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 **POWER ELECTRONICS**

KEY FEATURES

- Intrinsically safe
- Highly reliable
- Immunity to EMI and RFI
- Miniature and lightweight
- Versatile and easy to package in power modules
- Compatible with temperature range of power electronic industry

POLYTEC GmbH
Tel: +49 (72 43) 604 1721

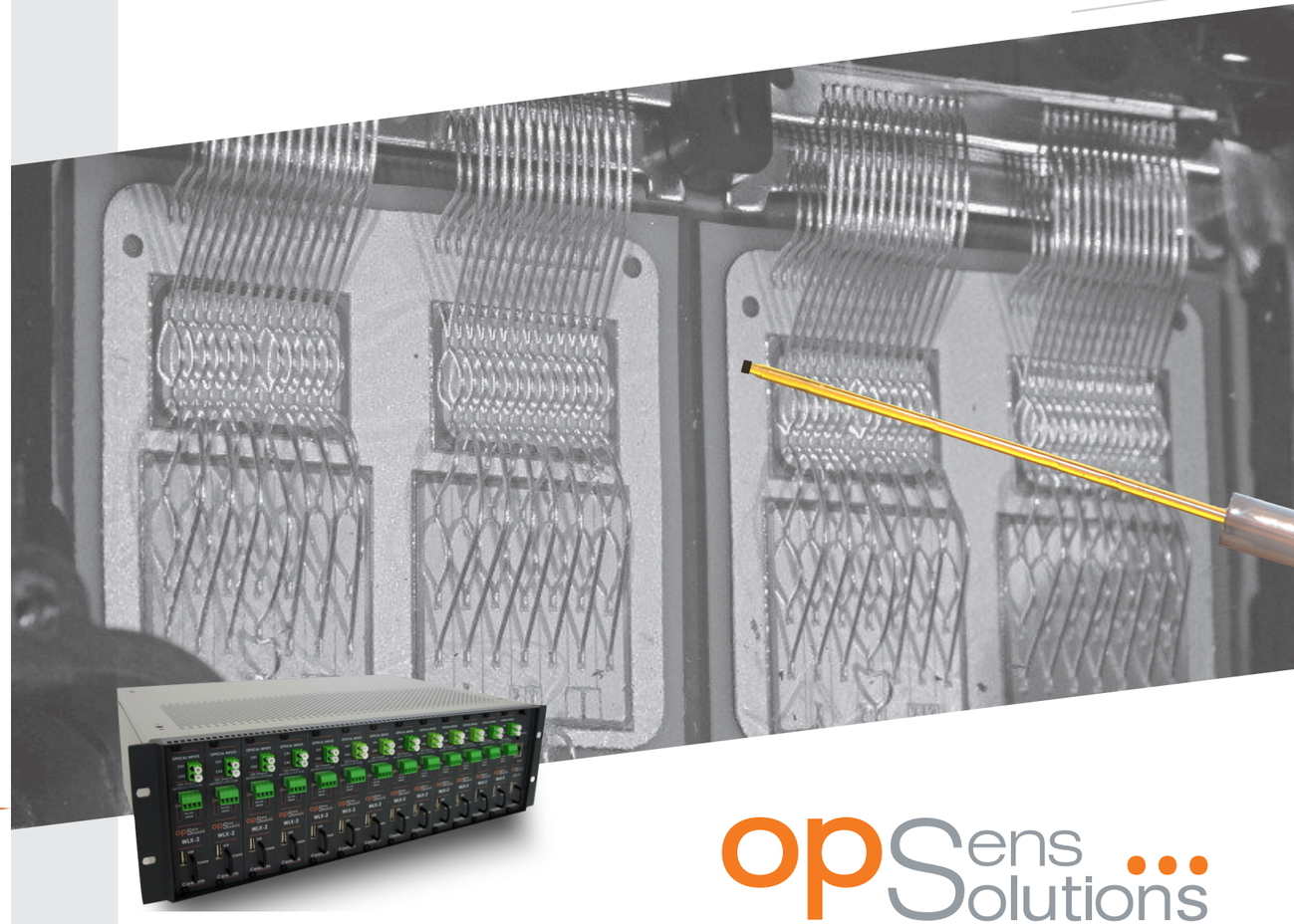
Polytec-Platz 1 - 7
Fax: +49 (72 43) 6 99 44

D -76337 Waldbronn
E-Mail: ot@polytec.de

GERMANY
www.polytec.de

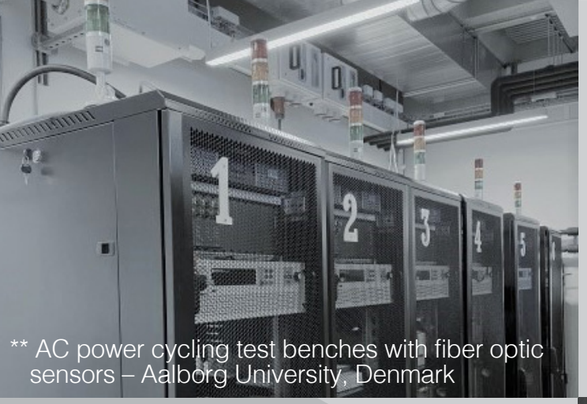
IMP0219 En Power Electronic Brochure | Rev1.2 | Printed in Canada

FIBER OPTIC SENSING SOLUTIONS
INCREASING THE RELIABILITY OF **POWER ELECTRONICS** WITH SMART SENSORS



opSens Solutions

Enlightenment through smart measurements



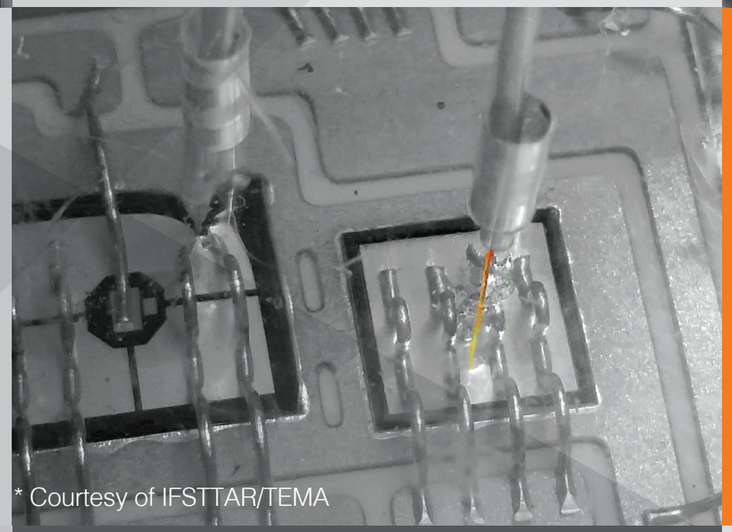
** AC power cycling test benches with fiber optic sensors – Aalborg University, Denmark

ADAPTED SENSORS FOR EFFICIENT POWER CYCLING

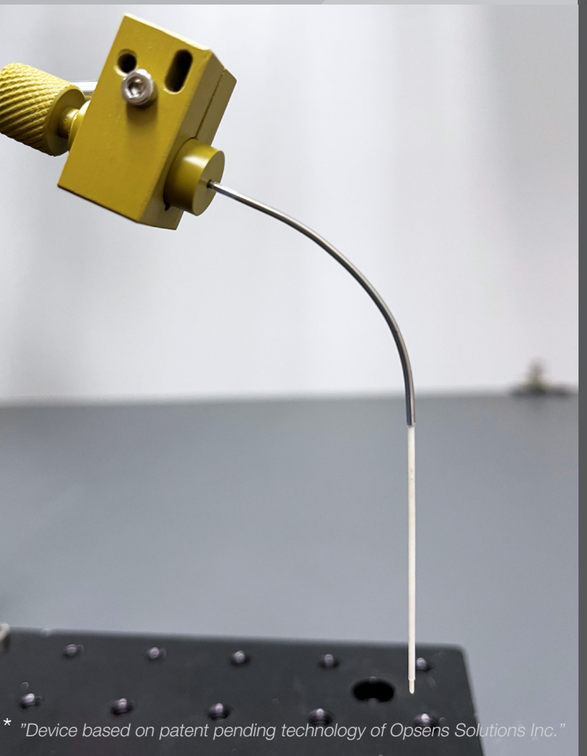
* Courtesy of IFSTTAR/TEMA

RELIABLE PERMANENT MONITORING SOLUTION FOR CRITICAL ASSETS

Accurate **Junction Temperature** for thermal characteristics extraction of IGBT, elaboration of lifetime laws and study of stability of power dies



* Courtesy of IFSTTAR/TEMA



* *"Device based on patent pending technology of Opsens Solutions Inc."*

- Resolution of ± 0.01 °C
- Response time in the millisecond
- Can be used on gel filled modules
- Sensor could be as small as 150 µm
- No influence on converter operation
- Operating range of -200 to 350 °C
- No risk to operator (high voltage
- Very high spatial resolution
- No drift over time

- Built-in monitoring capability during operation
- Unlock additional revenues with smart inverters
- Increase the availability/lifetime of power modules
- Reduce Operation & Maintenance costs
- Increase revenues with value-add products "IoT ready"

- HVDC systems
- Nuclear power plants
- High speed trains and mass transit
- Offshore and onshore wind farm
- Subsea power stations
- Solid state transformers
- Static transformer switches
- Electric-powered ships and airplane
- High power density multichip modules