

FIBER OPTIC SENSORS
MEETING THE SENSING CHALLENGES
FOR THE NEXT GENERATION OF AIRCRAFT



opSens Solutions

Enlightenment through smart measurements

OUTSTANDING MEASUREMENT STABILITY SENSING SOLUTIONS

Sensors used to monitor critical aircraft components have to deal with challenging and hazardous conditions. Miniature and reliable, Opsens Solutions fiber optic sensors can measure multiple physical parameters through a single interface. They are immune to the most severe environmental disturbances and they are perfectly tailored for the next generation of aircrafts.

They can be used in numerous applications such as: fuel level management, weight and balance monitoring, deformation surveillance in composite material, hard landing detection, temperature sensing with high sampling rate.

Without need for regular maintenance, their light weight and highly reliable, Opsens Solutions fiber optic monitoring systems are becoming the next generation of monitoring equipment for many demanding aerospace related applications.

RELIABLE SENSING FOR DEMANDING ENVIRONMENT

- Explosive atmosphere in fuel application (ATEX)
- Pressurized environment such as hydraulics systems
- Installation in radome
- Can be embedded in composite structure
- Temperature range of -60 °C to 300 °C
- Landing gear conditions

SPECIFICALLY DESIGNED FOR THE AEROSPACE INDUSTRY

Not affected by EMI
Immune to lightning strike
Weight reduction
Space saving
Intrinsically safe
Outstanding stability
Static and dynamic measurements



FLIGHT CONTROLS

LANDING GEAR

WEIGHT AND BALANCE

ROTORCRAFT

STRUCTURAL INTEGRITY

FUEL MANAGEMENT

HIGHLY VERSATILE SENSING SOLUTIONS

- » Deformation
- » Temperature
- » Pressure
- » Load
- » Position
- » Flow

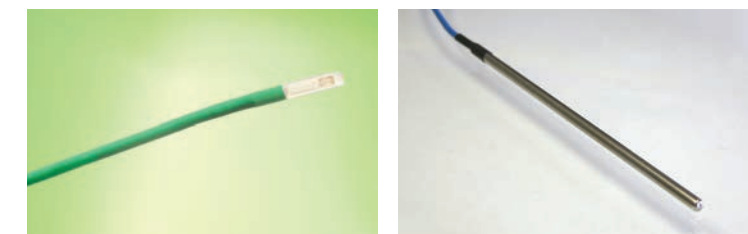
DISPLACEMENT



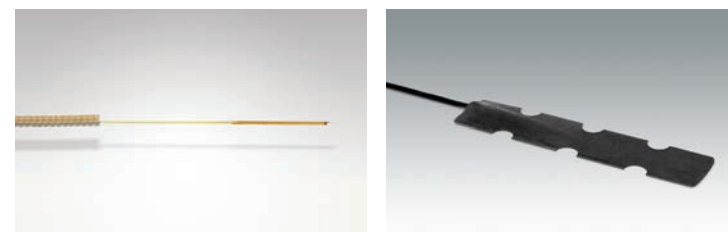
EXTENSOMETER



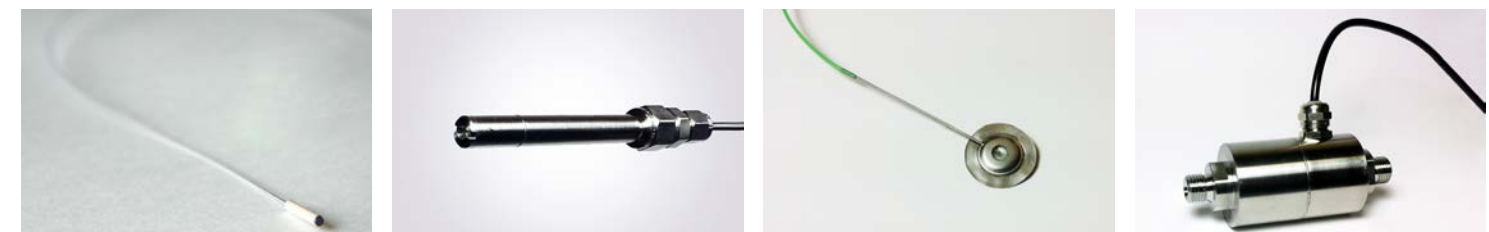
TEMPERATURE SENSORS



DEFORMATION



PRESSURE SENSORS (absolute, differential, low profile)



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.



MODULAR PLATFORM

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



OEM CARD

OEM-type signal conditioner that offers a product designed for specific automotive 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.

OUTSTANDING FIBER OPTIC SENSING SOLUTIONS FOR AEROSPACE INDUSTRY

KEY FEATURES

- Intrinsically safe
- Highly reliable
- Immunity to EMI and RFI
- Miniature and lightweight
- Versatile and easy to package in aircraft components
- Compatible with temperature range of aviation industry

TO KNOW MORE

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