors and offers measurement sampling rate up to 250 Hz.



### 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.



### 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.



### MODULAR PLATFORM

Highly versatile, the CoreSens supports a broad range of fiber optic sensors and offers measurement sampling rate up to 1,000 Hz

## 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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