

High-Temperature Resistant Custom Optical Cable Manufacturer



Overview

High-Temperature Fiber Optic Cable | Suppliers Explore 19 top manufacturers and suppliers of High-Temperature Fiber Optic Cable in our comprehensive photon.

Key Takeaways

Leading manufacturers of high-temperature resistant optical cables include Corning, WEINERT Industries, AFL, and various specialized industrial suppliers offering fibers and cables capable of withstanding temperatures up to 500°C. Key Manufacturers and Products



1. Corning provides high-temperature fibers designed for improved fatigue resistance, high usable strength, and resistance to elevated temperatures and hydrogen permeation. Their fibers feature single-mode or multimode cores with optional hermetic carbon layers and high-temperature acrylate coatings, suitable for harsh industrial and aerospace applications . 2. WEINERT Industries AG WEINERT offers fused silica optical fibers with heat-resistant coatings, extending operational ranges from -190°C to $+385^{\circ}\text{C}$. Their German-engineered fibers are suitable for high-temperature industrial processes and scientific applications . 3. AFL (Verrillon® fibers) AFL manufactures harsh environment fibers with polymeric coatings such as polyimide, silicone, and high-temperature acrylates. Their fibers can operate up to 500°C , with hermetic coatings to prevent hydrogen, moisture, and acid ingress. These fibers are widely used in downhole, high-pressure, and high-temperature environments . 4. DirectIndustry Suppliers Platforms like DirectIndustry list multiple suppliers, including Avantes, Endevco, and Pavone Sistemi, offering high-temperature optical cables with metal sheaths (SS321, SS304, SS316L, INCONEL 600) and mineral-insulated designs for extreme conditions. Applications include aerospace, spacecraft, missiles, UAVs, and industrial sensing . 5. Photonics Buyers' Guide This guide highlights OEM manufacturers of multimode step-index fibers, fiber bundles, and assemblies made from silica and quartz glass. They provide customized solutions for spectroscopy, UV, laser delivery, and high-temperature environments, with specialized fiber optic subassemblies and hybrid photonic solutions .

Considerations for Selection

- **Temperature Range:** Ensure the fiber or cable can withstand the maximum operating temperature of your application (up to 500°C for some AFL fibers).
- **Coating Material:** Options include polyimide, silicone, acrylates, or hermetic carbon layers for hydrogen resistance.
- **Fiber Type:** Single-mode, multimode, pure silica core, or bend-insensitive fibers depending on signal requirements.
- **Environmental Resistance:** Consider resistance to hydrogen, moisture, acids, or mechanical stress for harsh environments.
- **Application-Specific Design:** Aerospace, industrial, or downhole applications may require metal sheaths, mineral insulation, or specialized assemblies. These manufacturers and suppliers provide a range of high-temperature optical cables and fibers suitable for demanding industrial, scientific, and aerospace applications, ensuring reliability under extreme conditions.

Article Content

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Specialty Photonics and Custom Fiber Optic Solutions

OFS specialty optical fibers can be customized to meet your desired specifications with state-of-the-art coatings, buffers, and cabling

Helistrand | Manufacturer of Quality Custom High Temperature Wire

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Fiber Optic

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High Temperature Cable

High Temperature cable capable of handling up to 1200 degrees Celsius can be custom manufactured to your specifications. ISO

Cable For Extremes | Casmocable

CASMO CABLE was established by a group of seasoned veterans from the high-temperature specialty cable industry, bringing

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Whether you need an underwater fiber optic cable, rugged cable assembly, single mode cable, multimode cable, buoyant cable,

High Temperature Wire, High Temp Cable | Galaxy

Galaxy can supply various types of high temperature wires and cables, both stock and custom, in various AWG sizes, voltage

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