

RIVO MULTITRADE OPTICAL SYSTEMS

Fire-resistant optical cable



Overview

This innovative cable features a patented design that ensures functionality for over three hours in temperatures reaching 1000°C.

Key Takeaways

Fire-resistant optical cables are designed to maintain data transmission and operational integrity during fire, using specialized materials and construction to meet stringent safety standards.

Key Features

Fire-resistant optical cables are engineered to continue functioning under extreme heat and flame exposure, ensuring uninterrupted communication in critical systems such as fire alarms, voice evacuation, and emergency networks . They typically feature:

- LSZH (Low Smoke Zero Halogen) sheaths to reduce toxic smoke and halogen emissions during fire .
 - Steel wire or corrugated steel tape armor for mechanical strength and protection against environmental hazards .
 - Gel-filled loose tubes or central strength members to protect fibers from mechanical stress and maintain optical integrity .
 - UV-stabilized and weather-resistant outer jackets for outdoor exposure .
- #### Fire-Resistance Standards

These cables comply with international fire safety standards, including:

- CPR Euroclass B2ca, Cca, Dca for European construction regulations .
 - FE180 for continuous operation under fire conditions .
 - IEC 60331-25 for circuit integrity during fire .
 - UL flame-listed certification for indoor and outdoor emergency systems .
- Applications

Fire-resistant optical cables are widely used in environments where maintaining communication during fire is critical:

- Tunnels, metro lines, and railway networks for safety and signaling .
- Hospitals and airports for emergency communication systems .
- Industrial plants and data centers to protect operational continuity .
- Public buildings and voice alarm systems to ensure evacuation and alert systems remain functional .

Performance Characteristics

- Continuous data transmission during fire, preventing operational collapse .
- Low smoke and zero halogen emissions to protect personnel and equipment .
- Mechanical durability against bending, impact, and environmental stress .
- High-speed data transmission over long distances with minimal signal loss .
- Flexible deployment for indoor/outdoor routes, vertical shafts, and tight bends .

Notable Products

- ETK Kablo B2ca fire-resistant fiber optic cables: Maintain optical integrity under extreme heat, low smoke, zero halogen, suitable for tunnels, hospitals, and industrial plants .
- Draka FireTuf cables: OM1, OM3, OM4 multimode and OS2 singlemode, compliant with IEC 60331-25 and IEC 60332-2-3-24C, ideal for fire alarm and voice evacuation systems .
- Lifeline™ QFCI cables by Prysmian: UL flame-listed, functional for over three hours at 1000°C, halogen-free, suitable for indoor and outdoor emergency systems .
- Optral CPR optical cables: Euroclass Dca, Cca, B2ca classifications, certified by UL, Bureau Veritas, and DNV . Fire-resistant optical cables are essential for ensuring safety, operational continuity, and compliance with international fire standards, making them a critical component in modern infrastructure and emergency systems.

Article Content

Lifeline™ Fire Resistant Fiber Optic Cable | Prysmian

This innovative cable features a patented design that ensures functionality for over three hours in temperatures reaching 1000°C. It is

QFCI Fiber Cable | Lifeline® MC Cable | Fire Rated Cables

Lifeline® QFCI is the first UL flame listed optical cable designed for indoor/outdoor use in vital communication and emergency

Top 5 Fire Resistant Fiber Optic Cable Manufacturers | 2026 Guide

In this guide, we list the Top 5 Global Manufacturers who set the standard for fire safety. We will also clarify the confusing jargon

Fire Resistant Fiber Optic Cables CPR B2ca | ETK Kablo

Discover ETK Kablo's fire-resistant fiber optic cables with CPR B2ca rating, designed for fire safety and reliable data in critical

CPR Optical Cables | Fire-Resistant | OPTRAL

CPR fire-resistant optical cables with Euroclass Dca, Cca, and B2ca classifications. Safety and performance for critical applications.

Indoor Fiber Optic Cables | Flame Retardant Indoor Cable Products

These indoor fiber optic cables are used exclusively within buildings and must have a flame-retardant cable jacket to fit this purpose.

Fire-Resistant Optical Cable

Fire-Resistant Optical Cables are specially designed to maintain data transmission integrity even in the event of a fire. Constructed

Fiber Optic Indoor Cables

These indoor fiber optic cables are used exclusively within buildings and must have a flame-retardant cable jacket to fit this purpose.

Fire Resistant Optic Fiber Cables|Fireproof Cables

The cables may be armoured or braided, with or without metallic screen, depending on different applications. INTERNATIONAL

Fire Resistant Fiber Optic Cable IEC60331-25

Fire resistant Fiber Optic Cable IEC60331-25 FO331-XX-OM4-000-LZ, fire resistant mono tube cable featuring heat resistant mica

Fire Resistant Fibre

Draka FT Fire Resistant Fibre Optic Unarmoured QFCI OM1 62.5/125 Fire Resistant Armoured Loose Tube Fibre Optic Cable Marine

Fiber Optic Cable: Jacket & Fire Rating

This article examines fiber optic cable jackets, materials like LSZH, and fire ratings such as plenum and riser. It defines

Fiber Optic Cable Jackets & Fire Ratings Guide

Why is the Jacket of the Fiber Optic Cable So Important? Fibre optic cables typically comprise fiber cores, coatings,

DataGuard® MLT Armoured Fire Resistant Fibre Optic Cable

A fire-resistant fibre optic cable meeting IEC60331-25 & EN50200 PH120 with a Steel Wire Armour protective layer, giving excellent

Draka FireTuf OFC-LT-CST Fire Resistant Fibre Optic Cable Steel tape ...

FireTuf OFC-LT-CST fibre optic cables are manufactured by Prysmian Draka. Available in OM1, OM3 and OM4 multimode and OS2

Fire Resistant Fiber Optic Cable Datasheet

Fire Resistant QFCI/O/RM-JM/-F1 EIA/TIA 598 Indoor and outdoor, fire resistant, flame retardant halogen-free loose tube |

Understanding Fiber Optic Cable Jackets and Fire Ratings

Understanding fiber cable jackets and fire ratings is essential for ensuring stable data transmission and safety. We'll

Fire Resistant Fibre Optic Cable

Fire resistant cable offers protection in hazardous or fire prone areas for critical systems Non-metallic, all dielectric construction

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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