

PRODUCT INTRODUCTION

Fibre Optic Sensing Device

Distributed Optical Fibre Temperature Measurement System YOSC-DTS-04

YOSC-DTS-04 distributed fibre temperature measurement system is a real-time, on-line, continuous temperature monitoring system based on the principle of backward Raman scattering and optical time domain reflectometry (OTDR).

The system uses the special temperature sensing cable as the temperature sensor, which can accurately measure the temperature at each position in the laying direction of the temperature sensing cable and locate the temperature anomaly, and has good performance indicators and system stability. It can be widely used in power, oil, coal, transportation and other fields.



+ Features

- Distributed: can continuously measure temperature and location information along the detection fibre optic cable for tens of kilometers
- High precision: The highest temperature measurement accuracy is $\pm 0.5^{\circ}\text{C}$, and the highest positioning accuracy is 0.5m
- Compatibility: Supports multiple communication methods such as Ethernet, RS232, relay output, etc, and can communicate with other platform platforms
- Long lifespan: Temperature sensing optical cables can last up to 25 years
- Intrinsic safety: sensing optical cables are inherently safe, explosion-proof, resistant to electromagnetic interference, and lightning resistant

+ Applications

- Petroleum and Petrochemical
- Rail transit
- Pipe gallery
- Electricity, coal mines

+ Function

- Alarm function: constant temperature alarm; Temperature difference alarm; Temperature rise alarm; Fibre breakage alarm
- Visual display function: Visualize the display of partition maps; Temperature distribution curve display
- Query function: Historical temperature and alarm information query and display
- Networking function: The system supports multiple communication protocols and can communicate with fire alarm controllers and integrated software platforms

+ Parameters

Items	YOSC-DTS-04-10	YOSC-DTS-04-04S
Temperature measurement distance	10km	4km
Number of supported channels	4/8	4/8
Temperature measurement accuracy	±1°C	±0.5°C
Spatial resolution	3m	0.5m
Temperature resolution	±0.1°C	
Alarm response time	< 30s	
Communication interface	RJ45, RS232, relay output	
Dimension	490*135*480mm(3U)	

+ System Composition

