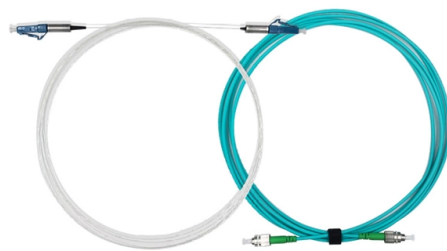


Manufacturer of temperature measurement and communication bundled optical cables



Overview

Manufacturer of temperature measurement and communication AITAF provides end-to-end optical communication solutions, structured cabling, ODN, optical modul.

Key Takeaways

Leading manufacturers of fiber optic sensor cables for temperature measurement include WEINERT Industries, AP Sensing, Solifos, and Luna, offering high-temperature and hybrid optical cable solutions. Key Manufacturers and Offerings



WEINERT Industries AG specializes in high-temperature optical fibers based on fused silica, optionally equipped with heat-resistant coatings for applications ranging from -190°C to $+385^{\circ}\text{C}$, suitable for industrial and scientific environments . AP Sensing provides fiber optic sensor cables designed for real-time monitoring of temperature, strain, and acoustic signals. Their cables include configurations such as metal-tubing, metal-free, tube-in-tube, and armored stainless steel, supporting multimode and singlemode fibers. These cables are engineered for harsh environments and precise measurements, with coatings like polyimide or metal for high-temperature or cryogenic applications . Solifos offers hybrid fiber optic sensor cables capable of measuring temperatures from -180°C to $+600^{\circ}\text{C}$. Their solutions integrate temperature sensing with power transmission (up to 24 kW in a 6 mm diameter cable) and are suitable for infrastructure monitoring, fire detection, and perimeter security. Solifos cables are compatible with Raman interrogators for high-accuracy distributed temperature sensing . Luna Innovations provides fiber optic temperature sensors using Rayleigh backscatter and fiber Bragg gratings (FBGs) for high-definition distributed temperature sensing. Their systems deliver sub-millimeter spatial resolution and can monitor long distances, supporting multipoint and distributed sensing networks .

Applications

These bundled optical cables are used in:

- Industrial process monitoring in high-temperature environments
- Infrastructure and structural health monitoring
- Fire detection and safety systems
- Scientific research requiring precise temperature mapping
- Remote sensing and distributed temperature measurement

Summary

For integrated temperature measurement and communication optical cables, WEINERT Industries, AP Sensing, Solifos, and Luna are prominent manufacturers. They offer solutions ranging from high-temperature resistant fibers to hybrid cables capable of simultaneous power and data transmission, suitable for demanding industrial, scientific, and infrastructure applications .

Article Content

Fiber Optic Temperature Sensing and Measurement

High-Definition Distributed Temperature Sensing Multipoint Temperature Measurement Long-Range Distributed Temperature Sensing with OptaSense High-definition temperature sensing based on the natural Rayleigh backscatter in optical fiber delivers a virtually continuous line of temperature measurements with sub-millimeter spatial resolution. 1. Map temperature profiles with high spatial resolution (down to 0.65 mm) 2. Small, lightweight and flexible fiber sensors 3. Distributed sensors up ... See more on lunainc CeramOptec

Optical Fiber Cables for Industry, Medical & OEM

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

