SENTINEL DTS™ Distributed Temperature Sensing System

Product Specifications

The SENTINEL DTS™ Distributed Temperature Sensing system is an exceptional solution for cost-effective and efficient power busway health monitoring. By attaching an optical fiber directly onto power busways, SENTINEL DTS enables continuous temperature measurement along the entire length of the busway path. This innovative approach utilizes the principle of Raman scattering to analyze the backscattered light within the fiber, providing accurate and real-time temperature readings.

The primary objective of SENTINEL DTS is to monitor the absolute temperature of the busway and detect any signs of overheating, which could potentially lead to bus failure and subsequent power outages. By detecting and identifying heating patterns, SENTINEL DTS acts as a proactive measure to prevent critical failures and minimize downtime.

With its advanced technology and comprehensive monitoring capabilities, SENTINEL DTS ensures that power busways are continuously monitored for any temperature anomalies. This proactive approach allows for timely maintenance and intervention, reducing the risk of costly disruptions and enhancing the overall reliability and efficiency of power distribution systems.

SENTINEL DTS is tightly integrated with the INSIGHT™ alarm response and management software, providing you with real-time visibility and instant alarms and notifications. This enables you to stay updated and take immediate action when necessary. SENTINEL DTS can also stand alone with contact relays for additional flexibility.

SENTINEL DTS Technical Specifications

OPTICAL SPECIFICATIONS

Optical Sensing Ports	Up to 4
Distance per Port	Up to 4km
Fiber Type	Sensing Fiber: OM2, OM3, OM4
Optical Connection	E2000 APC

TEMPERATURE MEASUREMENT

Zones per Channel	2000
Minimum Measurement Time	1 second per channel
Spatial Resolution	0.5m
Temperature Resolution	<1°C Typical

ELECTRICAL

Power Input	10V to 30V DC
Operating Power (Typical)	22 Watts
Maximum Power (Maximum)	40 Watts

ENVIRONMENTAL

Operating Temperature	-10°C – 60°C
Storage Temperature	-40°C – 80°C
Operating Humidity (Max)	0-95% Non-Condensing

PHYSICAL

Installation	19" Rack Mount (1 RU)
Dimensions (in)	3.46 x 16.5 x 16.5
Dimensions (mm)	88 x 420 x 420
Weight (lbs)	15.4
Weight (kg)	7

ALARM MANAGEMENT

Input Relays	4
Output Relays	10
Application Integration	INSIGHT™

REMOTE MANAGEMENT

Network	2 x 10/100/1000Base-T
Protocols	SCPI, optional: Modbus TCP

INDUSTRY CERTIFICATIONS

Class 1M laser product	IEC 60825-1: 2014
	EN 60825-1: 2014
	FDA 21CFR1040.10+Laser Notice no.50
CE Rated and Certified	

For specifications on all other products and the Warranty and Support Program, please refer to our website at www.networkintegritysystems.com

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