

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.



FLIGHT CONTROLS

LANDING GEAR

WEIGHT AND BALANCE

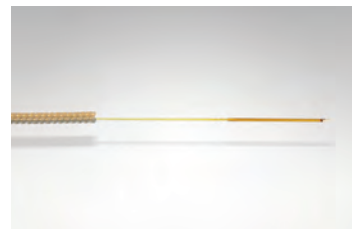
## HIGHLY VERSATILE SENSING SOLUTIONS

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

DISPLACEMENT



DEFORMATION

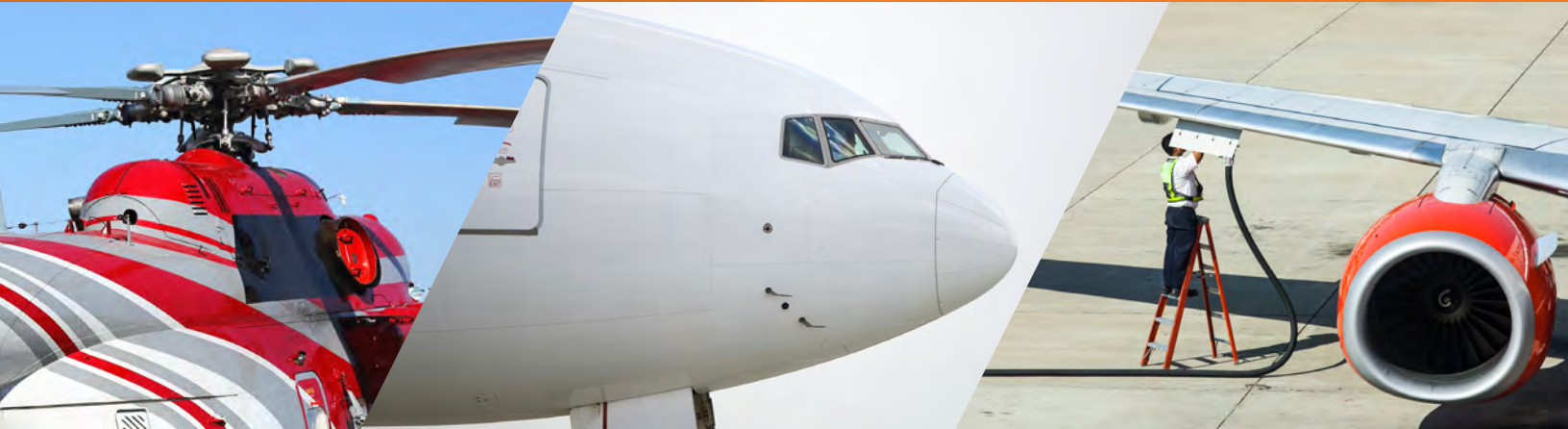


# ●●● RELIABLE SENSING FOR DEMANDING ENVIRONMENT

- 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



ROTORCRAFT

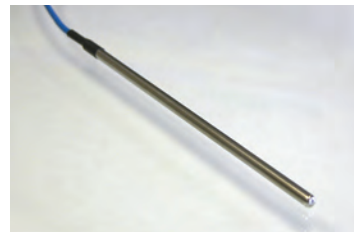
STRUCTURAL INTEGRITY

FUEL MANAGEMENT

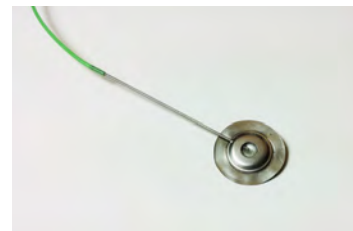
## EXTENSOMETER



## TEMPERATURE SENSORS



## 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.



### OEM CARD

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



### 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.



### 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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