



FOTAS™

integrity 



Fiber Optic Condition Monitoring Solutions

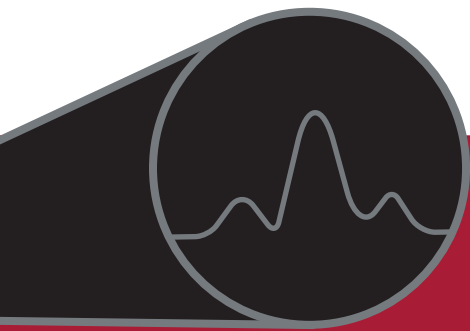
Turning Temperature Data into Operational Intelligence



Don't react to failure - predict it. Unlock efficiency gains through continuous thermal profiling.

The INTEGRITY SERIES is a high-resolution fiber optic Distributed Temperature Sensing (DTS) platform engineered for continuous, long-range asset integrity monitoring and predictive maintenance.

Get instant access to actionable thermal data that can prevent catastrophic failures, optimise load management, and extend the lifespan of critical infrastructure across energy, transportation, and processing sectors.



The INTEGRITY SERIES is built using Raman backscatter processing, delivering the data precision that clients demand.

Precision & Range

- ▶ **Extended Range** - monitor linear assets over extended distances (10, 20, 30, 40 km range) from a single controller, drastically reducing the number of controllers required for long-linear assets (pipelines, underground cables, etc).
- ▶ **Multiple Channel Monitoring** – the INTEGRITY SERIES offers two, four, eight or 16 channel solutions to suit the needs of the project.
- ▶ **Superior Accuracy** - market-leading temperature accuracy ensures reliable trend data for predictive modelling.
- ▶ **Precise Location** - pinpoint thermal anomalies down to within one metre, allowing maintenance teams to go directly to the fault location, even on multi-kilometre runs.



Actionable Data

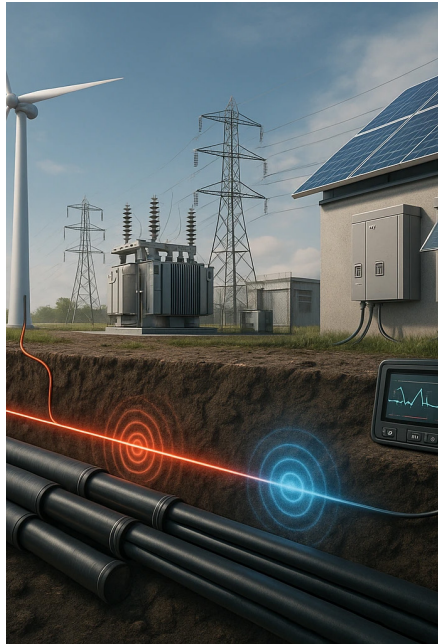


- ▶ **Trend Deviation Alerts** - unlike simple alarms, the INTEGRITY SERIES controller establishes dynamic thermal baselines and alerts personnel when a temperature trend deviates significantly from its historical norm, indicating potential failure.
- ▶ **Load Management Integration** - direct data integration with SCADA/ OMS systems allows for automated or manual dynamic rating of power cables based on real-time thermal conditions.
- ▶ **Data Visualisation** - customised thermal maps and longitudinal temperature profiles provide engineers with an immediate visual representation of asset health across thousands of measuring points using our Enterprise software graphical user interface.

Discover the Operational Impacts

The Monitoring Gap in Critical Assets

Point sensors only provide isolated snapshots. The INTEGRITY SERIES delivers the continuous, holistic thermal view required for modern efficiency demands.



High-Voltage Power Cable Monitoring in Real-time

Safely push loads closer to their thermal limits, maximising throughput.



EV Battery Thermal Runaway Prediction

Monitor batteries at each stage of their production and storage.



Oil & Gas Pipeline Monitoring

Thermal anomaly and leak detection rapidly detects ground temperature shifts indicating leaks and external damage along pipelines.



Conveyor & Processing Belts

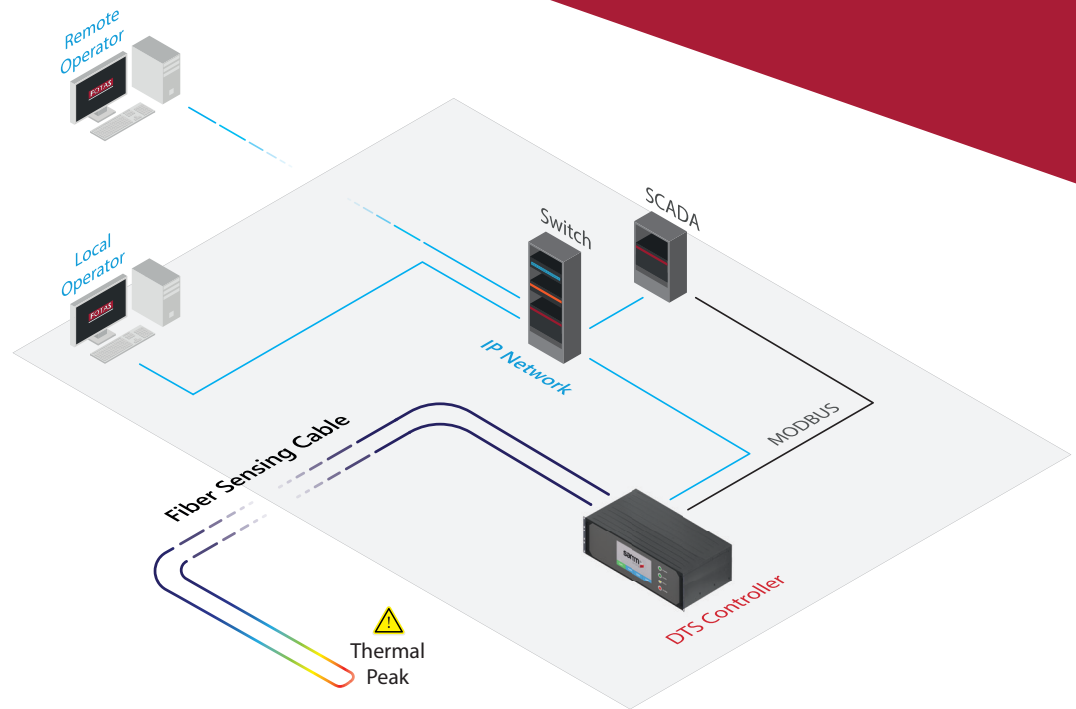
Bearing and motor overheat prediction instantly locates failing idlers, misaligned rollers, or failing gearboxes before they cause unscheduled shutdown.



Busbar & Switchgear Profiling

Connection integrity monitoring continuously assesses connection resistance (the cause of most electrical failures) by monitoring junction hotspots.

Simplified Adoption and Integration



- ▶ We prioritise **seamless integration** into complex operational environments.
- ▶ **Native support for key industrial protocols** including IEC 61850, OPC UA, and Modbus TCP/IP, ensuring rapid deployment into existing architectures.
- ▶ **Scalable system architecture** allows easy expansion either through additional controllers or extending the channel monitoring length without complete system replacement.
- ▶ The passive fiber cable eliminates field maintenance, power requirements, and calibration needs, ensuring **near-zero operational costs** for decades.

Contact Us

Ready to enhance your facility's safety and monitoring capabilities?
Reach out to our team for a free consultation or demonstration.

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