

Patent for Temperature-Sensing Optical Cables

Overview

LS Electric has filed a patent for a temperature measurement device in an energy storage device with multiple power device modules. There is provided a temperature sensor comprising: an optical fiber; and a sensing element spaced from the optical fiber; wherein the optical fiber is aligned with the sensing element to deliver a source beam to interact with the sensing element and detect a return beam, the return beam exhibiting. Using PATENTSCOPE you can search 128. 5 million patent documents including 5. Detailed coverage information PCT publication 28/2026 (July 9, 2026) is now available here. The at least one fiber optic cable is comprised of a plurality of modular fiber optic cables. Access Patent Public Search to find published patents and patent applications. Whether you're starting your patent journey or are an experienced searcher, the following tools and learning resources will help you search for. The Optical Networking & Sensing team is pushing light itself to do more, powering faster communications, sharper fiber sensing, and more resilient networks. Our patented innovations are shaping the future of how data moves and how the physical world is sensed.



Article Content

Aug 01, 2025

Modular sensing fiber optic cables

Removing portions of the temperature sensing fiber optic cable can be done by cutting the temperature sensing fiber

Apr 26, 2026

OPTICAL FIBER CABLE

Technical Field The present invention relates to a cable formed from wound optical fiber. The cable is

Oct 30, 2025

US20020085819A1

At least one optical temperature sensing element is provided in each metal tube. A thermally-conducting material fills each metal

Mar 10, 2026

Using optical fibers for temperature measurement, Part 2: Principles

This section will look at two ways in which optical fibers and associated components can be used for temperature

Mar 11, 2026

WO2026046423A1

This application belongs to the field of optical cable installation technology, and in particular relates to a temperature-sensing optical

Jul 04, 2026

WO/2026/046423 TEMPERATURE-SENSING OPTICAL CABLE

A temperature-sensing optical cable mounting assembly, comprising a base (1), a support plate (2), a first fixing plate

Mar 03, 2026

Fiber-optic cable and method of manufacture

Furthermore, since fiber-optic cables are often subjected to extremes in temperature, pressure, vibration and shock, additional

Feb 03, 2026

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Sep 30, 2025

US20200408613A1

Temperature measurement sensor, temperature measurement system, and temperature measurement method Abstract A

Sep 26, 2025

Optical Fiber Based Temperature Sensors: A Review

The current generation is witnessing a huge interest in optical waveguides due to their salient features: they are of

Jan 02, 2026

Modular sensing fiber optic cables

U.S. Patent Application US20180340841A1 for overheat and fire detection for aircraft systems includes at least one

Aug 13, 2025

Fiber-optic temperature sensing System with extended measurement

This work introduces a fiber-optic temperature sensing system that synergistically combines a Sagnac interferometer

Feb 21, 2026

US10422706B1

Fiber optic temperature sensors within inert gas for cryogenic environments Abstract
The present invention is a temperature sensor

Jan 14, 2026

WO2026046423A1

This application claims priority to Chinese Patent Application No. 202411745247.6, filed on December 2, 2024, entitled "A

Jan 03, 2026

Review on the Developments and Potential Applications of the Fiber ...

The distributed temperature sensing (DTS) system is useful for detecting its surrounding temperature. The fiber optic

Nov 05, 2025

U.S. Patent Application for Optical Fiber Sensing System, Method and ...

An optical fiber sensing system, method and apparatus for simultaneously measuring temperature, strain, and

Sep 20, 2025

Method for sensing temperature of sensing optical cables

The sensing optical cable is used as a sensing and transmission element, and the composite method of time division multiplexing

May 26, 2026

Fiber Optic Shape Sensors: A comprehensive review

Fiber Optic Shape Sensing is an innovative Optical Fiber Sensing Technology that uses a fiber optic cable to

Feb 25, 2026

Patents | Optical Networking | Research | NEC Labs America

Our Optical Networking & Sensing department develops new optics and photonics patents spanning the Internet

Nov 17, 2025

US9995628B1

A fiber optic sensor, a process for utilizing a fiber optic sensor, and a process for fabricating a fiber optic sensor are described, where

Dec 20, 2025

Fiber Optic Temperature Sensors: Types, Working & Applications

Explore the structure, working principles, advantages, and disadvantages of Fiber Optic Temperature Sensors for accurate

Apr 24, 2026

U.S. Patent Application for Fiber Optic Temperature Sensor Patent ...

There is also a need for similar temperature sensing, monitoring, and control in other applications beyond semiconductor processing,

Aug 13, 2025

Distributed Temperature Sensing: Review of Technology and

Distributed temperature sensors (DTS) measure temperatures by means of optical fibers. Those optoelectronic devices provide a

Aug 25, 2025

Optical Fiber Sensors for High-Temperature Monitoring: A Review

High-temperature measurements above 1000 °C are critical in harsh environments such as aerospace, metallurgy,

Jan 19, 2026

What is Fiber Optic Sensing?

Learn how fiber optic sensing technology, including distributed acoustic sensing (DAS), distributed temperature sensing (DTS), and

Jan 12, 2026

Application Research on Online Power Cable Temperature Detection

Research and application of distributed optical fiber sensor temperature measurement system based on Raman

Sep 04, 2025

Armored temperature-sensing optical cable

The utility model discloses an armored temperature-sensing optical cable, which comprises a temperature-sensing optical fiber, a

Mar 12, 2026

Application of Distributed Optical Fiber Temperature Measurement in ...

This paper studies a distributed optical fiber temperature measurement system using smart cables, which combines fiber Bragg

Nov 12, 2025

Distributed Temperature Fiber Optic Sensor Cables (DTS)

This technology makes use of fiber optic sensor cables, typically over lengths of several kilometers, that function as linear temperature

Feb 15, 2026

U.S. Patent Application for OPTICAL FIBER CABLE SKEIN

An aspect of the present disclosure is to provide an optical fiber cable skein structure for temperature monitoring that facilitates

Sep 13, 2025

A distributed optical fiber sensor for temperature detection in power ...

In this study, temperature detection in an XLPE insulated 154 kV power cable is performed using a distributed sensing

Aug 03, 2025

Distributed Fiber Optic Temperature Sensing

This chapter reviews the basic principles of the fiber optic temperature sensing. Distributed temperature sensing (DTS) systems

Dec 16, 2025

WO2016009459A1

The temperature sensor according to the present invention comprises a sensing member 10, a retention member 30 for securing the

Dec 13, 2025

Fiber optic temperature probe for oil-filled power transformers

A temperature probe for use in oil-filled transformers comprises an optical fiber, a temperature sensitive member, and a protective

Dec 02, 2025

Application of distributed optical fiber temperature sensing technology ...

In order to monitor the safety of the whole cable in real time and effectively, this study introduces and adopts

Aug 01, 2025

U.S. Patent for Optical fiber cable temperature measurement device ...

The present invention relates to an optical fiber cable temperature measurement device, and more particularly, an optical fiber cable

Aug 07, 2025

Temperature and Humidity Stability of Fibre Optic Sensor Cables for ...

Fibre optic sensors offer a means for the real-time continuous measurement of temperature or strain in concrete

Jul 01, 2026

Distributed Sensing Cables

Our distributed sensing cables provide optimized monitoring of your critical harsh environment infrastructure. Distributed sensing is a

Oct 30, 2025

Distributed temperature sensing

Distributed temperature sensing systems (DTS) are optoelectronic devices which measure temperatures by means of optical fibres

Apr 02, 2026

WO2020248080A1

There is also a need for similar temperature sensing, monitoring, and control in other applications beyond semiconductor processing,

May 19, 2026

Distributed Temperature Sensing (DTS) | AP Sensing

Distributed Temperature Sensing (DTS) systems provide temperature information for accurate thermal monitoring, fire detection, and

Mar 11, 2026

Optical Fiber Temperature Sensors 2026 — PatSnap Eureka

Active commercial patent holder filing volume in optical fiber temperature sensing from the PatSnap Eureka dataset

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