

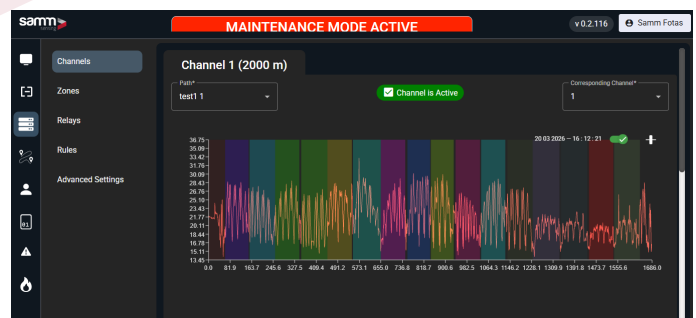
INTEGRITY SERIES DTS Controller Range

The INTEGRITY SERIES is a range of fiber optic temperature sensing controllers that can provide actionable thermal data that prevents catastrophic failures, optimizes load management, and extends the lifespan of critical infrastructure across energy, transportation, and processing sectors.

It can be deployed in numerous applications including: pipeline leak detection monitoring, high voltage power cable monitoring, busbar and switchgear profiling and conveyor belt monitoring and more.

Key Features

- **Locational accuracy** - pinpoint the exact hotspot location with extreme precision, minimising response time and asset damage.
- **Extended Range** - monitor linear assets over extended distances from a single controller, drastically reducing the number of controllers required to protect long-linear assets (pipelines, underground cables, etc).
- **Operational intelligence** - learns the normal temperature profile and detects rate-of-change deviations.
- **Operator Friendly:** Uses a web based browser with built in dynamic map to quickly alert operators with both audible and visual indicators. Uses the highly secure Linux Operating System



Engineered for the installer and the end user

We understand that total cost of ownership (TCO) is paramount. The INTEGRITY SERIES is designed to reduce installation time (labour cost) and eliminate false alarms (operational cost).

- **Plug-and-protect design** - simplified calibration and configuration reduce installation and commissioning time.
- **Dynamic zoning** - configure up to 1,000 independent detection zones with unique alarm thresholds, all on a single cable run of up to 40km.
- **Visual fault locator** - instantly identify and locate a fiber break or system fault, minimising downtime for maintenance.
- **Passive cable, active life** - optical fiber sensing cable is non-corrosive, non-conductive, requires zero power, and has an expected service life of 30+ years, ensuring minimal maintenance.
- **Universal integration** - easy integration via Modbus TCP/IP to multiple sub systems such as SCADA, BMS, etc. (no complex, proprietary integration gateways required).

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Unit Specifications

Mode	Multimode 50/125 fiber		
Max. monitoring distance	Up to 40km per channel		
Number of channels	2/4/8/16		

Data Acquisition

Distance per channel	10km	20km	30km	40km
Measuring time	Dependent on application			
Temperature resolution	0.3°C@10s	0.5°C@10s	0.5°C@10s	0.5°C@10s
Temperature accuracy	±1 °C	±2 °C	±3 °C	±4 °C
Spatial resolution	2m	2m	5m	5m
Fire break alarm	Automatic detection, accuracy within < ±5m			

Optical

Laser safety classification	Class 1
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Electrical and Hardware Interfaces

Relays	Yes - 48 onboard with additional remote relays connected via Modbus
Modbus	MODBUS TCP / MODBUS RTU
RJ45	2 x 100Mbps
Serial	1x RS-485 - 1x RS-232

Software

Programming	Either via the onboard 7 inch touchscreen display or via a web browser
Software name	FOTAS Web 2.0
Alarm types	Max & Min, Rate of Rise and Deviation
Maximum zones	Up to 1,000

Data Visualisation

Customised thermal maps and longitudinal temperature profiles provide engineers, operators and end users with an immediate visual representation of asset health across thousands of measuring points using our Enterprise software graphical user interface.