Technical Specifications

Model Number	ASIS-DTS
Product Name	Distributed Temperature Sensing Interrogator
Version	V1.3
Revision Date	07.08.2025

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1. Product Overview

The ASIS-DTS is a distributed fiber optic temperature sensing system designed for industrial applications, including power generation, petrochemicals, transportation, and metallurgy. It provides real-time, online temperature monitoring, identifying and mitigating faults and potential accidents early to achieve high-precision preventive safety.

Leveraging Raman scattering and OTDR, the ASIS-DTS enables accurate temperature monitoring and localization. This real-time, continuous measurement system supports a maximum temperature range of up to 750°C with exceptional accuracy of ±1°C. The system integrates a high-speed pulsed fiber laser and an advanced signal processing circuit, achieving 0.2-m sampling resolution. It is compatible with both Linux and Windows operating systems and can be configured with either an external computer host or an integrated industrial PC, ensuring deployment flexibility.

Additionally, the ASIS-DTS integrates seamlessly with monitoring management software, monitoring servers, and database servers. It supports real-time remote temperature data uploads and provides insights into overall temperature trends, enabling continuous online monitoring and proactive management of temperature conditions.

2. Optical Specifications

Parameter	ASIS-DTS
Temperature Measurement Range (°C)	-40-750
Maximum Measurement Distance (km)	10
Localization Accuracy (m)	±1
Temperature Measurement Accuracy (°C)	±1
Measurement Time (s/channel)	0.5
Spatial Resolution (m)	0.5
Number of Channels	4 (customizable)
Fiber Optic Port	E2000/APC

3. Other Specifications

Parameter	ASIS-DTS
Communication Interface	LAN, RS485, RS232
Input Power	DC 24V
Operating Temperature (°C)	-10-50
Dimensions (mm)	482 × 89 × 327

4. Product Features

1. Distributed temperature sensing with long range

2. High-temperature monitoring up to 750°C

3. Exceptional measurement accuracy of ±1°C

4. Accurate temperature measurement for distances of 10 km in just 0.5 s

5. Real-time online monitoring and alarming

6. Overheat alarm with reusable optical fibers

7. Intuitive human-machine interface with electronic mapping capabilities

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