

FIBER OPTIC SENSORS MEETING THE SENSING CHALLENGES IN THE NUCLEAR INDUSTRY

Temperature Strain Deformation Displacement Pressure Load Flow



ϵ °C kg mbar mm $\mu\epsilon$ psi °F N ϵ °C kg mbar mm $\mu\epsilon$ psi °F N ϵ °C kg

opSens Solutions

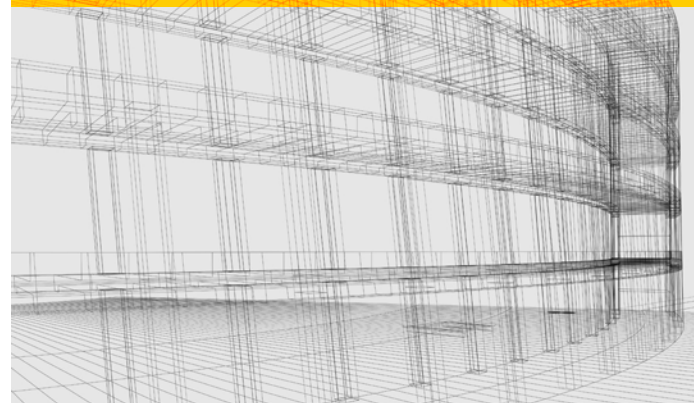
Enlightenment through smart measurements

PRESSURE MAPPING ON TURBINE



Low profile pressure sensor

STRUCTURE HEALTH MONITORING



Extensometer (embeddable)



Extensometer (insensitive to temperature)



Load cell (insensitive to temperature)



Crackmeter

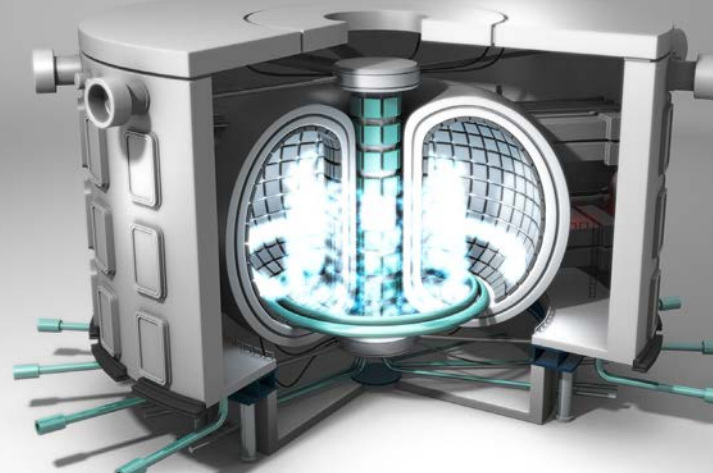
KEY FEATURES

- Excellent radiation resistance
- Immunity to EMI (tested up to 8 Tesla)
- Temperature range from cryogenic to 300 °C
- Embeddable in concrete
- PLUG and FORGET: No maintenance required and no drift overtime
- Miniature and light weight

NUCLEAR POWER PLANT



NUCLEAR FUSION PROJECT



NUCLEAR WASTE MANAGEMENT



HEAVY WATER LEVEL



Pressure sensor

COOLING SYSTEM



Spot weldable strain sensor



Differential pressure sensor



Absolute pressure sensor

CRYOGENIC APPLICATION



Strain sensor



Temperature sensor

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^W 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 NUCLEAR INDUSTRY

KEY FEATURES

- Excellent radiation resistance
- PLUG and FORGET: No maintenance required and no drift overtime
- Immunity to EMI (tested up to 8 Tesla)
- Temperature range from cryogenic to 300 °C
- Highly versatile (temperature – pressure – displacement – strain)
- Miniature and light weight

TO KNOW MORE

+1.418.682.9996
info-solutions@opsens.com
opsens-solutions.com



Enlightenment through smart measurements

319 Franquet Street, Suite 110
Quebec QC G1P 4R4 CANADA