FBG   interrogator

Product   summarize

Fiber Bragg grating temperature online monitoring system mainly for switchgear, transformer prone to excessive heat in the process of long running parts (switchgear and contact, joint; transformer winding and iron core, etc.), real-time monitoring to avoid because of the heavy load and high temperature cause unnecessary losses.

The product consists mainly of fiber optic host, detecting fiber optic cable and fiber optic grating sensor. The fiber optic host is responsible for the optical signal processing, alarm and parameter setting, and the optical fiber grating sensor is responsible for the temperature collection. The fiber-optic host can also be connected to the fire alarm controller via the RS485, the Ethernet interface, and the complete fire alarm system

Optical fiber grating sensing fire detector principle

Optical fiber grating temperature detection system mainly includes: optical circuit system, photoelectric conversion system, data collection processing system, data display output device. Light source the light transmission through optical divider to the external of the FBG sensors, sensor, the light of specific wavelengths reflected back, and then through the optical divider transmission to the photoelectric conversion system, through the photoelectric detector will FBG wavelength of light emission signal is converted to electrical signals, collecting the electric signals of a photoelectric detector, processing, converts electrical signals to digital signals. Transfer to the data display device via a network or serial port.

Product   photo

full face   Reverse side photo

Host size: 455 * 445 * 85mm (long * wide * height)

Optics-Forest

Specifications

Parameter	Value
The wavelength	C band
Temperature range	- 30 ℃ ~ + 120 ℃ (extensible)
The alarm mode	fixed temperature, difference temperature, difference temperature
detection mode	point mode
Recovery of performance	recoverable
Functions constitute	detection alarm type
The channel sensor quantity	A single channel has up to 16 sensors
The quantity of channel	Up to 16 channels
Measuring way	single-ended
Sensor parameters	Reflectivity: 90%; Half full width: 0.7 nm; SLSR: 15dB; Minimum spacing: 10mm; Spacing accuracy: 5mm; Applied for: 100 kpsi; Optical fiber type: smf-28; Connector: none; Tail long: 500 mm
Temperature measuring accuracy	+ / - 1 ℃
Temperature Control	0.1℃
polling period	≤ 30s
Communication interface	RS485, RJ45, switch volume interface

Optical fiber type	SMF-28
Fiber connector	FC / APC (E2000)
Host operating temperature	0 ℃ ~ 40 ℃
Host working humidity	< 95% RH
Working power	220VAC / 50Hz (24VDC optional)
Maximum power consumption	150W