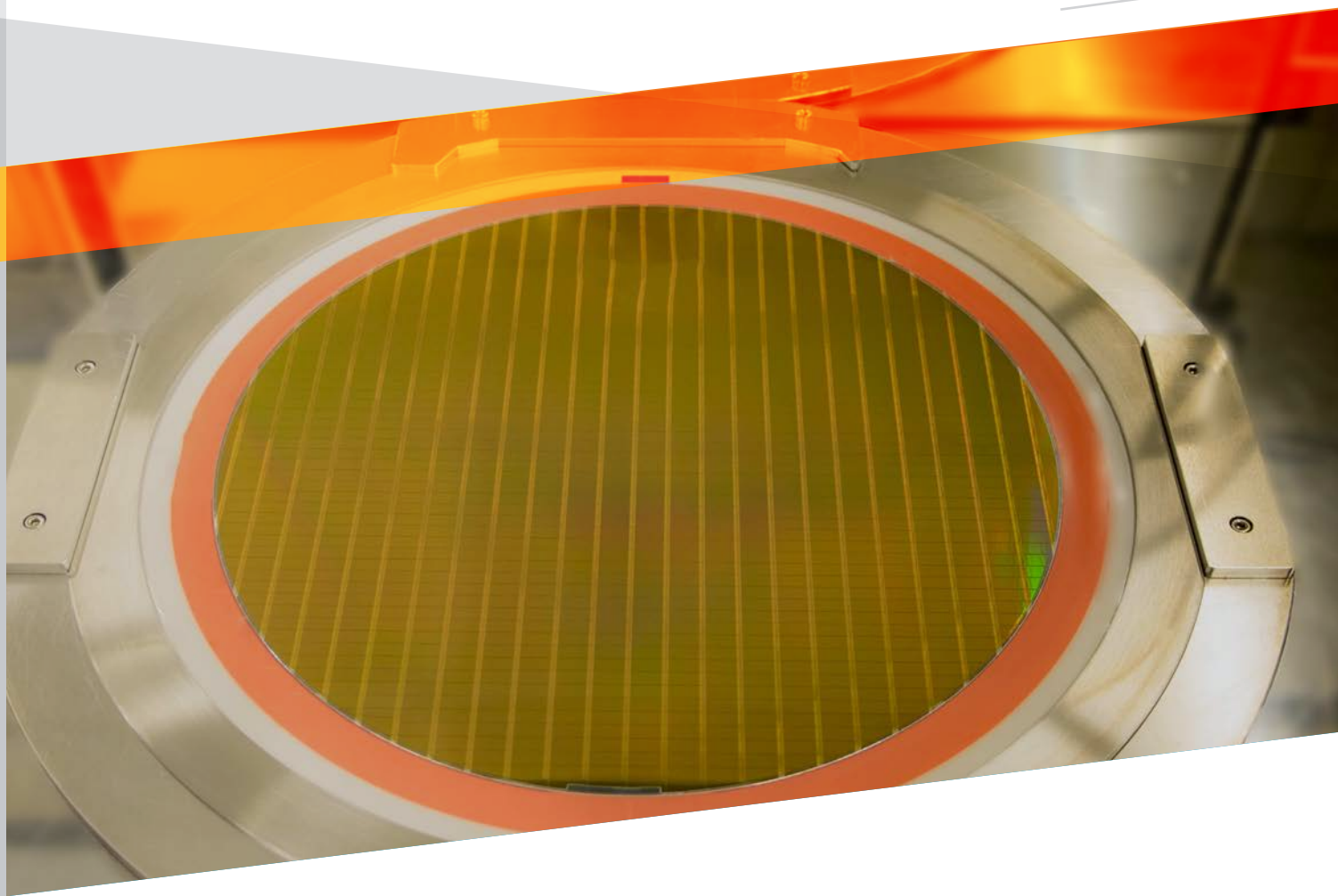


FIBER OPTIC SENSING SOLUTIONS

RELIABLE **PLUG & FORGET** SOLUTIONS
FOR THE SEMICON INDUSTRY



opSens Solutions

Enlightenment through smart measurements

ROBUST INDUSTRIAL DESIGN

Etching applications require robust and reliable sensors. Opsens products are designed with flexible sheathing materials capable of sustaining plasma vacuum conditions and temperatures up to **350° Celsius**.

ADVANTAGES

- **Very robust** cable which could be wrapped around a finger
- **No drift** over time
- Robust packaging compatible with etching application
- Fast sampling rate up to **1000 Hz**

BENEFITS

- **No downtime** caused by sensor or cable replacement
- No more special handling procedure for fragile fiber optic components
- Sensors fit in any apparatus (shower head, ESC, and focus ring)
- **PLUG & FORGET** sensors
- Detect changes in temperature **faster**

HASSLE FREE WITH TOTAL INTERCHANGEABILITY

The technology provides absolute temperature measuring devices: no gauge factor related to the sensor or associated to a specific readout unit.

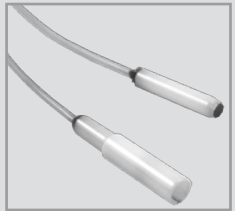
Any sensor for any signal conditioner.

ADVANTAGES

- Sensors can be **mixed and matched** with any readout unit without specific calibration for a specific channel or for a specific temperature measuring range
- **PLUG & PLAY** feature. Calibration free. No gauge factor needed.
- Sensor to sensor consistency
- Simple and easy integration with fast **CONNECT & MEASURE** feature

BENEFITS

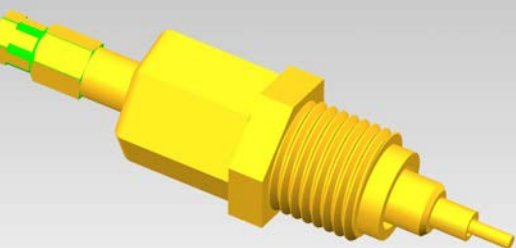
- Greatly improve setup time and productivity
- Significantly reduce sensor inventory/management
- Simplify temperature sensing integration in etching equipment
- **Save time & reduce cost of ownership**



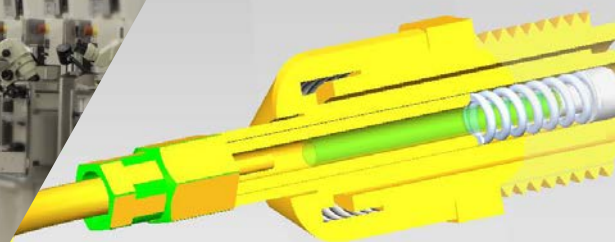
VERSATILE TECHNOLOGIES

Opsens Solutions is also developing fiber optic pressure sensors for vacuum environment.

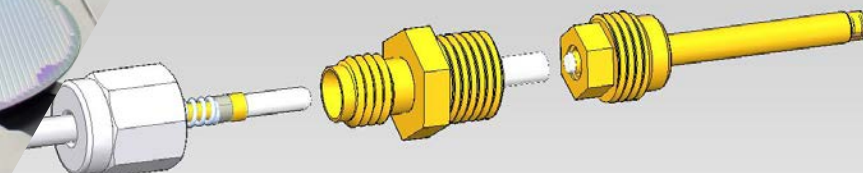
FOCUS RING SENSOR



SPRING-LOADED ESC SENSOR

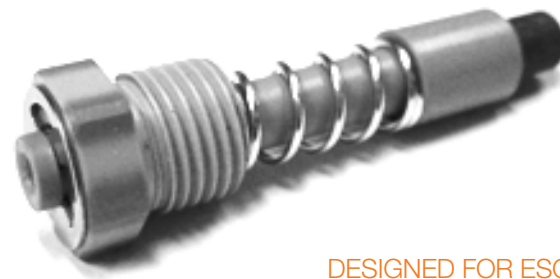


QUICK CONNECT SHOWER HEAD SENSOR



KEY FEATURES

- » Response time in the ms
- » Sampling rate up to 1 kHz
- » Max temperature of 350 °C
- » Min temperature of -200 °C
- » No calibration needed
- » Total interchangeability
- » Ultra robust design



DESIGNED FOR ESC, SHOWER HEAD, OR FOCUS RING

ROBUST CABLE AND FIBER OPTIC ACCESSORIES

STRONG EXPERTISE AND CAPABILITY

With two ISO certified independent facilities and more than 40,000 square feet of space specifically designed to manufacture fiber optic sensors, Opsens production volume reaches thousands of units per month.



Opsens is a key player in the cardiovascular medical devices market with an innovative fiber optic pressure guidewire. Monthly production of these FDA approved sensors reaches 4,000 units.

IMPROVED SIGNAL CONDITIONERS

Opsens Solutions readout units are compatible with all SCBG sensors and are available in many different formats.



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 DRY & WET ETCHING

KEY FEATURES

- Ultra robust and reliable
- Total interchangeability of sensors
- Absolute sensor - calibration free
- Specific design for ESC, shower head, and focus ring
- Response time in the order of the ms
- Up to 1000 Hz sampling rate
- From cryogenic to 350 °C

TO LEARN MORE

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